Bedside Wound Care Delivery: Beyond the Slough

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Tim Earley , NP
Kristin Wulff, MD

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Beyond the Slough: Wound Care

Agenda for the session:

- **Arterial and Diabetic foot wounds**, Dr Hiral Gallimore
- **Venous wounds of the lower extremities**, Tim Earley NP

break

- **Pressure wounds**, Dr Kristin Wulff
- **Dressings**, *break*
- **Hands-on skills stations**
  - Bedside doppler for patients with arterial disease
  - Wound assessment
  - Lower extremity wraps
  - Dressings

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Venous Ulcers

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Case

- Mrs. Robinson, a well known socialite from the early 70's, has been admitted to Cougar Nursing and Rehab under your care. Upon initial evaluation you note that she has bilateral lower extremity swelling with discoloration below the knees extending to the ankles. The family is concerned about infection and cellulitis. The right lower extremity has a large open area wit irregular borders and copious exudate. It is beefy red and measures 12 cm x 8 cm and 0.5 cm deep.

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Photo of venous wound with stasis dermatitis

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Which of the following is most important?

- Immediately starting antibiotics to address the raging infection
- Evaluation of vascular statis of the legs with appropriate local wound care and compression/elevation
- ESR, CBC, CRP
- Transfer to hospital for evaluation to prevent possible limb loss

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You decide to treat open wound and use compression. For a 4 layer compression dressing, what is the minimum ABI that will allow you to apply compression?

- 1.0
- 0.9
- 0.8
- 0.6

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Intro to Venous Ulcers

- - **Definition:** Venous ulcers, also known as venous stasis ulcers, are chronic wounds that occur due to improper functioning of venous valves, usually in the lower extremities.
- - **Prevalence:** They account for approximately 70-90% of leg ulcers.
- - **Impact:** Significant morbidity, with potential for infection and reduced quality of life.

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Characteristics of Venous Ulcers

- - **Location:** Commonly found on the inner part of the leg, just above the ankle (medial malleolus).
- - **Appearance:**
- - Shallow and irregularly shaped.
- - Often have a red base covered with yellow fibrin.
- - Surrounding skin may be swollen, discolored, and may have evidence of lipodermatosclerosis (hardening of the skin).
- - **Symptoms:** Itching, pain, swelling, and heaviness in the affected leg. May produce a large amount of exudate.

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Diagnosis of Venous Ulcers

- - **Clinical Examination:** Assessment of ulcer characteristics, location, and leg appearance.
- - **Patient History:** Including previous ulcers, DVT, varicose veins, and family history of venous disease.
- - **Diagnostic Tests:**
- - **Doppler Ultrasound:** To evaluate venous reflux and obstruction.
- - **Ankle-Brachial Index (ABI):** To rule out arterial insufficiency.
- - **Duplex Ultrasound:** For detailed examination of venous anatomy and function.

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Treatment of Venous Ulcers

- - **Compression Therapy:** Mainstay treatment to reduce edema and improve venous return. Options include:
- - Compression stockings
- - Multilayer bandaging
- - **Wound Care:** Regular cleaning, debridement of necrotic tissue, and use of dressings that manage exudate and promote a moist wound environment.
- - **Medications:** Topical and systemic antibiotics for infection, pain management with analgesics.
- - **Lifestyle Changes:** Leg elevation, exercise to improve calf muscle pump function, weight management.
- - **Surgical Options:** Vein surgery (e.g., stripping, ablation, sclerotherapy) in cases of severe or recurrent ulcers.

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Preventions and Long-Term Management

- - **Preventive Measures:** Regular use of compression garments, skin care to prevent dryness and cracking, avoiding prolonged standing or sitting.
- - **Follow-Up Care:** Regular monitoring for recurrence, patient education on skin care, and signs of infection.
- - **Advanced Treatments:** Skin grafting for non-healing ulcers, use of bioengineered skin substitutes, and hyperbaric oxygen therapy.
- - **Multidisciplinary Approach:** Collaboration among healthcare providers including dermatologists, vascular surgeons, wound care specialists, and primary care physicians for comprehensive management.

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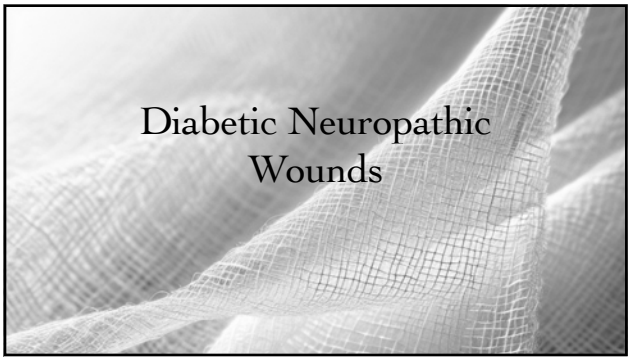

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Question 1

- 83 year old man with multiple dry wounds on his toes comes to you with increasing pain at night. Patient's history is significant for DM, HTN, smoking. Upon physical exam you notice that wounds are dry, stable eschar with no odor. But you also notice that the feet are cool to touch and you have difficulty palpating pulses. What is you next step?

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Question 1

- Insert Picture

15

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  A. Refer immediately to the ER for bilateral below the knee amputation
  B. Refer to ID for suspected Osteomyelitis
  C. Search for pulses with a handheld doppler, use results to guide next steps
  D. Suggest that patient make an appointment at a vascular surgery clinic

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Question 1

- Doppler Signals
  - Monophasic
  - Biphasic
  - Triphasic

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Question 1

- When to send out?
  - Cold, pulseless foot
  - Ascending Ischemia/ Gangrene

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Question 1

- Treatment Options
  - Keep dry and intact
    - Betadine
    - Skin Prep

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Question 2

- A 67 year old woman asks to see regarding a callous on her heel. On exam you note a wound surrounded by thickened callous and a soft central eschar cap. Foot is warm and there are marginally palpable pulses. History is pertinent for CHF, SCC, Alcohol abuse and DM with an A1c of 11. The patient states that the wound hurts mostly at night and describes it as electrical in nature. There is an odor noted from the wound but patient denies any current pain. What is the most appropriate next step?

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Question 2

- Insert Picture

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  A. Refer immediately to the ER for unilateral below the knee amputation
  B. Refer to endocrinology for diabetic management
  C. Order Xray, ESR, CRP to work up for Osteomylitis, send deep wound culture
  D. Start empiric Keflex and take a surface swab of eschar and send for culture

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Question 2

- Osteomylitis Work up
  - Imaging
    - X-ray
  - Labs
    - ESR
    - WBC
    - CRP
  - Culture
    - Deep tissue >>> Surface Swab
    - Start empiric antibiotics after culture has been taken

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Question 2

- Diabetic Wounds and Neuropathy
  - Manage expectations
  - Pain complaints increase as wounds heal

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Question 2

- Diabetic Wound Management
  - Attempt better glucose control
  - Higher risk of infxn
  - Moisture Management

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Understanding and Assessing Pressure Injuries

Kristin L. Wulff, MD, ABAARM, CWSP
October 31, 2024

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Introduction and Key Takeaways

- What are pressure injuries and why are they important?
- Impact on patient outcomes and healthcare costs.

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Quick Summary of the Six Stages

- Stage 1 through Stage 4
- Unstageable
- Deep Tissue Injury

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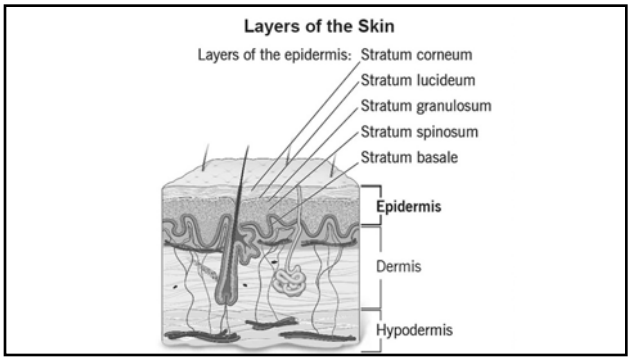

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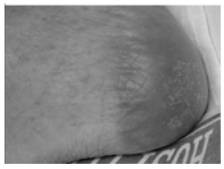
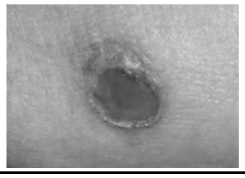
Stage 1 & Stage 2 Pressure Injuries

- Stage 1: Intact skin with non-blanchable redness
- Stage 2: Partial thickness skin loss with exposed dermis, may appear as a blister





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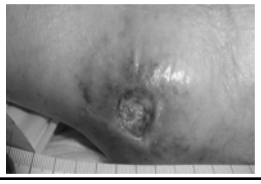
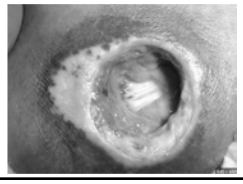
Stage 3 & Stage 4 Pressure Injuries

- Stage 3: Full thickness skin loss with visible adipose tissue.
- Stage 4: Full thickness tissue loss exposing muscle, tendon, or bone.





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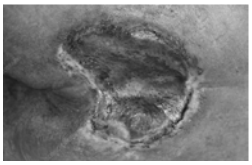
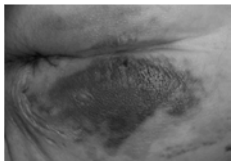
Unstageable Pressure & Deep Tissue Injuries

- Unstageable: Full thickness skin and tissue loss, obscured by slough or eschar.
- Deep Tissue Injury: Persistent deep red or maroon discoloration; skin may be intact.





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Key Assessment Techniques

- How to measure pressure injuries (length, width, depth).
- Key signs of infection (redness, warmth, odor, drainage).

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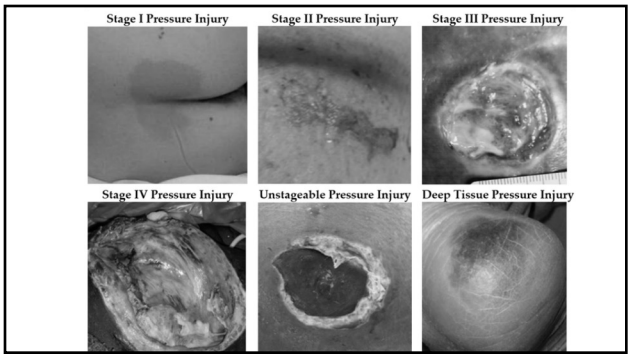

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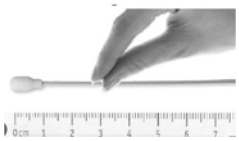

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Case Study: Miss MultiPressure Polly

- 80 year old female, bedridden, with a history of diabetes and dementia.
- Injuries:
  - Right heel – non-blanchable erythema
  - Right elbow – partial thickness skin loss
  - Left hip – full thickness skin loss with visible adipose tissue
  - Sacrum – full thickness tissue loss exposing muscle and bone
  - Left heel – covered with dry eschar
  - Right ischium – dark purple discoloration with intact skin

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Documentation & Reassessment

- Importance of regular, detailed documentation
- Include wound dimensions, progression, and photographic evidence if available.

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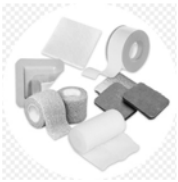
IV. The Big Wide World of Dressings



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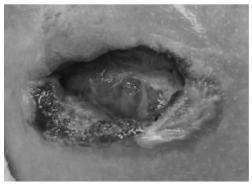
The Dilemma: Mrs. Hufflepuff

- 4:55PM Friday
- New admission with big wound
- No discharge wound orders
- Wound nurse is on vacation off-grid
- Floor nurses are asking you for orders
- *????*



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Dressings: Quick, Easy, Cost-Effective

1. ***Easy algorithm*** using six basic products appropriate for most wounds.
   - Not necessarily the *best* dressing long term, but a good medically appropriate starting point. A "Do No Harm" approach
2. ***Cost Effective***
   - *Does anyone look at how much is spent on dressings every month?*
     - Yep
   - *Is it better for the clinician to decide how to best use resources than have the financial people make these clinically-related decisions?*
     You betcha

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Dressings: Selection

- Primary consideration in dressing selection is ***moisture balance***
- Dressings either *contribute* moisture or *remove* moisture
  - Drier wounds generally need dressings that donate moisture
  - Wet wounds generally need moisture absorbing dressings

Moisture donating

Moisture removing

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Dressings: Rules of Thumb

- If it's dry, wet it (exception for dry arterial wounds and dry heel eschar)
- If it's wet, dry it
- If it's deep, fill it
- If it's shallow, cover it
- If it's infected, treat it and watch it
- If it's pink, protect it
- If it's dead, debride it

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If It's Dry*, Wet It: Moisture Donating Dressings

- Dressings indicated for light to moderate drainage
  Not for use in wounds with heavy exudate
- Donate moisture:
  - Hydrogels
  - Honey products
  - Collagen gels
  - Ointments
  - Other gels
- Retain existing moisture in wound bed:
  - Hydrocolloids
  - Petrolatum gauze, Xeroform

*"Dry" means lightly draining or dry wounds, not just dry wounds

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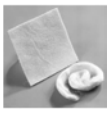
If It's Wet, Dry It: Moisture Removing Dressings



- Dressings indicated for moderate to heavy drainage
  Not for use in wounds with light exudate
- Two commonly available products:
  - Alginate
    - Derived from brown seaweed
  - Hydrofiber
    - Synthetic product
    - Interchangeable with alginate
- Saturated product forms a gelatinous substance on the wound bed
  - Helps maintain proper moisture balance in the wound bed
  - *It's not pus!*

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Secondary Dressings

- Border gauze. Can use with anything
- ABD pads.
  - Used for wet wounds. Inexpensive, so can use for padding if needed
- Foam dressings –
  - Moderate to heavy drainage. CMS reimbursement considerations
- Superabsorbent
  - Usually covered for daily use
  - Most formularies have this
- Hydrocolloids
  - Light to moderate drainage, but not typically used as secondary dressing
  - Change 2-3x/week
- Clear film not recommended on elderly skin

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The Issue With Foam…

- Great dressing
  - Nurses love it
  - Providers love it
  - Soft and cushiony on the skin

But…

- CMS only covers three foam dressings per week
- If ordered daily, facility pays out of pocket for four dressings per week
- Be mindful of your orders and consider reimbursable dressings whenever possible
  - Patient "needs" vs Provider "wants"

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While we are discussing expense: Collagenase

- Very good product
  - The only enzymatic product available in the US
- Clinical considerations
  - Silver ions inactivate collagenase. Don't use with silver dressings
  - Many commercial cleansers decrease effectiveness. Use saline to clean wounds
- Cost
  - The most expensive item on the wound cart
  - Hundreds of dollars per tube
  - Some patients may be covered outside of daily resource allocations

The point: It's unwise to routinely use Santyl on every sloughy wound. Use clinical judgement for method of debridement

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Easy Algorithm:

Is the wound wet or dry?

WET WOUND

Primary dressing:
- **Alginate**
- **Hydrofiber**
- Gauze (to cover or pack)

Secondary dressing:
- Border gauze
- ABD pad
- Superabsorbent dressing
- Foam

DRY*/MOIST WOUND

- Primary dressing:
  - **Hydrogel**
  - **Honey gel**
  - Gauze (to cover)
- Secondary dressing:
  - Border gauze
  - Non-stick
  - other

****Exception: Do not moisten dry stable heel eschar or dry arterial wounds/black toes/dry gangrene***

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Tips:

Try to use one primary dressing and one secondary dressing whenever possible

Simpler dressing orders
- Are more likely to be done correctly
- Are more likely to be done as scheduled

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Let's Try it Out!

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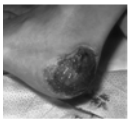
Mrs. Prim Avera's heel

- Mrs. Prim Avera developed this heel wound.
  - Wound bed is granulated, clean
  - Small amount of drainage
- *Ask Yourself: Is it Wet or Dry?*
- *Need to donate moisture or remove moisture?*



Of the following options, which is the most appropriate for this wound?

- A. Calcium alginate, dry dressing, heel offloading
- B. Honey gel, open to air, heel offloading
- C. Hydrogel, dry dressing, heel offloading
- D. Hydrogel, foam dressing, heel offloading

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C. Hydrogel, dry dressing

- For lightly draining wound, need to add or preserve moisture in the wound bed.
- Calcium alginate – removes moisture
- Foam dressings – removes moisture
- Hydrogel and Honey gel would both be appropriate with an appropriate secondary dressing

As always, don't forget the offloading!

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But What About…?

- Periwound protection: Barrier cream, skin prep
  - Prevent maceration, irritation
- Antimicrobial:
  - Silver, honey, hydrofera blue, cadexomer iodine, hypertonic saline (Mesalt)
- Negative pressure: PICO, traditional
- Advanced wound care products: cultured tissue products (skin substitutes)
- Necrosis:
  - Santyl, Autolytic, Sharp debridement
- Pain, sticking: contact layer
- Tunnel:
  - Gauze packing strips (iodoform gauze) or hypertonic saline strips (Mesalt)
  - Alginate rope for wider areas. Can break in tight tunnels

Beyond the scope of this talk
Ask me in the hands-on session

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Question

- All of the following are relatively *expensive* dressing materials EXCEPT:
  - A. Santyl
  - B. Hydrofera blue
  - C. Collagen powder or gel
  - D. Hydrogel
  - E. Iodosorb gel

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Answer - D

- Hydrogel is inexpensive and present on every formulary
- Santyl – very expensive.
  - Do not use routinely on every necrotic wound remember other debridement options: sharp, autolytic.
- Hydrofera blue – moderately expensive
  - Not prohibitive if dressings are changed only 1-2x/week
- Collagen – expensive
  - Good to try on wounds that have not responded to first-line treatments
  - If wound stalls and collagen dressing seems to help, continue
- Cadexomer Iodine (Iodosorb gel) – moderately expensive
  - Not prohibitive if changed every two days or 3x/week instead of daily

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Question

- All of the following are relatively *inexpensive* dressing materials EXCEPT:
  - A. Alginates
  - B. Product left by the rep last week
  - C. Petrolatum gauze, perforated or bismuth (Xeroform)
  - D. Hydrocolloids
  - E. Border gauze

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Answer - B

- Reps typically leave new products that are expensive and have no generic equivalent
- Hydrogel, alginate, hydrocolloids and petrolatum gauze are readily available and inexpensive
  - Good first choice for treatment

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Now let's treat some more patients!

Putting it all together…

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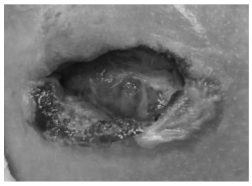
Mrs. Hufflepuff, Take II

- Mrs. Dora Hufflepuff is a 74 year old woman with a stage 4 pressure wound of the sacrum.
- On exam today you note:
  - Mrs. Hufflepuff yelps when the dressing is removed.
  - Incontinent of watery stool
  - Heavy drainage
  - No undermining
- Which of these are significant issues to consider when determining dressing selection?
  - A. Pain with dressing removal
  - B. Watery stool incontinence
  - C. Heavy drainage
  - D. All of the above



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Answer is D. All of the above

- Pain with dressing removal
  - Need contact layer (perforated petrolatum gauze, silicone contact layer)
  - Not reimbursed by CMS in this case, but is medically necessary due to pain
- Watery stool incontinence
  - Typically requires daily rather than 3x/week dressing changes
  - Foam not the best initial choice for this wound
  - Consider border gauze or superabsorbent dressing
- Heavy drainage
  - Requires absorbent dressing
  - Alginate or hyrofiber good first-line options

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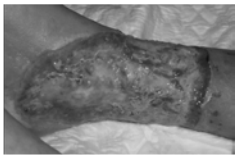
Mr. Paddy O'Furniture

- You remove a saturated dressing from this lower leg wound

Ask yourself:
Does it need moisture donating or moisture removing dressing?

Of the options below, what is an appropriate primary dressing for Mr. Paddy O'Furniture's wound ?

- A. Hydrogel
- B. Alginate
- C. Wet to dry
- D. ABD pads



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Answer – B. Alginate

- Alginate – moisture removing, absorbing. Needed in this case with heavy drainage
- Hydrogel – moisture donating.
- ABD pads – moisture removing, absorbent, but not a primary dressing
- Wet to dry – was standard of care in 1970
  - This is not 1970
  - Painful, causes tissue trauma
  - Does not provide moist wound healing

Note: This wound should also be debrided with either sharp debridement (scalpel or curette), enzymatic debridement (Santyl), or autolytic debridemenet

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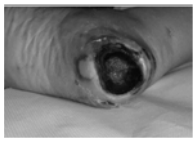
Mrs. Mary Poppinski

- Mrs. Mary Poppinski is an 81 year old long-term resident of Merry Meadows with this firm, dry heel wound.



- What is the most appropriate initial treatment for this wound?
  - A. Santyl, heel offloading
  - B. Honey gel, heel offloading
  - C. Skin prep, heel offloading
  - D. Cadexomeric iodine (Iodosorb gel), heel offloading

65

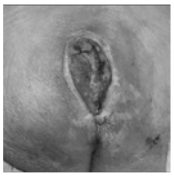
C. Skin prep

- Skin prep –
  - Provides protective layer over eschar
  - Can also use providone iodine painted on the surface
  - Can use dry dressing if a cover dressing is needed
- Santyl – do not debride dry stable eschar on the heel.
- Honey gel – adds moisture; dry stable eschar should stay dry
- Cadexomeric iodine (Iodosorb gel) – Good for clean open wounds on the heel, but this is not open

66

Mrs. Anne Oakley

- Mrs Anne Oakley is a 78 year old diabetic woman with this sacral wound.
  - Exudate is heavy serosanguinous
  - A narrow, deep tunnel is present



Ask yourself: wet or dry wound?
Should the dressing add moisture or take it away?
Does anything need to be done to address the tunnel?

Which of the following is the best primary dressing?

- A. Iodoform packing strip in the tunnel, honey gel
- B. Iodoform packing strip in the tunnel, collagen sheet
- C. Hypertonic saline gauze strip in the tunnel, calcium alginate
- D. Nothing in the tunnel, calcium alginate

67

Answer – C. Hypertonic saline gauze strip in the tunnel, calcium alginate

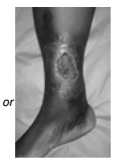
- Wet wound, need absorbent dressing. Honey gel, collagen sheet do not remove moisture
- Need to pack a tunnel
- Hypertonic saline gauze (Mesalt) comes in packing strips or sheets
  - Good for packing in tunnels
    - Antimicrobial
  - Iodoform gauze packing strips would also be good for the tunnel in this case

68

Mrs. Ivana Walkaround - Odor

- You have been taking care of Mrs. Ivana Walkaround's venous wound for months. The wound has shown slow but steady progress.
- This week:
  - Minimal drainage
  - Odor present (new)
  - No periwound erythema or induration

Does it need moisture donating dressing or moisture removing dressing?
Is odor a factor?



What is the best dressing for this wound?

- A. Silver hydrogel, hydrofera blue, 2x/week
- B. Silver alginate, foam dressing, 3x/week
- C. Silver hydrogel, gauze dressing, 3x/week
- D. Silver alginate, foam dressing, 3x/week

69

Answer: B. Silver alginate, foam dressing, 3x/week

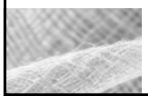
- Dry (moist) wound, needs moisture donating dressing
- Odor suggests heavy or critical colonization of bacteria
  - Silver products can be helpful with this
  - Hydrofera blue is also antimicrobial, but not for dry/moist wounds
- Other antimicrobial treatments:
  - Honey products
  - Iodine products (cadexomer iodine, not providone iodine on open wounds)
  - Hypertonic saline gauze (Mesalt)
  - PHBM (polyhexamethylene biguanide), typically infused in AMD dressings and AMD rolled gauze

70

Thank you!

Exciting Hands-on Skills Stations after the break

- Dopplers, arterial disease
- Wound assessment
- Lower extremity wraps
- Dressings



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Geriatric Dermatology

Athena Theodosatos DO, MPH
Theo Medical Dermatology

1

What is geriatric dermatology?

A specialized branch of dermatology that focuses on diagnosis, management, treatment and prevention of skin conditions in older adults typically age 65 and older.

2

Learning objectives

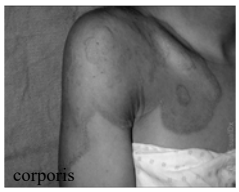
1. Go over general statistics of the increasing number of skin diseases including skin cancers in the geriatric population
2. Identify the top 10 most common skin diseases seen in this population and go over treatments
3. Discuss skin biology and the intrinsic and extrinsic factors involved with aging skin

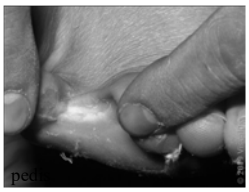
3

Top 10 most common skin diseases in geriatric population

4

1. Tinea





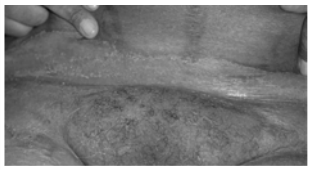
- Caused by dermatophytes Trichophyton, Microsporum, or Epidermophyton
- Red, circular, scaly patches

- Caused by dermatophytes Trichophyton or Epidermophyton
- Types: interdigital, moccasin-type, vesicular

5

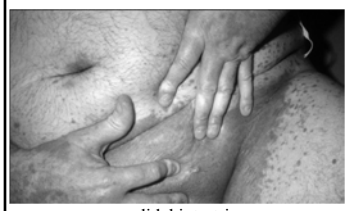
2. Candidiasis

- Yeast infection of the skin from moisture, heat, and occlusion
- **ill-defined borders**
- MC in patients with declining immune system
- Dx clinically or with KOH
- Tx decrease moisture, antifungal meds



6

Intertrigo
(differential for candidiasis)



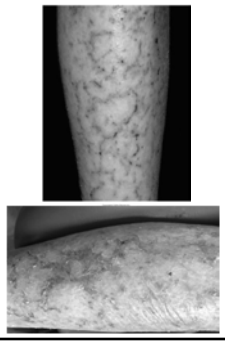
candidal intertrigo

- Chronic inflammation
- Exacerbated by yeast or bacteria infection.
- Candidal intertrigo, dx by the presence of outlying satellite papules/pustules
- **Well-demarcated borders**
- Tx antibiotics

7

3. Xerosis

- Greek origin
  xero = dry
  osis = disorder
- MC cause of pruritus
- Intrinsic and extrinsic aging factors (ex: decreased collagen production, chronic disease, meds)
- Tx ointments, creams, lotions (do you know the difference?)



8

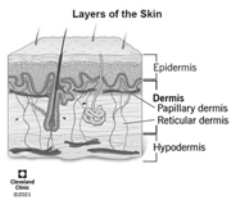
Intrinsic and extrinsic factors associated with aging skin

Intrinsic

- Thinning of epidermis
- Decreased oil production
- Decreased skin cell turnover

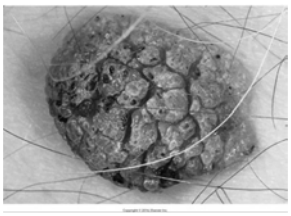
Extrinsic

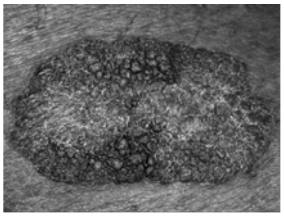
- UV (sun exposure)
- Smoking -> decreased blood flow to skin



9

What are these skin lesions called?





10

NMSC incidence in white vs black patients

White patients

- Highest incidence
- Lifetime risk 1 in 3
- BCC most common

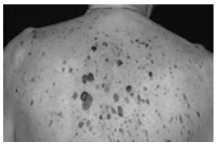
Black patients

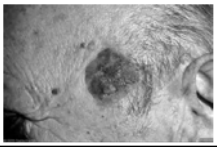
- Incidence 5/100,000
- SCC MC, more aggressive
- Atypical presentation and location

- This disparity highlights the importance of prevention and education in both groups, with a special focus on atypical presentation in darker individuals

11

4. Seborrheic Keratosis



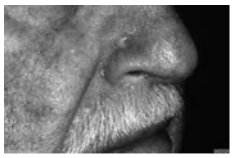


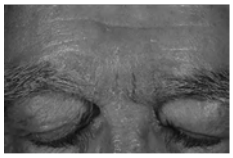
- Benign warty growth
- Can be tan to dark (sometimes referred to as barnacles)
- Symptomatic treatment to soften (Ex. Lac Hydrin)

12

5. Seborrheic Dermatitis

- Commonly affects the nasolabial folds, eyebrows and scalp
- Caused by overactivity of the sebaceous glands/results in oily crusts and scales
- Can be severe in those with CNS conditions such as Parkinson disease
- Tx. short course of topical steroids, long term topical antifungal creams or shampoos, sodium sulfacetamide





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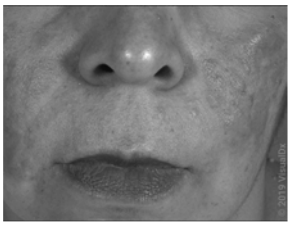
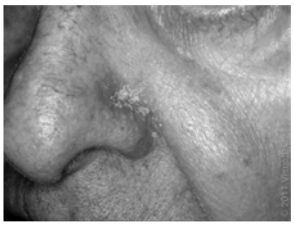
What is the difference?





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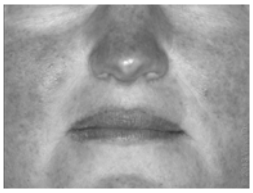
Rosacea

- Inflammatory disorder
- Spares the nasolabial folds
- Can present with acne papules/pustules or erythema with telangiectasia from flushing/vasodilation
- Tx with topical metronidazole or clindamycin, oral antibiotics



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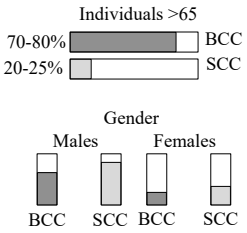
Nonmelanoma Skin Cancer (NMSC)



>50% of NMSC cases occur in >65 y/o
- SCC more aggressive and likely to metastasize
- >80% NMSC-related deaths >65 y/o SCC primary contributor

Males compared to females
- 2-3x SCC
- 1.5-2x BCC

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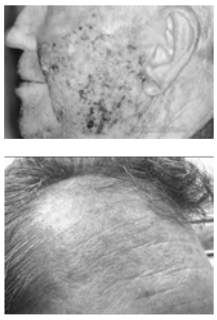
6. NMSC

a. Actinic keratosis (precursor to SCC)

- Rough keratotic areas on sun-damaged skin
- May progress to SCC if untreated
- May flake off and reappear later
- Tx: LN 2, topicals (Imiquimod, 5-fluoro).



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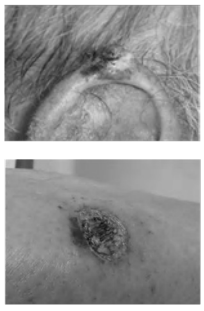
6. NMSC

b. SCC

- 2nd MC cutaneous malignancy
- MC on head, neck, and hands
- Crusted, keratotic lesions on sun-damaged skin
- Dx/Tx. Bx/excision, EDC, Radiation
- SCC in situ (Bowen's disease)



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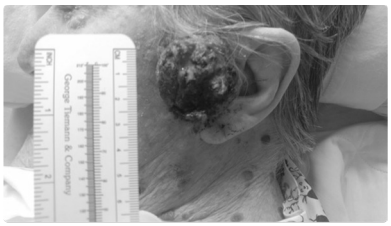
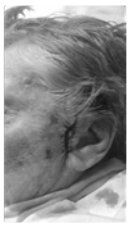
6. NMSC

b. SCC (continued)





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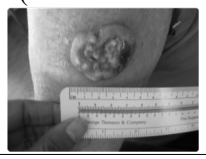
6. NMSC

c. SCC (keratoacanthoma type)



- Variant of SCC
- A dome-shaped lesion with central keratin-filled crater
- Emerges quickly, enlarges rapidly
- Can regress spontaneously, however complete removal is recommended

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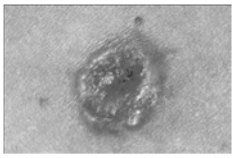
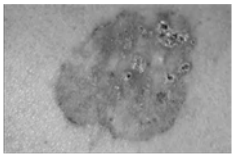
6. NMSC

d. BCC

- MC cutaneous malignancy
- Rarely metastasizes, locally invasive
- "Pearly" lesion with telangiectasias
- Multiple variants (superficial spreading, nodular, sclerosing)
- Dx/Tx - Bx/Excision/Superficial Radiation/EDC/Topical/Oral





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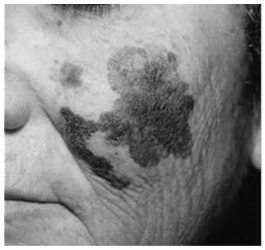
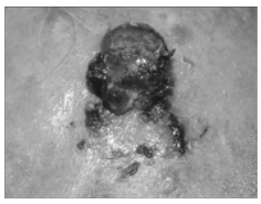
7. Melanoma



- Most aggressive type of skin cancer (ABCDE)
- Causes: genetics, sun exposure
- MC on legs in women/back in men
- MC geriatric variant: lentigo maligna (high recurrence rate from ill-defined borders - excision)
- Life expectancy determined by stage and genetics

22

Merkel cell carcinoma



- Rare, aggressive skin cancer
- Painless nodules purple/blue in color
- MC on head/neck area
- MC in geriatric patients
- Tx: surgery then radiation and chemotherapy for severe cases

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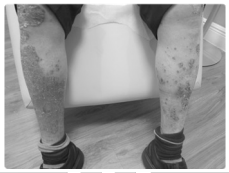
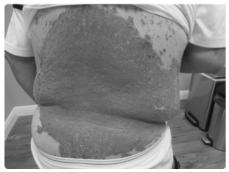
8. Psoriasis

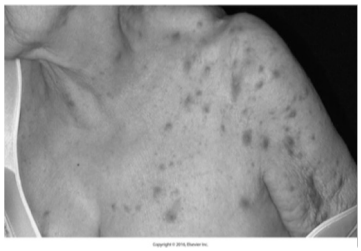




- Sharply demarcated erythematous plaque with silvery scale
- Immune mediated disease
- Faster skin cell turnover time (14 days vs. 25-45 days in normal skin)
- Tx with topical steroids, biologics

24

What is causing this eruption?



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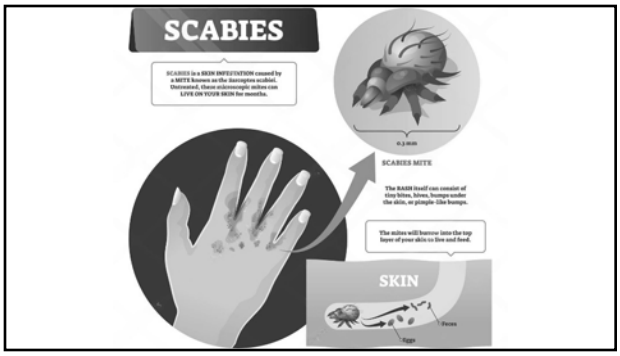

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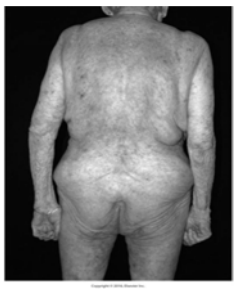
9. Scabies

- Intensely pruritic contagious mite infestation
- Classic erythematous excoriated rash occurs in skin folds
- Variant: Norwegian/keratotic
- Rash may develop after 2-6 weeks of initial exposure



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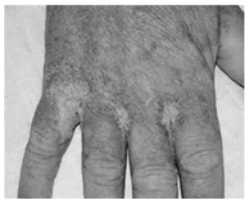
9. Keratotic Scabies



- High index of suspicion in long-term care facilities
- Dx by clinical/skin scrape
- Tx: Elimite 5% cream. Adjunctive tx Ivermectin. Post Tx: Topical steroids highly recommended.
- Post-treatment rash may persist (Reasons?)

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Scabies: myths vs reality

Scabies can be passed between humans and household pets

- Animal forms of scabies exist, but are species-specific ie cannot be transferred
- Canine scabies or "mange" can crawl on humans and cause itching, but are unable to reproduce and will soon die

Adequate tx causes instant relief

- Tx regimens must be followed specifically
- All contacts should be treated twice: all at the same time and again 7 days later (allows eggs to hatch)

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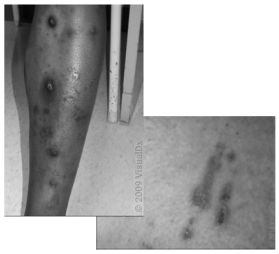
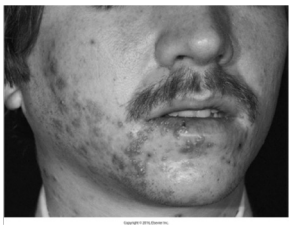
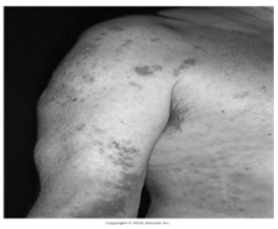
Neurodermatitis
(differential for scabies)



- Arises from compulsive or habitual skin scratching or picking in absence of underlying pathology
- Strong relationship between neurodermatitis and underlying psychiatric disease
- MC underlying diseases are OCD, depression, anxiety and substance use disorder

30

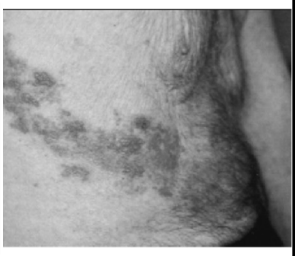
What is causing this rash?

31

Herpes Zoster (Shingles)

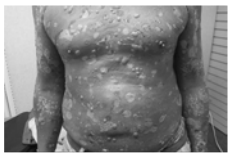
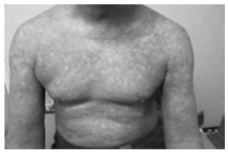
- Cutaneous viral infection resulting from reactivation of varicella virus in cutaneous nerves
- Unilateral painful vesicles
- Postherpetic neuralgia
- Tx antiviral (acyclovir)
- Shingrix - 90% effective
  2 shots b/t 2-6 month period leads to longer lasting immunity



32

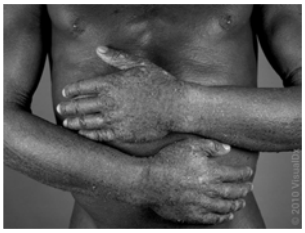
Bullous Pemphigoid

- Autoimmune blistering disease common in elderly
- MC in lower extremities or dependent areas
- Predisposed by lowered immune system and certain meds (furosemide, NSAIDs, and ACE-i)
- Tx: oral or topical steroids, severe cases - biologics and immunosuppressants

33

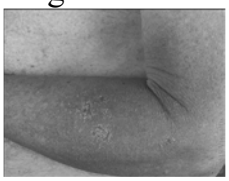
10. Atopic dermatitis



- With increased understanding of immunosenescence, atopic dermatitis is increasingly being recognized in the older adult population.

34

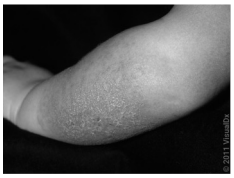
10. Allergic contact dermatitis (ACD)

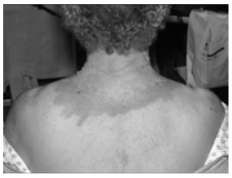


- ACD represents a delayed-type (type IV) HSR that occurs when allergens activate antigen-specific T cells in a sensitized individual
- ACD typically requires repeat exposures before an allergic response is noted. ACD can occur 24-48 hours after exposure to the offending agent.

35

10. Irritant contact dermatitis



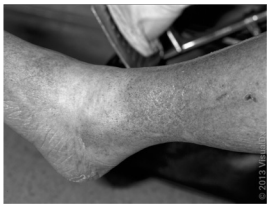


- Irritant contact dermatitis represents the direct toxic effect of an offending agent on the skin
- Irritant contact dermatitis can occur after one exposure to the offending agent

36

10. Stasis dermatitis

(venous stasis dermatitis)



- Common condition that affects the lower extremities of individuals with compromised vein function (eg, venous valve insufficiency, venous hypertension)
- Most prevalent in older individuals

37

References

1. (2009-2019). visualdx.com
2. (2016). elsevier.com
3. Images courtesy of Theo Medical Dermatology, with patient consent (2024).
4. Cleveland Clinic. (2022, February 7). Dermis (Middle Layer of Skin): Layers, Function & Structure. Cleveland Clinic. https://my.clevelandclinic.org/health/body/22357-dermis
5. American Academy of Dermatology Association. (2022, April 22). Skin Cancer. Aad.org; American Academy of Dermatology Association. https://www.aad.org/media/stats-skin-cancer
6. Debunking the Myths Surrounding Scabies. (2024, June 4). Clinical Advisor. https://www.clinicaladvisor.com/features/debunking-the-myths-surrounding-scabies/

38

Thank You!

Athena Theodosatos DO, MPH
Theo Medical Dermatology

Yazmin Williams, BA
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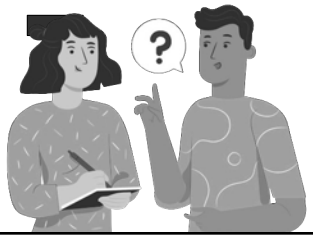
Any questions?



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Immunizations in Long-Term Care – 2024-2025

James Dickens, Pharm.D.

October 31, 2024

1

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2

Vaccination Coverage for Older Adults

Estimates are based upon the National Health Interview Surveys

- Use for all vaccines for adults remains below target
- Health care provider recommendations for a vaccination are associated with increased utilization

Potential Reasons for Underutilization

- Transfers/Frequent Admissions and Discharges
- Misinformation or Lack of Information About Vaccines
- Lack of Organized Infection Control Programs

VACCINE USE	AGE GROUP ASSESSED	% RECEIVING VACCINATION
Influenza	≥ 65 years	69.3%
Pneumococcal*	≥ 65 years	65.8%
RSV	≥ 60 years	17%
COVID-19	≥ 65 years	37.4%
Herpes Zoster	≥ 60 years	41.1%

RSV: respiratory syncytial virus
*Pneumococcal: Adults who ever had "ever had a pneumonia shot ?"– not specific to any type or newer formulations
Black CJ, et al. Influenza, updated COVID-19, and respiratory syncytial virus vaccination coverage among adults — United States, Fall 2023. MMWR Morb Mortal Wkly Rep 2024;73:1077–1082.
Hung MC, et al. Vaccination coverage among adults in the United States, national health interview survey, 2021. https://www.cdc.gov/vaccines/imp-managers/coverage/adultsvaxview/pubs-resources/vaccination-coverage-adults-2021.html

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3

Vaccination Helps Prevent Disease

Influenza and pneumonia are a **leading cause of death** in the U.S.

Influenza vaccination in older adults is responsible for **80% of influenza-related deaths avoided**

Pneumococcal vaccines are **60 to 75% effective** against vaccine-type invasive disease in immunocompetent older adults

Updated COVID-19 vaccines reduced COVID-19 infections **by up to 54%**

RSV vaccines reduced symptomatic lower respiratory tract infections by **80-90% in older adults**

Two doses of recombinant zoster vaccine are **more than 90%** effective in preventing herpes zoster

Hepatitis B vaccination effectiveness approaches **90 to 100%**

https://www.cdc.gov/pinkbook/hcp/table-of-contents/
http://www.cdc.gov/vaccines/
https://www.cdc.gov/nchs/fastats/leading-causes-of-death.htm
https://covid.cdc.gov/covid-data-tracker/#vaccine-effectiveness

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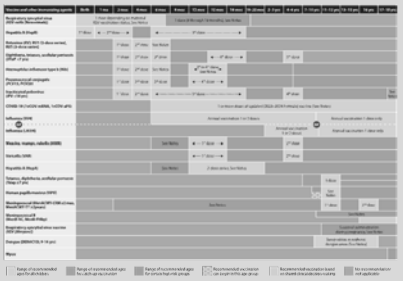
4

CDC Recommended Immunization Schedule for Children 0-18 Years (2024)

CDC Centers for Disease Control and Prevention
Recommended Child and Adolescent Immunization Schedule for ages 18 years or younger, United States, 2024.
https://www.cdc.gov/vaccines/schedules/hcp/imz/child-adolescent.html



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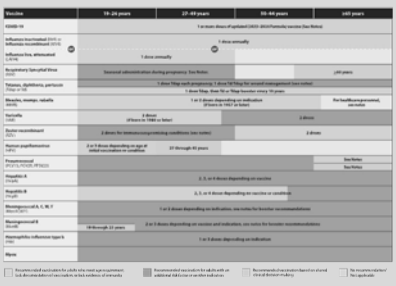
CDC Recommended Adult Immunization Schedule (2024)

CDC Centers for Disease Control and Prevention
Centers for Disease Control and Prevention. Recommended Adult Immunization Schedule for ages 19 years or older, United States, 2024.
https://www.cdc.gov/vaccines/schedules/hcp/imz/adult.html



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6

Immunizations We Can Talk About

Describe the proper use of specific vaccines common in long-term care including, but not limited to:

- Influenza
- Pneumococcal
- COVID-19
- Respiratory Syncytial Virus (RSV)
- Herpes Zoster (Shingles)
- Tetanus
- Hepatitis B
- Mumps, Measles, Rubella (MMR)
- Varicella
- Rules and Regulations

Exit

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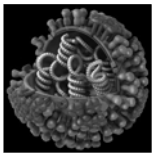
7

Influenza

Influenza

INFLUENZA TYPE	AFFECTED GROUPS	DISEASE SEVERITY	COMMENTS
A	All age groups, animals (e.g., birds) and humans	Moderate to severe disease	More severe illness, hospitalizations, and death are expected when Type A H3N2 viruses are most common (e.g., 2014-2015)
B	Generally, humans only; more commonly children	Mild disease	May be connected to Reye syndrome
C	Only affects humans but is rare	Mild symptoms if humans are affected	Not associated with epidemics



3D View of the influenza virus
Single-stranded, helically-shaped, RNA virus

[redacted]
[redacted]
https://www.cdc.gov/flu/about/viruses/types.htm

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9

Influenza Disease

Peak Season

- Seasonal influenza can occur as early as October and can continue to occur as late as May
- Most commonly peaks in January or later

Transmitted Through

- Respiratory droplets when someone coughs or sneezes
  - Virus shed in respiratory secretions for 5 to 10 days

Incubation

Typically 2 days

Classic Symptoms

- Abrupt fever, muscle pain, sore throat, runny nose, headache, non-productive cough
  - Symptoms, other than weakness, rarely last more than 3 to 7 days

https://www.cdc.gov/yellowbook/hcp/table-of-contents

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Influenza Disease – Complications

- **Pneumonia** (viral or bacterial)
- **Bronchitis**
- **Reye syndrome**
- **Ear infections**
- **Dehydration**
- **Inflammation of the heart or brain**
- **Muscle pain and/or damage**
- **Multi-organ failure** (e.g., kidney, respiratory)
- **Sepsis**
- **Worsening of other chronic conditions** (e.g., heart failure, asthma, diabetes)

https://www.cdc.gov/flu/about/disease/spread.htm

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11

Egg-Based Influenza Vaccines for 2024-2025

TRADE NAME	MANUFACTURER	CONTAINS MERCURY?	APPROVED AGE GROUP	COMPOSITION OF THE 2024–2025 EGG-BASED VACCINES (A + A + B):
Trivalent, Standard Dose, Inactivated Influenza Vaccine (SD-IIV3)				
Afluria	Seqirus	In MDV Only	≥ 6 months*	A/Victoria/4897/2022 (H1N1)pdm09-like virus + A/Thailand/8/2022 (H3N2)-like virus + B/Austria/1359417/2021 (Victoria lineage)-like virus
Fluarix	GlaxoSmithKline	No	≥ 6 months	
FluLaval	GlaxoSmithKline	No	≥ 6 months	
Fluzone	Sanofi Pasteur	In MDV Only	≥ 6 months	
Trivalent, High Dose, Inactivated Influenza Vaccine (HD-IIV3)				
Fluzone High-Dose	Sanofi Pasteur	No	≥ 65 years†	
Trivalent, Inactivated Influenza Vaccine with Adjuvant (aIIV3)				
Fluad	Seqirus	No	≥ 65 years†	
Intranasal, Trivalent, Live Attenuated Influenza Vaccine (LAIV3)				
FluMist	AstraZeneca	No	2 through 49 years	

MDV: Multiple-dose vials
* Afluria may also be given using a jet injector for those 18 to 64 years of age.
† Afluria, Fluarix, FluLaval, Fluzone, and Fluzone High-Dose may be considered as acceptable options for adult recipients of solid-organ transplants

https://www.cdc.gov/flu/about/season/vaccine-preparation.htm

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Non-Egg Based Influenza Vaccines for 2024-2025

TRADE NAME	MANUFACTURER	CONTAINS MERCURY?	APPROVED AGE GROUP	COMPOSITION OF THE 2024–2025 CELL- OR RECOMBINANT-BASED VACCINES (A + A + B):
Trivalent, Cell Culture-based Inactivated Influenza Vaccine (ccIIV3)				A/Wisconsin/67/2022 (H1N1)pdm09-like virus + A/Massachusetts/18/2022 (H3N2)-like virus + B/Austria/1359417/2021 (Victoria lineage)-like virus
Flucelvax	Seqirus	In MDV Only	≥ 6 months	
Trivalent, Recombinant Influenza Vaccine (RIV3)				
Flublok	Sanofi Pasteur	No	≥ 18 years	

MDV: Multiple-dose vials
https://www.cdc.gov/flu/season/faq-flu-season-2024-2025.htm

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Less Common Administration Options for Influenza Vaccines

Live Attenuated Influenza Virus (LAIV) [FluMist]

- One dose is 0.2 mL divided equally between nostrils
  - Grown in egg protein
- Approved for use in healthy, non-pregnant persons aged 2 to 49 years old
  - Do not use if receiving aspirin- or salicylate containing products
  - Avoid or use with caution in those with asthma
  - Should not be used by close contacts or caregivers of severely immunocompromised persons who require a protected environment

PharmaJet Stratis Needle-Free Injector

- A reusable, spring-powered device that uses a single-use, sterile, needle-free syringe (what comes into contact with the skin)
  - Uses a high-pressure, narrow stream of fluid to penetrate the skin instead of a hypodermic needle
- Currently only approved for use with Afluria in adults 18 to 64 years of age
- Associated with a higher rate of tenderness, swelling, pain, and redness at the injection site

Grohskopf LA et al. Prevention and control of seasonal influenza with vaccines: Recommendations of the Advisory Committee on Immunization Practices – United States, 2024-25 influenza season. MMWR Recomm Rep 2024; 73(5):1-25.
Please refer to individual prescribing information at https://dailymed.nlm.nih.gov/dailymed/

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Injectable Influenza Vaccine – Dosage and Administration

Dosage

- Infants and children 6 to 35 months: one or two doses of 0.25 mL or 0.5 mL depending upon which vaccine is used
- Children 3 to 8 years: one or two 0.5 mL doses
- Children 9 years and older or adults: one 0.5 mL dose for any age-appropriate vaccine

Administration

- Intramuscular administration only
  - Unless using Afluria via jet injector
- Infants and children 6-35 months: administer into the anterolateral aspect of the thigh
- Anyone over 3 years of age: administer into the deltoid muscle

Grohskopf LA et al. Prevention and control of seasonal influenza with vaccines: Recommendations of the Advisory Committee on Immunization Practices – United States, 2024-25 influenza season. MMWR Recomm Rep 2024; 73(5):1-25.
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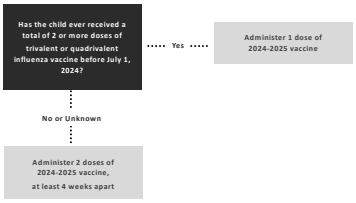
How Many Doses of Influenza Vaccine Does a Child (6 months through 8 years) Need?



Grohskopf LA et al. Prevention and control of seasonal influenza with vaccines: Recommendations of the Advisory Committee on Immunization Practices – United States, 2024-25 influenza season. MMWR Recomm Rep 2024; 73(5):1-25.

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16

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Influenza Vaccine – Storage Recommendations

- Should be stored in the refrigerator at 36ºF to 46ºF (2ºC to 8ºC)
  - Check and record temperature at least twice daily for refrigerators that store vaccines
  - Do not use if ever frozen - freezing destroys potency
  - Always store vaccines in the body of the refrigerator
    - Not in the vegetable bins, on the floor, next to the walls, in the door, or under cooling vents
- Multi-dose Afluria should be dated upon opening and discarded after 28 days
- Multi-dose vials of Fluzone or Flucelvax may be used until the expiration date printed on the package if stored properly and not visibly contaminated
- Always inspect vials for particulate matter prior to each use

CDC. Vaccine storage & handling toolkit. Mar 2024.
Please refer to individual prescribing information at www.[illegible].com or dailymed.nlm.nih.gov.

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Influenza Vaccine Adverse Effects

Local Reactions (common)	Non-specific Systemic Symptoms	Severe Reactions (rare)
Soreness, redness, swelling at injection site • Generally last only 1 to 2 days after injection • More frequent with: – high-dose vaccine (i.e., Fluzone High-Dose) – adjuvanted vaccine (e.g., Fluad) – the jet-injector spray (i.e., Afluria)	**Fever, chills, malaise, and muscle pain** • Generally occur within 12 hours after vaccination and last only 1 to 2 days	**Immediate hypersensitivity (e.g., anaphylaxis, angioedema), Guillain-Barré Syndrome** • Allergic reaction may be due to other ingredients (e.g., gelatin, latex) • Based on specific product that caused a reaction, vaccination may still be possible with an alternative product and special precautions

[illegible] Accessed on [illegible] at [illegible].

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18

Overview of Influenza Vaccine Recommendations

Who?

All persons aged greater than or equal to 6 months, unless otherwise contraindicated

When?

- Vaccinate all residents in your facility
  - "by the end of October" if possible, but even in December or later can be beneficial during most seasons
  - Avoid early vaccination (i.e., July or August) unless vaccination later may not be possible
- Unvaccinated admissions (through March 31) should be vaccinated promptly

How?

- Most are given IM
- Can co-administer with a COVID-19, RSV, or a pneumococcal vaccine
  - Use different site of administration

Who Else?

Vaccinating health care personnel, caregivers, and other staff will also protect patients from outbreaks

Grohskopf LA et al. Prevention and control of seasonal influenza with vaccines: Recommendations of the Advisory Committee on Immunization Practices – United States, 2024-25 influenza season. MMWR Recomm Rep 2024; 73(5):1-25.
Centers for Medicare and Medicaid Services. State operations manual. Appendix PP- Guidance to surveyors for long term care facilities, F883/K883.80 Influenza and pneumococcal immunizations. 2020.

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19

Influenza Vaccine Effectiveness

Older adults often have lower antibody response to vaccines

- May remain susceptible to upper respiratory infections
- Data support protection for at least 4 months but conflicting data exist as to how quickly vaccine effectiveness declines

The 2022-2023 influenza vaccine is estimated to have prevented:

64,000 influenza-related hospitalizations

~3,600 influenza-related deaths

https://www.cdc.gov/flu/vaccines-work/past-burden-prevented-est.html

Grohskopf LA et al. Prevention and control of seasonal influenza with vaccines: Recommendations of the Advisory Committee on Immunization Practices – United States, 2024-25 influenza season. MMWR Recomm Rep 2024; 73(5):1-25.

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Strategies That Are NOT Recommended

Delaying vaccination

May result in greater immunity later in the season, but deferral may result in missed opportunities to vaccinate

Giving a "booster" dose by revaccinating later in the season

Revaccination is not proven to be any more effective than a single vaccine regardless of when the current season vaccine was received

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Which Vaccine Should You Choose for Older Adults?

Since 2022 ACIP has recommended that older adults "preferentially receive" either:

- a higher dose influenza vaccine or
- an adjuvanted influenza vaccine

HIGHER DOSE	ADJUVANTED
Fluzone High-Dose	Fluad
Flublok	

Grohskopf LA et al. Prevention and control of seasonal influenza with vaccines: Recommendations of the Advisory Committee on Immunization Practices – United States, 2024-25 influenza season. MMWR Recomm Rep 2024; 73(5):1-25.
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ACIP states:

- Vaccination should not be delayed if a specific product is not available.
- If none of these 3 vaccines is available at an opportunity for vaccination, then any other age-appropriate influenza vaccine should be administered

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Preferred Vaccines for Older Adults

Fluzone High-Dose (HD-IIV3)	Flublok (RIV3)	Fluad (aIIV3)
• Each 0.5 mL dose contains 4x the amount of each antigen (60 mcg) • Most extensively studied of these options	• Contains 3x the amount of each antigen (45 mcg)	• Contains an adjuvant (MF59) that helps stimulate or enhance the body's response to the vaccine

There is limited data comparing these 3 vaccines:
- **Data do NOT support one being superior over another**
- **Data show few differences in safety**

aIIV3: trivalent inactivated influenza vaccine with adjuvant; FDA: U.S. Food and Drug Administration; HD-IIV3: trivalent, high-dose, inactivated influenza vaccine; ILI: influenza-like illness; RIV3: trivalent recombinant influenza vaccine; SD-IIV3: trivalent, standard dose, inactivated influenza vaccine

Grohskopf LA et al. Prevention and control of seasonal influenza with vaccines: Recommendations of the Advisory Committee on Immunization Practices – United States, 2024-25 influenza season. MMWR Recomm Rep 2024; 73(5):1-25.
https://www.cdc.gov/flu/prevent/different-flu-vaccines.htm
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What about Patients with Allergies?

Ingredients of various influenza vaccines may differ (e.g., aminoglycosides, egg protein)

Refer to specific product labeling if potential allergies are noted as other formulations may be more appropriate

Severe allergic reactions to egg-based influenza vaccines is now considered "rare"

"Egg allergy alone necessitates **no additional safety measures** for influenza vaccination beyond those recommended for any recipient of any vaccine, regardless of severity or previous reaction egg"

"Any influenza vaccine (egg based or nonegg based) that is otherwise appropriate for the recipient's age and health status can be used"

All individuals (regardless of allergy history) should be monitored for at least 15 minutes after vaccination

Grohskopf LA et al. Prevention and control of seasonal influenza with vaccines: Recommendations of the Advisory Committee on Immunization Practices – United States, 2024-25 influenza season. MMWR Recomm Rep 2024; 73(5):1-25.

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Influenza Disease – Treatment

Antiviral Drugs (i.e., Tamiflu, Relenza, Rapivab, and Xofluza)

Treatment should be initiated within 48 hours of the onset of symptoms

Relenza (zanamivir)	inhaled powder; not recommended for individuals with underlying respiratory conditions (e.g., asthma, COPD)
Tamiflu (oseltamivir)	must adjust dose based upon kidney function
Xofluza (baloxavir)	one-time oral dose based upon weight
Rapivab (peramivir)	single dose given intravenously; must adjust dose based upon kidney function

Note: amantadine and rimantadine are NOT recommended due to resistance

All long-term care facility residents who have confirmed or suspected influenza should receive antiviral treatment immediately

https://www.cdc.gov/pinkbook/hcp/table-of-contents/
https://www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm
Please refer to individual prescribing information at https://dailymed.nlm.nih.gov/dailymed/
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Influenza Disease – Prophylaxis Beyond Annual Vaccination

Implement standard (e.g., gloves, gowns) and droplet precautions (e.g., face masks, private rooms) for anyone with suspected or confirmed influenza

- For 7 days after illness onset or 24 hours after the resolution of fever and respiratory symptoms (whichever is longer)

Initiate outbreak control measures and antiviral prophylaxis for ALL non-ill residents on the same unit when at least 2 residents on the same unit are ill within 72 hours, and at least one has laboratory-confirmed influenza

In the long-term care setting, duration of post-exposure prophylaxis is at least 2 weeks, and continuing for at least 7 days after the last known case of influenza was identified

Conduct daily active surveillance throughout the facility until at least 1 week after the last confirmed case was identified

https://www.cdc.gov/flu/professionals/infectioncontrol/ltc-facility-guidance.htm

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Influenza Vaccination Rates Among Long-Term Care vs. Other Health Care Personnel

Consider vaccination rates as one measure of a patient safety quality program

Encourage strong vaccination policies:

- signed statements by those who refuse vaccination
- on-site, no cost vaccination
- offer vaccination throughout the season

In the 2022-2023 season, only 75.9% of health care professionals were vaccinated for influenza.

The lowest coverage rate occurred in long-term care and home-health care (68.3%).

https://www.cdc.gov/flu/fluvaxview/hcp-coverage_22-23-estimates.htm

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CDC Influenza Resources Specific for Long-Term Care

CDC: Centers for Disease Control and Prevention
https://www.cdc.gov/flu/professionals/

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Pneumococcal

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Pneumococcal Disease

Streptococcus pneumoniae – Gram-positive anaerobe

Spread by person-to-person contact via respiratory droplets

Clinical spectrum of infections ranges from:

- invasive disease (e.g., osteomyelitis, bacteremia, pneumonia with bacteremia) to
- non-invasive infections (e.g., pneumonia, ear infection, sinusitis)

100
Different serotypes have been discovered

15 serotypes in PCV15

20 serotypes in PCV20

21 serotypes in PCV21

23 serotypes in PPSV23

https://www.cdc.gov/pneumococcal/hcp/clinical-overview/index.html
https://www.cdc.gov/pinkbook/hcp/table-of-contents/
https://www.fda.gov/vaccines-blood-biologics/capvaxive

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Pneumococcal Disease – Complications

In addition to ear and sinus infections, pneumococcal disease can cause:

Meningitis	Bacteremia	Pneumonia
2,000 cases annually	**4,000** cases annually	**150K** hospitalizations annually
8% children mortality rate	**20%** mortality rate (up to 60% in older adults)	**5-7%** mortality rate (rate may be higher in older adults)
22% adult mortality rate		Cause of up to **30%** of adult community-acquired pneumonia (CAP) cases

Mortality is highest among older adults and those with underlying high-risk medical conditions

https://www.cdc.gov/pneumococcal/hcp/clinical-signs/
https://www.cdc.gov/pinkbook/hcp/table-of-contents/chapter-17-pneumococcal-disease.html

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Pneumococcal Vaccines for use in Pediatrics

	PNEUMOCOCCAL 15-CONJUGATE (PCV15) – VAXNEUVANCE	PNEUMOCOCCAL 20-CONJUGATE (PCV20) – PREVNAR 20	PNEUMOCOCCAL POLYSACCHARIDE (PPSV23) – PNEUMOVAX 23
About the Preparation	• Shake vigorously prior to use • Contains aluminum as adjuvant	• Shake vigorously prior to use • Contains aluminum as adjuvant	• Do not need to shake • Contains phenol as a preservative
Storage	• Store in refrigerator (do not freeze)	• Store syringes horizontally in refrigerator (do not freeze)	• Store in refrigerator (do not freeze)
Dosage	• 0.5 mL intramuscularly • 4 injections at 2, 4, 6, and 12 to 15 months of age	• 0.5 mL intramuscularly • 4 injections at 2, 4, 6, and 12 to 15 months of age	• 0.5 mL subcutaneous or intramuscularly (deltoid muscle or lateral mid-thigh) • Only used in special situations - refer to prescriber for specific guidance

https://www.cdc.gov/vaccines/vpd/pneumo/public/
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Pneumococcal Vaccines for use in Adults

	PNEUMOCOCCAL 15-CONJUGATE (PCV15) - VAXNEUVANCE	PNEUMOCOCCAL 20-CONJUGATE (PCV20) – PREVNAR 20	PNEUMOCOCCAL 21-CONJUGATE (PCV21) – CAPVAXIVE	PNEUMOCOCCAL POLYSACCHARIDE (PPSV23) – PNEUMOVAX 23
About the Preparation	• Contains aluminum as adjuvant; shake vigorously prior to use	• Contains aluminum as adjuvant; shake vigorously prior to use	• Does not contain any preservatives	• Contains phenol as a preservative
Storage	• Store in refrigerator (do not freeze)	• Store syringes horizontally in refrigerator (do not freeze)	• Store in refrigerator (do not freeze)	• Store in refrigerator (do not freeze)
Dosage	• 0.5 mL intramuscularly	• 0.5 mL intramuscularly	• 0.5 mL intramuscularly	• 0.5 mL subcutaneous or intramuscularly (deltoid muscle or lateral mid-thigh)

Please refer to individual prescribing information at https://dailymed.nlm.nih.gov/dailymed/
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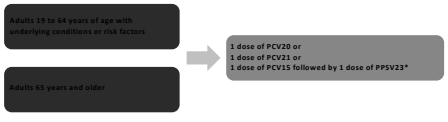
General Pneumococcal Vaccine Recommendations for Unvaccinated Adults



*Timing of the PPSV23 dose is most often after 1 year or later, but for individuals with immunocompromising conditions, cochlear implants or cerebrospinal fluid leak, a shorter interval may be advisable (but at least 8 or more weeks)

Centers for Disease Control and Prevention. Recommended Adult Immunization Schedule for ages 19 years or older, United States, 2024. https://www.cdc.gov/vaccines/schedules/hcp/imz/adult.html

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Pneumococcal Vaccine Recommendations for Adults

The CDC definition of "underlying medical conditions or other risk factors" for which PCV are recommended includes:

Alcoholism	Congenital or acquired asplenia	Kidney Failure
Chronic heart, liver or lung disease	Diabetes	Malignancies including Hodgkin's disease, leukemia, lymphoma, and multiple myeloma
Cerebrospinal fluid (CSF) leaks	Human immunodeficiency virus (HIV)	Nephrotic syndrome
Cigarette smoking	Immunodeficiency	Sickle cell or other hemoglobin-related disorders
Cochlear Implant	Iatrogenic immunosuppression (defined as receiving the equivalent of 20 mg or more of prednisone for at least 2 weeks)	Solid organ transplants

Centers for Disease Control and Prevention. Recommended Adult Immunization Schedule for ages 19 years or older, United States, 2024. https://www.cdc.gov/vaccines/schedules/hcp/imz/adult.html

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Which Pneumococcal Vaccine(s) Should an Individual Get?

Determination may include consideration of:

- Age
- Past pneumococcal vaccination history
- Chronic health conditions (e.g., cigarette smoking, diabetes)
- High risk conditions (i.e., CSF leak, cochlear implant)
- Immunocompromising conditions (e.g., kidney failure, cancer)
- Shared decision making

Available at:
https://www.cdc.gov/pneumococcal/downloads/Vaccine-Timing-Adults-schild.pdf

Available as a free App or online at:
https://www.cdc.gov/pneumococcal/hcp/vaccine-recommendations/app.html (i.e., Adult Vx Enter) https://www.cdc.gov/vaccines/vpd/pneumo/hcp/pcv-pneumo.html

CSF: cerebrospinal fluid
Centers for Disease Control and Prevention. Recommended Child and Adolescent Immunization Schedule for ages 18 years or younger, United States, 2024. https://www.cdc.gov/vaccines/schedules/hcp/imz/child-adolescent.html
Centers for Disease Control and Prevention. PneumoRecs VaxAdvisor: https://www.cdc.gov/vaccines/vpd/pneumo/hcp/pneumoapp.html
Centers for Disease Control and Prevention. Pneumococcal vaccine timing for adults. 2022. https://www.cdc.gov/vaccines/vpd/pneumo/downloads/pneumo-vaccine-timing.pdf

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Pneumococcal Vaccine Adverse Effects and Precautions

Adverse Effects

- Local reactions
  - Pain, swelling, redness, or tenderness at injection site for less than 48 hours
  - More common with revaccinations
- Fever or muscle aches
- Headache or fatigue
- Serious allergic reaction or injury is rare

Precautions

- Delay administration for those with moderate to severe illnesses until recovered
- Avoid use of pneumococcal conjugate vaccines in individuals with allergies to any *diphtheria* toxoid-containing vaccine
  - Risk is due to a non-toxic *diphtheria* protein used in the manufacturing process

https://www.cdc.gov/vaccines/hcp/vis/current-vis.html

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Pneumococcal Disease Treatment

Penicillins were previously the drug of choice

Now pneumococcal bacteria are resistant to one or more antibiotics in 30% of cases

Resistance to penicillin has further increased the need to vaccinate as the primary defense

Treatment may include a 3rd-generation cephalosporin, vancomycin, or a respiratory fluoroquinolone (e.g., levofloxacin, moxifloxacin)

Consider severity and available culture and sensitivity data when determining agent of choice, schedule, dosage and duration of therapy

Sanford guide. Pneumonia, Streptococcus pneumoniae. 2023.
https://www.cdc.gov/antimicrobial-resistance/media/pdfs/stmp-pneumoniae-508.pdf
https://www.cdc.gov/pneumococcal/

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COVID-19

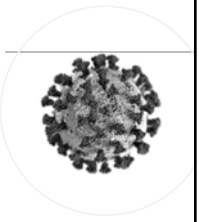
COVID-19

Always check for the latest information on COVID-19 vaccines at
https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/prevention.html

Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is the virus that causes coronavirus disease (COVID-19)

Vaccines target the spike (S) protein preventing virus from multiplying

Spreads via airborne transmission and by respiratory droplets, putting physical distance between yourself and others can help lower the risk of transmission.



https://www.cdc.gov/covid/about/
https://www.cdc.gov/respiratory-viruses/prevention/physical-distancing.html
https://pkl.cdc.gov/details.aspx?pid=23313
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COVID-19 and Influenza Symptoms

Symptoms Common to Both

- Fever or feeling feverish/chills
- Cough
- Shortness of breath or difficulty breathing
- Tiredness
- Sore throat
- Runny or stuffy nose
- Muscle pain or body aches
- Headache
- Vomiting and diarrhea
- Change in/loss of taste or smell (more common with COVID-19)

Both COVID-19 and Influenza can have varying degrees of signs and symptoms, ranging from no symptoms (asymptomatic) to severe symptoms

Recovery from influenza usually is a few days to less than two weeks while recovery from COVID-19 may take weeks to months

https://www.cdc.gov/flu/symptoms/flu-vs-covid19.htm

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Complications of Influenza and COVID-19

Specific to COVID-19

Complication risks include:

- Blood clots
- Multisystem inflammatory syndrome
- Long/Post-COVID conditions*
  - difficulty thinking
  - neurological symptoms (e.g., taste disturbance)

Common to Influenza and COVID-19

- Pneumonia
- Respiratory failure
- Acute respiratory distress syndrome
- Sepsis
- Heart attacks and stroke
- Worsening of chronic medical conditions
- Organ failure
- Secondary bacterial infections

* Not all-inclusive; for more information, please refer to https://www.cdc.gov/covid/long-term-effects/ https://www.cdc.gov/flu/symptoms/flu-vs-covid19.htm

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Protecting Yourself and Others from COVID-19

Staying up to date with COVID-19 vaccines	Proper use of masks	Increasing space and distance
Avoiding crowds and poorly ventilated spaces	Good hand hygiene	Cleaning and disinfecting

https://www.cdc.gov/covid/prevention/index.html

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COVID-19 Vaccines: Storage and Administration

Info is based on CDC Interim Clinical Considerations for Use of COVID-19 Vaccines in the U.S as of Aug 30, 2024

	Comirnaty Pfizer-BioNTech	Spikevax Moderna	Novavax Adjuvanted
About the Preparation	• Contains polyethylene glycol • Once thawed, refrigerate vial or prefilled syringe and use within 10 weeks • Once at room temperature, discard after 12 hours	• Contains polyethylene glycol • May store in refrigerator between 36°F and 46°F (2°C and 8°C) for up to 30 days or at room temperature up to 77° F (25° C) for a total of 24 hours • Following withdrawal of the first dose from multidose vial, discard any unused vaccine after 12 hours (room or refrigerator)	• Contains polysorbate • Store in refrigerator between 36°F and 46°F (2°C and 8°C) until expiration date • Following withdrawal of the first dose, vial must remain between 36°F and 77°F (2°C and 25°C), discard any unused vaccine after 12 hours
Dosage for those who have received a dose of any previous vaccine*	• ≥ 12 years: 0.3 mL IM (deltoid) at least 8 weeks after last previous dose of vaccine	• ≥ 12 years: 0.5 mL IM (deltoid) at least 8 weeks after last previous dose of vaccine	• ≥ 12 years: 0.5 mL IM (deltoid) at least 8 weeks after last previous dose of vaccine

COVID-19 vaccines:

1. do not contain preservatives, thimerosal, or antibiotics
2. should not be shaken, refrozen, or exposed to direct sunlight or ultraviolet light
3. Refer to cdc.gov/coronavirus/2019-nCoV/ for current guidance

* Additional guidance may be available from the CDC for individuals that have no previous vaccination, those who are moderately or severely immunocompromised, or younger than listed ages
IM = intramuscularly
https://www.cdc.gov/vaccines/covid-19/clinical-considerations/covid-19-vaccines-us.html
https://www.fda.gov/emergency-preparedness-and-response/coronavirus-disease-2019-covid-19/covid-19-vaccines
Please refer to individual prescribing information at https://dailymed.nlm.nih.gov/dailymed/

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COVID-19 Vaccines: Adverse Effects

https://www.cdc.gov/vaccines/covid-19/clinical-considerations/covid-19-vaccines-us.html
Please refer to individual prescribing information at https://dailymed.nlm.nih.gov/dailymed/

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Determining Who Should Receive COVID-19 Vaccination

Contraindication	Precaution	Vaccinate
• History of a severe allergic reaction after previous dose or known allergy to a component of the vaccine	• History of non-severe allergy to component of COVID-19 vaccine OR non-severe immediate allergic reaction after previous dose of one COVID-19 vaccine type • History of MIS-C or MIS-A • Defer vaccination for the following scenarios: - Known current COVID-19 infection or acute moderate-to-severe illness – until recovered - Myocarditis or pericarditis after any COVID-19 vaccine – consider only if benefits outweigh risks and defer second dose until episode has resolved	• Everyone ages 6 months and older unless they have a contraindication or precaution
Actions		
• Do not vaccinate with same type of vaccine • Consider referral to allergist-immunologist • Consider other vaccine alternative if age appropriate	• Risk assessment; Consider referral to allergist-immunologist • 30-minute observation period if vaccinated	• 30-minute observation period for those with history of anaphylaxis (due to any cause) • 15-minute observation period for all other people
Antibody testing is not recommended for purposes of vaccine decision-making		

MIS-A = multisystem inflammatory syndrome in adults; MIS-C = multisystem inflammatory syndrome in children
https://www.cdc.gov/vaccines/covid-19/clinical-considerations/covid-19-vaccines-us.html

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Treatments for COVID-19

SARS-CoV-2 Antiviral

Ritonavir-boosted nirmatrelvir (Paxlovid)
- Approved for mild-to-moderate COVID-19
- Boxed Warning: Screening for drug interactions is important
- Dosage based on kidney function
- Duration of treatment: 5 days

Remdesivir (Veklury)
- Treatment should be initiated as soon as possible after diagnosis
- Monitor liver function tests before starting and as clinically appropriate
- 3-day weight-based IV treatment

Molnupiravir (Lagevrio)
- Not authorized for use under 18 years of age
- Use with caution in pregnant women or females of child-bearing age
- For use only when Paxlovid and Remdesivir are not available

Always refer to the latest information as restrictions and treatment guidance may change rapidly

EUA: emergency use authorization
[redacted]
Refer also to individual prescribing information at dailymed.nlm.nih.gov/dailymed/

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Respiratory Syncytial Virus (RSV)

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Respiratory Syncytial Virus (RSV)

A single strand RNA, envelope virus

- Transmitted through breathing in or touching virus particles
  - Virus can survive on hard surfaces for many hours
- Someone infected with RSV can become contagious 1 to 2 days before showing symptoms and usually lasts for 3 to 8 days
  - Infants and people with weakened immune systems can spread the virus even after they stop showing symptoms for up to 4 weeks

CDC recommends adults 75 years of age and older receive a single dose of RSV vaccine

CDC recommends adults 60 to 74 years of age who are at increased risk of severe RSV disease receive a single dose of RSV vaccine

Adults 60 to 74 years old who may be at increased risk:

- Chronic lung diseases (e.g., COPD, asthma)
- Chronic cardiovascular diseases (e.g., congestive heart failure and coronary artery disease)
- Immunocompromising conditions
- Blood disorders
- Residents of nursing homes and other long-term care facilities
- Neurologic disorders
- Endocrine disorders (e.g., diabetes)
- Kidney disorders
- Liver disorders
- Severe obesity (BMI ≥ 40)
- Other underlying conditions that the provider determines might increase risk of severe respiratory illness

BMI = body mass index
https://www.cdc.gov/rsv/
Britton A et al. Use of respiratory syncytial virus vaccines in adults aged ≥60 years: Updated recommendation of the Advisory Committee on Immunization Practices – United States, 2024. MMWR. 2024. 73.

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Respiratory Syncytial Virus (RSV)

Complications

- Causes more severe infections
  - Bronchiolitis
  - Pneumonia
- Worsen current conditions
  - Asthma
  - Chronic obstructive pulmonary disease (COPD)
  - Congestive heart failure

Presentation

- Usually show symptoms within 4 to 6 days after getting infected
  - Runny nose
  - Decrease in appetite
  - Coughing
  - Sneezing
  - Fever
  - Wheezing

Treatment

- No specific treatment for the virus
- Relieve symptoms
  - Manage fever and pain
  - Drink fluids

https://www.cdc.gov/rsv/

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Respiratory Syncytial Virus Vaccines

Arexvy

Adjuvanted, recombinant vaccine
Indicated only in adults 60 years and older

For adults, administer 0.5 mL intramuscularly
Requires reconstitution prior to injection

Storage: Refrigerate prior to reconstitution
Can be kept for up to 4 hours after mixing at room temperature or refrigeration

Abrysvo

Recombinant vaccine
Indicated only in adults 60 years and older

For adults, administer 0.5 mL intramuscularly
Requires reconstitution prior to injection

Storage: Refrigerate prior to reconstitution
Can be kept for up to 4 hours after mixing at room temperature

mResvia

Recombinant vaccine
Indicated only in adults 60 years and older

For adults, administer 0.5 mL intramuscularly

Storage: Refrigerate for up to 30 days prior to use
Can be kept for up to 24 hours at 46°F to 77°F

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Respiratory Syncytial Virus Vaccine Adverse Effects

Mild/Local

- Pain, swelling or redness at injection site
- Fatigue
- Muscle pain
- Headache

Severe/Systemic (very rare)

- On-going studies
- Guillain-Barré Syndrome has been reported

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Herpes Zoster (Shingles)

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Herpes Zoster ("Zoster" or Shingles)

Results from reactivation of varicella-zoster virus (VZV – aka "Chickenpox") decades after initial VZV infection

▶

Frequently painful disease marked by a blistering rash

Pain can be mild to severe and may occur just prior to development of the rash, during the rash, and/or as postherpetic neuralgia (which may persist for months or years)

- It is not necessary to ask a patient about their history of varicella (chickenpox) or to conduct serologic testing for varicella immunity
- Age is the most important risk factor due to decreasing immune response
- Without vaccination 50% of persons living until age 85 years will develop zoster

https://www.cdc.gov/shingles/
https://www.cdc.gov/pinkbook/hcp/table-of-contents/

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Herpes Zoster ("Zoster" or Shingles)

Without vaccination, almost 1 in 3 persons will develop herpes zoster

- Up to 1 million episodes in the U.S. annually
- Most have only 1 episode in a lifetime, but may develop it more than once
- 10 to 18% of people will develop postherpetic neuralgia

Those with suppressed immune systems are at greater risk including those:

- With cancer, especially leukemia and lymphoma
- With human immunodeficiency virus
- Taking immunosuppressive medications (e.g., corticosteroids, chemotherapy, or transplant-related immunosuppressive medications)

https://www.cdc.gov/shingles/
https://www.cdc.gov/pinkbook/hcp/table-of-contents/

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Shingles Signs and Symptoms

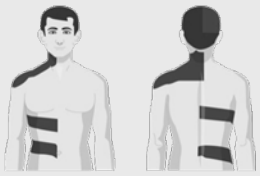
Painful rash typically on one side of the face or body

- Blisters usually scab over in 7 to 10 days and clear up in 2 to 4 weeks

Other symptoms may include:

- Fever
- Headache
- Chills
- Upset stomach

Common sites of shingles



Front **Back**

https://www.cdc.gov/shingles/
https://theimmunizationpartnership.files.wordpress.com/2010/04/shingles_rash_default.jpg

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Serious Complications of Herpes Zoster

Postherpetic neuralgia (10-18%)	Encephalitis
Skin discoloration and scarring	Hepatitis
Bacterial superinfection (e.g., MRSA)	Visual and/or hearing impairment
Cranial and peripheral nerve palsies	Death
Pneumonia	

MRSA: methicillin-resistant Staphylococcus aureus
https://www.cdc.gov/shingles/hcp/clinical-overview/index.html
https://www.cdc.gov/shingles/about/complications.html

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Is Herpes Zoster ("Zoster" or Shingles) Contagious?

No, but zoster lesions contain high concentrations of VZV that can be spread and can cause primary varicella in exposed, susceptible persons
(e.g., someone who has never had "chickenpox" or never been vaccinated for "chickenpox")

Localized zoster is only contagious after the rash erupts and only until the lesions crust
Less contagious than varicella

VZV: varicella-zoster virus
https://www.cdc.gov/shingles/
https://www.cdc.gov/pinkbook/hcp/table-of-contents/

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Herpes Zoster Vaccine (Shingrix) Dosing, Storage, and Administration Recommendations

- Recombinant, adjuvanted vaccine
- Does NOT contain a preservative
- Store vaccine and adjuvant suspension vials in refrigerator between 36ºF and 46ºF (2ºC to 8ºC). Do not freeze.
  - Stable in the refrigerator for up to 6 hours after reconstitution
- Administer 0.5 mL intramuscularly in the deltoid region of the upper arm
- Adverse effects include pain, redness, or swelling at injection site, fatigue, shivering, headache, fever, nausea and muscle aches

HERPES ZOSTER VACCINE DOSING SCHEDULE

Dose	When
1st	50 years of age and older
2nd	2 to 6 months after 1st dose

- Two doses are 97% effective if 50 to 69 years old
- Two doses are 91% effective if 70 years and older

https://www.cdc.gov/vaccines/vpd/shingles/index.html
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Herpes Zoster Vaccine (Shingrix) In Immunocompromised Adults

Approved for the prevention of shingles in adults 19 years and older who are or who will be at increased risk of shingles due to immunodeficiency or immunosuppression (e.g., HIV, solid tumors, kidney or stem cell transplants)

Immunocompromised adults are at increased risk for herpes zoster and related complications compared to general population

- Effective preventative vaccine may decrease the need for time-sensitive antiviral medication and use of medications for pain control

HERPES ZOSTER VACCINE DOSING SCHEDULE (for immunocompromised adults)

Dose	When
1st	19 years of age and older
2nd	1 to 2 months after 1st dose

Immunocompromised adults have a shorter immunization schedule

https://www.cdc.gov/vaccines/vpd/shingles/index.html
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Herpes Zoster Vaccine Recommendations

Not indicated for:

- Treatment of acute zoster
- Prevention of PHN in those with acute zoster
- Treatment of ongoing PHN
- Prevention of primary varicella infection (chickenpox)

Do not administer to anyone:

- With a history of severe, life-threatening allergies to any vaccine component
- Who are moderately or severely ill
- Who currently has shingles
- Who tested negative for immunity to VZV
- Who are pregnant

PHN: postherpetic neuralgia; VZV: varicella zoster virus
https://www.cdc.gov/shingles/vaccination.html
https://www.cdc.gov/vaccines/vpd/shingles/hcp/shingrix/recommendations.html
Please refer to the individual prescribing information at https://dailymed.nlm.nih.gov/dailymed/.

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Herpes Zoster ("Zoster" or Shingles) Treatment

Three antiviral drugs are approved for treatment of zoster in immunocompetent patients

Should be started as soon as possible after rash appears (best within 72 hours)

- Zovirax (acyclovir)
- Famvir (famciclovir)
- Valtrex (valacyclovir)

Adequate pain control is very important

May include acetaminophen, NSAID, tricyclic antidepressants, opioids, anticonvulsants, and/or topical anesthetics

NSAID: nonsteroidal anti-inflammatory drugs
Sagull A et al. Herpes zoster and postherpetic neuralgia: Prevention and management. Am Fam Physician. 2017; 96(10):656-663.
https://www.cdc.gov/shingles/about/
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Tetanus

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Tetanus and Diphtheria

Tetanus

- *Clostridium tetani*
  - Anaerobic, Gram-positive rod
  - Survives in spore form
- Also called "lockjaw"
- Spores thrive in soil and manure
- Overall fatality rate is about 11%
  - Adults **55** years of age and older and those who are unvaccinated are most likely to have fatal cases

Diphtheria

- *Corynebacterium diphtheriae*
  - Aerobic, Gram-positive bacillus
  - Toxin producing
- Spreads by respiratory droplets
- Most common in winter and spring
- Overall fatality rate is 5 to 10%

[redacted]
https://www.cdc.gov/vaccines/pubs/surv-manual/chpt04-tetanus.html

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Tetanus and Diphtheria

Tetanus Toxin

- Enter through wounds or breaks in the skin. Spores then germinate in anaerobic wounds and travel through the blood and lymphatic system to the central nervous system
  - Interfere with release of neurotransmitters
- Incubation time ranges from 1 to 21 days (average 8 days)
- Common presentation: lockjaw, stiff neck, difficulty swallowing, rigidity of abdominal muscles, fever, sweating, increased blood pressure, increased pulse, and spasms

Diphtheria Toxin

- Absorbed through mucous membranes into bloodstream and spreads to tissues and organs
  - May cause breathing problems, paralysis, heart failure, and even death
- Incubation time ranges from 1 to 10 days (usually 2 to 5 days)
- Symptoms may include fever, sore throat, nasal discharge, membranes in the mouth or throat, or scaly rash
  - Complications may include heart muscle damage, nerve damage, or paralysis
- Treatment includes diphtheria antitoxin and erythromycin or benzathine penicillin G

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Tetanus Complications and Treatment

Complications

- Spasms of the vocal cords
- Fractures of spine/long bones
- High blood pressure and heart arrhythmias
- Pulmonary embolism
- Aspiration pneumonia
- Respiratory failure
- Death

Treatment

- Clean wounds
- Provide supportive therapy/stabilize complications
  - Sedation and muscle relaxants if necessary
- Active immunization
- Tetanus immune globulin (TIG) (HyperTET)

Actively vaccinate individuals who

- Sustain wounds which are minor and uncontaminated if they have not received tetanus toxoid in the preceding 10 years
- Have tetanus prone wounds (e.g., puncture wounds, crush wounds, wounds contaminated with dirt, feces, soil, or saliva) who have not received tetanus toxoid in the preceding 5 years

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Tetanus and Diphtheria Vaccines

DTaP

- Contains diphtheria, tetanus, and pertussis
  - Contains equal amounts of tetanus toxins but 3 to 4 times more diphtheria toxins than in adult formulations
- 4 or 5 dose series for children depending on when dose 4 was administered
- DT (diphtheria/tetanus) is available for children who cannot tolerate pertussis vaccine

Td

- Contains diphtheria and tetanus
- For adolescents and adults as a booster shot every 10 years
  - May use Tdap instead

Tdap

- Contains tetanus, diphtheria, and pertussis
- For adolescents and adults as a booster shot every 10 years
  - May use Td if one dose of Tdap has been received
- Women should receive 1 dose during every pregnancy (preferably in the 3rd trimester)

Uppercase letters denote full-strength doses (e.g., D,T and P in DTaP); Lowercase letters denote reduced doses (e.g., d and p in Tdap); a refers to acellular
https://www.cdc.gov/pinkbook/hcp/table-of-contents/
https://www.immunize.org/askexperts/experts_per.asp

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DTaP and Td Dosing Recommendations

DTaP DOSING RECOMMENDATIONS FOR CHILDREN

Dose	When
1st	2 months old
2nd	4 months old
3rd	6 months old
4th	15 to 18 months old
5th	4 to 6 years old

Td or Tdap DOSING RECOMMENDATIONS FOR ADULTS WHO LACK CHILDHOOD IMMUNIZATIONS*

Dose	When
1st	—
2nd	4 weeks after the 1st dose
3rd	6 to 12 months after the 2nd dose

EVERYONE should receive a booster shot every 10 years after the age of 12 years

*As part of the catch-up series, at least 1 dose of Tdap should be administered (preferred as first dose); if additional doses are needed, may use Td or Tdap

- Shake well before administering
- Administer IM only
- Store in refrigerator until ready to administer

Centers for Disease Control and Prevention. Recommended Adult Immunization Schedule for ages 19 years or older, United States, 2024. https://www.cdc.gov/vaccines/schedules/hcp/imz/adult.html.
Centers for Disease Control and Prevention. Recommended Child and Adolescent Immunization Schedule for ages 18 years or younger, United States, 2024. https://www.cdc.gov/vaccines/schedules/hcp/imz/child-adolescent.html.
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Td Adverse Effects

Local

- Redness, swelling, and/or pain at injection site (no treatment required)
- Exaggerated local ("Arthus-like") reactions
  - Extensive painful swelling (from shoulder to elbow)
  - Generally begins 2 to 8 hours after injection

Severe/Systemic (very rare)

- Generalized hives, anaphylaxis, or neurological complications
- Guillain-Barré Syndrome and peripheral neuropathy have been documented

https://www.cdc.gov/pinkbook/hcp/table-of-contents/

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Hepatitis B

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Hepatitis B Virus (HBV)

A Small, Double-shelled Virus

- Transmitted through blood and body fluids from infected person to non-immune person
- Has been shown to remain infectious outside the body for at least 7 days at room temperature, even in the absence of visible blood

CDC recommends hepatitis B vaccination in all adults aged 19 to 59 years old and for those above the age of 60 with additional risk factors

Risk Groups who should be Vaccinated

- Persons with multiple sex partners or sex with an infected person or men with men
- IV drug users (share needles)
- Diabetics under 60 years of age*
- Persons with HIV
- Persons with end-stage kidney disease
- Persons with hepatitis C or chronic liver disease
- International travelers to regions with high prevalence of HBV infection
- Incarcerated persons
- Infants born to infected mothers
- Household contacts of infected persons
- Residents and staff of facilities for developmentally disabled persons
- Health care/public safety workers who are potentially exposed to blood or other infectious body fluids

HCV: hepatitis C virus; HIV: human immunodeficiency virus
*People with diabetes 60 years or older may be vaccinated at the discretion of their prescriber.
https://www.cdc.gov/pinkbook/hcp/table-of-contents/
Weng MK et al. Universal Hepatitis B Vaccination in Adults Aged 19–59 Years: Updated Recommendations of the Advisory Committee on Immunization Practices. MMWR. 2022;71:477–483.

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Hepatitis B Virus (HBV)

Complications

- Causes acute and chronic diseases
  - Chronic hepatitis
  - Cirrhosis
  - Liver cancer

Presentation

- Incubation period
  - 60 to 90 days
  - Up to 50% of patients show no signs or symptoms
  - Others have: jaundice, fever, abdominal pain, nausea, loss of appetite, light or gray stools, dark urine, and hepatomegaly

Treatment

- interferon alfa-2b
- pegylated interferon alfa-2a
- entecavir
- tenofovir

Terrault NA et al. Update on prevention, diagnosis, and treatment of chronic hepatitis B: AASLD 2018 hepatitis B guidance. Hepatology. 2018; 67(4):1560-1599.
https://www.cdc.gov/pinkbook/hcp/table-of-contents/

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Hepatitis B Vaccines*

Engerix-B or Recombivax HB

- Recombinant vaccines with aluminum adjuvant
  - Pediatric and adult formulations
  - Those on dialysis require a higher 40 mcg dose (and an extra dose if using Engerix-B)
- For adults, administer 1 mL intramuscularly in the deltoid
  - May give subcutaneously if at risk of hemorrhage (e.g., hemophilia)

Heplisav-B

- Recombinant vaccine with novel adjuvant†
  - Only approved for adults 18 years and older
  - Safety and effectiveness have not been established in adults on hemodialysis
  - No clinical studies have been performed in pregnant women
- Administer 0.5 mL intramuscularly in the deltoid

PreHevbrio

- Recombinant vaccine with aluminum adjuvant
  - Only approved for adults 18 years and older
  - Safety and effectiveness have not been established in adults on hemodialysis
  - No clinical studies have been performed in pregnant women
- Administer 1 mL intramuscularly in the deltoid

*Twinrix, a combination of hepatitis A and B vaccines, is available (for adults 18 years of age and older)
† cytosine phosphoguanine (CpG) 1018 adjuvant
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Hepatitis B Vaccine Dosing Schedules for Adults*

Engerix-B, 20 mcg (1 mL) / dose

Dose	When
1st	—
2nd	At least 28 days following 1st dose
3rd	6 months after the 1st dose

Recombivax HB, 10 mcg (1 mL) / dose

Dose	When
1st	—
2nd	At least 28 days following 1st dose
3rd	6 months after the 1st dose

PreHevbrio, 10 mcg (1 mL) / dose

Dose	When
1st	—
2nd	At least 28 days following 1st dose
3rd	6 months after the 1st dose

Heplisav-B, 20 mcg (0.5 mL) / dose

Dose	When
1st	—
2nd	At least 28 days following 1st dose

Heplisav-B achieved adequate antibody protection in 90 to 100% of subjects compared to 70.5 to 90.2% with Engerix-B

*Dialysis patients may require a higher dose and an extra dose based upon prescriber's guidance
Please refer to the individual prescribing information at https://dailymed.nlm.nih.gov/dailymed/
Schillie S et al. Recommendations of the Advisory Committee on Immunization Practices for use of a hepatitis B vaccine with a novel adjuvant. MMWR. 2018; 67(15):455-458.
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Hepatitis B Vaccine Adverse Effects

Mild/Local

- Pain, swelling or redness at injection site
- Fever
- Headache

Severe/Systemic (very rare)

- Hives, swelling of the face and throat, difficulty breathing, tachycardia, dizziness, weakness
- Guillain-Barré Syndrome, chronic fatigue syndrome, neurologic disorders, rheumatoid arthritis, Type 1 diabetes, autoimmune disease

CDC: Centers for Disease Control and Prevention
https://www.cdc.gov/pinkbook/hcp/table-of-contents/
Schillie S et al. Recommendations of the Advisory Committee on Immunization Practices for use of a hepatitis B vaccine with a novel adjuvant. MMWR. 2018; 67(15):455-458.
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Mumps, Measles, Rubella (MMR)

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Measles, Mumps and Rubella (MMR) – Complications

Measles (Rubeola)	Mumps	Rubella (German Measles)
• Ear infections • Diarrhea • Pneumonia • Encephalitis • Neurological damage • Seizures	• Pain and swelling of the testes, ovaries, or breast tissue • Deafness • Pancreatitis • Meningitis • Encephalitis	• Joint pain (mostly in women) • Encephalitis • Increased risk of bleeding or bruising • Miscarriage or birth defects • Pain and swelling of the testes **(rare)** • Nerve inflammation **(rare)**

https://www.cdc.gov/measles/
https://www.cdc.gov/mumps/
https://www.cdc.gov/rubella/
https://www.cdc.gov/pinkbook/hcp/table-of-contents/

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Ensuring Evidence of Immunity to Measles for Health Care Personnel

Documentation of vaccination with 2 doses of measles virus-containing vaccine	Laboratory evidence of immunity (e.g., measles immunoglobulin G)	History of laboratory-confirmed measles	Born before 1957

During an outbreak, all health care personnel should receive 2 doses of measles virus-containing vaccine regardless of year of birth

https://www.cdc.gov/infection-control/hcp/measles/

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MMR Vaccine Live* (M-M-R II) Dosing, Storage and Administration Recommendations

- Does NOT contain a preservative
- A live virus vaccine that must be protected from light and stored between -58°F and +46°F (-50°C to +8°C) until ready to reconstitute
  - Do NOT freeze the diluent
- After reconstituting, gently agitate to mix thoroughly
  - Discard reconstituted vaccine if not protected from light, not refrigerated, not fully dissolved, or not used within 8 hours after reconstitution
- Administer 0.5 mL subcutaneously in the outer aspect of the upper arm or the anterolateral thigh
  - Should be given 1 month before or after administration of any other live virus vaccines

MMR VACCINE DOSING SCHEDULE

Dose	When
1st	12 to 15 months of age
2nd	4 to 6 years of age (or at least 28 days following 1st dose)

Two doses are 97% and 88% effective at preventing measles and mumps respectively

*Proquad, a combination measles, mumps, rubella, and varicella (MMRV) vaccine is also available (for children 12 months to 12 years of age)
Please refer to the individual prescribing information at https://dailymed.nlm.nih.gov/dailymed/.
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MMR Vaccine Live* Adverse Effects

Mild	Moderate	Severe (very rare)
• Fever • Injection site pain • Mild rash • Swelling of glands in the cheek or neck	• Seizures • Temporary joint pain/ stiffness • Pneumonia • Increased risk of bleeding or bruising • Full body rash	• Anaphylaxis • Deafness • Coma • Permanent brain damage

*Proquad, a combination measles, mumps, rubella, and varicella (MMRV) vaccine is associated with a greater risk of fever, rash, and seizure
CDC. MMR vaccine – What you need to know. Vaccine Information Sheet. 2021 Aug.
https://www.cdc.gov/pinkbook/hcp/table-of-contents/

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Varicella

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Varicella (Chickenpox)

Caused by the varicella zoster virus, which causes fever and an itchy rash

Highly contagious and spread by touching or breathing in the virus particles from the chickenpox blisters

Symptoms typically involve blister-like lesions, covering the body, but usually more concentrated on the face and trunk

Fever and malaise often appear just before or when the rash appears in adults

A person with chickenpox is contagious 1 to 2 days before the rash appears and until no new lesions have appeared in the past 24 hours and all blisters have formed scabs

It takes 10 to 21 days after exposure for someone to develop chickenpox

https://www.cdc.gov/chickenpox/
https://www.cdc.gov/pinkbook/hcp/table-of-contents/

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Varicella (Chickenpox)

Before the Vaccine	After the Vaccine
• About 4 million cases annually – Mostly children • More than 10,000 hospitalizations each year • Up to 150 deaths each year	• Less than 150,000 cases annually • About 1,400 hospitalizations each year • Fewer than 30 deaths per year

Two doses of vaccine are 92% effective at preventing any form of varicella

https://www.cdc.gov/chickenpox/images/vaccine-infographic-lg.jpg
https://www.cdc.gov/vaccines/vpd/varicella/hcp/about-vaccine.html

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Serious Complications of Varicella

- **Scarring and skin and soft tissue infections**
- **Pneumonia** (usually viral)
- **Bleeding problems and bloodstream infections**
- **Inflammation of the brain** (e.g., loss of coordination)
- **Dehydration**

https://www.cdc.gov/chickenpox/
https://www.cdc.gov/pinkbook/hcp/table-of-contents/

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Varicella Virus Vaccine Live* (Varivax) Dosing, Storage, and Administration Recommendations

- Does NOT contain a preservative
- A live virus vaccine that must be protected from light and stored between -58ºF and +5ºF (-50ºC to -15ºC) until ready to reconstitute
  - May store vaccine between 36ºF and 46ºF (2ºC to 8ºC) for up to 72 hours prior to reconstitution. Administer within 30 minutes of reconstitution.
  - Store diluent at room temperature or refrigerate prior to mixing
- Administer 0.5 mL subcutaneously in the outer aspect of the upper arm or the anterolateral thigh
- Should be given 1 month before or after administration of any other live virus vaccines

VARICELLA VACCINE DOSING SCHEDULE

Dose	When
1st	12 to 15 months of age
2nd	4 to 6 years of age May give earlier but at least 3 months after the 1st dose

*Proquad, a combination measles, mumps, rubella, and varicella (MMRV) vaccine is also available (for children 12 months to 12 years of age)
https://www.cdc.gov/vaccines/vpd/varicella/public/index.html
Please refer to the individual prescribing information at https://dailymed.nlm.nih.gov/dailymed/.

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Who Should Not Receive Varicella Vaccine?

- Have a history of anaphylactic or severe allergic reaction to gelatin, neomycin, or any other vaccine component
- Immunodeficient including history or primary or acquired immunodeficiency (e.g., HIV, leukemia, lymphomas, blood dyscrasia)
- Immunosuppressed/ receiving high-dose corticosteroid (e.g., prednisone 20 mg or more)
- Have active, untreated tuberculosis
- Have any febrile illness
- Had a blood transfusion or immune globulin therapy in the past 11 months
- Is or may be pregnant

https://www.cdc.gov/vaccines/vpd/varicella/hcp/recommendations.html
Please refer to the individual prescribing information at https://dailymed.nlm.nih.gov/dailymed/.

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Varicella Virus Vaccine Live* Adverse Effects

Mild	Moderate	Severe (rare)
• Soreness or swelling at injection site (up to 1 in 4 persons) • Fever (10-15%) • Mild rash, up to a month after vaccination (up to 6%)	Seizures caused by fever	• Pneumonia • Infection of the brain/spinal cord

*Proquad, a combination measles, mumps, rubella, and varicella (MMRV) vaccine is associated with a greater risk of fever, rash, and seizure
CDC. Chickenpox (Varicella) Vaccine: What you need to know. Vaccine Information Sheet. 2021 Aug.
https://www.cdc.gov/pinkbook/hcp/table-of-contents/
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Rules and Regulations

F883 – Influenza and Pneumococcal Immunizations

Each facility must develop policies and procedures to ensure:

- Education is given to residents or their legal representative about benefits and potential side effects of the immunization(s)
- Influenza immunization is offered October 1 through March 31 annually, AND pneumococcal immunization is offered, unless the immunization is medically contraindicated, or the resident has already been immunized
- Residents or their legal representative have the opportunity to refuse immunization

- May use standing orders for vaccination (if allowed by state and local law)
- Must document that education was provided and whether immunizations were received or refused or medically contraindicated
- Self-reporting of immunization is ONLY permitted for influenza vaccine and PPSV23

PPSV23: 23-valent pneumococcal polysaccharide vaccine
Centers for Medicare and Medicaid Services. State operations manual. Appendix PP: Guidance to surveyors for long term care facilities, F883/683.80 influenza and pneumococcal immunizations. 2024.

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F883 – Influenza and Pneumococcal Immunizations: General Guidance

- Vaccinations and facility policies should be in accordance with national (e.g., ACIP) recommendations
- When a "precaution" exists that might delay vaccination, the benefits and risks of vaccination should be discussed with the resident (or resident representative) and the vaccine may still be administered if the benefit outweighs the risk, consent is obtained, and the physician approves
- Per CDC guidance, influenza vaccine should be administered annually when it becomes available to the facility
- Residents should receive pneumococcal vaccinations based upon CDC recommendations

ACIP: Advisory Committee on Immunization Practices; CDC: Centers for Disease Control and Prevention
Centers for Medicare and Medicaid Services. State operations manual. Appendix PP: Guidance to surveyors for long term care facilities, F883/683.80 influenza and pneumococcal immunizations. 2024.

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F883 – Influenza and Pneumococcal Immunizations: Addressing the Possibility of a National Shortage

Demonstrate vaccine was ordered and confirmation was received indicating it has shipped or will be shipped when supply is available ▶ Plans are developed on how and when the vaccines are to be administered when available ▶ Residents were screened to determine how many and who are eligible and wish to receive the vaccine ▶ Education regarding immunizations has been implemented

Centers for Medicare and Medicaid Services. State operations manual. Appendix PP: Guidance to surveyors for long term care facilities, F883/683.80 influenza and pneumococcal immunizations. 2024.

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Federal Law: Vaccine Information Statements (VIS)

VIS provide information to properly inform the adult vaccine recipient or the minor child's parent or legal representative about the benefits and risks of each vaccine

Federal law requires that health care personnel provide VIS prior to administration of all the vaccines in the table to the right

Available for free at: https://www.cdc.gov/vaccines/hcp/vis/current-vis.html

May provide a paper copy, a permanent laminated copy, or on a computer monitor, video display, or other digital device

REQUIRE VIS DISTRIBUTION

- Diphtheria
- Tetanus
- Pertussis
- Measles
- Mumps
- Rubella
- Polio
- Rotavirus
- Hepatitis A
- Hepatitis B
- *Haemophilus influenzae* type b
- Influenza (inactivated or live)
- Pneumococcal conjugate
- Meningococcal
- Human Papillomavirus
- Varicella

Although not required by law, VIS are available and recommended for COVID-19 vaccines, pneumococcal polysaccharide vaccine, respiratory syncytial virus vaccines, zoster (shingles) vaccines, etc.

VIS: vaccine information statements
https://www.cdc.gov/vaccines/hcp/vis/about/facts-vis.html

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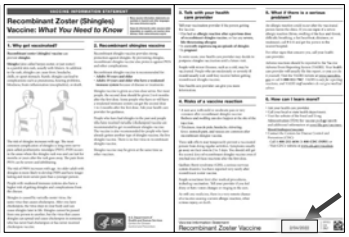
Vaccine Information Statements

1. Give/display a copy of most current VIS prior to any vaccination
2. Give time to read the VIS and ask any questions
3. Record in the chart the date the VIS was given
4. Record in the chart the date of the VIS given (see bottom of VIS)


Vaccine Information Statement
Recombinant Zoster (Shingles) Vaccine: *What You Need to Know*

VIS: vaccine information statements
https://www.cdc.gov/vaccines/hcp/vis/about/facts-vis.html
https://www.cdc.gov/vaccines/hcp/vis/current-vis.html

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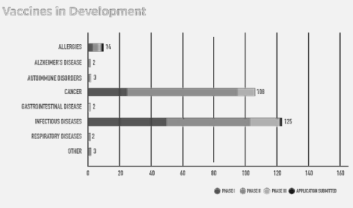
New Vaccine Development and Research

Specific examples

- HIV infection
- Non-small cell lung cancer
- Alzheimer's disease
- Group B Streptococcus
- Malaria
- Norovirus
- Tuberculosis
- Universal influenza vaccine



https://phrma.org/report/medicines-in-development-for-vaccines-2020-report
https://www.who.int/teams/immunization-vaccines-and-biologicals/diseases

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Understanding Other Vaccine Ingredients

TYPE OF INGREDIENT	EXAMPLES OF INGREDIENTS	PURPOSE	EXAMPLES OF VACCINES
Preservatives	Thimerosal (only in MDV)	Prevent contamination	Influenza MDV
Adjuvants	Aluminum salts, MF-59	Help boost the body's response to vaccines	Fluad, PCV15, PCV20, Shingrix, Tdap
Stabilizers	Sugars, gelatin, MSG	Protect vaccine potency during transportation and storage	FluMist, M-M-R II, Varivax
Residual Cell Culture Materials	Egg protein	Grow enough of the virus or bacteria to make a vaccine	All Influenza vaccines except Flublok and Flucelvax, Recombivax HB
Residual Inactivating Ingredients	Formaldehyde	Kill viruses or inactivate toxins during the manufacturing process	Td, Tdap
Residual Antibiotics	Neomycin, Polymyxin B, Gentamicin	Prevent bacterial contamination during the manufacturing process	Afluria, Fluad, Fluarix, FluMist, M-M-R II

MDV: multiple-dose vials; MSG: monosodium glutamate
http://www.cdc.gov/vaccines/vac-gen/additives.htm
http://www.fda.gov/BiologicsBloodVaccines/SafetyAvailability/VaccineSafety/ucm038210.htm
https://www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/b/excipient-table-2.pdf
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Opioid Conversion in Older Adults with Pain

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1

Introduction

- **Pain prevalence with older adults**
- **Opioid use with older adults**
- **Opioid conversions**
- **Opioid history**
- **Opioid pharmacokinetics**
- **Opioid allergies**
- **Reviewing the literature**

2

Pain prevalence among older adults

- Pain prevalence among older adults estimates are 25% to 50% of community-dwelling elderly experience chronic pain.
- In long-term care settings, up to 85% of residents may have at least one pain-associated problem.
- Pain affects approximately 100 million American adults each year, resulting in a national cost of $635 billion annually.
- There is broad recognition that painful conditions warrant treatment, yet specific treatment protocols remain inconsistent across the medical community

3

Opioid use among older adults with chronic pain

- Management of chronic pain first with nonpharmacologic therapy and nonopioid pharmacologic therapy before initiating opioids.
- Nonopioid pharmacologic therapy may include antidepressants, antiarrhythmics, anticonvulsants, tranquilizers, and regional anesthesia.
- It is recommended that opioids be prescribed at the lowest effective dose, which is approximately **25% to 50%** of the adult recommended starting dose, and then slowly titrated to minimize adverse effects for patients **older than age 70 years.**
- The dosage should be reassessed 1 to 4 weeks after initiation or dose escalation. Immediate-release formulations of opioids should be initiated before extended-release or long-acting opioids are attempted.

4

Start low, Go Slow

- Lower doses (25%-50% of typical doses for younger adults) and gradually titrating based on efficacy and tolerability since older adults experience altered pharmacokinetics.
- The **American College of Surgeons Best Practices Guidelines for Acute Pain Management in Trauma Patients (2020)** recommends a decrease in the initial dose of an opioid **by 25% in 60-year-old** patients, and by **50% for 80-year-old** patients.

TABLE 1. Recommended Equivalent Starting Doses of Opioids for Elderly Patients

Opioid	Dose (mg)	Frequency
Tramadol	50	Every 4-6 h
Morphine	7.5	Every 4-6 h
Codeine	50	Every 4-6 h
Hydrocodone	5	Every 4-6 h
Hydromorphone	1-2	Every 4-6 h
Oxycodone	5	Every 4-6 h
Fentanyl transdermal	Not recommended for opioid-naive patients	
Methadone	Not recommended for opioid-naive patients	
Buprenorphine	5-μg/h patch changed every 7 d	
• Long-acting opioid formulations should be avoided in opioid-naive patients		
• Codeine is not recommended due to poor metabolism to morphine in a high percentage of the population		

5

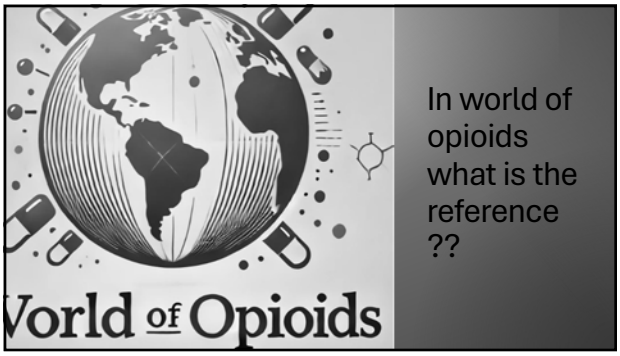
Co-prescribing of opioids with CNS-active medications

- Co-prescribing of opioids with CNS-active medications is increasing among older adults in the US. Co- prescribing of opioids and opioid potentiators, such as benzodiazepines, Z-drugs and gabapentinoids, among US adults ≥65 years increased from 29.6 per 1,000 people in 2007-2008 to 35.8 per 1,000 people in 2017-2018.
- Veterans Health Administration population found that 77% of veterans who received chronic opioid therapy also received psychotropics.
- Concurrent use with **≥2 CNS-active medications** increased the likelihood of **falls/fractures by 18% and ER visits by 21%**

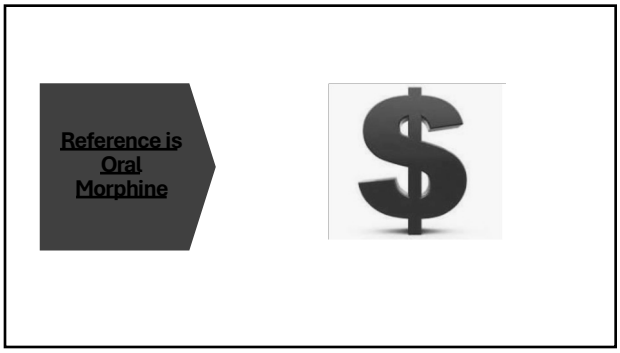
6


Any one Travel abroad ?
What's your currency reference to assess how expensive cheap or affordable anything is ?

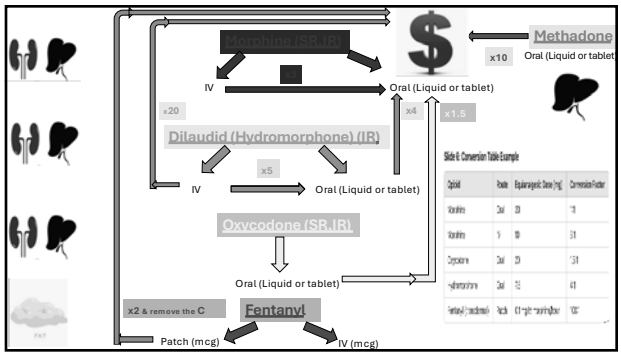
7


In world of opioids what is the reference ??
Vorld of Opioids

8


Reference is Oral Morphine

9



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Slide 6: Conversion Table Example

Opioid	Route	Equianalgesic Dose (mg)	Conversion Factor
Morphine	Oral	30	1:1
Morphine	IV	10	3:1
Oxycodone	Oral	20	1.5:1
Hydromorphone	Oral	7.5	4:1
Fentanyl (transdermal)	Patch	0.1 mg IV morphine/hour	100:1

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Morphine

- **IV Morphine is 3 times stronger than oral morphine**
- **Example 2 mg IV morphine is equivalent to 6 mg oral morphine**
- **My** Mnemonics is ..... ☺ M for mother which represents trinity in Christianity, so that is how I always remember it is a 3:1 ratio.
- **There are 2 forms of morphine SR (Sustained release) and IR (immediate release).**

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History of Morphine

1. Discovery and Early Use

- **Origins**: Morphine is derived from the opium poppy (**Papaver somniferum**), a plant that has been used for medicinal purposes for thousands of years. The use of opium, the raw extract from poppy plants, dates back to **ancient civilizations**.

- **Isolation of Morphine**:

- First **isolated** in **1804** by a German pharmacist, **Friedrich Sertürner**. He named the compound after **Morpheus**, the Greek god of dreams, due to its ability to induce sleep and relieve pain.

- **Widespread Medical Use**:

- By **1817**, Sertürner had published his findings, and morphine began to be used widely for pain relief, particularly in Europe.

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History of Morphine

2. Morphine in the 19th Century

- **Commercial Production**:

- In **1827**, the German pharmaceutical company **Merck** began the commercial production of morphine. It became a cornerstone of pain management and was used extensively for treating soldiers' injuries during conflicts like the **American Civil War** (1861–1865)

- **Introduction of the Hypodermic Needle**:

- Hypodermic **needle** in the **1850s** revolutionized the use of morphine. Doctors could now inject morphine directly into the bloodstream, providing faster and more effective pain relief.

- **"Soldier's Disease"**: By the end of the American Civil War, many soldiers who had been treated with morphine for their injuries became addicted.

14

Dilaudid (Hydromorphone)

- **IV Diladud is 5 times stronger than oral Dilaudid**
- **Example 1 mg IV Dilaudid is equivalent to 5 mg oral morphine**
- **My** Mnemonics is ..... ☺the other name of Dilaudid is hydromorphone and H for high five, so that is how I always remember it is a 5:1 ratio.
- **There is no extended or sustained release Dilaudid so it is a short acting IR (immediate release) medication for breakthrough pain.**

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History of Dilaudid

1. Origins and Early Development (1920s)

- **Discovery**: Hydromorphone first synthesized in **1924** by Knoll, a German pharmaceutical company. It was derived from **morphine**.
- **Commercial Introduction**: In **1926**, the drug was introduced under the brand name **Dilaudid**, which is derived from "di-hydromorphinone." Its name reflects its chemical relationship to morphine, and it quickly became a popular pain-relief medication in Europe and the U.S.

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Oxycodone

- **Oral Oxycodone is 1.5 times stronger than oral morphine**
- **Example 10 mg Oxycodone is equivalent to 15 mg of oral morphine**
- **No** Mnemonics ⊗
- **There are 2 forms of oxycodone SR (Sustained release) and IR (immediate release).**

17

History of Oxycodone

1. Early Development (Early 1900s)

Origins: Oxycodone was first developed in **1916** in Germany. Chemists Martin Freund and Edmund Speyer at the University of Frankfurt.

Purpose: Goal was to create a less addictive and more effective alternative to **morphine** and **heroin**.

2. Adoption in the U.S. (1930s-1950s)

Introduction in the U.S.: Oxycodone entered U.S. market in **1930s**, initially in combination with other drugs such as **aspirin** or **acetaminophen**. One common brand at the time was **Percodan** (oxycodone combined with aspirin).

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History of Oxodone

3. OxyContin and the Opioid Epidemic (1990s-Present)

OxyContin:

- In **1996**, Purdue Pharma introduced **OxyContin**, a time-released formulation of oxycodone. OxyContin was promoted as being less addictive because of its slow-release mechanism.

Rise in Prescriptions:

- Throughout late 1990s and early 2000s, prescriptions for OxyContin soared. The medical community shifted toward more liberal opioid prescribing for chronic pain, and OxyContin was seen as a safer option.

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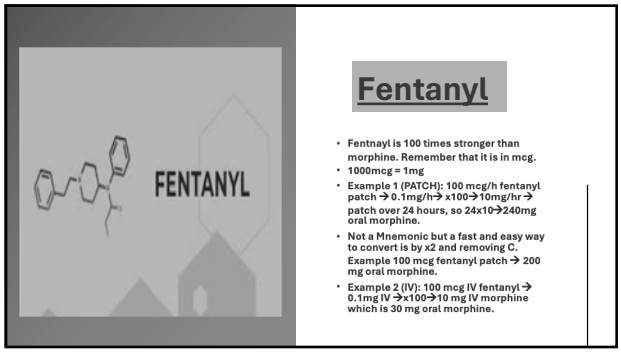

Fentanyl

- Fentnayl is 100 times stronger than morphine. Remember that it is in mcg.
- 1000mcg = 1mg
- Example 1 (PATCH): 100 mcg/h fentanyl patch → 0.1mg/h→ x100→10mg/hr → patch over 24 hours, so 24x10→240mg oral morphine.
- Not a Mnemonic but a fast and easy way to convert is by x2 and removing C. Example 100 mcg fentanyl patch → 200 mg oral morphine.
- Example 2 (IV): 100 mcg IV fentanyl → 0.1mg IV →x100→10 mg IV morphine which is 30 mg oral morphine.

21

History of Fentnayl

1. Development and Early Use (1960s)

- **Discovery**: Fentanyl was first synthesized in **1960** by **Dr. Paul Janssen**, the founder of Janssen Pharmaceutica, a Belgian pharmaceutical company.
- **Medical Use**: By modifying the molecular structure of certain synthetic opioids, Janssen created fentanyl, a drug **100 times more potent than morphine**. Fentanyl was initially used for pain management, particularly in surgical settings, where its rapid onset and powerful effects were ideal for anesthesia.

22

History of Fentnayl

2. Commercialization and Medical Applications (1970s-1990s)

- **Anesthetic Use**: Fentanyl became widely adopted as a surgical anesthetic under the brand name **Sublimaze**.
- **Introduction of Duragesic Patch**: In **1990**, Janssen introduced the **Duragesic patch**, a transdermal system that slowly releases fentanyl over time for patients suffering from chronic pain.
- **Lozenges and Lollipops**: Fentanyl lollipop approved for severe, breakthrough cancer pain in the 1990s. These innovations expanded fentanyl's use beyond surgery, making it an important tool in palliative care.

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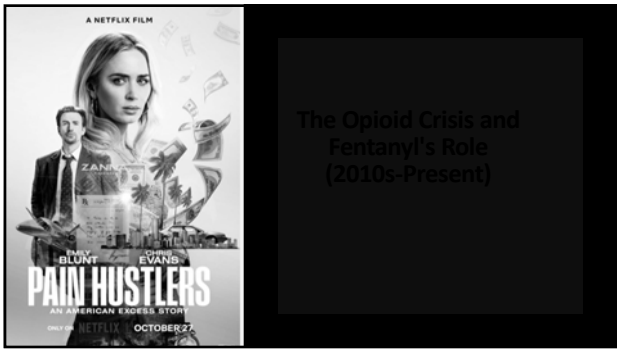

The Opioid Crisis and Fentanyl's Role (2010s-Present)

24

Methadone

- Methadone conversion to morphine is challenging due to methadone's non-linear pharmacokinetics and the fact that its potency increases with higher doses.

Variable Potency:

- Methadone is estimated to be **approximately 3 to 10 times more potent** than oral morphine when given orally, depending on the dose.

Daily oral morphine equivalent	*Conversion ratio of oral morphine: oral methadone*
<100 mg	3:1
100–300 mg	5:1
301–600 mg	10:1
601–800 mg	12:1
801–1000 mg	15:1
Over 1000 mg	20:1[a]

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History of Methadone

1. Origins and Development

- **World War II**:
  - Methadone was first synthesized in **Germany** in the late 1930s. During **World War II**, due to shortages of morphine and other opioids, German scientists, led by chemists **Max Bockmühl** and **Gustav Ehrhart** at the pharmaceutical company **IG Farben**, developed a synthetic opioid to serve as an alternative painkiller.
- **Introduction to the United States**:
  - After the war, the formula for methadone was brought to the United States as part of post-war reparations.
  - In 1947, the drug was introduced in the U.S. under the name **Dolophine** (a name that some believe was derived from the Latin word "dolor," meaning pain).

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History of Methadone

- **Opioid Addiction Crisis**:
  - By the 1960s, the U.S. was facing a growing heroin addiction crisis. During this time, methadone was explored as a potential treatment for heroin dependency.
- **Pioneering Research**: **Drs. Vincent Dole** and **Marie Nyswander** at **Rockefeller University** in New York were among the first to advocate for methadone as a treatment for heroin addiction. This discovery led to the establishment of methadone **maintenance therapy** (MMT) in the mid-1960s.
- **Widespread Adoption**: Methadone maintenance programs (MMT) began to proliferate in the late 1960s and early 1970s.

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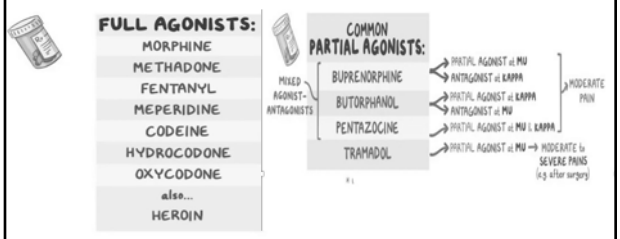
Full Agonist versus Partial Agonist



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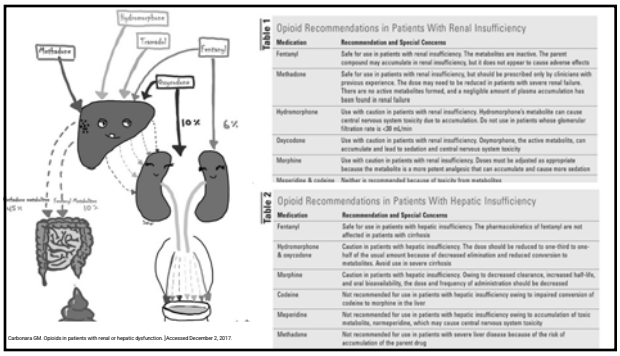

Carbonaro GM. Opioids in patients with renal or hepatic dysfunction. |Accessed December 2, 2017.

Table 1 Opioid Recommendations in Patients With Renal Insufficiency

Medication	Recommendation and Special Concerns
Fentanyl	Safe for use in patients with renal insufficiency. The metabolites are inactive. The parent compound may accumulate in renal insufficiency, but it does not appear to cause adverse effects
Methadone	Safe for use in patients with renal insufficiency, but should be prescribed only by clinicians with previous experience. The dose may need to be reduced in patients with severe renal failure. There are no active metabolites formed, and a negligible amount of plasma accumulation has been found in renal failure
Hydromorphone	Use with caution in patients with renal insufficiency. Hydromorphone's metabolite can cause central nervous system toxicity due to accumulation. Do not use in patients whose glomerular filtration rate is <30 mL/min
Oxycodone	Use with caution in patients with renal insufficiency. Oxymorphone, the active metabolite, can accumulate and lead to sedation and central nervous system toxicity
Morphine	Use with caution in patients with renal insufficiency. Doses must be adjusted as appropriate because the metabolite is a more potent analgesic that can accumulate and cause more sedation
Meperidine & codeine	Neither is recommended because of toxicity from metabolites

Table 2 Opioid Recommendations in Patients With Hepatic Insufficiency

Medication	Recommendation and Special Concerns
Fentanyl	Safe for use in patients with hepatic insufficiency. The pharmacokinetics of fentanyl are not affected in patients with cirrhosis
Hydromorphone & oxycodone	Caution in patients with hepatic insufficiency. The dose should be reduced to one-third to one-half of the usual amount because of decreased elimination and reduced conversion to metabolites. Avoid use in severe cirrhosis
Morphine	Caution in patients with hepatic insufficiency. Owing to decreased clearance, increased half-life, and oral bioavailability, the dose and frequency of administration should be decreased
Codeine	Not recommended for use in patients with hepatic insufficiency owing to impaired conversion of codeine to morphine in the liver
Meperidine	Not recommended for use in patients with hepatic insufficiency owing to accumulation of toxic metabolite, normeperidine, which may cause central nervous system toxicity
Methadone	Not recommended for use in patients with severe liver disease because of the risk of accumulation of the parent drug

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Q.1

Max is a 72-year-old man with hyperparathyroidism, renal failure, and severe osteoporosis. He has been receiving long-term opioid therapy with oxycodone at 10 mg taken orally every 8 hours around the clock for hip pain following fracture and surgery. His creatinine level increased from 1.2 mg/dl to 2.4 mg/dl in 1 week. His daughter reports that he has been very drowsy and irritable recently. His pain control has also been poor. What is the best possible opioid to switch to?

A. Morphine
B. Hydromorphone
C. Codeine
D. Methadone

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ALLERGIES

- **Morphine**, codeine, hydrocodone, **Hydromorphone, Oxycodone**, and belong to a class of opioids called **Phenanthrenes.**
- **Fentanyl** belong to a class of opioids called **Phenylpiperidines .**
- **Methadone** belong to a class of opioids called **Phenylheptylamines**.

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Q.2

- Mr. K is a 68-year-old man with lung cancer and metastasis to the spine. He is currently receiving chemotherapy. He had an allergic reaction to morphine in the past that included rash, hives, itching, and some swelling of his tongue. He has back pain that is not resolved by taking ibuprofen. His oncologist has recommended that acetaminophen not be used on a regular basis. What would you recommend for managing his severe pain from bone metastasis?

A. Morphine

B. Codeine

C. Oxycodone

D. Fentanyl

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LETS REVIEW THE LITERATURE

SHOULD WE TREAT PAIN IN THE ELDERLY PALLIATIVE CARE CANCER PATIENTS DIFFERENTLY?

Methods

- **Study Design**: Prospective observational study conducted in a hospice in Rijeka, Croatia.
- **Population**: The study included 137 patients, aged over 18 years, with a life expectancy of less than three months. Patients were divided by age, using 65 years as the cutoff for "elderly."
- **Exclusion Criteria**: Delirium, inability to consent, or cognitive impairments that precluded accurate pain assessment.
- **Evaluation Tools**: Assessment utilized the European Organization for Research and Treatment of Cancer Quality of Life Questionnaire Core 15 Palliative (EORTC QLQ-C15-PAL) and the Edmonton Symptom Assessment System (ESAS).
- **Analgesic Use**: Doses of opioids were converted to mg/day of oral morphine equivalent (OME) for standardized comparison.

Results

- **Demographics**: The mean age of participants was 71.8 years, with the most common cancer types being lung, gastrointestinal, and hepatobiliary cancers.
- **Pain Scores**: Younger patients exhibited significantly higher pain scores than older patients (5.34 vs. 3.91, p=0.01).
- **Analgesic Use**:
  - Older patients used opioids less frequently (68.8% vs. 85.7% in younger patients) and at lower doses (mean of 90.42 mg OME vs. 135.19 mg OME on admission).
  - By the last week of care, older patients had a mean daily dose of 109.95 mg OME compared to 165.61 mg for younger patients (p=0.03).
  - Notably, older patients used non-steroidal anti-inflammatory drugs (NSAIDs) less frequently, while the use of paracetamol was more common.
- **Survival Rates**: No significant differences in survival between the age groups were found (37.36 days for younger patients vs. 37.58 days for older patients).

Conclusion

- The findings suggest that elderly cancer patients in palliative care utilize lower doses of opioids and different analgesics without resulting in higher pain levels or shortened survival.
- This indicates that a strategy of starting at lower doses and cautiously titrating opioids may be beneficial, reinforcing the principle of 'start low, go slow'

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LETS REVIEW THE LITERATURE

JKMS

Effect of Opioids on All-cause Mortality and Sustained Opioid Use in Elderly Patients with Hip Fracture: a Korea Nationwide Cohort Study

Methods

- A retrospective observational cohort study was conducted involving patients from the Korean National Health Insurance Service-Senior cohort.
- The study included patients aged 65 years and older with acute hip fractures from 2002 to 2015.
- Patients were categorized into past opioid users, current users, and those who sustained use (opioids used 3-12 months after fracture).
- Generalized estimating equations and multivariable-adjusted Cox proportional hazards models were employed to analyze the outcomes, measuring adjusted rate ratios (aRR) and hazard ratios (HR) for mortality.

Results

- The cohort comprised 12,927 patients with a mean age of 77 years; 57.22% were past opioid users, while 88.75% reported current use post-fracture.
- No significant difference in mortality rates was observed between current and non-current users of opioids across all measured time frames (30 days to 1 year).
- Among survivors, past opioid use increased the likelihood of sustained opioid usage by 1.52 times (aRR: 1.52; 95% CI: 1.45–1.58; P < 0.001).
- The shift in opioid use saw a rapid initial increase following fracture, followed by a decline at three months post-injury.

Conclusion

- Both current and past opioid use did not correlate with increased all-cause mortality in the elderly population following hip fractures.
- The study indicates that prior opioid use substantially raises the risk of continued opioid consumption post-fracture.
- These findings emphasize the necessity of careful monitoring and management strategies for opioid use within this demographic.

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LETS REVIEW THE LITERATURE

Research article

The association between initial opioid type and long-term opioid use after hip fracture surgery in elderly opioid-naive patients

Methods

- A nationwide population-based cohort study was conducted using data from Danish health registries from 2006 to 2015.
- The study included elderly patients aged ≥65 years who had undergone hip fracture surgery and redeemed at least one opioid prescription within three months post-surgery.
- Long-term opioid use was defined as the redemption of one or more opioid prescriptions each within three different three-month periods after surgery.
- The primary outcomes measured included the type of opioid initially redeemed, long-term opioid use rates, and adjustments through logistic regression analyses yielding adjusted odds ratios (aOR) compared with morphine as the reference.

Results

- The study cohort comprised 26,790 opioid-naïve patients, with 21% of subjects dying within nine months of surgery.
- Among 21,205 patients who survived, 15% transitioned to long-term opioid use.
- Significant findings indicated that certain opioid types are linked to an increased likelihood of long-term use when compared to morphine:
  - Oxycodone: 14% (aOR 1.76, 95% CI 1.52–2.03)
  - Fentanyl: 29% (aOR 4.37, 95% CI 3.12–6.12)
  - Codeine: 13% (aOR 1.55, 95% CI 1.14–2.09)
  - Tramadol: 13% (aOR 1.96, 95% CI 1.39–1.80)
  - Buprenorphine: 33% (aOR 5.27, 95% CI 4.14–6.94)
  - More than one opioid type: 27% (aOR 3.83, 95% CI 3.31–4.44)
- A noted decrease in the proportion of long-term opioid users was observed from 18% before 2010 to 13% thereafter.

Conclusion

- The study's findings indicate that certain opioids, especially buprenorphine and fentanyl, are associated with a greater risk of long-term use compared to morphine following hip fracture surgery.
- Healthcare providers should consider these associations when prescribing opioids to elderly postoperative patients, emphasizing careful selection based on potential long-term consequences.
- Additionally, the decreased initiation of long-term opioid use after 2010 suggests improvements in prescribing practices, indicating a trend towards more conscientious opioid management strategies.

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National Transitions of Care Coalition: Reducing Avoidable Hospital Readmissions

1

SPEAKERS

Jackie Vance, RNC, BSN, CDONA/LTC, FACDONA, IP-BC, ASCOM, CDP, LBBP
Senior Director of Clinical Innovations and Education
Mission Health Communities

Cheri, Lattimer, RN, BSN
Executive Director, National Transitions of Care Coalition (NTOCC)

2

Objectives

- Identify the barriers to ensuring safe transitions between the various levels of care that contribute to avoidable readmissions
- Discuss the traits of building a strong team culture to support quality transitions of care
- Review the key interventions for developing a transition plan and improving communication and risk identification
- Identify the available resources to assist with developing and improving transitions of care and reducing avoidable hospital readmissions

3

- There was an important job to be done, and **Everybody** was sure that **Somebody** would do it.
- **Anybody** could have done it, but **Nobody** did it.…
- *Everybody* blamed **Somebody** when **Nobody** did what **Anybody** could have done.

– Anonymous

The Best Transition is one that never happens

– James E. Lett III, MD, CMD, Past President and Past Transition of Care Committee Chair-AMDA- The Society of Post-Acute and Long-Term Care Medicine

4

Preventing Transitions at the Post-Acute Level

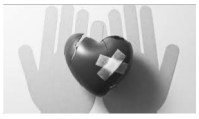
- Why is transition planning essential in the post-acute level?
  - Patients with a SNF stay who we transitioned to acute care (unplanned) were almost twice as likely to experience a patient safety event (PSE) resulting in permanent harm, compared to those who did not have a recent SNF stay
  - Patients with recent SNF stays were 1.9 times more likely to experience a PSE that caused permanent harm while accounting for age, sex, race, and hospital type.
  - Patients with recent SNF stays had an average LOS of 6.6 days; 1.1 days longer than patients without recent SNF stays

BFCC NCORC Annual Preventability Report to CMS - 2023

5

~~Transfer~~ Trauma

- Transfers are common from SNF to hospital however, adverse events and complications upon transitions from SNF to hospital are common too[1]
- Transition from SNF to hospital expose patients to many risks[1], including delirium, undernutrition, serious infections, skin breakdown, and adverse drug reactions[2].



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6

Transitions at the Post-Acute Level

- Studies show that approximately 24–29 percent of patients discharged from SNFs were readmitted within 30 days.[1-3]
- Transitional care of patients being discharged from SNFs present challenges because these patients are older, have multiple health conditions, often experience multiple transitions within a short period, and require continuing healthcare and social support.

1. Weerahandi, H., Bao, H., Herrin, J., Dharmarajan, K., Ross, J. S., Jones, S., & Horwitz, L. I. (2020). Home health care after skilled nursing facility discharge following heart failure hospitalization. *Journal of the American Geriatrics Society, 68*(1), 96–102. https://doi.org/10.1111/jgs.16179.
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7

Silos and Poor Communication

- Many care teams continue to work in a siloed environment rather than integrating the workflow into coordinating care across the continuum of care
- Multidisciplinary teams need improved communication among the team members and their patients and family caregivers

8

Break Down the Barriers

1. System level barriers
2. Practitioner level barriers
3. Patient level barriers

9

System

Universal health information exchange systems designed to facilitate timely transfer of patient information across care settings do not exist

Existing computerized record systems are often incompatible with one another

Financial incentives to promote transitional care, collaboration across sites, and accountability are lacking

E.g., confusing reimbursement for care coordination, health plans have incentives to prescribe or substitute medications according to their own formularies

10

Practitioner

A single clinician rarely provides continuous care for a patient across care settings

Exacerbating the problem, clinicians caring for the same patient in different care settings do not communicate patient information to one another

Clinicians may consult multiple specialists about their patient, with each of these encounters potentially leading to additional tests and medications (or changes in) that may be unnecessary

Care managers and social workers, who once provided longitudinal care oversight across settings, now are predominantly assigned to specific care settings

Older patients with multiple problems may be assigned to more than one care manage

11

Patient/Caregiver

- Patients and caregivers presume that their health care professionals will take care of their needs across the continuum of care
  - and often assume incorrectly that the providers involved in their care are sharing adequate information.
- Older patients and their caregivers are often not adequately informed about their disease process and the next steps in their care so that they are able to optimize the care the patient receives in the next setting
- Patients and caregivers may not feel empowered to express their preferences or provide input to the patient's care plan
- The level of information provided to patients has not escalated proportionately with the complexity of the current medical model
- Differing cultural orientations, expectations, and barriers such as cognitive impairment, limited English fluency, and low literacy may prevent patients and care providers from communicating clearly

12

ACO – REACH Program

- The Accountable Care Organization (ACO) Realizing Equity, Access, and Community Health (REACH) program is a pilot program by CMS that aims to improve the quality of care for Medicare patients
- The Goals are:
  - Improving health equity: ACO REACH requires participating ACOs to have a plan for addressing health disparities in underserved communities
  - Reducing costs: ACO REACH aims to improve health equity while reducing costs.
  - Realigning financial incentives: ACO REACH realigns financial incentives with patient outcomes, rather than volume
  - Empowering primary care physicians: ACO REACH gives primary care physicians more autonomy to deliver care

13

CMS Value Based Care Program

- The 3 Components of Value Based Care
- Quality care:
  - Means that instead of focusing on treating you after you are already ill, healthcare providers focus on preventing disease and detecting conditions in their earliest stages when they are easier and less expensive to treat. (Chronic Care Management)
- Provider performance: our contribution to population health and savings
  - Treating in the nursing facility costs way less than in a hospital. For example, per day, a course of treatment involving peripheral IV fluids, IV antibiotics, oxygen, and nebulizers in the hospital will cost Medicare $10,000 in the hospital and approximately (state dependent) $600/day in the nursing facility
- Patient experience: Better health outcomes, through positive interaction with healthcare system
  - Think about it, will your residents have a better experience going through the triage system at the hospital, staying for hours on a gurney unattended, at a cold clinical environment, or getting the same care in an environment of those who know and care for them in a place they know

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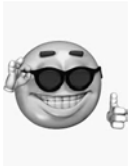
The CMS Incentives

- These incentives give us an opportunity to treat in place, reduce unnecessary transitions and support quality transitions of care



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The Interprofessional Health Care Team

- Patient & Family Caregiver
- Primary Care & Specialist
- APN, PA
- Wellness or Health Coaches
- Lab and Radiology Professionals
- Rehab – PT, OT
- Administrative Staff
- Case Managers
- Community Health Workers
- Dietician
- Pharmacist
- Allied Health
- Hospitalist
- Nurses
- Mental Health
- Social Workers
- Patient Advocates
- Care Coordinator
- EMS Staff

Image by pch.vector on Freepik

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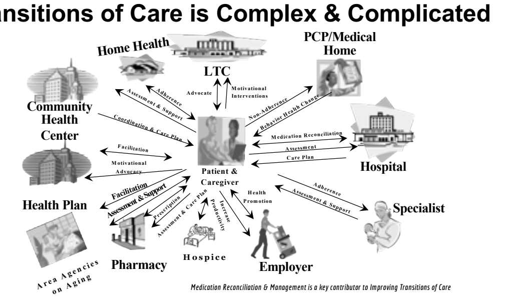
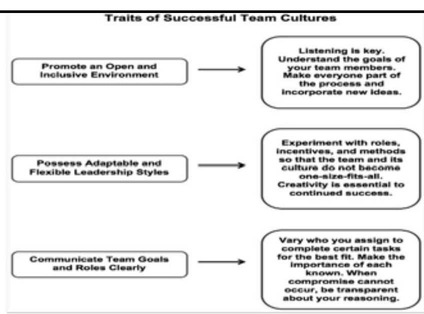
The Playing Field for Care Coordination & Transitions of Care is Complex & Complicated



Medication Reconciliation & Management is a key contributor to Improving Transitions of Care

17



Sources: Harvard Business Review (1993), Jim Taylor, Ph.D. (2016)

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18

How Does Healthcare Define Team Culture?

NIH- Work culture is an organizational management concept that deals with the attitudes, beliefs, and perceptions of employees relative to the institution's principles and practices. In the healthcare setting, work culture determines how medical, nursing, ancillary staff, and other professionals work together to achieve organizational goals, whether they work in clinics, hospitals, health centers, or other health institutions.[1]

AMA - Think of your culture as a set of underlying rules and beliefs that determine how your team interacts with patients and each other. Culture is the way an organization "does business." New team members may gradually absorb the practice's culture without being taught or even noticing, but that process is not ideal. Having defined expectations and ways to achieve them can make all those in the medical practice feel part of the team.[2]

1) https://www.ncbi.nlm.nih.gov/books/NBK542168/
2) https://edhub.ama-assn.org/steps-forward/module/2702515

19

Collaboration is About Building a Team Culture

Collaboration among physicians, pharmacist, nurses, case managers, social workers, allied health supporting staff and community is critical to achieving the goals of the team, the organization and changing the way we deliver healthcare today

http://www.crystalgraphics.com/

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Building the Team for Improving Transitions

Create and develop the team that comes together to really discuss how the roles fit together to ensure a safe and positive transitions

Do not assume any aspect of the process is someone else's responsibility – talk out the process and if needed develop a pathway

Communication is the most important aspect of using a team for delivering a positive outcome

When something isn't working bring it to the team and find the solution together – if unanswered it can lead to a negative current underlying the situation and the team

Don't be afraid to confront each other when there are differences of opinions – the strength of a team is resolving the issue together.

Having a strong care team means everyone steps up to ownership, responsibility and accountability – for a job well done and when things are not going right.

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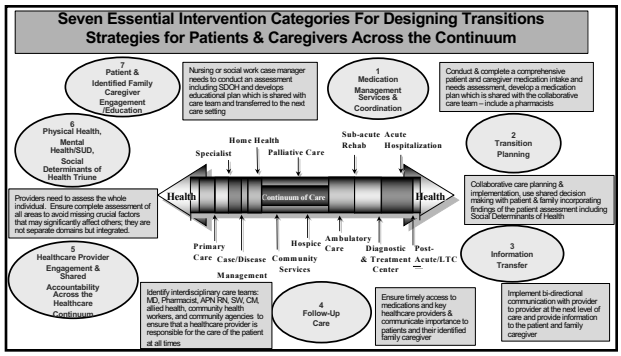

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Medication Management Services & Coordination	The care team members who are most likely involved: Physician (s) – hospitalist, specialists, attending physicians Pharmacists Nurse Case Manager – Social Worker, Nurse Patient Patient identified caregiver Perform a complete medication review – for patients with polypharmacy concerns use your pharmacists Make sure you address access to medications, financial costs, transportation, mobility, mentation. Just talking with the patient and/or their caregiver is not enough to ensure understanding, follow through and adherence At the acute level and post-acute level of care when transition if to home be sure you have a medication management plan and everyone if familiar with it.
Assess patient's medication list and needs Assess Social Determinants of Health (SDOH) Provide the patient and their identified caregiver education and counseling about medications Develop and implement a plan for medication management services as part of the patient's overall plan of care	

23

Transition Planning	Who are the team members ensuring this is done? Physician Pharmacists Nurse Social Worker Case Manager Care Coordinator PT, OT Discharge Planner TOC Coordinator The team contributes to the summary plan who is responsible for review and sending it to the next level of care? Talk with the patient and their family caregiver hear their concerns and check the SDOH assessment. Sending home O2, medical devices, or if there is remote monitoring be sure the family can support the use and management. Don't leave this to chance. Ensure the referral for all equipment is sent and received. Post-acute transitions be sure all the transition instructions are clear and can be implemented at the next level of care. Never assume.
Clearly identify a practitioner (or team depending on setting) to facilitate and coordinate the patients transitions plan Manage patient and their family identified caregivers' transitions needs Use formal transition planning tools Complete the transitions summary send it a timely manner and secure confirmation by the receiving entity Develop and implement a plan for the use of medical devices and remote patient monitoring	

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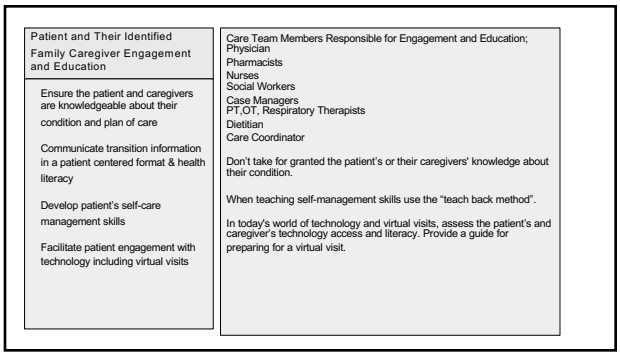
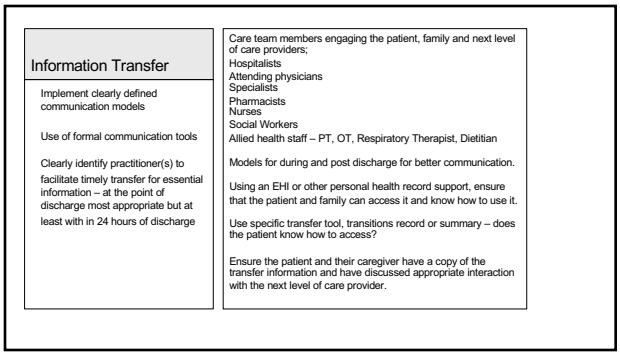
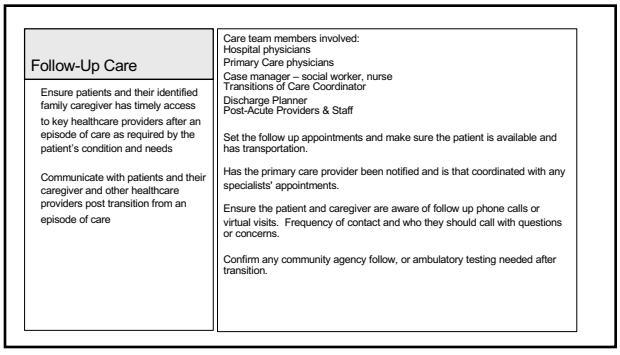

Patient and Their Identified Family Caregiver Engagement and Education
Ensure the patient and caregivers are knowledgeable about their condition and plan of care
Communicate transition information in a patient centered format & health literacy
Develop patient's self-care management skills
Facilitate patient engagement with technology including virtual visits
Care Team Members Responsible for Engagement and Education;
Physician
Pharmacists
Nurses
Social Workers
Case Managers
PT,OT, Respiratory Therapists
Dietitian
Care Coordinator
Don't take for granted the patient's or their caregivers' knowledge about their condition.
When teaching self-management skills use the "teach back method".
In today's world of technology and virtual visits, assess the patient's and caregiver's technology access and literacy. Provide a guide for preparing for a virtual visit.

25


Information Transfer
Implement clearly defined communication models
Use of formal communication tools
Clearly identify practitioner(s) to facilitate timely transfer for essential information – at the point of discharge most appropriate but at least with in 24 hours of discharge
Care team members engaging the patient, family and next level of care providers;
Hospitalists
Attending physicians
Specialists
Pharmacists
Nurses
Social Workers
Allied health staff – PT, OT, Respiratory Therapist, Dietitian
Models for during and post discharge for better communication.
Using an EHI or other personal health record support, ensure that the patient and family can access it and know how to use it.
Use specific transfer tool, transitions record or summary – does the patient know how to access?
Ensure the patient and their caregiver have a copy of the transfer information and have discussed appropriate interaction with the next level of care provider.

26


Follow-Up Care
Ensure patients and their identified family caregiver has timely access to key healthcare providers after an episode of care as required by the patient's condition and needs
Communicate with patients and their caregiver and other healthcare providers post transition from an episode of care
Care team members involved:
Hospital physicians
Primary Care physicians
Case manager – social worker, nurse
Transitions of Care Coordinator
Discharge Planner
Post-Acute Providers & Staff
Set the follow up appointments and make sure the patient is available and has transportation.
Has the primary care provider been notified and is that coordinated with any specialists' appointments.
Ensure the patient and caregiver are aware of follow up phone calls or virtual visits. Frequency of contact and who they should call with questions or concerns.
Confirm any community agency follow, or ambulatory testing needed after transition.

27

Physical Health, Mental Health including Substance Use Disorder, Social Determinants of Health -	Commitment of total care team members;
Ensure complete assessment of physical health, mental health including SUD and Social Determinants of Health (SDOH) to avoid missing crucial factors that may significantly affect the others; they are not separated but integrated. 	Support the whole individual and their identified family caregiver. Ask the patient and their family caregiver about the home and community goals they would like to achieve. Assess health related quality of life; self-care, mobility, usual activities, pain/discomfort, spiritual & cultural issues, anxiety, depression. Consider a discussion with patients and their caregiver using the 4M's Framework; "What Matters", "Medication", "Mentation", and "Mobility", within the Age-Friendly Health System. Communicate the outcome of these discussion to the next level of care. Complete, document and share the patient's preference about their care options including life-care planning directives. Provide periodic reassessment of needs and goals with revision of the interventions as needed.

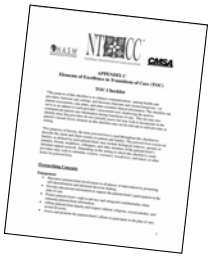
28

Healthcare Provider Engagement & Shared Accountability Across the Healthcare Continuum	This is a commitment of not only the care team, but administration and payers combined;
Ownership, responsibility and accountability for the care of the patient and their identified caregiver at all times Establish the processes that improve transitions and care coordination at each level of care Establish appropriate communication and networks with all levels of care Assume responsibility for the outcomes of the care transition process by care teams at each level of care	Establish the communication processes, roles and interaction between the interdisciplinary care team and with the care teams between the various levels of care within the continuum. Identify and mitigate any gaps in the continuum of care, especially in rural communities. Create checklists for transitions and relevant information needed for the level of care; SNF, Rehab Hospital, home health, physical therapy, palliative or hospice. Monitor and measure the process and outcome metrics of the care provided. Identify barriers to successful transitions and assess hospital and post-acute readmissions to determine key issues where quality improvement interventions may be needed. Prior to any transition, notify the patient's identified family caregiver where and when the patient is being transferred – is the transition safe?

29

The ***checklist*** was developed to enhance communication among health care providers, between care settings (acute care to post-acute care, home, etc.), between clinicians, their patients and identified caregivers.

The checklist is a tool that care teams can utilize to build their specific tool for reinforcing the need to communicate patient care information during a transition of care.



https://static1.squarespace.com/static/5d48b6eb75823b00016db708/t/5d49bcd33b4f89000f154bc/1565113475856/TOC_Checklist.pdf

30

The Concepts of a TOC Checklist

- Engagement
- Collaboration
- Strengths-based Assessment
- Assessment as an on-going process

31

Common Elements for Assessment & Intervention

- Physiological functioning
- Psychosocial functioning
- Cultural factors
- Health literacy and linguistic factors
- Financial factors
- Spiritual and religious factors
- Physical and environmental safety
- Family and community support
- Assessment of Medical issues
- Continuity/Coordination or Care Communication

32

Hand-over all Assessments to the Next Level of Care Provider/Facility

	Continuity/Coordination of Care
Y N	Does the patient/resident have a primary care physician? Send assessment/DC information to the PCP - Date
Y N	Does the patient/resident have a specialty physician, e.g. cardiologists? Send assessment/DC information - Date
Y N	Does the patient/resident have a psychiatrist or other mental health provider? Send the assessment/DC information - Date
Y N	Does the patient/resident have an outpatient case manager or community health worker who should be notified? Send the assessment/DC information - Date
Y N	Ensure all transition services and care (medications, equipment, home care, SNF, Rehab, Hospice) are coordinated and documented – Date verified
Y N	Ensure patient/resident and caregiver understand all the information and have a copy of the care plan, assessment, and DC information with them – Date verified

33

We are working in teams in almost every level of care services – acute, post-acute, ambulatory, palliative, hospice, community – but are we successfully communicating, coordinating care and transitions across the continuum as a team.

To make this work is to see the world of healthcare from a different perspective – we are not running a game by ourselves but running a relay in which each runner knows their job/role and won't let go of the baton until the other runner has it.

A physician once told me "if we truly thought about how we would want our mother or father treated in healthcare we would do so much better".

As you build your collaborative interdisciplinary teams use some of these concepts and together, we can build a better process and provide patients and their family caregivers a safer transition experience.

34

Questions

35

The Latest in PALTC

FMDA
November 1, 2024

Alex Bardakh, MPP, CAE, PLC

1

Disclosure

- The speaker has no relevant disclosures

2

Legislative Outlook – Things are going "swimmingly"?

- Government Shutdown … again
- Election
- Must pass bills
- Foreign Aid
- Omnibus
- Election

3

4

Collective Victory for PALTC

- Collecting information and public reporting of all nursing facility and hospice medical directions starting NOW!

https://paltc.org/policy-priorities-resources

THE SOCIETY FOR POST-ACUTE AND LONG-TERM CARE MEDICINE™

amda

Publicly Disclosing Medical Director Information:
What You Need to Know

Background:

In November 2023, the Centers for Medicare & Medicaid Services (CMS) issued a final rule requiring the disclosure of certain ownership, managerial (managing employees), and other information regarding Medicare skilled nursing facilities (SNFs) and Medicaid nursing facilities. CMS clarified their definition of "Managing Employee," to explicitly include nursing home medical directors.

> *"A general manager, business manager, administrator, director, or other individual that exercises operational or managerial control over, or who directly or indirectly conducts, the day-to-day operation of the provider or supplier, either under contract or through some other arrangement, whether or not the individual is a W–2 employee of the provider or supplier. **For purposes of this definition, this includes, but is not limited to, a hospice or skilled nursing facility administrator and a hospice or skilled nursing facility medical director.**"*

What your **facilities** are required to report:

A nursing facility enrolled in Medicare or Medicaid must use CMS form 855A to submit a change of

5

CMS Issues Staffing Rule – How's it Running?

- Facility Assessments Completed
- Continued discussion on Capitol Hill
- Lawsuit (Impact of Chevron Decision)

6

Facility Assessment Detail:

- § 483.71(b) In conducting the facility assessment, the facility must ensure: § 483.71(b)(1) Active involvement of the following participants in the process: (i) Nursing home leadership and management, including but not limited to, a member of the governing body, the medical director, an administrator, and the director of nursing; and (ii) Direct care staff, including but not limited to, RNs, LPNs/LVNs, NAs, and representatives of the direct care staff, if applicable. (iii) The facility must also solicit and consider input received from residents, resident representatives, and family members. §483.71(c) The facility must use this facility assessment to: §483.71(c)(1) Inform staffing decisions to ensure that there are a sufficient number of staff with the appropriate competencies and skill sets necessary to care for its residents' needs as identified through resident assessments and plans of care as required in § 483.35(a)(3).

7

Strategy for Medicare Payment Reform

8

Highlights from Physician Fee Schedule Proposed Rule (July 2024)

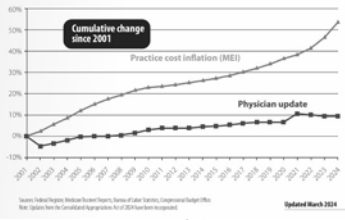
- Proposed cut of 2.8% to all Medicare Part B services
- Changes to Medicare Shared Savings Program (paying $$ up front if history of savings)
- Telehealth use for nursing home subsequent care codes without limitation through CY2025 (victory for AMDA!)
- New advanced primary care codes (consolidating CCM, TCM codes)
- Comments due September 9, 2024. Final rule expected November 2024

9

Medicare physician payment is NOT keeping up with practice cost inflation.

Medicare updates compared to inflation in practice costs (2001–2024)

Adjusted for inflation in practice costs, Medicare physician payment **declined 29%** from 2001 to 2024.



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10

Organized Medicine's Long-Term Solutions

- Annual, Automatic Inflation-Based Payment Updates
- Prevent Unsustainable MIPS Penalties, Reduce Burden, and Increase Relevance
- Limit Frequent, Unpredictable Redistributions Caused by Budget Neutrality
- Expand APM Development and Physician Participation

Characteristics of a Rational Medicare Payment System Principles

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11

Current Legislative Proposals

- HR 2474, the Strengthening Medicare for Patients and Providers Act
  - Bipartisan legislation to replace current law updates (e.g., -2.93% in 2025) with updates based on the increase in the Medicare Economic Index (MEI)
- HR 6371, Provider Reimbursement Stability Act of 2023
  - Amends the Social Security Act to adjust the budget neutrality threshold for Medicare physician fees.
  - The threshold, initially set at $20,000,000 until 2024, will be raised to $53,000,000 in 2025 and will adjust annually thereafter based on the MEI.
- S 3503/ HR 5013, the Value in Health Care (VALUE) Act
  - The VALUE Act would extend the 5 percent APM bonus and maintain the 50 percent revenue threshold for two years.
- Visit PALTmed Grassroots Advocacy page to take action now! https://paltmed.org/grassroots

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12

Current Status of Telehealth

- All physician mandated visits MUST BE DONE IN-PERSON
- Medically Necessary Visits Can Be Done Via Telehealth with no restrictions (until end of 2023 at least)
- Nursing homes can bill per encounter as an originating site using code Q3014
- Home Visits Can Be Done Via Telehealth
- Advance Care Plan Can be Done Via Telehealth (including Audio Only)
- Most COVID era exemptions set to expire Dec 31, 2024

13

Future of Telehealth

- H.R. 8261 Preserving Telehealth, Hospital, and Ambulance Access Act
  - Extend all telehealth flexibilities by another 2 years
  - Push to make these permanent
  - Would extend all nursing facility visit flexibilities (see previous slide)
- CMS will issue Physician Fee Schedule Proposed Rule in July that may contain changes as well
- Significant support for extension of telehealth

14

MACRA/MIPS

- MIPS Penalties for non or poor performance are back!
- Proposal for 4 new Measure Value Pathways (MVPs)
- Establishing the Medicare Clinical Quality Measures (CQMs) for Accountable Care Organizations (ACOs) participating in the Shared Savings Program (Medicare CQMs) as a new collection type for Shared Savings Program ACOs under the APP.
- Requiring all MIPS-eligible clinicians, Qualifying APM participants (QPs), and Partial QPs participating in a Shared Savings Program ACO (regardless of track) to report the measures and requirements under the MIPS Promoting Interoperability performance category at the individual, group, virtual group, or APM Entity level.

15

Value-Based Care/Alternative Payment Models

- New ACO Models – Making Care Primary and ACO Flex Model
- Congressional proposal and Requests for Information on payment models
- CMS goal to have all Medicare beneficiaries in Value-Based arrangements by 2030
- Where are you? Do you have a strategy?

16

Looking Ahead

- Significant changes in the market
  - Consolidation
  - Private Equity
  - Value-Based Medicine
- Administration Implementation of Nursing Home Reform
  - Proposed rule on Disclosure of Nursing Home Ownership
  - Antipsychotic use and inappropriate diagnosis of schizophrenia
- Vaccine Access
- Moving Forward Coalition
- Interoperability of EHRs
- Observation Status and 3-Day Stay

17

18

FINDING YOUR VALUE IN EVOLVING PAYMENT MODELS

Recording Available NOW!

Topics Covered

- Defining Value-Based Reimbursement Models
- Evolution and Trends of "Traditional" CPT Coding
- Impact of Diagnosis Coding/Documentation on PDPM and Value-Based Models – ICD-10/HCC Scorin
- Value-Based Medicine Reimbursement Perspective - The Ground View
- Ask the Experts: Where are Your Opportunities in Value-Based Reimbursement

PALTmed.org

19

Guide to Post-Acute and Long-Term Care Coding, Reimbursement, and Documentation

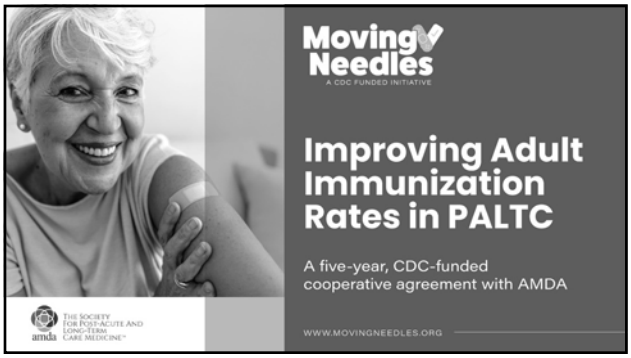
Contains important documentation and medical decision-making requirements as well as Society-developed coding vignettes for each of the nursing home facility of codes.

The guide covers Telehealth, Chronic Care Management (CCM), Advance Care Planning (ACP), and Behavioral Health Integrated (BHI) services.

The guide also contains a robust FAQ section on a variety of topics. For 2024:

- Answers to New G-Code 2211 common questions
- Caregiver Codes
- 2024 Values for Nursing Homes codes

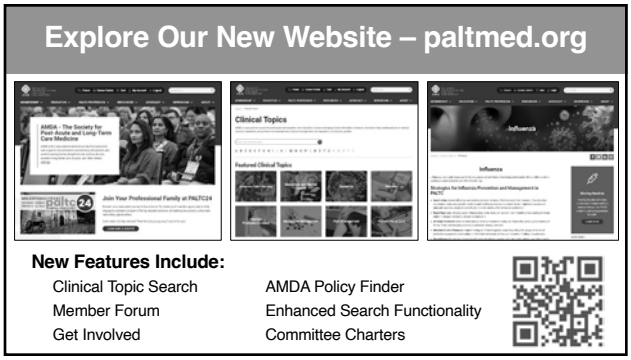
20



21


Overview
Goal
Make routine adult immunizations a standard of care for PALTC residents and an expectation for employees.
Main Components
Align existing immunization policies and procedures in PALTC
Develop pilot programs to test standardized routine adult immunizations across all PALTC settings, for both residents and staff
Establish baseline data and measure improvement
Integrate routine immunization and reporting to state IISs into workflows and EHR systems for both staff and residents
Demonstrate both clinical benefits and operational/cost benefits to implementation
Establish a permanent resource on PALTC immunization

22


Explore Our New Website – paltmed.org
New Features Include:
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• Visit the Member Directory
• Post and/or reply to a message
Member Directory

24

AMDA ON-THE-HILL

Visit us at:
https://paltc.org/policy

AMDA IN THE STATES

25

26

Prognosis Before Planning

FMDA 2024

1

Disclosures

Leonard Hock, DO, CMD, MACOI, FAAHPM
Hock Talk, Quality Decision Making
No disclosures
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2

Assumptions

- This is a common occurrence in PALTC
- Everyone of you have dealt with this issue
- And everyone of you have wondered how to best handle this delicate issue
- You have experienced the "Pre-Hospice SNF failure" What were the hospital discharge planners thinking.

3

Questions

- What percent of LTC residents have Living Wills?
- What percent of the Public believe CPR brings you back to life?
- What is the difference in ROSC and Recovery?
- What is the CPT code for Advance Care Planning?
- Can a facility be found at fault if Full Code or DNR wishes of resident are not responded to?

4

Answers

- 65% have some Advance Directives
- 75% of the Public believe CPR is life restoring
- Return of Spontaneous Circulation in hospital, 39% but half of those died before discharge.
- CPT 99497
- Yes, the facility can be penalized

5

How Did We Get Here?

- 1878 CPR could provide some circulation
- 1950s a time of Medical Tech advances
  - Heart monitors, ventilators, defibrillators
- Bethany Medical Center in Kansas City, KS
- Code Blue became the default
- So, today we opt out of CPR

6

Responses to the DNR Question

- Is it time?
- Are you just giving up on her?
- Leave it up to God.
- There will be a miracle.
- She prefers to be alive.
- None of that DNR stuff.
- She doesn't get as much care if she is DNR.

7

Code Blue Today?

- DNR or Full Code
- DNRO
- DNAR
- AND
- DNI
- DNH
- A la cart menu, no pressors, try it for a while

8

Facts About CPR in LTC

- Older residents have lower success rates
- Chronic disease worsens chance of recovery
- 75% of those resuscitated said they would not want CPR in the future.
- Many changed their mind about CPR (26% in ICU)

9

DNR, Living Wills, Advance Directives

- DNR
  - Is it current?
  - Is it correct?
- Living wills, Advance Directives, Trust documents
  - DNR, CPR
  - DNI, artificial hydration, nutrition, dialysis, chemo etc.
  - Do documents reflect the "Now" of wishes?

10

Do You Know Something We Don't?

- Yes
- Experience and clinical assessment
- C.A.R.I.N.G. criteria
- Palliative Performance Score
- ECOG
- Common sense

11

C. A.R.I.N.G. criteria

- C. Cancer, stage iv
- A. Admissions to ER or hospital
- R. Resident of Nursing Home
- I. ICU admission within the past 30 days
- N. Non cancer hospice patient
- G. Guidelines
  - Over 80 matters

12

Palliative Performance Scale

Level	Ambulation	Dz Activity	Self Care	Intake	Conscious
100%	Full	Normal activity, work	Full	Normal	Full
90%	Full	Normal with some dz	Full	Normal	Full
80%	Full	Activity with effort	Full	Normal/less	Full
70%	Reduced	Unable	Full	Normal/less	Full
60%	Reduced	Unable	Help needed	Normal/less	Full/perplexed
50%	Sit/lie	Dz exhaustion	Help Required	Normal/less	Full/perplexed
40%	Mostly Bed	Extensive Disease	Major Assist	Normal/less	Dull/confused
30%	Bed bound	Extensive Disease	Total Care	Normal/less	Dull/confused
20%	Bed bound	Extensive Disease	Total Care	Minimal/sips	Dull/confused
10%	Bed bound	Extensive Disease	Total Care	Mouth care	Coma/confused
0%	Death				

13

ECOG

- Eastern Cooperative Oncology Group
- 0. No symptoms
- 1. With symptoms but up and around
- 2. Ambulatory but weak, independent ADLs
- 3. Symptomatic, bed or chair bound, ? ADLs
- 4. Bedbound, total care
- 5. Death

14

What Can We Do?

- Affirm and Validate without optimism
  - Lovely lady and family
  - Let's see what we can do together
- Defeat Denial
  - Ask, don't tell
  - Residents calendar of decline
- Substituted Judgment
  - What would resident want, not what would you want

15

What to Document?

- Advance Care Planning
- Reflects current condition and wishes
- Family, surrogate, guardian endorsement
- Make it known
  - Red dot or blue dot
- All shifts awareness

16

What to Bill?

- ACP, Advance Care Planning
  - Face to face with resident or surrogate
  - Condition, prognosis, options of care going forward
- 99497
  - 30 minutes or majority of 30 minutes (16 minutes)
  - Up to 3 times a year
- 99498
  - Additional 30 minutes or majority of time (46 minutes)

17

Questions, Comments

18

Thank you

19

References

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- Resuscitation, 2015, May: 90:73-8
- Chest. 2014 Nov, 146 (5): 1214-1225
- Age and Aging, Vol 43, Issue 4, July 2014
- American College of Cardiology, Jan 25, 2021, Syed Tanveer
- Caring for the Ages, Aug/Sept 2024, Dear Dr. Diane
- Journal of Pain and Symptom Management, CARING, Vol 31, 2006
- Palliative Performance Scale

20

A BRIEF 2024 UPDATE ON DIABETES

Naushira Pandya M.D., CMD, FACP
Professor and Chair, Department of Geriatrics
Kiran C. Patel College of Osteopathic Medicine
Geriatric Medicine Fellowship Program Director
Aventura Hospital and NSU

NSU Florida

1

1

Disclosures

- Grant funding from HRSA
- I have used some educational slides from the American Diabetes Association

2

2

Objectives

- Identify strategies to optimize diabetes management in older adults in diverse settings
- Incorporate the use of newer agents to improve cardiometabolic and renal outcomes
- Identify and reduce risks of hypoglycemia
- Discuss potential applications and benefits of wearable diabetes technologies

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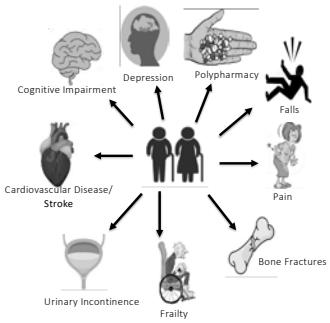
Common Geriatric Syndromes Found in older Patients with Diabetes



Longo M, et al. *Front Endocrinol (Lausanne).* 2019;10:45

4

4

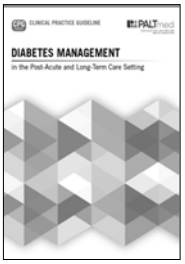
2024 PALTmed Diabetes Management CPG Released Aug 2024

Chair: Naushira Pandya, MD, CMD, FACP

H. Edward Davidson, Pharm D, MPH
Sakshi Jain, MD
Carolyn Kazdan, MHSA, NHA, BCPA
Barbara Resnick, PhD, CRNP
Tiziano Scarabelli, MD

A special thanks to Nicole Orr, MD, FACC, Elbert Huang, MD, MPH, FACP, and the Clinical Practice Steering Committee, for reviewing and providing valuable feedback on this guideline.

Special thanks also to the PALTmed staff Erin O'Brien, MA, RN, Alicia Graf, M.Ed. and Ellen Cook
Medical Editor: Eleanor Mayfield, ELS
Technical Editor: Janet Long



5 **https://paltmed.org/products/diabetes-management-cpg**

5

Introduction to Diabetes in Post-Acute and Long-Term Care; Scope of the Problem

- The prevalence of patients with diabetes in post-acute and long-term (PALTC) facilities in the United States is estimated to be between 25% to 34%.
- For older adults, diabetes is an independent predictor of placement in a PALTC facility.
- Patients living with diabetes are a vulnerable group who have the following problems
  - atypical presentation
  - take multiple medications
  - experience frequent infections
  - high rates of cardiovascular and renal complications
  - risk for dehydration, hyperosmolar states
  - recurrent hospitalizations
  - functional decline, mobility impairment
  - cognitive impairment
  - hypoglycemia

6

6

TABLE 7. Problems and Complications Associated with Diabetes in Older Adults

- Accelerated atherosclerosis with vascular complications (e.g., myocardial infarction, stroke)
- Changes in weight (gain or loss)
- Confusion, acceleration of cognitive impairment
- Decline in ability to perform activities of daily living
- Dehydration
- Depression
- Excessive skin problems (infections, ulcers, delayed wound healing)
- Eye problems (e.g., blurring or loss of vision)
- Falls
- Foot ulcers, foot deformities, gangrene, other foot problems
- Frequent infections
- Impaired pain perception, neuropathy

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How to individualize care and glycemic goals

8

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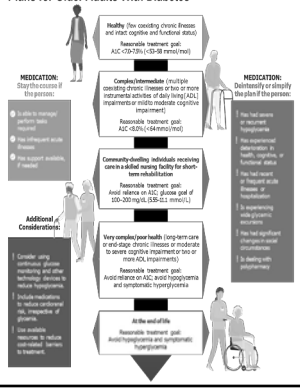
Individualization of Treatment Goals and Medication Plans for Older Adults With Diabetes



9

Using the 4Ms Framework of Age-Friendly Health Systems to Address Issues That Can Affect Diabetes Management in the PALTC Setting

MENTATION	MEDICATIONS
❖ Ability to use diabetes technology ❖ Anxiety ❖ Depression or dementia ❖ Coping skills and self-care	❖ Affordability or insurance coverage ❖ End-organ disease or complications affecting medication choice ❖ History of adverse medication effects ❖ Social and family support ❖ Risk of hypoglycemia, hypoglycemia unawareness
MOBILITY	**WHAT MATTERS MOST**
❖ Foot complications ❖ Functional ability ❖ Frailty and sarcopenia ❖ Leg weakness ❖ Neuropathy ❖ Vision status	❖ Advanced care planning ❖ Macrovascular and microvascular complications ❖ Quality of life ❖ Remaining life expectancy ❖ Risks, burdens and benefits of treatment ❖ Treatment preferences (diet, injections, blood glucose monitoring)

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What are the priorities for setting glycemic goals?

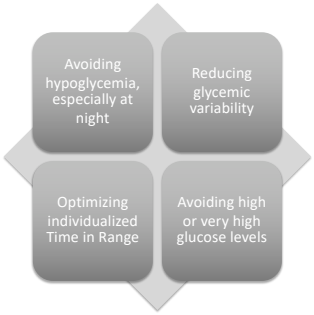

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TABLE 12. **Clinical Care Considerations Across the PALTC Continuum**

LONG-TERM CARE			ALF
SKILLED REHAB	LTC	HOSPICE/PALLIATIVE	
Avoid reliance on A1C BG target 100–200 mg/dL (5.5–11.1 mmol/L) Potential for discharge Cognitive impairment Expressed wishes of patient Self care and function Community support	Avoid reliance on A1C Avoid hypoglycemia and symptomatic hyperglycemia Goals of care Cognitive impairment Glycemic goals Complications and comorbidities	Avoid hypoglycemia and symptomatic hyperglycemia Goals of care Clinical complexity Comfort Wishes of patient and family	Avoid hypoglycemia A1C below 8% if feasible Complications and comorbidities Cognition Functional ability Staffing capability BG monitoring/injections

ASSESS ALL PATIENTS FOR THE FOLLOWING:
- Hypoglycemic risk
- Renal function
- CV risks and complications
- Weight loss
- Frailty
- Prognosis

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TABLE 13. Framework for Considering Diabetes Management Goals in PALTC Facilities

	Special Considerations	Rationale	A1C	Fasting and Premeal Blood Glucose Targets	Blood Glucose Monitoring
Patients residing in ALFs	▪ Multiple chronic conditions ▪ Impairment in 2 or more IADLs ▪ Variable life expectancy	▪ Individual preferences ▪ Facility capabilities	Less than 8.0% (64 mmol/mol)	90–150 mg/dL (5.0–8.3 mmol/L)	Monitoring frequency based on complexity of regimen
Community-dwelling patients at SNF for rehabilitation	▪ Rehabilitation potential ▪ Goal to discharge home	▪ Need optimal glycemic control after acute illness	▪ Avoid relying on A1C due to acute illness ▪ Follow current blood glucose trends	100–200 mg/dL	Monitoring frequency based on complexity of regimen
Patients residing in LTC	▪ Limited life expectancy ▪ Frequent health changes ▪ Avoid symptomatic hyper- or hypoglycemia	▪ Limited benefit of intensive control ▪ Focus on QOL	Avoid relying solely on A1C	100–200 mg/dL	Monitoring frequency based on complexity of regimen and risk of hypoglycemia
Patients at end of life	Avoid invasive diagnostic/therapeutic procedures with little benefit		No role for A1C	Avoid symptomatic hyperglycemia	Monitoring periodically only to avoid systemic hyperglycemia

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Key Issues to Remember About Type 1 Diabetes in PALTC

- Do not assume all patients have T2DM, especially if there is a lack of caregiver engagement or access to current medical records. Patients' medical records may not correctly identify a diagnosis of T1DM, and for those with cognitive impairment and poor social support, clarification of this may not be available.
- Insulin is a life-preserving therapy, and basal insulin is required even if meal intake is poor
- Hyperglycemia and diabetic ketoacidosis (DKA) may develop if insulin treatment is inadequate or omitted due to fear of hypoglycemia
- DKA may be mistaken for, or occur concurrently with, organ failure, sepsis, or medication-related acidosis, and may not be recognized or managed in a timely manner
- People with T1DM are at high risk for hypoglycemia, especially if they are cognitively impaired
- Insulin requirements may increase during acute infections, cardiovascular events, and other medical emergencies
- Practitioners may be unfamiliar with insulin pumps or CGM, which can help reduce hypoglycemia and glycemic variability
- Consider an endocrinology consultation to guide therapy in patients with complex treatment regimens or those who are using advanced therapeutic technologies
- First-line caregivers and nursing staff may need more-intensive diabetes management education, especially if a patient is using an insulin pump or CGM.

Weinstock RS, et al. Diabetes Care 2016;39: 603–610. Pandya, N. et al.(2020). Diabetes Spectrum, 33(3), 236-245.

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PHARMACOLOGIC THERAPY FOR T2DM; RECOMMENDATIONS

17

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What IS prescribed for T2 DM patients in PALTC?

Pandya, N., Jung, M.,et al. (2023). Journal of the American Medical Directors Association, 24(6), 790-797.

18

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Commonly used pharmacological therapies in older adults

Adapted from Leung G , Munshi et al. Diab Sectrum 2018

	Medication class	Benefits	Cautions	Caveats and considerations
Up to 2%	Biguanides	• Safe if no contraindications • Low risk of hypoglycemia • Low cost	• May cause GI disturbances • Weight loss • Vitamin B12 deficiency	• First-line treatment if no contraindications • ER may reduce GI disturbances
Up to 2%	Sulfonylureas	• Low cost	• Hypoglycemia risk • Drug interactions (e.g., warfarin, allopurinol)	• Short-acting glipizide to reduce hypoglycemia • Avoid glyburide (renal elimination)
Up to 2%	Meglitinides	• Skip dose if skipped meal • Useful if variable eating habits	• Increased pill burden • High cost	• Useful with one large meal – controls PP hyperglycemia

Medication class
Benefits
Cautions

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	Medication class	Benefits	Cautions	Caveats and considerations
Up to 1%	Glucagon-like peptide 1 receptor agonists	• Consider if overweight • Low hypoglycemia • Can use in CKD • Convenience	• Nausea, vomiting, diarrhea, satiety • High cost • Usually injectable	• Unintended weight loss • Limited safety profile in elderly
Up to 1%	Dipeptidyl peptidase 4 inhibitors	• Low hypoglycemia risk	• Nausea, vomiting, diarrhea • High cost • Low efficacy	• Well tolerated, once daily formulation
Up to 1.5%	Thiazolidinediones	• Low hypoglycemia risk • Can be used in CKD patients	• Edema and HF • Inc bone loss and Fx risk • Bladder cancer concerns	• Contraindications in elderly • Well tolerated, reduces insulin resistance
Up to 1%	Sodium-glucose transporter 2 inhibitors	• Low hypoglycemia • ASCVD or HF benefit • Decrease renal disease progressio	• Genital yeast infections, UTI, dehydration, increase K and LDL	• Limited safety profile in older adults • Avoid if frail, and hydration issues

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Caveats and Cautions when Prescribing Diabetes Medications in PALTC

Med	AVOID IF	USE IF
Metformin	GFR<30, decompensated HF, hepatic disease, risk of dehydration, unexplained diarrhea	
GLP1-RA	Weight loss, anorexia, gastroparesis, chronic constipation, unexplained GI symptoms	ASCVD CKD
SGLT2i	AVOID if on dialysis, unable to drink fluids independently, dehydration, incontinence, UTI, genital yeast infection, weight loss, fractures. Stop 5 d prior to elective procedure to avoid DKA	HF CKD (eGFR ≥25 mL/min/1.73 m²)
DPP-4i	Unexplained GI symptoms, severe anorexia (stop concurrent GLP1-RA)	Safe for most patients
Basal insulin	Injectable treatments not possible if BG monitoring inconsistent, lack of caregiver support, hypoglycemia risk (stop sulfonylureas, stop SSI)	Insulin-dependent
Prandial insulin	Injectables not possible in care setting, if BG monitoring inconsistent, lack of caregiver support, hypoglycemia risk, erratic intake, tube feeding (stop sulfonylureas, stop SSI)	BG goals not met
Sulfonylurea	Hypoglycemia risk, dementia, concurrent insulin use	
TZDs	HF, other edema, osteoporosis, bladder cancer	

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TABLE 16. Guidance on Optimal Medication Selection by Clinical Criteria

	eGFR <30 OR ESRD ON DIALYSIS		eGFR >30		HIGH HYPOGLYCEMIA RISK	END OF LIFE
Patient Characteristics	Normal appetite, no weight loss	Frail, anorexia, low body weight	Normal appetite, no weight loss	Frail, anorexia, low body weight	Multiple comorbidities. Tight glycemic control. Hypoglycemia or lack of awareness. Sulfonylurea or insulin. Cognitive impairment. Inconsistent meal intake.	Goals of comfort. Avoidance of hypoglycemia and hyperglycemia
Preferred Medications	DPP4 inhibitor (linagliptin) GLP1-RA Basal insulin*	DPP4 inhibitor Basal insulin*	Metformin ER DPP4 inhibitors SGLT2 inhibitors GLP1-RA Basal insulin*	DPP4 inhibitors Metformin ER basal insulin*	Metformin ER DPP4 inhibitors SGLT2 inhibitors GLP1-RA	DPP4 inhibitors Linagliptin Basal insulin**

* Use basal insulin if additional glucose lowering or long-term use of basal insulin is needed

** Use basal insulin with caution if patient has symptomatic hypoglycemia

DPP-4, dipeptyl peptidase 4; eGFR, estimated glomerular filtration rate; ER, extended release; ESRD, end-stage kidney disease; GLP1-RA, glucagon-like peptide-1 receptor agonist; SGLT2, sodium glucose transporter 2

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STANDARDS OF CARE: SECTION 9

When to Use Injectable Therapy in Type 2 Diabetes

Which therapy should I start first?	When should I start insulin first?	Can I use combination insulin and non-insulin injectable therapy?	When would I use combination insulin and noninsulin injectable therapy?	When should I modify a patient's injectable therapy?
✓ Treatment with a glucagon-like peptide 1 (GLP-1) receptor agonist or a dual glucose-dependent insulinotropic polypeptide (GIP)/GLP-1 receptor agonist is preferred before insulin therapy because of its ability to achieve both glycemic and weight management goals. ✓ Some GLP-1 receptor agonists also provide cardiovascular benefit.	✓ If there is evidence of catabolism (e.g., unexpected weight loss) ✓ When A1C or blood glucose levels are very high (A1C >10% [>86 mmol/mol] or blood glucose ≥300 mg/dL [≥16.7 mmol/L])	✓ Yes; combination therapy with insulin and a noninsulin injectable is recommended for greater glycemic effectiveness and beneficial effects on weight and hypoglycemia risk. ✓ If insulin is already being used, insulin dosing should be reassessed upon addition or dose escalation of a GLP-1 or dual GIP and GLP-1 receptor agonist.	✓ Consider combination insulin and GLP-1 or dual GIP/GLP-1 receptor agonist therapy when individualized goals are not met using either one separately.	✓ Intensify or deintensify therapy when an individual is not meeting treatment goals, including management of hyperglycemia and weight and avoidance of hypoglycemia.

American Diabetes Association Primary Care Advisory Group. 9. Pharmacologic approaches to glycemic treatment: *Standards of Care in Diabetes—2024* abridged for primary care professionals. Clin Diabetes 2024;42:206-208 (doi: 10.2337/cd24-ab06)

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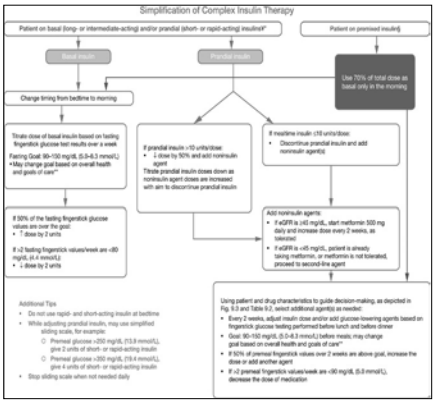

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Strategies to Replace SSI in PA LTC Munshi MN, et al. *Diab Care*.2016;39(2)

Current regimen	Suggested steps
SSI is the sole mode of insulin treatment	• Give 50-75% of the av. daily insulin requirement over 5-7d as basal • Stop SSI • Use non-insulin agents or fixed dose meal time insulin for PPG PRN • Consider basal insulin in AM to impact post PPG and reduce hypoglycemia.
SSI used in addition to scheduled basal insulin	• Add 50-75% of the av. insulin requirement used as SSI to the existing basal dose • Use non-insulin agents or fixed dose meal time insulin for PPG PRN
SSI is utilized in addition to basal and scheduled meal time insulin (Correction Dose insulin)	• If correction dose required frequently, the av. correction dose before a meal may be added to the scheduled meal time insulin dose at the ***preceding*** meal. • Similarly if BG is consistently elevated before BF requiring correction doses, the **scheduled basal inulin dose could be increased** by the av. correction dose used
SSI is used in short term due to irregular intake or illness	• Generally needed for acute illness and irregular dietary intake • As health and BG stabilize, stop SSI, return to previous regimen as tolerated, and reduce frequency of monitoring
Wide fluctuations in BG levels in patients with cognitive decline and/or irregular intake	• Use scheduled basal and meal time insulin based on individual needs with goal of avoiding low glucose • May use simple scale such as "give 4 units prandial insulin if BG >300" • Keep patients hydrated when glucose levels are high (>300)

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TABLE 24. Suggested Elements of Comprehensive Monitoring for Patients with Diabetes Who Have Minimal Physical and Cognitive Impairments

Indicator	Suggested Monitoring Interval
Blood glucose levels	Individualize according to the patient's needs and goals
Blood pressure	■ Monthly ■ More frequently if poor control or medication dose change
A1C	■ Every 6 mo if well controlled ■ Every 3 mo if poorly controlled
Electrolytes and eGFR	■ Annually ■ More frequently in patients with pre-existing chronic kidney disease or who are on a nephrotoxic medication
24-h urine protein/ creatinine clearance	■ If significant decline in renal function (as clinically indicated) ■ If nephrotic syndrome suspected
Lipid profile	■ Annually (if appropriate) ■ 6 wk after initiating or changing medical treatment
Foot care	■ Daily inspection by patient if able ■ Weekly inspection by caregivers ■ Annual comprehensive foot examination by practitioner (inspection, evaluation of foot pulses and loss of protective sensation)
Pain control	As clinically indicated
Depression	Annually or as clinically indicated
Cognition	Annually or as clinically indicated
Weight	■ Monthly ■ More frequently if more than 5% change (gain or loss)

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Strategies that may improve cardiovascular and cardiorenal outcomes

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Epidemiology of Common Comorbidities in DM

Up to 40% of patients with T2DM develop CKD[1]

2–4 FOLD

increased risk of CVD in T2DM vs general population[2]

2–5 FOLD

increased risk of HF in T2DM vs general population[3]

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Cardiorenal Comorbidities

- In patients with eGFR < 30 ml/min/1.73m2, **glucagon-like peptide-1 receptor agonists such as subcutaneous liraglutide, semaglutide, or dulaglutide** are preferred, as they demonstrated advantageous atherosclerotic cardiovascular and kidney outcomes
- In patients with **heart failure (systolic and/or diastolic), and/or** with **CKD** with eGFR between 25 and 60 ml/min, a **sodium-glucose co-transporter 2 inhibitor such as empagliflozin, canagliflozin or dapagliflozin** is the preferred choice that have demonstrated cardiorenal benefit.
- SGLT2 inhibitors should not be initiated if eGFR <30 to 45 mL /min. In this case, the use of an alternative or additional agent (commonly a GLP-1 RA) is indicated to achieve glycemic goals.

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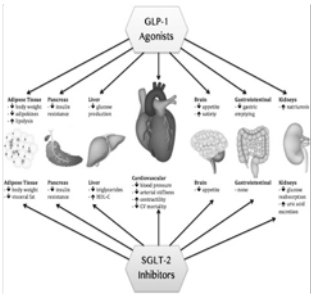
Effects of sodium glucose cotransport 2 (SGLT-2) inhibitors and glucagon-like peptide 1 (GLP-1) agonists.



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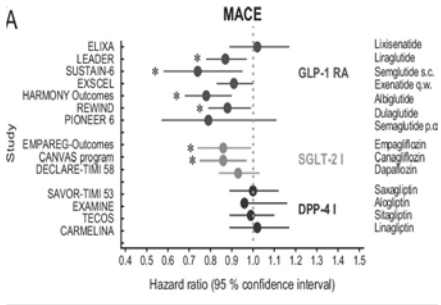
Are all GLP-1 agonists and SGLT2i equal in the treatment of type 2 diabetes?

.Nauck, Michael & Meier, Juris. (2019). European Journal of Endocrinology. 181. 10.1530/EJE-19-0566.



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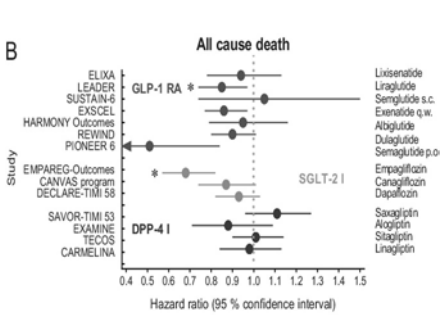

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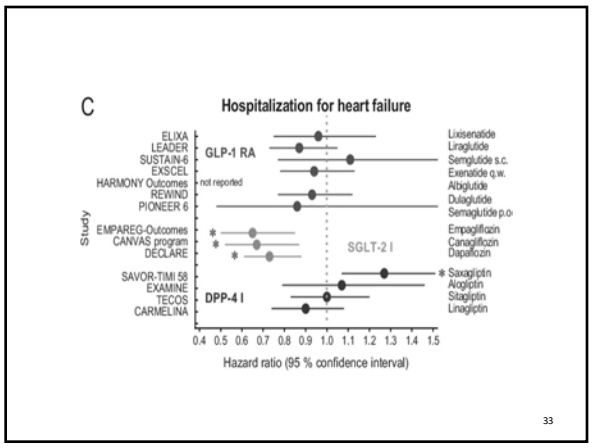

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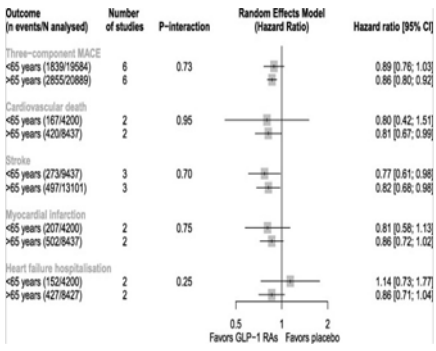
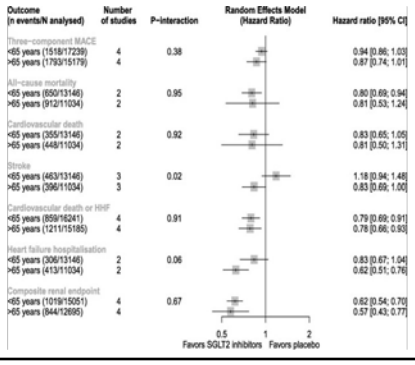
Use of GLP1-RA in older people with type 2 DM- meta-analysis; 11 studies, 93,500pts



T. Karagiannis. Diab Res and Clin Pract. April 2021;174

34

Use of SGLT2in older people with type 2 DM- meta-analysis; 11 studies, 93,500pts



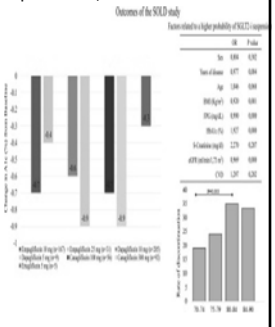
T. Karagiannis. Diab Res and Clin Pract. April 2021;174

35

SGLT2-inhibitors are effective and safe in the elderly: The SOLD study

E. Lunati et al. Pharm Research September 2022;183

- 739 adults >70 y started on an SGLT2i
- SGLT2i (Empagliflozin, Dapagliflozin, Canagliflozin, Ertugliflozin) add-on therapy to Metformin in 88.6%, to basal insulin in 36.1% and other antidiabetic drugs in 29.6%
- 23.5% discontinued treatment due to adverse events- SGLT2i related (UTI and renal function decline)
- A significant reduction of A1C (baseline vs 12 m: 7.8 ± 1.1 vs 7.1 ± 0.8%, p < 0.001) and BMI (29.2 ± 4.7 vs 28.1 ± 4.5 kg/m2, p < 0.001)
- Overall, eGFR remained stable over time, with significant reduction of urinary albumin excretion
- Subgroup of patients ≥ 80 years, a significant improvement in A1C values without renal function alterations



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HYPOGLYCEMIA

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Table 6.4–Classification of hypoglycemia

	Glycemic criteria/description
Level 1	Glucose <70 mg/dL (3.9 mmol/L) and ≥54 mg/dL (3.0 mmol/L)
Level 2	Glucose <54 mg/dL (3.0 mmol/L)
Level 3	A severe event characterized by altered mental and/or physical status requiring assistance for treatment of hypoglycemia

Reprinted from Agiostratidou et al. (51).

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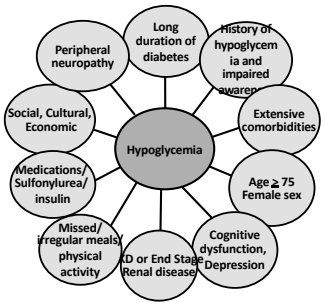
Risk factors for hypoglycemia

Presenting symptoms may be neuroglycopenic rather than adrenergic



CVD = cardiovascular disease; VD = vascular disease.

39

Ahrén B. *Vasc Health Risk Manag*. 2013:9:155–163. Abdelhafiz AH, et al. Aging Dis.,2015;6(2):156–67.

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Impact of hypoglycemia in the elderly

- Hypoglycemia can worsen neuropathic pain
- Likelihood of falls, fractures,and dizziness can increase
- Cognitive impairment increases the likelihood of hypoglycemia
- **But** hypoglycemia can worsen cognitive impairment
- Hypoglycemia unawareness
- Increase in cardiovascular events, hospitalization and total mortality; (HR 2.48 [1.41–4.38]) whether clincially mild or severe hypoglycemia
- Longer hospital stays and cost (8 vs 6.7d, $19,800 vs. $16,800)

Ligthelm J AM Geriatr Soc 2012 Aug;60(8):1564-70. doi: 10.1111.
Pai-Feng Hsu et al. Diabetes Care 2013 Apr; 36(4)
Pandya, N., Trenery, A. Et al. American Journal of Managed Care, 27(10).

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Hypoglycemia Assessment, Prevention, and Treatment

Prevention and management of hypoglycemia
Use CGM for individuals at high risk for hypoglycemia.
Glucose is the preferred treatment for hypoglycemia in conscious individuals with glucose levels <70 mg/dL (<39 mmol/L), although any form of fast-acting carbohydrate can be used. Re-test and re-treat, if needed, after 15 minutes.
Ensure that glucagon is prescribed for all those taking insulin and those at high risk for hypoglycemia, with education provided on its use and proper storage.
Offer structured education on hypoglycemia prevention and treatment to all individuals taking insulin and those at high risk for hypoglycemia.
Upon occurrence of one or more episodes of level 2 or level 3 hypoglycemia, promptly reevaluate the treatment plan, including considering whether to deintensify or switch medications.
Refer individuals with impaired hypoglycemia awareness to a trained health care professional for evidence-based interventions to help reestablish awareness of hypoglycemia symptoms.
Conduct ongoing assessments of cognitive function, ensuring extra caution and support for hypoglycemia if impaired or declining cognition is identified.

American Diabetes Association Primary Care Advisory Group. 6. Glycemic goals and hypoglycemia: Standards of Care in Diabetes—2024. Abridged for primary care providers. Clin Diabetes 2024;42:196-200 doi: 10.2337/cd24-0006.

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Treatment of hypoglycemia–Rule of 15

- Give **15 g** of glucose or carbohydrate, equivalent to
  - ½ cup juice, or soda
  - ½ cup apple sauce
  - 1 tablespoon sugar or honey
  - 1 cup milk
  - 1 tube glucose gel
  - 3-4 glucose tablets, 3 marshmallows
- Wait **15 minutes**
- Recheck blood glucose. If still below the target, give **another 15 g** of glucose or carbohydrate
- Assess for possible cause of hypoglycemia and document
- Patients who are unconscious may be treated with IM or SC glucagon (1 mg or 1 unit), or intravenous 50% dextrose (usually 50 mL, although a lesser volume may be used)

American Medical Directors Association. *Diabetes Management in the Long Term Care Setting: Clinical Practice Guideline.* Columbia, MD: AMDA 2015.

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GLUCAGON DELIVERY SYSTEMS

Glucagon kit- standard

Nasal glucagon

Prefilled glucagon pen

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DIABETES TECHNOLOGY

CONTINUOUS GLUCOSE MONITORING (CGM)

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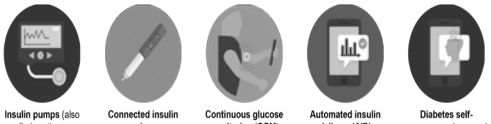
Diabetes technology includes:



Insulin pumps (also called continuous subcutaneous insulin infusion [CSII] systems) are insulin delivery devices that are worn on the body.

Connected insulin pens and pen caps are insulin delivery pens or related devices that can record and/or send insulin dose data and may also calculate doses.

Continuous glucose monitoring (CGM) systems and **glucose meters** are devices to monitoring glucose levels.

Automated insulin delivery (AID) systems connect a CGM system and an insulin pump with a control algorithm to deliver insulin automatically.

Diabetes self-management support software includes apps or online platforms that are intended to treat a medical or psychological condition or assist with data management or lifestyle modification.

American Diabetes Association Primary Care Advisory Group. 7. Diabetes technology: *Standards of Care in Diabetes—2024* abridged for primary care professionals. Clin Diabetes 2024;42:201–220 (doi: 10.2337/cd24-s007)

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What's in a number? Pitfalls in interpretation of A1C

A1c may be increased by

- Age (insulin resistance)
- Race (AA or Hispanic)
- Hypothyroidism
- Splenectomy
- Aplastic anemia
- Polycythemia
- Hb variants
- Iron deficiency anemia
- Metabolic acidosis/uremia

A1C may be decreased by

- Hemolytic anemia
- Blood loss, transfusions
- Abnormal Hb (hemolysis)
- Hemodialysis and Hct <30%
- Liver disease
- Erythropoetin therapy

C. Kim et al. Diabetes Care **April 2010** vol. 33
Peacock et al. Kidney International (2008) **73**

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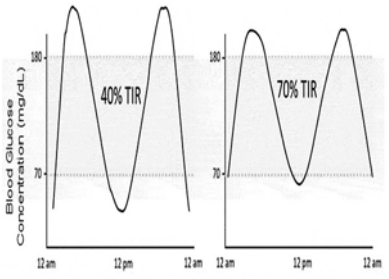
Identical A1C values, but dramatically different amounts time spent in hypoglycemia and hyperglycemia, and glycemic variability.



Two representative glucose profiles with the same A1C of ~7.0%.

The TIR for the representative figures are 40% and 70%.

Data from https://diatribe.org/time-range

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Choosing the right patient for right technology

Healthy
- Comorbidities do not interfere with selfcare
- Intact cognition
- No caregiver need

→ Can use either isCGM or rtCGM based on patient preference
TIR goal: 90-180 mg/dL
Hypoglycemia goal: avoid all hypo

Intermediate Health
- >5 comorbidities
- Mild-moderate cognitive dysfunction
- 2+ IADL dependency

→ isCGM is preferred
Can also be helpful to caregiver
If already using rtCGM, may be able to continue
TIR goal: 100-200 mg/dL
Hypoglycemia goal: avoid all hypo

Poor Health
- End-stage chronic diseases
- Moderate-severe cognitive dysfunction
- 2+ ADL dependency

→ isCGM to avoid multiple finger sticks
ProCGM can help clinician to assess risk of hypoglycemia
TIR goal: 100-250 mg/dL
Hypoglycemia goal: avoid all hypo

Munshi MN; Diabetes Tech and Therap 25(3) 2023; S56-64

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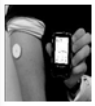
Types of CGM

Type of CGM	Description
Real time CGM	CGM systems that measure and display glucose levels continuously
Intermittently scanned CGM	CGM systems that measure glucose levels continuously but only display glucose values when swiped by a reader or a smartphone
Professional CGM	CGM devices that are placed on the patient in the provider's office (or with remote instruction) and worn for a discrete period of time (generally 7–14 days). Data may be blinded or visible to the person wearing the device.



Diabetes Technology:
Standards of Medical Care in Diabetes - 2022. Diabetes Care 2022;45

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CGM Metrics and Targets for Clinical Care (ADA, IDC)

Metrics	T1D/ T2D targets	Older/ High risk targets
# days CGM worn	≥14d	≥14d
% Time CGM active	>70%	>50%
Av mean Glucose	Individualized	Individualized
GMI	Individualized	Individualized
Glycemic variability (%CV)	≤36%	≤36%
% Time above range >250 mg/dL (V High)	< 5%	< 10%
% Time above range >180 mg/dL (High)	< 25%	--
% Time in range (70-180 mg/dL) (TIR)	> 70%	>50%
% Time below range (<70 mg/dL) (Low)	< 4%	<1 %
% Time below range (<54 mg/dL) (V Low)	<1 %	--

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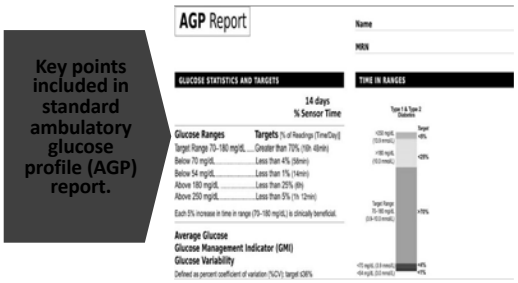
Key points included in standard ambulatory glucose profile (AGP) report.



American Diabetes Association.

American Diabetes Association Dia Care 2021;44:S73-S84

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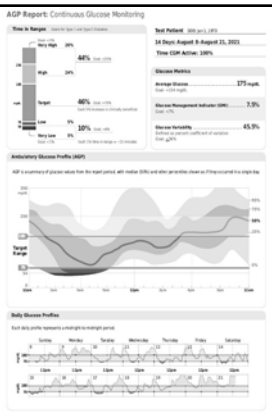
AMBULATORY GLUCOSE PROFILE (AGP)



Glycemic Targets:
Standards of Medical Care in Diabetes - 2022. Diabetes Care 2022;45(Suppl. 1)

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Rationale for use of CGM in community older adults

- Many clinical variables affect A1C levels (anemia, transfusion, hemolysis, CKD)
- Older adults are more likely to have hypoglycemia unawareness, and longer periods of hypoglycemia; may be unrecognized by care partners
- A1C levels do not always reflect risk of hypoglycemia
- The coefficient of variation (%CV), and GMI may be better indicators of hypoglycemia risk than A1C
- Improved glycemic outcomes (lower A1C and Time in Range) without significant severe hypoglycemia or DKA
- Frequent CBG monitoring is time-consuming, poorly documented, difficult to perform in those with cognitive impairment, poor coordination, lack of social support, or diabetes distress
- Practitioners lack time to review BG logs, and adjust treatments
- Care partners can have remote access to BG trends and alarm

Munshi, Diab Technol & Ther 2023; 25, Suppl 3
Prately RE, et al. JAMA 2020;323 (23)
Argento NB et al. Endocr Pract 2014;20

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Real World Data: Initiation of CGM

Reaven PD, Diabetes Care, 2023

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Potential advantages of CGM in PALTC

- Reduction of staff time in monitoring capillary blood glucose
- Ability to monitor glucose levels closely in very sick patients on room isolation
- Ability to improve detection of hypoglycemia
- Ability to detect hypoglycemia in patients at the end of life
- Ability to review BG levels in multiple patients in different parts of a facility utilizing on-line access
- Ability to optimize BG control across transitions in sites of care

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What data do we have so far on CGM use in PALTC? (1 of 3)

- **Feasibility study in older home-dwelling people with diabetes** receiving home care did not reveal major problems- extensive training was required
- **Study of 35 patients completing a 7-day blinded flash CGM review in 10 Connecticut nursing homes**
  - 1 in 3 had at least 2 consecutive BGs <70mg/dl
  - 1 in 4 had BGs <60 mg/dl
  - 1 in 12 had BGs <50 mg/dl
  - Hypoglycemia by fingerstick (FS) was very rare, with a total of just 4 FS <70 mg/dl during all observation periods combined

Larsen, A.B., Hermann, M. & Graue, M. Pilot Feasibility Stud 7, 12 (2021)
Kasia J. Lipska, et al. Diabetes 1 June 2020; 69 (Supplement_1): 380–P.

57

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What data do we have so far on CGM use in PALTC? (2 of 3)

Glycemic Control Utilizing CGM vs. POC Testing in 97 older adults with T2D in LTC facilities

- POC subjects tested ac and hs and wore a blinded Dexcom CGM up to 60 days; treatment adjusted by the primary care team, with a target glucose of 140-180 mg/dL
- Rt-CGM subjects adjusted based on daily CGM profile.
- Baseline characteristics (mean age: 74.7, mean A1c: 8.06)
- The mean daily glucose by POC was lower than CGM (171±45 vs. 188±45 mg/dL, p<0.01)
- CGM detected more subjects with hypoglycemia <70 mg/dL and <54 mg/dL; as well as hyperglycemia >250 mg/dL compared to POC testing, all p<0.001
- **Conclusion**: In older adults with T2D admitted to LTC, the use of CGM significantly improved detection of hypoglycemic and hyperglycemic events compared to POC

THAER IDREES, IRIS A. CASTRO-REVOREDO et al. Diabetes 20 June 2023; 72 (Supplement_1): 947–P.

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American Diabetes Association.

From: **947-P: Glycemic Control Utilizing Continuous Glucose Monitoring vs. Point-of-Care Testing in Older Adults with Type 2 Diabetes in Long-Term Care Facilities**

Diabetes. 2023;72(Supplement_1). doi:10.2337/db23-947-P

	POC Data	CGM Data	P value
Glycemic Control			<0.001
Mean daily Glucose, mg/dL	171± 45	188± 45	
BG >180 mg/dL, n (%)	77 (80%)	96 (99%)	
BG >250 mg/dL, n (%)	54 (56%)	75 (77%)	
BG <70 mg/dL, n (%)	13 (14%)	39 (40%)	
BG <54 mg/dL, n (%)	1 (1.0%)	20 (21%)	

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What data do we have so far on CGM use in PALTC? (3 of 3)

- **CGM-Guided Insulin Administration in Long-Term Care Facilities: A Randomized Clinical Trial**
- Insulin treated T2 DM patients POC testing group wore blinded CGM compared to rt-CGM group with daily treatment adjustments
- No significant difference
  - in TIR (53.38% ± 30.16% vs 48.81% ± 28.03%, P = .40),
  - Mean daily CGM glucose (184 vs. 190)
  - TBR (<70 md/dL) or TBR (<54 mg/dL)

Use of rt-CGM is safe and effective in guiding insulin therapy in LTC with similar improvement in glycemic control compared to POC-guided therapy

Idrees, T., Castro-Revoredo, I. A. et al. Journal of the American Medical Directors Association, 25(5), 884-888.

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Factors affecting use of technology in PALTC

- Site of care (ALF, SNF, LTC, group homes, rural facilities)
- Diabetes complications, comorbidities, prognosis, hypoglycemia risk, transitions of care
- Goals of care (overall and glycemic goals)
- Facility characteristics
  - Staffing shortages
  - Clinical competency of staff
  - Facility culture, relationship with clinicians
  - Location and internet connectivity
- Clinician knowledge and familiarity with diabetes technology
  - Supervision of NPs, Pas
  - Frequency of medical visits (low in rural NH)
  - Treatment changes if receiving steroids, tube feedings
  - insurance coverage for CGM
- High degree of state regularity oversight

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CPT CODES FOR CGM

	CGM Services		
	95249 Personal CGM - Startup/Training Ambulatory CGM for minimum of 72 hours; **patient-provided** equipment, sensor placement, hook-up, calibration of monitor, patient training, and printout of recording.	**95250 Professional CGM** Ambulatory CGM for a minimum of 72 hours; **physician or professional (office) provided** equipment, sensor placement, patient training, removal of sensor, and printout	**95251 CGM Interpretation** Ambulatory CGM of interstitial tissue fluid via a subcutaneous sensor for a minimum of 72 hours; analysis, interpretation and report.
Medicare physician office fee schedule	$61.67	$147.07	$34.56
Private payer (2023)	$130	$320	$98

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DISCUSSION

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Geriatric Endocrinology Pearls for the PALTC Practitioner

Naushira Pandya, M.D., CMD, FACP
Meenakshi Patel, MD, FACP, MMM, CMD
Elizabeth Hames, DO, CMD

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Speaker Disclosures

The following speakers have disclosures:

- Naushira Pandya, M.D., CMD, FACP: no relevant financial relationships.
- Meenakshi Patel, MD, FACP, MMM, CMD: MD Multiple companies doing research and as a speaker but nothing relevant to this topic
- Elizabeth Hames, DO, CMD: employee of United Health Group

All financial relationships have been identified, reviewed, and mitigated by The Society prior to this presentation.

2

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Learning Objectives

By the end of the presentation, participants will be able to:

- Employ treatment recommendations from current guidelines for management of osteoporosis
- Differentiate between primary and secondary hypothyroidism, and determine the management of hyperparathyroidism
- Identify clinical or laboratory findings indicating adrenal dysfunction, and initiate a preliminary evaluation
- Recognize that patients with refractory gastrointestinal symptoms may have an underlying endocrine disorder

3

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Osteoporosis Treatment Updates for the PALTC Practitioner

Elizabeth Hames, DO, CMD

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Definitions: Postmenopausal osteoporosis

estrogen deficiency causes increased osteoclast differentiation and activation → accelerated bone resorption and rapid bone loss → low bone mineral density and decreased bone strength

Increased risk of fragility fractures ***US: 50% of post-menopausal women*** ← In the US, 30% of women ≥65 yrs and 70-85% of PALTC residents have osteoporosis ← *1- Walker MD, and Shane E. Postmenopausal Osteoporosis. N Engl J Med 2023; 389:1979.*

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BONE HEALTH SURVEY 2023

Women ≥60 years : over 7000 surveys

Brazil, Japan, Spain, South Korea, UK

43% had fracture following a minor fall or bump

33% did not have a diagnostic scan

45% did not receive treatment for osteoporosis after fracture

31% stated that they had never discussed bone health or osteoporosis with their doctors

https://www.osteoporosis.foundation/wod2023-survey

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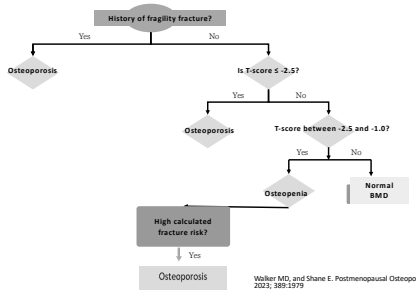
Diagnosis of Osteoporosis



Walker MD, and Shane E. Postmenopausal Osteoporosis. N Engl J Med 2023; 389:1979

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Treatment of Osteoporosis - Primary and Secondary Prevention

RISK FACTORS FOR OSTEOPOROSIS & FRACTURE

age
low weight
previous adult fracture
> 3 months glucocorticoid use
current tobacco / alcohol use
RA, osteomalacia, celiac dz
medications causing bone loss

- Lifestyle Modifications
  - all post-menopausal patients
- Pharmacologic Therapy
  - patients with high fracture risk

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Treatment of Osteoporosis: Lifestyle Modifications

Weight-bearing exercise 30 minutes most days and fall prevention

Smoking cessation

Reduced alcohol consumption

Calcium: 1000 - 1200 mg/day

Vitamin D 400-1000 IU daily

8- Smoke-Wavell K, Skelton DA, Barker KL, et al. Strong, steady and straight: UK consensus statement on physical activity and exercise for osteoporosis. Br J Sports Med 2022.

9- Qaseem A, Hicks LA, Etxeandia-Ikobaltzeta I, et al. Pharmacologic treatment of primary osteoporosis or low bone mass to prevent fractures in adults: a living clinical guideline from the American College of Physicians. Ann Intern Med 2023; 176:224-38.

10 - Camacho PM, Petak SM, Binkley N, et al. American Association of Clinical Endocrinologists/American College of Endocrinology clinical practice guidelines for the diagnosis and treatment of postmenopausal osteoporosis — 2020 update:executive summary. Endocr Pract 2020;26:564-70

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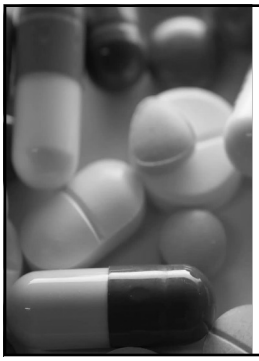

Osteoporosis Pharmacotherapy

Consider:

Severity of osteoporosis

Risk of fracture

Calculate FRAX score – important!

Co-morbidities

Patient factors and preference

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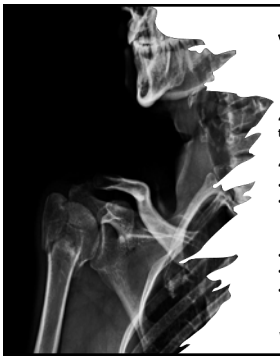

Very High Fracture Risk

"High fracture risk" : meeting minimal intervention thresholds (which vary by guideline)

"Very high fracture risk":

- **No consensus definition – criteria vary**
- **May influence the choice of initial medication**

- **T-score of <-2.5 plus spine or hip fracture**
- **T-score of < -3.0 without fragility fracture**
- **History of multiple spine or hip fractures**

Walker MD, Shane E. Postmenopausal Osteoporosis. N Engl J Med 2023; 389:1979.

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Pharmacotherapy – when to begin

GUIDELINE	THRESHOLD FOR TREATMENT WITH HIGH FRACTURE RISK
AACE – ACE 2020	• T-SCORE ≤-2.5 AT SPINE, FEM NECK, OR TOTAL HIP **OR** • OSTEOPENIA (T-SCORE -1.0 TO -2.49) + HX FRAGILITY FRACTURE OF HIP OR SPINE + FRAX HIGH PROB OF FRACTURE
AMERICAN COLLEGE OF PHYSICIANS (ACP) 2023	• T-SCORE ≤-2.5 • INDIVIDUALIZE IN PERSONS >65 WITH OSTEOPENIA
BONE HEALTH AND OSTEOPOROSIS FOUNDATION	• T-SCORE ≤-2.5 AT SPINE, FEM NECK, OR TOTAL HIP OR • HIP OR VERTEBRAL FRACTURE WITH ANY BMD OR • OSTEOPENIA & FRAX MAJOR FRACTURE RISK ≥ 20% OR HIP FRACTURE RISK ≥ 3% OR • OSTEOPENIA WITH FRACTURE OF PROX HUMERUS, PELVIS, OR DISTAL FOREARM**
ENDOCRINE SOCIETY 2019-2020	• POSTMENOPAUSAL WOMEN WITH HIGH FRACTURE RISK, ESPECIALLY IF HISTORY OF RECENT FRACTURE
ESCEO and IOF	• WOMEN > 65 YRS WITH PREVIOUS FRAGILITY FRACTURE **OR** • WOMEN > 65 YRS WITHOUT FRACTURE HX BUT WITH A FRACTURE RISK EQUAL TO WOMEN WITH FRACTURE HX

1- Walker MD, Shane E. Postmenopausal Osteoporosis. N Engl J Med 2023; 389:1979.
2- Qaseem A, Hicks LA, Etxeandia-Ikobaltzeta I, et al. Pharmacologic treatment of primary osteoporosis or low bone mass to prevent fractures in adults: a living clinical guideline from the American College of Physicians. Ann Intern Med 2023; 176:224-38.

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Treatment of Osteoporosis: Pharmacotherapy

Antiresorptives – reduce vertebral, non-vertebral*, and hip fractures*

Bisphosphonates – bind to hydroxyapatite and inhibit resorption; Avoid with Cr Cl < 30-35, hypocalcemia, or esophageal dysmotility/varices. GI irritation. Atypical femoral fracture and jaw osteonecrosis rare.

RANK ligand inhibitor (denosumab) – binds to RANKl and inhibits formation and survival of osteoclasts. Avoid in hypocalcemia and avoid abrupt cessation, risk of rebound bone loss and fracture. Atypical femoral fracture and jaw osteonecrosis rare.

Estrogens (CEE) – decrease osteoclast resorption. Avoid with history of VTE, CVA/TIA, history or increased risk breast or endometrial cancer

SERMs -selective estrogen receptor modulators (raloxifene or bazedoxifene + CEE) – decreases osteoclast activity. Avoid with history of VTE, PE, retinal vein thrombosis

* Ibandronate, raloxifene, and bazedoxifene + CEE not shown to reduce hip or non-vertebral fractures

Walker MD, Shane E. Postmenopausal Osteoporosis. N Engl J Med 2023; 389:1979.

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Treatment of Osteoporosis: Pharmacotherapy

Anabolic agents - reduce vertebral and non-vertebral fractures

PTH receptor agonists – increase bone formation. Not shown to reduce hip fractures.

- teriparatide (PTH analogue)
- abaloparatide (PTHrP analogue)
- avoid in history of or high risk of bone malignancy, Paget's disease, and hypercalcemia

Anabolic-antiresorptive - reduce vertebral, non-vertebral, and hip fractures

Sclerostin inhibitor (romosozumab) – monoclonal antibody against sclerostin. Increases bone formation and decreases bone resorption. Avoid if recent stroke, MI, high CV risk, hypocalcemia.

- Hip and non-vertebral fracture reduction only as compared to alendronate, not compared to placebo.

Walker MD, Shane E. Postmenopausal Osteoporosis. N Engl J Med 2023; 389:1979.

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BISPHOSPHONATES

alendronate, risedronate, ibandronate, zoledronic acid

- Most guidelines recommend bisphosphonates as initial treatment of post-menopausal OP in patients with **high fracture risk**
- (AACE/ACE/Bone Health OP Foundation/Endocrine Society) : Treat for 5 yrs, consider drug holiday, continue another 5 yrs or consider alternate agent if fracture risk has remained high
- (AACE/ACE/Endocrine Society) zoledronic acid: consider drug holiday after 3 yrs
- ACP (2023) - treatment for >3 to 5 years only for reduction of vertebral fractures, consider stopping after 5 yrs unless strong reason to continue
- ESCEO and IOF - review need for treatment after 3-5 years

- **MOST GUIDELINES RECOMMEND REPEATING DEXA EVERY 1-2 YEARS**

1 - Walker MD, Shane E. Postmenopausal Osteoporosis. N Engl J Med 2023; 389:1979.

2- Qaseem A, Hicks LA, Etxeandia-Ikobaltzeta I, et al. Pharmacologic treatment of primary osteoporosis or low bone mass to prevent fractures in adults: a living clinical guideline from the American College of Physicians. Ann Intern Med 2023; 176:224–38.

3 - Camacho PM, Petak SM, Binkley N, et al. American Association of Clinical Endocrinologists/American College of Endocrinology clinical practice guidelines for the diagnosis and treatment of postmenopausal osteoporosis – 2020 update. Endocr Pract 2020; 26:1–46.

Kanis JA, Cooper C, Rizzoli R, Reginster J-Y. European guidance for the diagnosis and management of osteoporosis in postmenopausal women. Osteoporos Int 2019;30:3–44.

Shoback D, Rosen CJ, Black DM, Cheung AM, Murad MH, Eastell R. Pharmacological management of osteoporosis in postmenopausal women: an endocrine society guideline update. J Clin Endocrinol Metab 2020;105:587–94.

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RANK ligand inhibitor (denosumab)

- Higher absolute increases of BMD than bisphosphonates, limited evidence for more fracture reduction[14]
- Second-line therapy for women who are not able to take bisphosphonates (ACP 2023). Debated for use as initial therapy
- Need consistent dosing every 6 months, > 4-month dose delay = 4X increased vertebral fracture rate [15]
- Overall duration uncertain – reassess fracture risk 5-10 yrs (multiple guidelines)
  drug holiday not recommended (AACE/ACE/Endocrine Society)
- Concern for rebound bone loss and increase in vertebral fractures with abrupt discontinuation

Freemantle N, Satram-Hoang S, Tang ET, et al. Final results of the DAPS (Denosumab Adherence Preference Satisfaction) study: a 24-month, randomized, crossover comparison with alendronate in postmenopausal women. Osteoporos Int 2012; 23:317-26.
Lyu H, Yoshida K, Zhao SS, et al. Delayed denosumab injections and fracture risk among patients with osteoporosis: a population-based cohort study. Ann Intern Med 2020;173:616-26.

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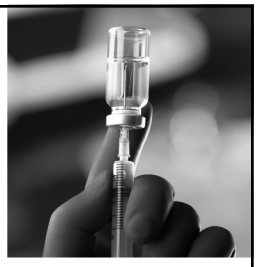
PTH receptor agonists (teriparatide & abaloparatide)



- Treatment for 18-24 months reduced vertebral & non-vertebral fracture risk (not hip fractures)
- Limited data for greater BMD in spine than alendronate[1]
- Decreases vertebral fractures more than risendronate[1]
- Most guidelines recommend for only for patients with:
  - very high fracture risk
  - no response to other agents
  - intolerance of all other agents
- Must be followed by antiresorptive therapy after completion[1]

Walker MD, Shane E. Postmenopausal Osteoporosis. N Engl J Med 2023; 389:1979.

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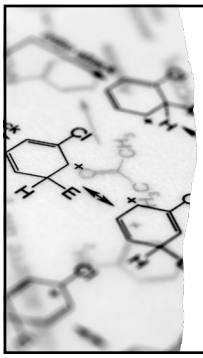

Sclerostin inhibitor – romosozumab

- **Anabolic-antiresorptive agent**
- **Several guidelines recommend as initial agent only if very high fracture risk, treatment for 1 year (AACE/ACE/Endocrine Society)**
- **Increased BMD more than teriparatide in phase 2 study**
- **Reduced vertebral and non-vertebral fractures compared to placebo (FRAME trial)[16]**
- **Need to continue with bisphosphonate or denosumab after completion of romosozumab**
- **Black-box warning to avoid within 1 year of MI or stroke**

Walker MD, Shane E. Postmenopausal Osteoporosis. N Engl J Med 2023; 389:1979.

Cosman F, Crittenden DB, Adachi JD, et al. Romosozumab treatment in postmenopausal women with osteoporosis. N Engl J Med 2016;375:1532-43.

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Treatment approach: very high fracture risk

GUIDELINE	INITIAL TREATMENT FOR VERY HIGH RISK OF FRACTURE
AACE/ACE 2020	abaloparatide or teriparatide for 2 yrs, then antiresorptive OR romosozumab for 1 yr, then antiresorptive OR treat with alendronate or risendronate for 6-10 yrs or zoledronic acid for 6 years before possible holiday
ACP 2023	teriparatide OR romosozumab, then antiresorptive
Endocrine Society and Bone Health / Osteoporosis Foundation	teriparatide OR abaloparatide if not high cardiovascular risk
ESCEO and International OP Foundation	teriparatide is preferred agent

1 - Walker MD, Shane E. Postmenopausal Osteoporosis. N Engl J Med 2023; 389:1979.

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ACP 2023 Osteoporosis Guideline

bisphosphonates for initial pharmacologic treatment to reduce the risk of fractures in postmenopausal females with primary osteoporosis
(strong evidence)

bisphosphonates for initial pharmacologic treatment to reduce the risk of fractures in males with primary osteoporosis
(low evidence)

denosumab – second-line pharmacologic treatment to reduce risk of fractures in postmenopausal females with primary osteoporosis who cannot take bisphosphonates
(moderate evidence)

romosozumab, (moderate evidence) or **teriparatide**, (low evidence), followed by a bisphosphonate, to reduce risk of fractures in females with primary osteoporosis with very high risk of fracture

individualized approach regarding whether to start pharmacologic treatment with a bisphosphonate in females over the age of 65 with osteopenia to reduce the risk of fractures (low evidence)

9- Qaseem A, Hicks LA, Etxeandia-Ikobaltzeta I, et al. Pharmacologic treatment of primary osteoporosis or low bone mass to prevent fractures in adults: a living clinical guideline from the American College of Physicians. Ann Intern Med 2023; 176:224-38.

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Controversies regarding treatment of osteoporosis in PALTC setting

- 3 guidelines address PALTC AMDA 2009, Australian 2021, Canadian 2015:
  - individualized fall / fracture risk assessment
  - Calcium (max 1500 mg daily) and vitamin D (800-2000 daily)
  - Consider anabolic therapy if fracture after ≥ 1 year of antiresorptive use and T score < - 3 or 2 + fractures
- Inconsistent use of pharmacologic therapies in PALTC for fracture prevention: 40% to 1.5%
- Considerations: estimated benefit of treatment, life expectancy, fall risk, goals of care and preferences, polypharmacy, co-morbidities
- Consider de-prescribing or to not begin medication if life expectancy < 2 years, decreasing mobility with decreasing fall risk, increasing treatment burden, and/or goal is comfort care
- Recommendation for screening with a frailty tool, fall prevention strategies, individualized approach to treatment
- Routine BMD testing not recommended
- Special consideration for patients being considered for discontinuation of denosumab who have remaining fall risk – possible continuation of one year bisphosphonate

J.D. Niznik et al. Controversies in Osteoporosis Treatment of Nursing Home Residents. JAMDA 23 (2022).

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Clinical Case

Mrs. Jones is an 83-year-old female being admitted to an ALF:

- She has a past medical history of an acute ischemic left MCA stroke 3 months ago, AFib, osteoporosis, type 2 DM, and HTN.
- She has no fracture history.
- Her last DEXA was 2 years ago, T-score -2.85 in the femoral neck
- She was taking an oral bisphosphonate at the time of her stroke with no adverse effects, it was stopped when she was hospitalized.
- She has no residual dysphagia after the stroke, ambulates more than 200 feet with a rolling walker, and her cognition is good.

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Clinical Case

What is Mrs. Jones' risk for fracture?

A – low risk
B – moderate risk
C – high risk
D – very high risk

Which of the following would be recommended?

A – no pharmacotherapy
B – oral alendronate
C – romosozumab
D - teriparatide

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Take Home Messages

- Osteoporosis can be diagnosed by history of fragility fracture, BMD, and/or calculated 10-yr risk of fracture (FRAX).
- Bisphosphonates are a mainstay of initial treatment to reduce the risk of fractures in postmenopausal females with primary osteoporosis.
- The RANK ligand inhibitor, denosumab, is second line therapy for patients who are unable to take bisphosphonates.
- Discontinuation of denosumab causes rebound bone loss, and indefinite treatment with denosumab or transition to bisphosphonates after discontinuing denosumab is recommended.
- Anabolic (teriparatide) and anabolic-antiresorptive (romosozumab) agents may be used as short-term initial therapy for post-menopausal osteoporosis in patients with very high risk of fracture and should be followed by antiresorptive agents.
- When making decisions about pharmacotherapy for osteoporosis in PALTC, consider severity of osteoporosis, risk of fracture, co-morbidities, lag time to benefit, and patient factors and preferences.

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THANK YOU!

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Hypothyroidism and Hyperparathyroidism

Meenakshi Patel, MD, MMM, CMD
Clinical Assoc. Prof., Wright State University
Boonshoft School of Medicine, Dayton OH

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Learning Objectives

At the conclusion of this session, learners will be able to:

1. Employ treatment recommendations from the updated 2021 osteoporosis guidelines

2. Differentiate between primary and secondary hypothyroidism, and determine the management of hyperparathyroidism

3. Identify clinical or laboratory findings indicating adrenal dysfunction, and initiate a preliminary evaluation

4. Recognize that patients with refractory gastrointestinal symptoms, may have an underlying endocrine disorder

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Objectives for this section

- Interpretation of thyroid function tests
- Management of hypothyroidism-differentiating primary and secondary
- Sub-clinical thyroid disease and when to treat
- Management of hyperparathyroidism

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Age-associated changes in the thyroid

- Progressive fibrosis and atrophy
- Hypothalamic-pituitary-thyroid (HPT) axis remains intact.
- Decline in TSH, reduced thyroxine (T4) and triiodothyronine (T3) secretion
- Due to reduced clearance, T4 levels remain normal
- T3 declines in advanced old age, and the inactive metabolite reverse T3 (rT3) increases
- Acute or chronic illness may lead to abnormalities of thyroid function as can several medications

Ajish. Indian J Endo and Metab 2012(16)4, Mitro. Maturitas 2100;70:5

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Causes of hypothyroidism in the elderly

Primary hypothyroidism

- Chronic autoimmune hypothyroidism (Hashimoto's thyroiditis)
- Post ^{131}I treatment for hyperthyroidism
- Subtotal or total thyroidectomy
- Radiation therapy for head and neck cancer
- Drugs

Central (secondary)hypothyroidism <1%

- Hypothalamic tumors or infiltrative lesions
- Pituitary tumors or infiltrative lesions
- Pituitary surgery
- Head injury or surgery
- Cranial radiation
- Stroke, hemorrhage or ischemia

Gibbons V, Lawrenson, et al. NZMJ 2012;125:83-90.

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Drugs affecting thyroid function

Effect	Drugs
May cause hypothyroidism	Lithium, iodine (in kelp, contrast media, topical iodine), amiodarone, interferon alpha)
May cause hyperthyroidism	Amiodarone, iodine, interleukin-2, interferon alpha
Reduce conversion of T4 to T3	Glucocorticoids, iodine, propylthiouracil, propranolol, amiodarone
Suppress TSH	Dopamine, dobutamine, glucocorticoids, phenytoin, bromocriptine, somatostatin analogues, metformin, mitotane
Increase clearance of T4	Carbamazepine, phenytoin, rifampin, phenobarbital
Reduce binding of T4 to thyroid-binding globulin	Phenytoin, carbamazepine, salsalate, NSAIDS, furosemide, heparin

Ajish. Indian J Endo and Metab 2012(16)4; HB Burch. N Engl J Med 2019; 381.

32

Symptoms and Signs of Hypothyroidism in Older Adults

SYMPTOMS
- Fatigue 68%
- Cold intolerance
- Constipation, ileus
- Dysphagia
- Exertional dyspnea, atypical CP
- Lack of concentration
- Memory loss, delusions or psychosis
- Hearing loss
- Depression
- Generalized weakness or muscle cramps 53%

SIGNS
- Alopecia
- Xerosis
- Hoarseness
- Weight gain
- Bradycardia, diastolic HTN
- Worsened congestive heart failure
- Anemia
- Hyperlipidemia, elevated CPK
- Myxedema, macroglossia
- Neuropathy, slowed reflexes
- Confusion, withdrawal, psychosis

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Interpretation of Thyroid Function Tests

	TSH	FT4	TT3	Tg	Anti-TG Ab
Subclinical hypothyroidism	↑	NL	NL		
Hypothyroidism	↑	↓	NL		
Central hypothyroidism	↓	↓	↓		
Subclinical hyperthyroidism	↓	NL	NL		
Hyperthyroidism	↓	↑	↑		
TSH-producing pituitary adenoma	↑	↑	↑		
Intermittent med adherence	↑ or NL	↑	↑		
Non-thyroidal illness	NL	↓	NL or ↓		
Thyroiditis/thyroid injury	NL or ↓	NL or ↑	NL or ↑	↑	NL or ↑
Persistent thyroid cancer	NL ↓ ↑	NL ↑ ↓		NL or ↑	NL or ↑

Pandya, N., & Hames, E. (2023). Thyroid Disorders in Older Adults. In Geriatric Medicine: A Person-Centered Evidence Based Approach (pp. 1-20). Cham: Springer International Publishing.

34

Treatment of hypothyroidism

- Goal: Normalize TSH, achieve a euthyroid state
- Synthetic thyroid hormone preparations preferred (rather than thyroid extracts) due to longer half-life and a more constant serum concentration
- Initial replacement dose usually 25-50 µg/day
- If significant cardiac co-morbidities, start on 12.5–25 µg/day and adjust dose by a similar amount every 3-6 weeks until the TSH has normalized and then follow every 6–12m
- **In primary hypothyroidism, the TSH alone can be used to monitor treatment**
- **In those with central (secondary) hypothyroidism, a free T4 level should be used**
- If no residual thyroid function exists, the daily replacement dose of levothyroxine is usually 1.6 µg/kg body weight (typically 100–150 µg).

ATA/AACE Guidelines, Nov 01, 2012

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Cautions and caveats with thyroid replacement

- Dosage adjustments should take into account any worsening condition such as AF, HF or osteoporosis
- Avoid low normal or subnormal TSH levels.
  - Thyroxine can be held for days to weeks and restarted at a lower dose once the patient is stable
- **Linear changes in the concentration of T4 correspond to logarithmic changes in serum TSH**
  - If abrupt discontinuation or omission of levothyroxine therapy during a care transition, there may be a marked rise in the TSH level.
- **When resumed the dose of levothyroxine should be the prior documented dose and measurement of free T4 may be helpful**

ATA/AACE GUIDELINES| NOVEMBER 01, 2012

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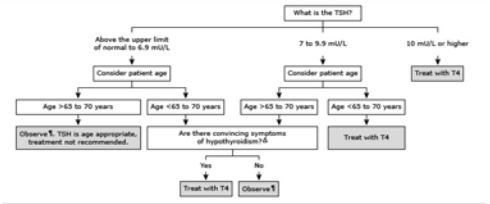
Subclinical hypothyroidism in >65 y olds

- TSH above ref range with serum free T4 within ref range (but upper limit of TSH is higher with age)
- Prevalence 10% in women and 4% in men >60
- Treat the whole patient and not the thyroid function tests
- Exclude other causes of high TSH (TSH hormone resistance, lab error, pituitary tumor, non-thyroidal illness, post partum thyroiditis)
- Treat if TSH is >10 in those >65 y
- Treat if TSH is 7.0-9.9 mU/L, and patient has convincing symptoms; goal NL TSH
- Observe if TSH is N-6.9 mU/L (TSH is age-appropriate); avoid treatment if >80y
- No cardiac, fatigue, or strength benefits in treating older adults with SCH

Razvii Arch Int Med 2012, TRUST Study NEJM 2017
Biondi B, Cappola A, Cooper D. Subclinical Hypothyroidism. *JAMA.* 2019;322(2)

37

Indications for thyroid hormone replacement in nonpregnant adults with subclinical hypothyroidism*

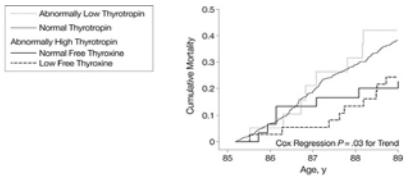


Free T4: free thyroxine; T4: levothyroxine; TSH: thyroid-stimulating hormone.
* Subclinical hypothyroidism is defined by a TSH above the normal reference range with a normal free T4, confirmed with repeat measurement.
¶ For patients not treated with T4, monitor TSH and free T4 initially at six months, and if stable, yearly thereafter.
Δ Convincing symptoms of hypothyroidism (new or worsening fatigue, constipation, cold intolerance) or growing goiter.

UpToDate®

38

Cumulative Mortality of Participants Based on Clinical Stratification of Thyroid Status



Leiden 85 + study
N=558
4 yr follow-up

In the general population of the oldest old, elderly individuals with abnormally high levels of thyrotropin do not experience adverse effects and may have a prolonged life span

Gussekloo, J. et al. JAMA 2004;292:2591-2599.

39

Secondary hypothyroidism and its implications

- Secondary hypothyroidism may be associated with partial or complete HYPOPITUITARISM, and is difficult to diagnose in patients in PALTC patients as the presentation and symptoms are often missed or attributed to other chronic conditions or age.
- The prevalence of hypopituitarism in the elderly is unknown
- Non-specific clinical presentation (weight gain, fatigue, low muscle strength, hypotension, cold intolerance) depending on pituitary deficit
- Older patients with CV and PAD are prone to hypopituitarism due to a more fragile hypothalamic/pituitary circulation
- The etiology is varied although ASCVD risk factors were present in a majority is a case series
- Patients with traumatic brain injury should be monitored closely for hypopituitarism; often under recognized and symptoms may occur immediately post trauma, or after several months to years

Pandya, N., Sanders, D. L., & Makhijani, M. (2008).JAMDA, 9(3), B24.
Curtò, L., & Trimarchi, F. (2016). Hypopituitarism in the elderly: Journal of Endocrinological Investigation, 39, 1115-1124.

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Take Home Messages

- Subclinical thyroid disease may be treated if criteria are met
- LTC practitioners need to have a high index of suspicion, if thyroid function tests suggest secondary hypothyroidism.
- It may indicate more extensive pituitary failure which could be treatable with thyroxine and glucocorticoids
- The diagnosis of partial or complete pituitary hypofunction can be made with readily available blood tests and neuroimaging

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Hyperparathyroidism

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Case:

- A 79-year old nursing home resident with hypertension, osteoporosis, type 2 diabetes, and a distant history of nephrolithiasis
- Recurrent complaints of malaise constipation and abdominal discomfort
- No response to scheduled doses of sorbitol and stool softeners. Medications include metformin 500 mg BID, valsartan/Hctz 160/25 mg daily, vitamin D 3000 IU daily.
- Her electrolytes are normal except for a repeat serum calcium of 10.9 mg/dL (8.6-10.3 mg/dL). She has normal thyroid function.

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What is the next most appropriate step to find a cause of her hypercalcemia?

A. Measure an intact PTH level

B. Discontinue valsartan

C. Discontinue vitamin D since this can cause hypercalcemia.

D. Measure her calcium creatinine clearance

E. Measure serum protein electrophoresis

45

Hypercalcemia

- Can be a manifestation of a serious illness such as malignancy or detected coincidentally by lab testing in a patient with no obvious illness
- **Whenever hypercalcemia is confirmed, a definitive diagnosis must be established**
- Hyperparathyroidism is a chronic disorder in which manifestations, if any, may be expressed only after months or years
- Malignancy is the second most common cause of hypercalcemia in adults

46

Clinical Features are Helpful in Differential Diagnosis

- **Symptoms; fatigue, depression, confusion, anorexia, vomiting, constipation, urinary frequency, short QT**
- Hypercalcemia in an asymptomatic adult is usually due to primary hyperparathyroidism (PHPT)
- FH of HPTH (Multiple Endocrine Neoplasia)
- In malignancy-associated hypercalcemia, symptoms of malignancy present
- Dietary history and use of vitamins or drugs
- ***Do not cut corners on the physical exam! (neck scars, nodes, breast, rectal, genital exam)***

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Severity of Hypercalcemia and Clinical Manifestations

Calcium level	Clinical correlation
>2.9 to 3 mmol/L (11.5 to 12.0 mg/dL)	Neuropsychiatric, GI, renal symptoms
>3.2 mmol/L (13 mg/dL)	Calcification in kidneys, skin, vessels, lungs, heart, and stomach
3.7 to 4.5 mmol/L (15 to 18 mg/dL),	Medical emergency; coma and cardiac arrest

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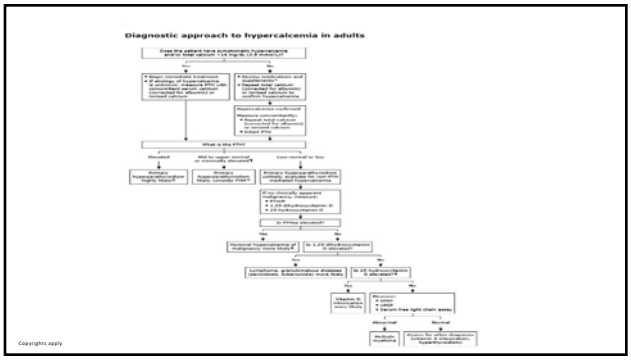

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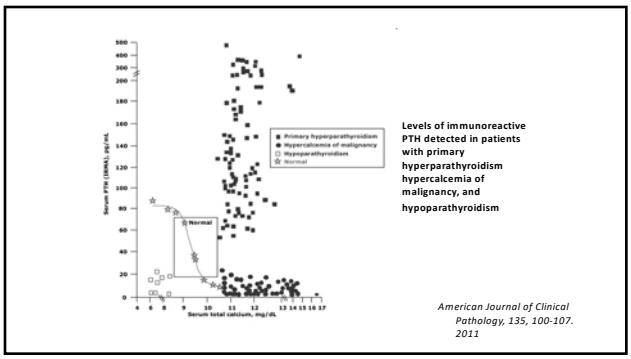

Levels of immunoreactive PTH detected in patients with primary hyperparathyroidism hypercalcemia of malignancy, and hypoparathyroidism

American Journal of Clinical Pathology, 135, 100-107. 2011

50

Hyperparathyroidism

- Primary–adenoma, hyperplasia or carcinoma
- Secondary–renal disease
- Tertiary– secondary hyperplasia leads to autonomous over activity of the parathyroid glands usually in renal failure

51

Primary hyperparathyroidism

- Hypercalcemia
- Hypercalciuria
- Hyperphosphaturia
- Kidney: Calcinosis, stone formation, recurrent infection and impaired renal function

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Primary Hyperparathyroidism - Etiology

- **Prevalence:** 23 cases per 10,000 women and 8.5 per 10,000 men, estimated
- **Solitary Adenomas**
  - one or more hyperfunctioning glands
  - usually a benign adenoma and rarely a parathyroid carcinoma
  - In 15% of patients, all glands are hyperfunctioning
  - ***chief cell parathyroid hyperplasia*** is usually hereditary and frequently associated with other endocrine abnormalities

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Causes of Primary Hyperparathyroidism

- Radiation exposure; head and neck 30 y prior, >1200 rads
- Radioactive iodine therapy (possibly)
- Hereditary syndromes with genetic or chromosomal defects
  - MEN 1 and MEN 2A (multiple tumors)
  - Hyperparathyroidism jaw tumor syndrome
- Vitamin D receptor gene (alters expression of adenoma)

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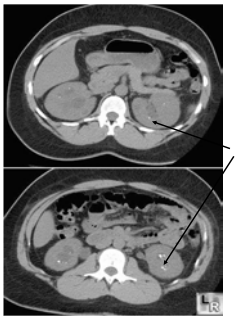
Signs and Symptoms of Hyperparathyroidism

- Over half are asymptomatic
- Neuromuscular manifestations; weakness, fatigability, depression, anxiety, difficulty concentration
- Gastrointestinal manifestations are sometimes subtle
- Renal: nephrocalcinosis or recurrent nephrolithiasis (in <20%- ca oxalate or phosphate)
- Increased bone turnover (↑ bone sp Alk Phos, osteocalcin)
- ↓ cortical bone density (DXA hips or distal radius), spine relatively preserved
- HTN, changes in LV mass and function, increased mortality observed

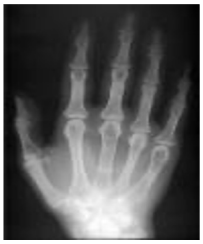
55



Primary hyperparathyroidism is single most common cause of nephrocalcinosis in adults

56

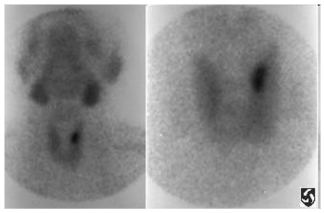
Radiological Findings in PHPT



In primary HPTH there is absorption of the tufts of the terminal phalanges in the hands and feet and subperiosteal bone resorption with particular effect at the level of the bone metaphysis.

57

Preoperative Functional Scan with 99mTc-sestamibi to Identify the Location of the Abnormal Gland



58

Guidelines for surgery in asymptomatic primary hyperparathyroidism (NIH consensus)

Measurement	Indication(s) for surgery
Serum calcium	>1 mg/dL (0.25 mmol/L) above the upper limit of normal
Skeletal	1. BMD by DXA: T-score ≤−2.5 at lumbar spine, total hip, femoral neck, or distal 1/3 radius[¶] 2. Vertebral fracture by radiograph, CT, MRI, or VFA
Kidney	1. eGFR <60 mL/min/1.73 m^2 2. 24-hour urine for calcium >250 mg/day (6.25 mmol/day) in women and >300 mg/day (7.5 mmol/day) in men 3. Presence of nephrolithiasis or nephrocalcinosis by radiograph, ultrasound, or CT
Age	<50 years

Patients need to meet only 1 of these criteria to be advised to have parathyroid surgery. They do not have to meet more than 1.

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Surgical Treatment

- Parathyroid exploration requires an experienced surgeon- >97% cure in asymptomatic PHPT
- Conservative surgery is favored, i.e., minimally invasive
- Improved preoperative localization and intraoperative monitoring by PTH assays
- High resolution neck ultrasound AND
- Intraoperative sampling of PTH before and at 5-min intervals after removal of a suspected adenoma to confirm a rapid fall (>50%) to normal levels of PTH
- Multiple gland hyperplasia- totally remove three glands with partial excision of the fourth gland or sc. implantation of part of gland
- Older adults do well, but slightly longer hospital stays

Bilezikian, J. P., Silverberg et al, J. T. (2022). Journal of Bone and Mineral Research, 37(11), 2391-2403.
Young, V. N., Osborne, et al (2010). The Laryngoscope, 120(2), 247-252.

60

Treatment

- Adequate hydration
- Phosphate ingestion
- Adequate dietary calcium
- Parathyroidectomy: Indications
  - Marked and unremitting hypercalcemia
  - Recurrent renal calculi
  - Progressive nephrocalcinosis
  - Severe osteoporosis

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Medical Management of Hyperparathyroidism (if surgery is not an option)

- Correct Ca and Vit D deficiency
  - calcium-sufficient diet (1000 to 1200/d) and maintain 25-OH D level 20-30 ng/m; with the use of vitamin D supplements
  - Oral hydration
- Bisphosphonates 5% increase in bone density in the spine with alendronate in asymptomatic hyperparathyroid patients (no change in PTH or Ca)
- Denosumab
- Calcimimetics, (cinacalcet 30 mg BID) decrease Ca levels by 1mg/dL and lower PTH levels by 19%; indicated for severe disease and parathyroid cancer
  - No significant effect on bone loss
- Thiazide diuretics- if urinary calcium is high and risk of nephrolithiasis

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Secondary hyperparathyroidism; elevated PTH as a response to hypocalcaemia

- Seen in renal rickets and renal osteomalacia
- Treatment is directed at primary condition

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THANK YOU!

64

Adrenal dysfunction in older adults

Naushira Pandya MD, CMD, FACP

65

Learning Objectives

At the conclusion of this session, learners will be able to:

1. Employ treatment recommendations from the updated 2021 osteoporosis guidelines

2. Differentiate between primary and secondary hypothyroidism, and determine the management of hyperparathyroidism

3. Identify clinical or laboratory findings indicating adrenal dysfunction, and initiate a preliminary evaluation

4. Recognize that patients with refractory gastrointestinal symptoms, may have an underlying endocrine disorder

66

Adrenal Insufficiency; Epidemiology

- Incidence 15.5/100,000 population in a Taiwan retrospective study, 80% >60 yrs
- Comorbidities: pneumonia and UTI, electrolyte abnormalities- pneumonia most common cause of hospitalization and death
- Retrospective 5-yr chart study of 3 extended care facilities in Hong Kong
  - 38% of 242 patients tested with synthetic ACTH, has AI, no difference in LOS and mortality
  - Infection and non-specific presentation noted again

Chen, Y. C., Chen, et al. (2010). The Tohoku Journal of Experimental Medicine, 221(4), 281-285.
Miu, D. K. Y., Man, S. P., & Tam, S. K. F. (2020). European Journal of Geriatrics & Gerontology, 2(3).

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Acute Adrenal Insufficiency (AI)

- **Causes of primary AI**: autoimmune disease, infection, tumor, hemorrhage
- **Secondary AI more common**: hypothalamic or pituitary disease
- Vague non-specific symptoms: anorexia, fatigue, fever, GI discomfort, hypoglycemia
- May progress to adrenal crisis with electrolyte disturbance, change in consciousness, or even shock, coma or death
- In adrenal crisis, generalized abdominal tenderness elicited on deep palpation; mechanism unclear; serositis?
- Signs and symptoms of bilateral adrenal hemorrhage include abdominal, flank, back, and lower chest pain, anorexia, nausea and vomiting, and abdominal rigidity
- May suggest a surgical cause, but the importance of a high level of clinical suspicion of adrenal crisis, and prompt management

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Chronic adrenal insufficiency

- Signs and symptoms may be vague and non-specific leading to delay in diagnosis
- Nausea, persistent vomiting, and abdominal pain in 49–62%
- Constipation alternating with diarrhea; and weight loss of up to 2–15 kg noted in 66–76%, largely due to anorexia

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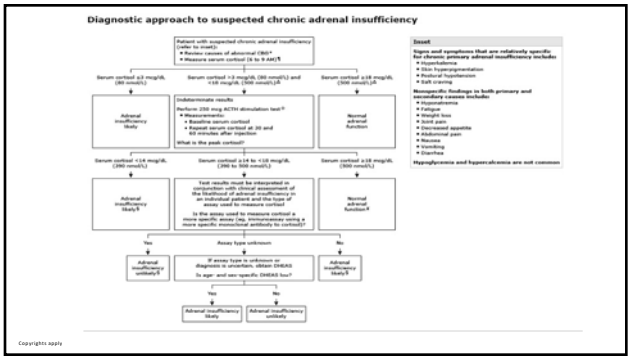

70

Refractory gastrointestinal symptoms may have an endocrine cause

Naushira Pandya MD, CMD, FACP

71

Learning Objectives

At the conclusion of this session, learners will be able to:

1. Employ treatment recommendations from the updated 2021 osteoporosis guidelines

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3. Identify clinical or laboratory findings indicating adrenal dysfunction, and initiate a preliminary evaluation

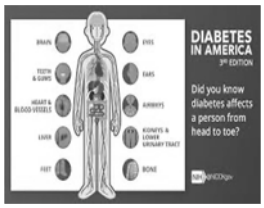
4. Recognize that patients with refractory gastrointestinal symptoms, may have an underlying endocrine disorder

72

Diabetes Mellitus

Older adults with diabetes may exhibit one or more of the following symtoms:

- Abdominal pain
- Diarrhea
- Nausea
- Flatulence
- Vomiting
- Constipation or obstipation
- Recurrent hypoglycemia



73

Diabetes and Gastroparesis

- Gastric and intestinal motility disorders are late complications of diabetes.
- May have dysrhythmias, antral hypomotility, gastroparesis, constipation, diarrhea, fecal incontinence, and weight loss in severe cases
- Nausea is the most common; bloating, postprandial satiety, sensation of fullness, acute hypo- and hyperglycemia, and colonization with *H. pylori* are also seen.
- Gastroparesis is similar in type 1 and type 2 DM ;develops in 5–12% due to autonomic neuropathy leading to gastric hypotonia, larger postprandial antral volume, and delayed emptying (over 170 minutes), without mechanical obstruction.
- Reduces carbohydrate absorption through the release of the gut peptides such as the incretin hormones glucagon-like peptide-1 (GLP-1) and glucose-dependent insulinotropic polypeptide
- Metformin and GLP1-RA also cause similar symptoms

Bharucha, Adil E., Yogish C. Kudva, and David O. Prichard. "Diabetic gastroparesis." *Endocrine reviews* 40.5 (2019): 1318-1352.

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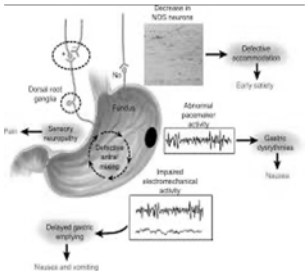

Mechanisms of Diabetic Gastroparesis

75

Diabetic diarrhea; causes of chronic diarrhea

- Disordered motility of the small bowel and colon (vagal nerve dysfunction, sympathetic nerve damage, acute changes in glucose concentrations)
- Increased intestinal secretion (autonomic neuropathy of the ENS affecting mucosal water transport and ion fluxes)
- Small intestinal bacterial overgrowth (altered small bowel motility, maldigestion or malabsorption due to enterocyte damage)
- Fecal incontinence (voluminous stool, anorectal dysfunction)
- Medications (metformin, artificial sweeteners, e.g., sorbitol)
- Others (exocrine pancreatic insufficiency and celiac sprue)

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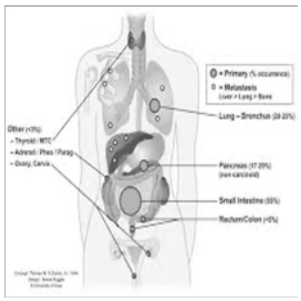
Neuroendocrine Neoplasms (NENs) of the Gastrointestinal Tract

- Tumors originating from the tubular gastrointestinal tract and the pancreas are relatively rare with an annual incidence in the USA of 35 per 100,000 population
- The rectum and small intestine are currently the most common primary sites
- Well-differentiated neuroendocrine tumors (NETs) include carcinoid, islet cell, and pancreatic (neuro)endocrine tumors and generally have a better prognosis
- Poorly differentiated neuroendocrine carcinomas (NECs) include small-cell carcinoma and large-cell neuroendocrine carcinoma have a rapid clinical course.

77



Anatomical Distribution of Neuroendocrine Tumors

78

When to Suspect a Gastroenteropancreatic Neuroendocrine Neoplasm?

- Unexplained diarrhea
- Confirmed hypoglycemia reversed by glucose intake in the absence of pharmacological treatment for diabetes
- Recurrent peptic ulceration
- Unexplained hypokalemia
- Necrolytic migratory erythema
- Steatorrhea
- Cholelithiasis
- Unexplained flushing
- Unexplained anemia
- Weight loss

79

GI SX	Hypoth	Hyperth	HPTH	Adr Insuf	Cushing	Diabetes	NENs
Abd pain	X		X	X	X	X	X
Anorexia	X	X	X	X		X	
Nausea		X	X	X		X	
Constip	X		X			X	
Diarrhea	X	X		X		X	X
Dyspep			X			X	X
Fecal Inc		X				X	
Gastropa						X	
Int motil	X	X				X	X
Malabs	X	X	X			X	X
Peptic u			X		X		X
Vomiting		X		X		X	

80

Take Home Messages

- Older adults often present with vague and/or atypical signs and symptoms of endocrine disorders, such as weakness, depression, falls, impaired cognition, or functional decline.
- Within the GI tract, manifestations of endocrine disease may include anorexia, dysphagia, nausea and vomiting, changes in hepatobiliary function, constipation, diarrhea, and weight loss
- Changes may be misinterpreted as age-related physiologic changes, primary gastrointestinal disorders, geriatric syndromes, or as sequelae of underlying morbidities (e.g., heart failure, CAD).
- The clinician needs to maintain a high index of suspicion for an endocrine diagnosis in patients with GI symptoms that persist without reasonable explanation.

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Take Home Messages

- In patients with a known endocrine disorder, it is important to exclude other causes of GI symptoms (i.e., minimize diagnostic overshadow).
- Carefully review medications used for endocrine disorders for appropriateness of dosing and potential GI adverse effects.
- Due to fragmentation of care provided by multiple specialists, a brief comprehensive geriatric assessment of the older adult is advised to evaluate all potential contributing causes (to reduce cognitive and anchoring bias).
- Management should be appropriate for the patient's goals of care and to improve quality of life.

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DISCUSSION

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The 3Ds – Delirium, Dementia, and Depression

RAJEEV KUMAR MD CMD FACP

PRESIDENT- POST-ACUTE AND LONG-TERM CARE MEDICAL ASSOCIATION

1

Objectives

At the conclusion of this presentation, attendees should be able to:

1. Define and distinguish the main characteristics of the 3D Geriatric Syndromes: Dementia, Delirium, and Depression
2. List the underlying risk factors and most common causes of the 3Ds
3. List the medications and their potential side-effects most commonly used to treat the 3Ds
4. Describe the most effective non-pharmacologic strategies to manage the 3Ds

2

Speaker Disclosures

Dr. Kumar has no relevant financial relationship(s).

Dr. Kumar will present the off-label use of antipsychotics and other psychotropic medication/therapy for delirium and behaviors in dementia. Note that this has not been approved by the FDA.

3

3

Case

Mr. DL is an 84 y/o cis-gender male with dementia for the past 5 years, who is newly admitted to LTC due to increasing aggressive behaviors and hallucinations over the past few weeks. His spouse reports that his confusion will change throughout the day, seemingly worse in the afternoons and evenings. At times, he appears despondent and tells his spouse that he is worthless and wants to die. At other times, he is very sleepy. He is restless at night and sleeps poorly. He has fallen multiple times in the last year and his spouse is worried for his safety.

What is the underlying cause of his recent condition change?

- Advancing dementia of Lewy Body Disease
- Mixed delirium due to an unrecognized medical condition
- Depression with psychosis
- I have no idea how to tell the difference

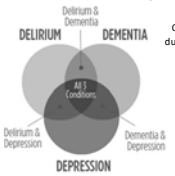
4

Which D?

5

The "Three Ds" Geriatric Syndromes

Acute change in mental status



Cognitive decline due to brain disease

Change in mood with feelings of worthlessness

Used with permission by the Registered Nurses' Association of Ontario

6

Are there "normal" changes in memory with age?

Yes!!

- Slower recall of information, such as names
- Increased effort needed to learn new tasks
- Occasional forgetfulness - May rely more on lists, calendars, and reminders
- Greater difficulty multi-tasking
- Easier distractibility
- Slower processing

BUT, dementia is NOT NORMAL in the older adult

7

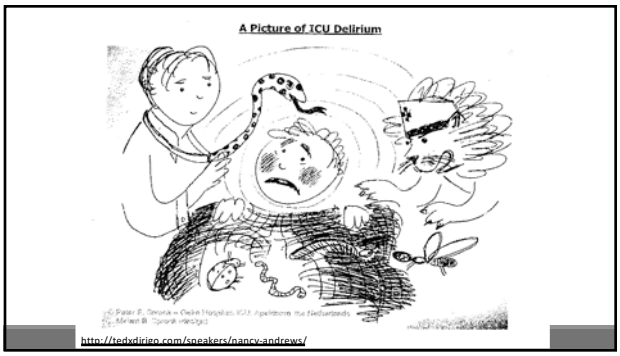
Cognitive Disorders: Warning Signs ⚠

- Asking the same questions over and over again, repeating self often
- Getting lost in familiar places
- Inability to follow directions
- Getting dates, people, or places mixed up
- Problems with self-care, nutrition, hygiene, or safety
- Unexplained weight loss or failure to thrive
- Medication non-adherence

8

Not all old age confusion is dementia

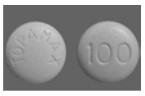
9



10

Delirium

Sudden and frightening onset of
confusion



11

Delirium

Difficulty answering questions
Don't make sense
May hallucinate
May be very agitated
Different personality

Hospital care is complex and fragmented.

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DELIRIUM IS…

TRANSIENT, FLUCTUATING, GLOBAL DYSFUNCTION OF COGNITION

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DELIRIUM IS NOT…

DEMENTIA

DEPRESSION

ONLY AGITATION

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Table 3. Comparison of hypo- and hyperactive delirium [58].

Feature	Hypoactive	Hyperactive
Arousal	Decreased arousal and alertness; somnolence; reduced awareness	Hypervigilant; easily startled; distractable
Mood	Depressed, irritable; mood swings; patient is disinhibited	Labile: from comative to euphoric
Psychomotor activity	Slow, quiet, withdrawn	Restless, agitated, combative, irritable
Past psychiatric history	May have experienced delirium before	Correlated with alcohol or drug withdrawal; may have experienced delirium before
Circadian rythm	Increased daytime sleepiness	Prominent disturbances; nightmares and night terrors

Or Mixed!

Hypoactive delirium has a worse prognosis with longer LOS and higher mortality

Krzych LJ, et al. Delirium superimposed on dementia in the perioperative period and intensive care. J of Clinical Medicine 2020; 9:1-19

15

Is it Delirium or Dementia?

16

Condition	Time Course	Distinguishing Features
Delirium	Acute onset, fluctuating, lasting days to weeks (though could be longer)	Impaired attention Altered level of consciousness
Dementia	Progressive worsening, permanent	Unimpaired attention and level of consciousness until severe stages

However, there are features that are common in both:

Disorientation
Sleep-wake cycle reversal
Memory impairment
Hallucinations

Misdiagnosis of dementia common in SNF patients and rates range from 18% to 85%.
Briesacher BA, et al. Am Geriatr Soc 68:2931-2936, 2020.

16

Delirium Can Also Look Very Much Like Depression

- 60% dysphoric
- 52% thoughts of death or suicide
- 68% feel "worthless"
- Up to 42% of cases referred for psychiatry consult services for *depression* are *delirious*
- *Consider catatonia in your delirium differential*

Farrell 1995

17

Bottom line: if you can't distinguish between the 3Ds based on clinical presentation, you must first rule out and work-up for **delirium: a dangerous diagnosis.**

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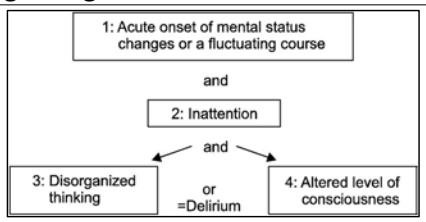
Diagnosing Delirium



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Video example

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Precipitants of Delirium

D Drugs
E Eyes, Ears (sensory deprivation)
L Low O2 States (MI, Stroke, PE, COPD exacerbation, organ failure)
I Infection
R Retention (Urine or Feces)
I Ictal (often absence)
U Underhydration, Undernutrition, Uncontrolled pain
M Metabolic (hypo/hyper-natremia, -calcemia, - thyroid, - glycemia; AKI)
S Subdural

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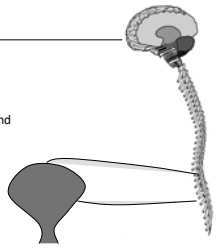
Cystocerebral Syndrome* (Urinary Retention)

Symptoms: pain, agitated

delirium, overflow incontinence,

acute renal failure

Well-established relationship between urinary retention and delirium but what about UTI and delirium?



Blackburn & Dunn, Arch Int Med 1990
Krinitski D, et al. J Am Geriatr Soc. 2021;69:3312–3323

22

UTI, ASB, and Delirium: Thorn in Geriatrician's Side

FIGURE 2 Forest plot of the main meta-analysis of 29 studies[20–23,32–56] expressing associations between delirium and UTI in older adults. 95% CI, 95% confidence interval

The association between delirium and AB in older adults in the only study reporting this association that we could find was statistically insignificant: OR 1.62; 95% CI 0.57–4.65; p-value 0.37.

Bottom line: Bacteriuria in the absence of focal urinary symptoms should not be considered an infection and should not automatically prompt treatment with antibiotics to treat delirium.

Krinitski D, et al. J Am Geriatr Soc. 2021;69:3312–3323 23

23

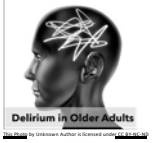
Drugs that can cause an ACUTE CHANGE IN MS

ANTIPARKINSON
Corticosteroid
URIN INCONT
THEOPHLLYINE
EMPTYING DRUGS

CV DRUGS
H2 BLOCKERS
ANTIBIOTICS
NARCOTICS
GERO-PSYCH
ENT

INSOMNIA
NSAIDS

MUSCLE Relaxants
SEIZURE



Flaherty JH. Clinics in Geriatric Medicine, 1998

24

Davies N. Nursing Older People. 2021; 33(2):33-41

Managing Delirium

LIMITED DATA IN PALTC

Table 1. Interventions to prevent delirium

Risk factor	Interventions
Cognitive impairment or disorientation	» Provide an environment with clear signage and tools that can orient the person to time, such as a calendar or clock that is in clear sight » Verbally orient the person to time, place, person and who you are » Encourage visits from the person's family and friends
Suboptimal nutrition	» Monitor the person's fluid intake and output closely to prevent dehydration » Work with a nutritionist to increase the person's fluid and food intake if necessary » If possible, provide the person's favourite foods and drinks » If the person uses dentures, ensure they fit well and are well maintained
Risk of infection	» Monitor the person closely for infections and treat these promptly
Limited mobility	» Encourage the person to undertake range of motion exercises, even if they are unable to walk » Provide the person with appropriate walking and mobilisation aids, if necessary » Post-surgery, encourage mobilisation as soon as possible
Pain	» Observe the person for non-verbal signs of pain such as wincing or guarding, so that the pain can be managed as soon as possible » Manage pain using the most appropriate pharmacological and non-pharmacological interventions » Reassess pain regularly and adjust pain management interventions as required
Sleep disturbances	» Provide a low-noise environment during sleep periods » Maintain a healthy sleep-wake schedule » Where possible, schedule medication administration and medical procedures at times that do not disrupt the person's sleep-wake schedule
Polypharmacy	» Ensure regular reviews of the person's medications by a pharmacist to modify dosages where necessary

(National Institute for Health and Care Excellence 2018)

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Management of Delirium: Pharmacologic

- Management of sleep-awake cycle: Melatonin 3-5 mg po QHS or Ramelteon 8 mg po QHS
  - Mixed evidence
  - Best evidence is for delirium prevention in ICU and perioperative settings
- Management of severe agitation:
  - **Antipsychotics do NOT prevent, shorten the duration of, or improve delirium**
  - Antipsychotics can protect patients when they are in imminent danger of harming themselves or others
  - Start with low doses and taper off as symptoms resolve (within 24-48 hours)
- Avoid benzodiazepines except in BDZ or ETOH withdrawal or if suspected catatonia

Han Y, et al. J Pineal Res. 2020 May;68(4):e12644. doi: 10.1111/jpi.12644. Epub 2020 Mar 25.
Campbell AM, et al. BMC Geriatr. 2019 Oct 16;19(1):272. doi: 10.1186/s12877-019-1297-6.
Ng KY, et al. J Clin Anesth. 2020 Feb;59:74-81. doi: 10.1016/j.jclinane.2019.06.027. Epub 2019 Jul 3.
Zhang Q, et al. Sleep Breath. 2019 Dec;23(4):1059-1070. doi: 10.1007/s11325-019-01831-5. Epub 2019 May 22.
Oh ES, et al. Ann Intern Med. 3 September 2019 [Epub ahead of print]. doi:10.7326/M19-1859
Nikooie R, et al. Ann Intern Med. 3 September 2019 [Epub ahead of print]. doi:10.7326/M19-1860

26

Iglseder B, et al. Wien Med Wochenschr. 2022 Jan 10:1–8.
Hshieh TT, et al. Clinics in Geriatric Medicine 36 (2020) 183–199

Stuck Between a Rock and a Hard Place

Haloperidol 0.25-3 mg per day (start 0.25-0.5 mg and titrate)
- Doses >4.5 mg/d → more EPS

Risperidone 0.5-3 mg/d, particularly for DSD

Quetiapine 25-300 mg/d for parkinsonism (lower risk EPS)

Benzodiazepines are to be avoided EXCEPT in withdrawal

Trazodone 25-200 mg/d
- Small study of palliative care patients with cancer, median daily dose 37.5 mg (25-50 mg/d)
- Reduced delirium severity and well tolerated (sedation common)

Maeda I, et al. J Palliat Med. 2021;24:914–8.

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Dementia

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Definition of Dementia

Memory impairment plus a decline in one or more cognitive domains—learning ability, social function, visuo-spatial function, language, complex attention, executive functioning

Significant decline from previous abilities

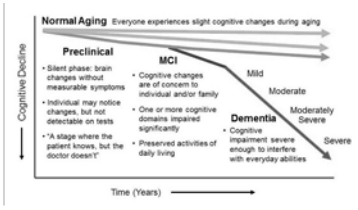
+Impairment in daily functioning

Decline is progressive, disabling

Caused by damage to the brain

29

3 stages in the development and progression of Dementia



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Impairment	Mild (1)	Moderate (2)	Severe (3)
Memory	Moderate memory loss; more marked for recent events; defect interferes with everyday activities	Severe memory loss; only highly learned material retained; new material rapidly lost	Severe memory loss; only fragments remain
Orientation	Moderate difficulty with time relationships; oriented for place at examination; may have geographic disorientation elsewhere	Severe difficulty with time relationships; usually disoriented in time, often to place	Oriented to person only
Judgment and problem	Moderate difficulty in handling problems, similarities, differences; social judgment usually maintained	Severely impaired in handling problems, similarities, differences; social judgment usually impaired	Unable to make judgments or solve problems
Community affairs	Unable to function independently at these activities though may still be engaged in some; appears normal to casual inspection	No pretense of independent function outside of home; appears well enough to be taken to functions outside of family home	No pretense of independent function outside of home; appears too ill to be taken to functions outside a family home
Home and hobbies	Mild but definite impairment of function at home; more difficult chores abandoned; more complicated hobbies and interests abandoned	Only simple chores preserved; very restricted interests, poorly maintained	No significant function in home
Personal care	Needs prompting	Requires assistance in dressing, hygiene, keeping of personal effects	Requires much help with personal care; frequent incontinence

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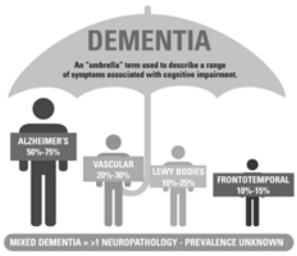
NOT ALL DEMENTIA IS ALZHEIMER'S DISEASE

Diagnosis Goals:

- Rule out reversible causes!
- Distinguish between the various types of dementing illnesses
- Build a comprehensive treatment plan (bio-psycho-social care) tailored to the individual



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Common Dementias in Older Persons

Reversible Causes

Alzheimer's disease (hyperamyloidosis)

Hippocampal sclerosis of aging

Primary age-related tauopathy (PART)

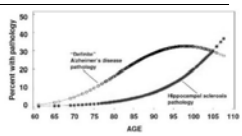
Vascular dementia

Frontotemporal Dementia

Limbic-predominate Age-related TDP-43 Encephalopathy (LATE)

Lewy body dementia (other Parkinsonian)

Dementia of Diabetes



Nelson PT1, et al. Brain. 2011 May;134(Pt 5):1506-18.

33

Reversible causes of MCI/Dementia

D rugs
E motional (depression)
M etabolic (hypothyroidism,B12)
E yes and ears (sensory isolation)
N ormal Pressure Hydrocephalus (ataxia, incontinence, and dementia)
T umor or other space-occupying lesion
I nfection (syphilis, chronic infections)
A trial fibrillation/Alcoholism
S leep Apnea

~10 % of all Dementias

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Diagnosis

Complete medical history
Physical and neurological examinations
- "Memory Test"→ bedside screening tool

Neuroimaging
Laboratory tests
Neuropsychological assessment (optional)

****At the present time, there is no single diagnostic test for detecting mild cognitive impairment, Alzheimer's Disease or other types of dementia**

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Detecting MCI

Which of the following dementia screening tools can also be used to screen for MCI?

1. Mini Mental Status Examination (MMSE)
2. Saint Louis University Mental Status Examination (SLUMS)
3. Montreal Cognitive Assessment (MoCA)
4. Mini-Cog Test
5. Rapid Cognitive Screen (RCS)
6. All of the Above

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Treatment of Dementia

There are **no proven cures or disease-slowing treatments…yet**

Goal is to **maximize cognitive abilities** for as long as possible (improve symptoms)

Medications only work in a small subset of patients and on average improve memory test scores by 1-2 points

There are **6 FDA approved medications**:

- Donepezil (Aricept)
- Rivastigmine (Exelon)
- Galantamine (Razadyne)
- Memantine (Namenda)
- Aducanumab (Aduhelm) and lecanemab (Leqembi)*

*monoclonal Ab targeting amyloid protein, FDA approval 6/2021 and 1/2023, respectively

Table 5
Summary of Drugs to Improve Cognitive Function

Generic Name	Brand Name	Dosage Forms	Mechanism	Starting Dosage	Goal Dosage
Donepezil	Aricept	IR tablet ODT	Cholinesterase inhibitor	5 mg/day	10 mg/day
Galantamine	Razadyne	IR tablet ER tablet	Cholinesterase inhibitor	4 mg bid or 8-12 mg/day	8 mg/day (ER) 16-24 mg/day (ER)
Memantine	Namenda	IR tablet	NMDA inhibitor	5 mg/day	10 mg bid
Rivastigmine	Exelon	Patch IR capsules Oral solution	Cholinesterase inhibitor	4.6 mg per 24 h 1.5 mg bid	9.5 mg per 24 h 6 mg bid

IR = immediate release; ODT = orally disintegrating tablet; ER = extended release; NMDA = N-methyl-D-aspartate (glutamate).

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Is the person taking the medication for one of the following reasons:

ChEIs (donepezil, rivastigmine or galantamine):
- Alzheimer's disease, dementia of Parkinson's disease, Lewy body dementia or vascular dementia.

Memantine:
- Alzheimer's disease, dementia of Parkinson's disease or Lewy body dementia.

Donepezil: 5mg, 10 mg

Rivastigmine capsules: 1.5 mg, 3 mg, 4.5 mg, 6 mg

Rivastigmine patch (24h): 4.6 mg, 9.5mg , 13.3mg

Galantamine CR capsule: 8mg, 16mg, 24 mg

Memantine: 10 mg, 20 mg

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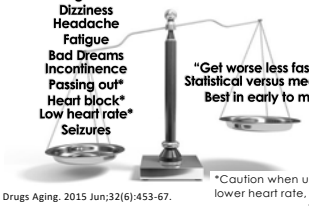
Acetylcholinesterase Inhibitors (ChEI)

Diarrhea
Nausea
Weight loss
Dizziness
Headache
Fatigue
Bad Dreams
Incontinence
Passing out*
Heart block*
Low heart rate*
Seizures



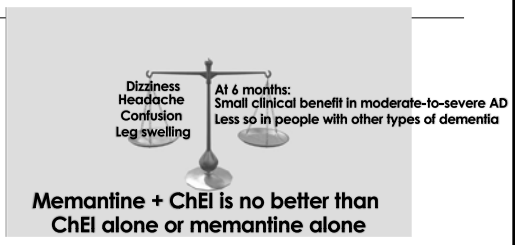
"Get worse less fast" (2-12 months)
Statistical versus meaningful change?
Best in early to moderate stage

*Caution when using medications that can lower heart rate, like metoprolol or diltiazem

Buckley JS, Salpeter SR. Drugs Aging. 2015 Jun;32(6):453-67.

39

Memantine



McShane R, et al. Cochrane Database Syst Rev. 2019 Mar 20;3(3):CD003154.

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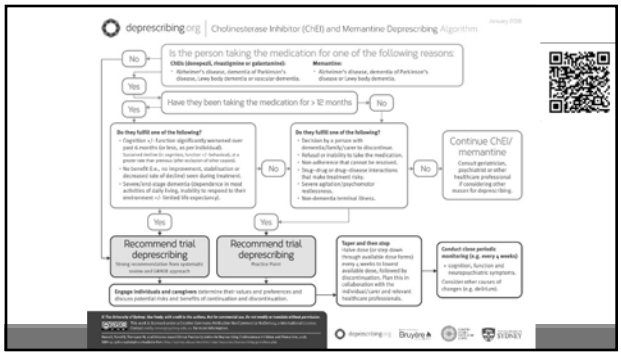

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Drugs That Impair Cognition

Anticholinergic
- Antiarrhythmic
- Antidepressants
- Antiemetics
- Antihistamine (1st generation)
- Antimuscarinics (urinary incontinence)
- Antiparkinsonian agents
- Antipsychotics
- Antispasmodics
- Muscle relaxants

Benzodiazapines (and Z-hypnotics)

Anticonvulsants

Opioids

Alcohol

Table 7. Drugs With Strong Anticholinergic Properties

Antiarrhythmic	Promethazine
Disopyramide	Pyrilamine
	Triprolidine
Antidepressants	
Amitriptyline	
Amoxapine	
Clomipramine	Antimuscarinics (urinary incontinence)
Desipramine	Darifenacin
Doxepin (>6 mg)	Fesoterodine
Imipramine	Flavoxate
Nortriptyline	Oxybutynin
Paroxetine	Solifenacin
Protriptyline	Tolterodine
Trimipramine	Trospium
Antiemetics	
Prochlorperazine	Antiparkinsonian agents
Promethazine	Benztropine
	Trihexyphenidyl
Antihistamines (first generation)	Antipsychotics
Brompheniramine	Chlorpromazine
Carbinoxamine	Clozapine
Chlorpheniramine	Loxapine
Clemastine	Olanzapine
Cyproheptadine	Perphenazine
Dexbrompheniramine	Thioridazine
Dexchlorpheniramine	Trifluoperazine
Dimenhydrinate	
Diphenhydramine (oral)	
Doxylamine	Antispasmodics
Hydroxyzine	Atropine (excludes ophthalmic)
Meclizine	Belladonna alkaloids
Clidinium-chlordiazepoxide	Scopolamine (excludes ophthalmic)
Dicyclomine	
Homatropine (excludes ophthalmic)	Skeletal muscle relaxants
Hyoscyamine	Cyclobenzaprine
Methscopolamine	Orphenadrine
Propantheline	

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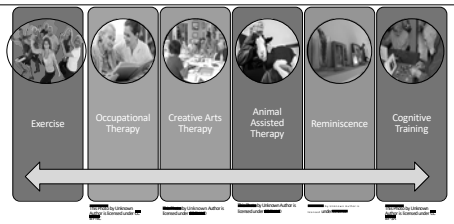
Main non-drug interventions for dementia



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3 Rules of Agitation Management

Tolerate

- Tolerate as much as possible, the behavior or agitation;

Anticipate

- Anticipate what typically agitates the person;

Don't Agitate

- If you notice that certain things tend to agitate the person, even simple things like reminders, then avoid those things if possible

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Depression

45

Is it Depression or Dementia?

Symptoms of Depression	Symptoms of Dementia
•Mental decline is relatively rapid •Knows the correct time, date, and location •**Difficulty concentrating** •Language and motor skills are slow, but normal •Notices or worries about memory problems	•Mental decline happens slowly •Confused and disoriented; becomes lost in familiar locations •Difficulty with short-term memory •Writing, speaking, and motor skills are impaired •Doesn't notice memory problems or seem to care

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Defining Depression in Older Adults

1. Same criteria as in younger adults, but may not endorse sadness or depressive symptoms; rather, somatic complaints and anxiety
2. SIG E. CAPSS 2 weeks or longer, persistent
   - **S**adness or irritability or dysphoric mood
   - Loss of **I**nterest
   - **G**uilt or feeling like a burden
   - Loss of **E**nergy, fatigue
   - Difficulties **C**oncentrating
   - Loss of **A**ppetite (or increased appetite and weight gain)
   - **P**sychomotor retardation (or agitation)
   - Difficulty **S**leeping or sleeping too much
   - **S**uicidal thoughts or desire to die
3. Must affect social, occupational, or other important areas of functioning

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Treatment Considerations

- Older age is a relative risk factor for poor outcomes
- If patient responds, continue Rx for 6 to 12 months
- If two or more episodes, continue on lifelong maintenance treatment
- Even with maintenance treatment, relapse rates are about 50%
- If psychotic symptoms present, need antipsychotic (recommended risperidone 0.25-0.5 mg per day)
- Comorbid depression and significant cognitive impairment particularly resistant to treatment, but antidepressants may slow down progression of CI

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Follow **STEPS** When Prescribing

1. **S**afety (overdose, GI issues, interaction with other meds)
2. **T**olerability (especially if patient is fearful and/or focused on side effects)
3. **E**fficacy (most depressants have similar efficacy)
4. **P**ayment (affordability is critical to compliance)
5. **S**implicity (# of times medication taken per day)

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Pharmacologic Management

Medication	Starting dose	Therapeutic Dose	MOA	Toxicity concerns
Sertraline	Start 12.5-25 mg	50-100 mg	SSRI	SIADH, OH, falls
Bupropion	150 mg	150-450 daily/BID	SNRI	↑ HR, OH, falls, insomnia, wt loss
Duloxetine	10-40 mg	40-120 mg	SNRI	Fewer cardiac, OH
Venlafaxine	75 mg	150-300 mg	SNRI	↑HR, ↑BP, OH, sweating
Fluoxetine	10 mg	20-80 mg	SSRI	QT prolong*, OH, falls
Mirtazapine	7.5 mg HS	30-45 mg	TCA/TeCA	Lethargy, appetite ↑, agranulocyt
Citalopram	5 mg	20-30 mg	SSRI	QT prolong* (>20), OH, falls
Escitalopram	5 mg	10-30 mg	SSRI	QT prolong* (>10), OH, falls
Paroxetine	10 mg	20-60 mg	SSRI	**Anticholinergic**, falls, OH
Trazodone	25 mg	25-200 mg	†	Lethargy, OH
Levomilnacipran	20 mg	20-120 mg	SNRI	$$$, OH
Vilazodone	20 mg	20-40 mg	†	$$$, OH
Vortioxetine	10 mg	10-20 mg	†	$$$, OH

†Serotonin Modulator

*>500 ms or increase of 20-60 mg = increased risk of Torsade's de Pointes, 0.8 and 1.2 cases per million person-years

50

Combinations

1. SSRI + quetiapine (Seroquel) (50 to 200 mg/d)
2. SSRI + olanzapine (Zyprexa) (2.5 to 5.0 mg/d)
3. SSRI + aripiprazole (Abilify) (2.5 to 10.0 mg/d)
4. SSRI + lurasidone (Latuda) (40 to 80 mg/d) (reduced weight gain) (consider asenaprine [Saphris] (5 to 10 mg bid) (Medicare covered?)
5. SSRI + primavanserin (Nuplazid) (17 to 34 mg/d) (Parkinson's or Lewy Body NCD) (limited availability; $1000/30 pills; no MC)
6. SSRI + bupropion (Wellbutrin) (75 to 150 mg/d)
7. SSRI + mirtazapine (Remeron) (7.5 to 15 mg/d)

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Important Adverse Drug Reactions

- Serotonin syndrome
  - Flushed skin, muscle twitches/myoclonus, HTN, fever, increased confusion
  - Increased risk with combination of SSRI's, SNRI's, mirtazapine, risperidone
- Hyponatremia (SIADH) – all SSRI's
- Anti-platelet effects, e.g. GI bleeding, bruising, etc. – all SSRIs
- Drug-drug interactions (especially paroxetine, fluoxetine, fluvoxamine) (ex: donepezil + fluoxetine or paroxetine = cholinergic toxidrome)

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3 Reasons Why Rx Is Not Effective

1. Patient does not adhere to the medication regimen
2. Trial with medication at an effective dose is not adequate; trial of 8-12 weeks at therapeutic dose is typical necessary before concluding failure
3. Dose is not high enough; be aware of maximum doses FDA approved, and don't be afraid to reach those limits (but need careful monitoring)

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Non-Pharmacologic Treatments

1. Counseling + medications is most effective
2. Cognitive Behavioral Therapy has most evidence of benefit
3. ECT for life-threatening illness or meds + psychotherapy ineffective
4. Repetitive Transcranial Magnetic Stimulation (rTMS) is alternative, but expensive and time-consuming and not as effective as ECT
5. Light Therapy
   - 10,000 LUX delivered for 30 min each day or 5,000-7,500 LUX for 45-60 min/day
   - Distance of no farther than 18 inches from face
   - Seasonal affective disorder, primary indication

ECT Indications

- Fail trials of two antidepressants
- Have intolerance of medications
- Prefer ECT over medications
- Have had previously good response to ECT
- Suffer major depression with psychosis
- Have intense suicidal thoughts or have made a suicide attempt
- Have prominent catatonic symptoms
- Have other factors suggesting a fast response is needed, such as food or fluid refusal

54

Take Home Points

Not all old age confusion is dementia, consider delirium and depression in differential

Not all dementia is Alzheimer's disease

Always look for the multiple potentially underlying causes of dementia and delirium

Non-pharmacologic prevention and management of delirium and dementia are more effective than medications.

Depression is treatable and often requires combination of Rx and non-Rx approaches

55

The American Society of Consultant Pharmacists (ASCP)

1

Overview and Agenda

- ASCP Overview
- Overview of the Industry: Pharmacist's Role in Long-term Post Acute Care (LTPAC)
- Overview of Consultant Pharmacist Role
- Legislative and Regulatory Summary
- Educational/Informational Resources
- Q&A Discussion

2

ASCP Overview

Mission

- "Promote healthy aging by empowering pharmacists with education, resources, and innovative opportunities."

Vision

- "Recognized expert providers of medication management. Improving the lives of older adults."

3

ASCP Overview

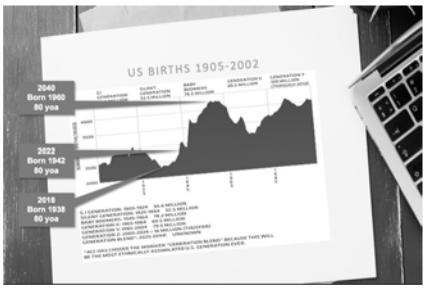
- Founded in 1969
- International organization with members located in all 50 states, Puerto Rico, and 12 countries
- Nonprofit association of pharmacists and pharmacies that manage medications of older people and the medically complex

4

Overview of the Industry: Pharmacist's Role in LTPAC

5

Overview of the Industry: Pharmacist's Role in LTPAC



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Overview of the Industry: Pharmacist's Role in LTPAC

ascp

7

What does a Consultant or Senior Care Pharmacist Do?

- Medication Regimen Review
- Medication Storage and Administrative Oversight
- Member of the Interdisciplinary Care Team
- Staff Education
- Policies and procedures
  - Diversion prevention
  - Infection control
- Committee meetings
- Patient Assessments
  - AIMS testing
  - "Incident to" support for physicians

ascp

8

ASCP Policy Priorities

- Medication Access
  - Six Protected Classes
  - MOUD access, especially in LTC
  - COVID-19 vaccines, mABs and antivirals
    - Long Term Care Partners Program for antivirals
    - **VAX/PAX packet with AMDA & NADONA**
  - Work with the DEA, FDA and CMS
- Medication Affordability
  - Drug pricing
  - Rebates
  - Direct and indirect remuneration (DIR) fees
  - Effectuation of the Inflation Reduction Act (IRA) and Maximum Fair Price (MFP)
- Medication Management
  - Equitable Community Access to Pharmacists Services (ECAPS) Act
  - Project PAUSE
  - DEA: e-kits, partial filling C-II, multi-dose formulations in e-kits
  - Educating on guidance from EPA, FDA, USP, HHS, and more.

ascp

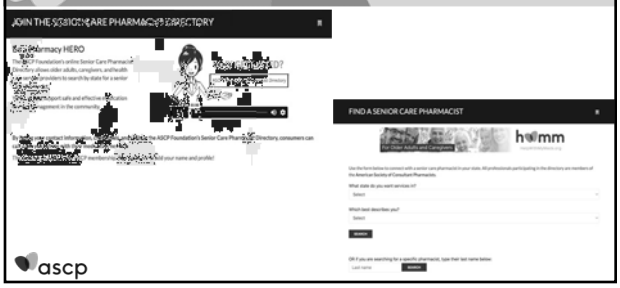
9

Resources Available through ASCP

- Practice Resource Center
  - www.ascp.com/page/prc
- Policy Statements (some co-written with AMDA)
  - www.ascp.com/page/policystatements
- The Senior Care Pharmacists Journal
  - www.ascp.com/page/journal
- Practice and Setting Guides via MEDPASS
  - www.med-pass.com/index.php/med-pass-and-ascpwe
- In-Person and Virtual Education
  - www.ascp.com/events
- APEX Seminars
  - COVID, DEI, treatments for Alzheimer's Disease agitation, etc.
- IRA effectuation analysis
  - www.ascp.com/news/684077/Pharmacy-Level-Analysis-of-CMS-Final-Guidance-on-Inflation-Reduction-Act-Implementation.htm
- Help With My Meds
  - www.helpwithmymeds.com

10

Senior Care Pharmacist Directory



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12

Cassandra Vonnes
DNP, GNP-BC, APRN, GS-C,
AOCNP, CPHQ,EBP-C, FAHA, AGSF

Board Member At-Large

GAPNA
Gerontological Advanced Practice Nurses Association

1

GAPNA 2024 – 2025 BOARD OF DIRECTORS

President	President- Elect	Past President	Secretary	Treasurer	Director at Large	Director at Large
George Peraza-Smith	Kimberly Posey	Ann Kriebel-Gasparro	Sara McCumber	Michele Talley	Sandi Vonnes	Vycki Nalls

2

GAPNA

The premier professional organization that represents the interests of advanced practice nurses, other clinicians, educators, and researchers involved in the practice or advancement of caring for older adults.

Mission Statement:

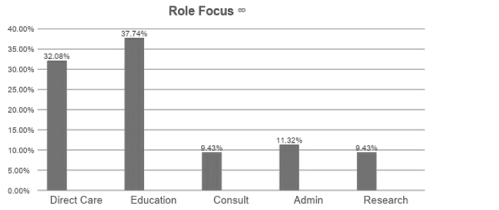
Promoting excellence in advanced practice nursing for the well-being of older adults.

Vision:

To continue to be the trusted leaders for the expert care of older adults.

3

GAPNA MEMBERSHIP PROFILE*



∞ at least 60% of APP position

* End of December 2023

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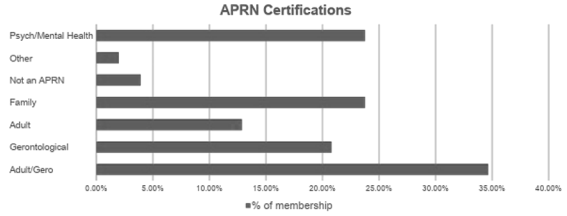
GAPNA MEMBERSHIP PROFILE



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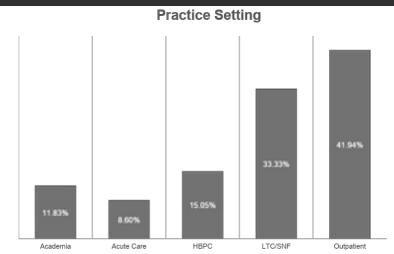
GAPNA MEMBERSHIP PROFILE



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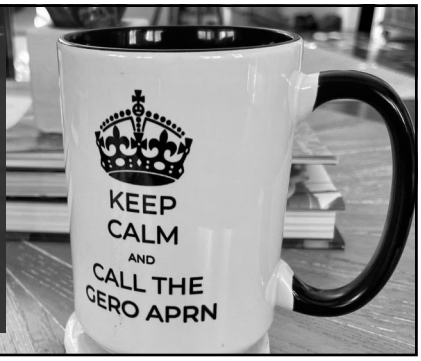
MEMBER ENGAGEMENT

- State Chapters (18)
- Committees (9)
- Special Interest Groups (6)
- GAPNA Exchange
- Social Media - "We Are Your People" Campaign
- GAPNA Chat podcast



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EDUCATION OFFERINGS

- Two conferences a year
  - Annual
    - September/October
  - Pharmacology
    - March/April
- Toolkits (online)
- Industry-sponsored webinars

9

GAPNA'S STRATEGIC PARTNERS

Eisai

NEUROCRINE BIOSCIENCES

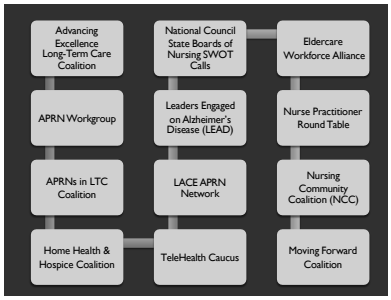
Otsuka

PSYCHU

Sumitomo Pharma

10

ADVOCACY



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SECURING GAPNA'S FUTURE

GAPNA LEADERSHIP INSTITUTE

- Cohort #5 starts October 2023
- Program extended to 18 months
- Past fellows assuming GAPNA leadership roles

12

MEETING THE NEEDS…

Diversity, Equity, & Inclusion Taskforce

13

GERONTOLOGICAL SPECIALIST CERTIFICATION

GNCC
Gerontology Nursing Certification Commission

- Specialty exam for APRNs with 2500 hours experience caring for older adults within the past 5 years
- *A Practical Guide for Gerontological Specialist*
- First cohort eligible for recertification in March 2023

14

IMPLEMENTING GAPNA'S STRATEGIC PLAN (2022-2025)

GOALS

- To improve patron experience as they are the foundation of the organization and cultivate our culture and growth.
- To be a clear, recognizable brand that is reflective of who we are and who we serve.
- To continue to evolve GAPNA to better serve all those who interact with our organization.

15

Cast me not off in the time of old age; forsake me not when my strength fails. Psalm 71:9

16

Practices to Optimizing Patient End of Life Outcomes in Long Term Care

Joseph Shega, MD
EVP, Chief Medical Officer

Christa Roman, MSHS, CDP
National Director of Long-Term Care Partnerships

VITAS Healthcare

1

Objectives

- Describe a novel approach to develop individualized hospice care plans that incorporate medical, psychological, and social support
- Recognize how hospice improves nursing home quality while ensuring goal-concordant care helping residents stay in location of choice and out of ED and hospital
- Identify best practices in coordinating hospice and LTC partnership of care through a state survey lens

2

2

Paradox of Care

What Americans Want	What Americans Get
71% choose quality of life over interventions, receive the opposite (Wehri, 2011)	30% of documented care aligns with preferences (Wehri, 2011) Over-medicalized care in last year of life accounts for 25% of Medicare spending (Califo, 2004)
80–90% prefer to be at home at end of life	Only 1/3 of deaths occur at home (CDC, 2014) 30% are in the ICU the month preceding death (Teno, 2013) 33% experience 4+ burdensome transitions in last 6 months life 50% of older adults in emergency department last month of life
Not to be a burden on their family	25% seniors are bankrupted by medical expenses (Kelley, 2013) 46% of caregivers perform nursing tasks, such as wound care and tube feeding (Reinhard, 2012) In the last year of a patient's life, family care averages nearly 66 hours per week (Rhee, 2009)

3

3

What Constitutes a Good Death

Patient	Proportion
Preferences for dying process	94%
Pain-free status	81%
Emotional well-being	64%
Dignity	67%
Life completion	61%
Treatment preferences	56%
Religiosity/spiritualty	61%
Presence of family	61%
Quality of life	22%
Relationship with HCP	39%
Other: costs, pets, touch	28%

Family Members in a NH
Basic resident care
Recognize and treat symptoms
Continuity of care
Respecting end of life wishes
Offering environmental, emotional, psychosocial, and spiritual support
Keep family informed
Promote family understanding
Establish partnership with family and guide through shared decision-making

Meier, et al. "Defining a good death (successful dying): literature review and a call for research and public dialogue." *The American Journal of Geriatric Psychiatry* 24.4 (2016): 261-271.
Gomella, et al. "Good end-of-life care in nursing home according to the family carers' perspective: A systematic review of qualitative findings." Palliative Medicine 33.6 (2019): 589-606.

4

Background

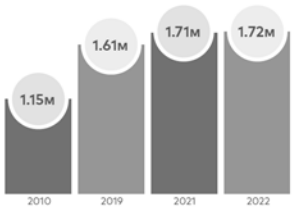
- Over 25% of US deaths occur in US nursing homes
  - 20% cancer, 25% COPD, 50% dementia
- Hospice remains underutilized by about 1 million US deaths per year, with 84% being related to non-cancer conditions
- 24% of NH patients eligible for hospice care, 6% are enrolled
- 49% general population die with hospice compared to 40% NH
- Patients on average have 3 transitions in last 90 days of life
- 30% of decedents use the skilled benefit in the last 6 months of life with about 1.5% being referred to hospice at time of discharge

Teno, et al. "Change in end-of-life care for Medicare beneficiaries: site of death, place of care, and health care transitions in 2000, 2005, and 2009." JAMA 309.5 (2013): 470-477.
Wang, et al. "End-of-life care transition patterns of Medicare beneficiaries." Journal of the American Geriatrics Society 65.7 (2017): 1406-1413.
Cagle, et al. "Hospice utilization in the United States: A prospective cohort study comparing cancer and noncancer deaths." Journal of the American Geriatrics Society 68.4 (2020): 783-793.

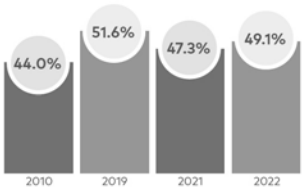
5

Who Receives Hospice Care

Number of Hospice Users in Millions



Share of Medicare Decedents who Use Hospice



2024 Hospice Facts and Figures

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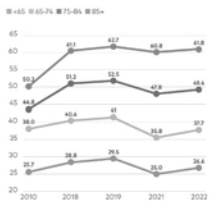
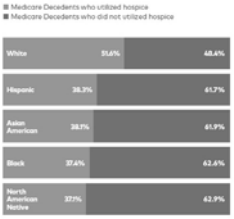
6

Who Receives Hospice Care, Cont.

Hospice Use by Age



Hospice Use by Race

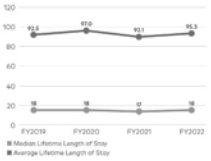


Facts and Figures 2024

7

How Much Care is Received

Days of Care by Length of Stay



Average Lifetime Length of Stay

Facts and Figures, 2024

8

Domains to Consider

Clinical Judgment	Would you be surprised if this patient passed within 6 months?
Nutrition	> 10% of normal body weight in 6 months > 5% of normal body weight in 1 month Declining Body Mass Index (BMI) < 22 kg/m2 Dysphagia
Physical Function	PPS, ADLs (3/6), falls, bedbound
Cognition	Awareness of self and environment, communication, consciousness
Healthcare Utilization	ED, hospital, clinic
Symptoms	Delirium, fatigue, shortness of breath, pain, and agitation
Disease-specific Decline	Cardiac, pulmonary, dementia, cancer, ESRD, sepsis

9

Functional Status Predicts Hospice Eligibility*:*

The lower the PPS, the higher the mortality

Hospice-eligible for advanced non-curable metastatic cancer

Hospice-eligible for advanced illness (e.g., heart failure, dementia, pulmonary disease)

%	Ambulation	Activity and Evidence of Disease	Self-Care	Intake	Level of Consciousness
100	Full	Normal Activity	Full	Normal	Full
		No Evidence of Disease			
90	Full	Normal Activity	Full	Normal	Full
		Some Evidence of Disease			
80	Full	Normal Activity With Effort	Full	Normal or Reduced	Full
		Some Evidence of Disease			
70	Reduced	Unable to Do Normal Job/Work	Full	Normal or Reduced	Full
		Some Evidence of Disease			
60	Reduced	Unable to Do Hobby/Housework	Occasional Assistance Necessary	Normal or Reduced	Full or Confusion
		Significant Disease			
50	Mainly Sit/Lie	Unable to Do Any Work	Considerable Assistance Required	Normal or Reduced	Full or Confusion
		Extensive Disease			
40	Mainly in Bed	As Above	Mainly Assistance	Normal or Reduced	Full or Confusion
30	Totally Bed Bound	As Above	Total Care	Reduced	Full or Drowsy or Confusion
20	As Above	As Above	Total Care	Minimal Sips	Full or Drowsy or Confusion
10	As Above	As Above	Total Care	Mouth Care Only	Drowsy or Coma
0	–	–	–	–	–

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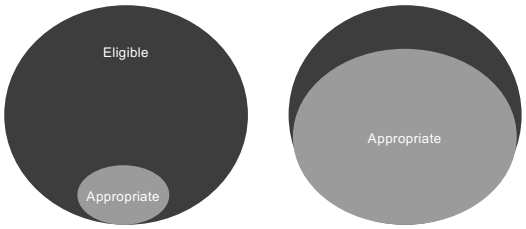
Hospice Enrollment



11

The Value of a Partnership with VITAS

All hospices must provide core services, but substantial variation exists in how these services are delivered.

Hospice Core Services
Core Team | All Levels of Care | 24/7 Availability Medications | Equipment

Elevated Care
- Telecare
- Telehealth
- Intensive Comfort Care®
- Visits after hours and weekends
- Physician centric care model

Distinctive Programs
- Advanced lung
- Heart failure
- Sepsis/Post-Sepsis
- Oncology
- Dementia behavioral protocols
- ED diversion
- Academic partnerships and publications
- Robust educational platform offering CEUs, CMEs, multilingual patient and family education
- Clinical pastoral education
- Local ethics committee

Complex Modalities
- IV hydration/TPN Lyte
- IV/PO antibiotics
- Inotrope therapy
- Sub-Q diuretics
- Therapy Services: PT, OT, Speech
- Paracentesis
- Thoracentesis
- Blood transfusions
- Oncology taskforce for anti-tumor treatments (hormonal, XRT)
- PleurX drains
- Nutritional counseling
- ICDs/LVADs

VITAS-Owned HME
- Oxygen, including high-flow
- Non-invasive ventilation, BiPAP, CPAP, home ventilator, and Trilogy
- Hospital bed
- Specialized mattresses
- ADL assist devices
- Incontinence supplies
- Wound care supplies
- Hospice-specific access (24/7/365) and speed to home medical equipment (HME)

Specialty Therapies
- Respiratory therapy
- Music
- Massage
- Pet
- PT/OT/Speech
- Wound care
- Dietary
- Child-life specialist
- Bereavement/ support groups
- Veterans specialist

12

12

VITAS Individualized Pampering (VIP) Program

- Program for patients receiving hospice services to reduce stress, promote engagement, and elevate their care experience
- Spa-like services and memory- support activities incorporated into a patient's individual hospice plan of care
- Performed by VITAS care team with a focus on comfort, relaxation, and support

13

VITAS Individualized Pampering (VIP) Program (cont.)

- Clinicians complete a questionnaire for each resident to determine which VIP activities the resident may benefit from:
  - What are some of your hobbies and/or interests?
  - Is there a particular type of music that you find soothing?
  - What is your career history?
  - Are you a veteran?
  - Do you have any requests for items or activities that may relieve stress or anxiety for you?
- All items or activities are individualized and incorporated into a resident's care plan

14

VIP Program Ordering Items

Door Hanger
This door hanger serves as a `Do Not Disturb` sign to be hung on the doors of LTC residents receiving pampering services for the VITAS Individualized Pampering Program. **OTP Item #E-10356A**

VIP Visit Card
This card is for VITAS staff to fill out and leave behind for the facility administrator, informing them that their resident was pampered today. **OTP Item #E-10356D**

VIP Pocket Folder
This is a folder is designed to hold the documents for the pampering kit used in the Pampered Resident Program.
OTP Item #E-10356C

15

VIP Program Ordering Items (cont.)

VIP Recycle Bag
This recycle bag lets VITAS staff and volunteers be able to store spa-like activities and games available to patients through the VITAS Individualized Pampering (VIP) Program.
Item No: LN12813
The Company Store

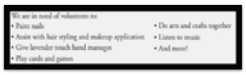
VIP Lavender Touch Experience Sticker
"Lavender Touch" Hand Touch The Lavender Touch Experience is a gentle soothing experience that can be offered to both patients and family members.
Programs to order the Avery stickers for the design to be printed on.

16

VIP Program Ordering Items (cont.)

Volunteer VIP Recruitment Flyer and Postcard

This is flyer/postcard is used to recruit compassionate volunteers to be a part of the VITAS Individualized Pampering (VIP) Program, providing personalized spa-like services and engaging mental activities that bring comfort and joy.
OTP Item # E-10356G & E-10356H



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VIP Program Ordering Items (cont.)

Volunteer VIP Patient Flyer

This one-sided flyer lets VITAS staff and volunteers know about the spa-like activities and games available to patients through the VITAS Individualized Pampering (VIP) Program. Contains a custom field for the RN or social worker's phone number.
OTP Item # E-10356J

18

VITAS Individualized Pampering (VIP) Program: Case Study

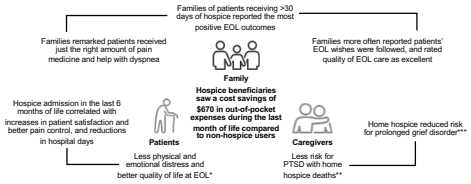
Case Study: MW is a 95-year-old female resident in a SLC with a terminal dx of cerebral atherosclerosis. She is bedbound, sleeps most of the day, and is unable to complete any task without assistance.

VITAS social worker completed questionnaire with MW's daughter to create an enjoyable, customized experience for MW. MW used to enjoy reading the newspaper with her breakfast every morning, manicures, and country music.

We placed a volunteer with her who reads the newspaper to her each morning while she has her breakfast. The HHA provides manicures and plays country music while providing care to MW who is awake and alert during these times. The family is overjoyed by their mother's response and the SLC is very pleased with this additional service.

19

Ongoing Demonstration of Hospice Quality Advantage to Patient, Families, and Caregivers



- Aldridge M., et al. (2022). Association between hospice enrollment and total health care costs for insurers and families, 2002-2018. *JAMA Health Forum*. 3(2), e215404-e215404.
- Harrison, et al. (2022). Hospice Improves Care Quality for Older Adults With Dementia in Their Last Month of Life: Study examines hospice care quality for older adults with dementia in their last month of life. *Health Affairs*, 41(6), 832-840.
- Kleingelt, et al. (2019). Exploring the association of hospice care on patient experience and outcomes of care. *BMC Supportive & Palliative Care*, 9(1), e13-e13.
- Kumar, et al. (2017). Family perspectives on hospice care experiences of patients with cancer. *Journal of Clinical Oncology*, 35(4), 412.
- Wright, et al. (2016). Place of death: correlations with quality of life of patients with cancer and predictors of bereaved caregivers' mental health. *Journal of Clinical Oncology*, 28(28), 4457.

20

20

Last Place of Care Experience

Outcome	Hospice	Nursing Home	Home Health	Hospital
Not Enough Help with Pain, %	18.3	31.8	42.6	19.3
Not Enough Help Emotional Support, %	34.6	56.2	70	51.7
Not Always Treated with Respect, %	3.8	31.8	15.5	20.4
Enough Information about Dying, %	29.2	44.3	31.5	50
Quality Care Excellent, %	70.7	41.6	46.5	46.8

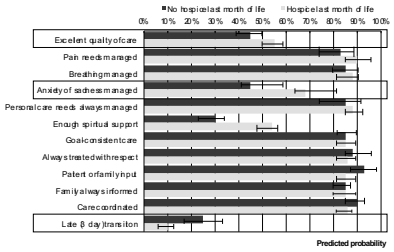
Teno, et al. "Family perspectives on end-of-life care at the last place of care." JAMA 291.1 (2004): 88-93.

21

21

Hospice Impact Dementia Care: Patient

- More likely to die at home (76% vs. 38%)
- Less likely to die in the hospital (7% vs. 45%)
- Improved pain and symptom management
- Fewer end-of-life transitions



Shega, et al. "Patients dying with dementia: experience at the end of life and impact of hospice care." *Journal of pain and symptom management* 35.5 (2008): 499-507.
Hanson, et al. "Hospice Improves Care Quality For Older Adults With Dementia In Their Last Month Of Life: Study examines hospice care quality for older adults with dementia in their last month of life." *Health Affairs* 41.6 (2022): 821-830.

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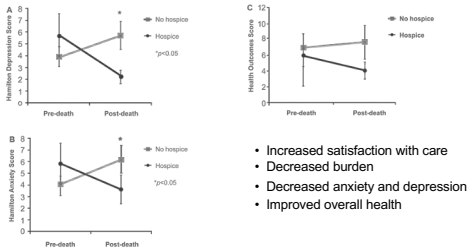
22

Hospice Impact Dementia Care: Family



- Increased satisfaction with care
- Decreased burden
- Decreased anxiety and depression
- Improved overall health

Irwin, et al. "Association between hospice care and psychological outcomes in Alzheimer's spousal caregivers." *Journal of Palliative Medicine* 16.11 (2013): 1450-1454.

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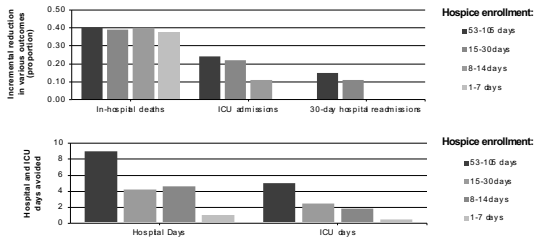
23

Hospice Decreases Acute-Care Utilization



Kelly, A. et al. Hospice Enrollment Saves Money and Improves Quality. *Health Affairs* 2013; 32(3):552–561.

24

Total Cost of Care Comparison by Disease State and Hospice Use in Last Year of Life*

Disease Group	No Hospice	Hospice						
		< 15 Days	15 – 30	31 – 60	61 – 90	91 – 180	181 – 266	> 266
ALL	$67,192	4%	-5%	-9%	-12%	-14%	-10%	-12%
Circulatory	$66,041	7%	-4%	-8%	-10%	-11%	-8%	-10%
Cancer	$76,625	10%	-1%	-6%	-9%	-13%	-14%	-20%
Neuro-degenerative	$61,004	12%	-6%	-9%	-11%	-11%	-5%	-4%
Respiratory	$77,892	-2%	-11%	-14%	-17%	-19%	-18%	-22%
CKD/ESRD	$82,781	1%	-14%	-21%	-24%	-24%	-23%	-27%

Spending is greater than non-hospice users | Spending is less than non-hospice users | No difference / not statistically significant

- Hospice care saved Medicare approximately $3.5 billion for patients in their last year of life*
- Those patients with hospice stays of ≥ 6 months** yielded the highest percentage of savings
  - For patients whose hospice stays were between 181-266 days, total cost of care was almost $7K less than non-hospice users
  - Hospice patients with stays of > 266 days spent approximately $8K less than non-hospice users

*NORC at the University of Chicago (2023). Value of Hospice in Medicare. Retrieved from: https://www.nhpco.org/wp-content/uploads/Value_Hospice_in_Medicare.pdf

**To be eligible to elect hospice care under Medicare, an individual must be entitled to Part A of Medicare and be certified as being terminally ill. An individual is considered to be terminally ill if the medical prognosis is that the individual's life expectancy is 6 months or less if the illness runs its normal course. Only care provided by (or under arrangements made by) a Medicare-certified hospice is covered under the Medicare Hospice Benefit. The hospice admits a patient only on the recommendation of the medical director in consultation with, or with input from, the patient's attending physician (if any).

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Improving Hospice Access for Short-Stay Residents

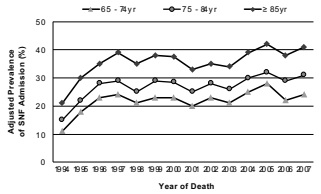


Figure 2. Adjusted prevalence of skilled nursing facility (SNF) admission in the last 6 months of life by age group. Prevalence of SNF admission in the last 6 months of life was calculated with adjustment for groups of age at death and year of death. Reported values incorporate survey weights to account for the complex survey design.

Table 2. Top 10 Medicare Provider Analysis Review File Diagnosis Related Group (DRG) Admission Diagnoses to a Skilled Nursing Facility in the Last 6 Months of Life

DRG Code	Definition	%
127	Heart failure and shock	8.3
462	Rehabilitation	5.4
236	Fractures of hip and pelvis	4.8
89	Simple pneumonia and pleurisy age > 17 years old with complications, comorbidities	4.8
88	Chronic obstructive pulmonary disease	4.4
12	Degenerative nervous system disorders	3.6
14	Intracranial hemorrhage or cerebral infarction (beginning October 1, 2004)	3.3
467	Other factors influencing health status	2.2
90	Simple pneumonia and pleurisy age > 17 years old without complications, comorbidities	2.1
82	Respiratory neoplasms	1.9

Aragon, et al. Medicare Post-Hospitalization Skilled Nursing Benefit in the Last Six Months of Life. *Archives of Internal Medicine* 2012; 172(20): 1573–1579.

26

Supportive Approaches

	Hospice	Home Health	Palliative Care
Eligibility Requirements	Prognosis required: ≤ 6 months if the illness runs its usual course	Prognosis not required	Varies by program, usually life-defining illness
	Skilled need not required	Skilled need required	Skilled need not required
Plan of Care	Quality of life and defined goals	Restorative care	Quality of life and defined goals
Length of Care	Unlimited	Limited, with requirements	Variable
Homebound	Not required	Required, with exceptions	Not required
Targeted Disease-Specific Program	✓	Variable	Variable
Medications Included	✓	X	X
Equipment Included	✓	X	X
After-Hours Staff Availability	✓	X	X
RT/PT/OT/Speech	✓	✓	X
Nurse Visit Frequency	Unlimited	Limited, based on diagnosis	Variable
Palliative Care Physician Support	✓	X	Variable
Levels of Care	4	1	1
Bereavement Support	✓	X	X

27

Case Study of MT

Patient
MT, 78-year-old female. Lives alone. Daughter involved in care.

Medical history
HTN, osteoporosis, DM, mild cognitive impairment, urinary tact infections (UTIs). Independent in activities of daily living (ADL). No longer drives or cooks. Recent fall w/hip fracture and hospitalization for hip replacement. Dehydration.

Signs/Symptoms
As of recent, has increase difficulty with mobility, dizziness, confusion post surgery.

Treatments
Requires intensive PT post surgery. MT is D/C from hospital to SNF for PT/OT to regain strength and mobility, including medication management

SNF Stay

MT is admitted to SNF, and care plan established for PT six days a week for six weeks.

After four weeks, MT is not meeting goals set forth by PT due to increased confusion and consistent UTIs.

4 Weeks Later

During SNF care plan meeting w/ facility DON, MDS Coordinator, SW, PT D/C plan back to home was discussed.

MT's daughter stated she is not able to care for MT at home.

SNF advises of LTC bed availability and offers assistance to begin Medicaid application process to determine if MT is eligible for LTC Medicaid for room and board coverage.

MT qualifies for LTC Medicaid, and transfers to the LTC unit in the SNF.

1 Year Later

During the course of a year, MT has been rehospitalized several times due to falls, pneumonia, UTIs, and increased delirium. She now has been diagnosed with dementia and HF NYHA Class 3.

MT is now dependent in 6/6 ADLS and has had a 10lb weight loss in last 6 months

During the facility's weekly meeting to review their at-risk residents and triggers on their resident level report in iQIES, the SW and MDS coordinator identified that MT may be eligible to receive hospice services and recommended a goals-of-care (GOC) conversation with the daughter.

2 Days Later

During a care plan meeting, the LTC team conducts a GOC conversation with MT's daughter.

Daughter wants to honor MT's care goal wishes and agrees to a hospice consult.

MT is referred to VITAS. VITAS admissions nurse meets with MT's daughter same day at facility. DTR signs consents and DNR.

MT is admitted to VITAS at LTC facility.

28

How Does Hospice Help Nursing Home Quality Measures?

- Resident indicated on minimum data set (MDS):
  - O0110K1 - Hospice care
  - J1400 - Physician six-month prognosis
- Internet Quality Improvement & Evaluation (iQIES)

29

CMS Nursing Home Quality Measures: Hospice Risk Adjustment

Long-Stay Resident Measures	Hospice Impact	Hospice Risk Adjustment/Excluded
Number of hospitalizations per 1,000 long-stay resident days	x	x
Number of outpatient emergency department visits per 1,000 long-stay resident days	x	x
Percentage of long-stay residents who got an antipsychotic medication	x	
Percentage of long-stay residents experiencing one or more falls with major injury	x	
Percentage of long-stay high-risk residents with pressure ulcers	x	x
Percentage of long-stay residents with a urinary tract infection	x	
Percentage of long-stay residents whose ability to move independently worsened	x	x
Percentage of long-stay residents whose need for help with activities of daily living has increased	x	x
Percentage of long-stay residents who report moderate to severe pain	x	
Percentage of long-stay low-risk residents who lose control of their bowels or bladder	x	
Percentage of long-stay residents who lose too much weight	x	x
Percentage of long-stay residents who have symptoms of depression	x	
Percentage of long-stay residents who got an anti-anxiety or hypnotic medication	x	x

30

CMS Quality Measures for Nursing Facilities

Based on Medicare claims and Minimum Data Set (MDS)

The Short-Stay quality measures that are risk-adjusted and/or excluded when under hospice care:

1. Percentage of short-stay residents who were re-hospitalized after a nursing home admission
2. Percentage of short-stay residents who have had an outpatient emergency department visit
3. Percentage of residents who made improvements in function

31

CMS Quality Measures for Nursing Facilities

Medicare.gov/Care Compare

32

CMS Quality Measures for Nursing Facilities

Based on Medicare claims and Minimum Data Set (MDS)

Long-stay quality measures that are excluded or risk adjusted when a resident is under hospice care:

1. Number of hospitalizations per 1,000 long-stay resident days
2. Number of outpatient emergency department visits per 1,000 long-stay resident days
3. Percentage of residents whose ability to walk independently worsened
4. Percentage of residents whose need for help with activities of daily living has increased
5. Percentage of residents who lose too much weight
6. Percentage of residents who used antianxiety or hypnotic medication
7. Percentage of residents with a stage II – IV or unstageable pressure ulcers

33

CMS Quality Measures for Nursing Facilities

Medicare.gov/Care Compare

34

CMS Quality Measures for Nursing Facilities

Medicare.gov/Care Compare

35

CMS Quality Measures for Nursing Facilities

Medicare.gov/Care Compare

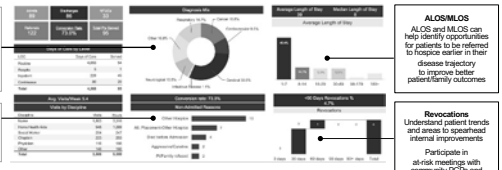
36

Drive Community Strategy and Execution

Partnership of Care information on mutual patients to help clinicians better understand opportunities to expand hospice care for their patients and how their current patients are being served.

Diagnosis Mix
A review of a clinician's data may reveal under-utilization of hospice for a particular diagnosis type

Not Admitted
reasons can provide insight into a clinician's referral habits



ALOS/MLOS
ALOS and MLOS can help identify opportunities for patients to be referred to hospice earlier in their disease trajectory to improve better patient/family outcomes

Revocations
Understand patient trends and areas to spearhead internal improvements

Participate in at-risk meetings with community PGPs and ALF/LTC leadership

Physician and Facility-Specific Partnership of Care provides data related to mutual patients

37

NH Pressures and Benefit Hospice Partnership

Pressure	Opportunity Hospice Partnership
Staffing	**Direct Care Support:** physician, team manager, nurse, aide, social worker, chaplain, volunteer. Safe discharges for short-stay residents admitted to hospice in community, veteran support **Nursing Home Staff Retention Initiatives:** Memorial services, Blessing of the Hands, bereavement support for staff members, team building, recognition of national healthcare holidays (CNA Week, Nurses Week, Social worker Month, Nursing Home Week)
Census	Continuous Care, respite, GIP, Telecare, co-marketing/education to local community, other healthcare professionals, and feeder hospitals with VITAS Rep
Quality	Survey support, attendance at Care Plan meetings, work with MDS to identify quality measures that may trigger hospice eligibility on iQIES that are risk adjusted/excluded for hospice, Behavioral Management Protocol, and Partnership of Care meetings to review care metrics of hospice patients.
Staff training	CEU's and non-CE in-services (hospice, pain, disease specific, dementia behaviors, communication, etc, Hospice and Nursing Home Partnership, MDS and Quality Measures), Goals of Care conversation.

38

Best Practices – Care Coordination

Continuing education (CE) offerings for staff on a variety of topics regarding advanced illness, including non-CE related in-service offerings

Most Requested In-Services

Education for staff in Senior living Communities:

- Change in Behavior: Delirium, Terminal Restlessness or Dementia
- Pragmatic Clinical Guide
- Advance Directives & Advance Care Planning
- Dementia at the End of Life
- Hospice Basics and Benefits
- Grief, Loss & Bereavement
- Pain Management at End-of-Life
- Palliative Care vs Curative Care
- Tracheostomy 101: Introduction to Tracheostomy Care
- Wound Care 101

39

VITAS Deeply Connecting to Our Communities

Together in care, together in community

Community Engagement

From packing backpacks with school supplies, to disaster relief drives, to our participation in Pride events, **VITAS supports our communities coast-to-coast**.

We Honor Veterans

78% of VITAS programs have the highest standard of veteran care recognized by NHPCO's 'We Honor Veterans'. VITAS teams regularly perform bedside salutes and pinning ceremonies. VITAS has granted many veterans' special final wishes.

Recognition for Commitment to Inclusion

VITAS contributions to healthcare have earned us accolades like the inaugural **Trailblazer award from National Black Nurses Association (NBNA) in 2024** and the **IDEA award from American Association of Male Nurses (AAMN) in 2022**.

40

Whose Life Is It Anyway?

Advanced Directives 2024 Update:
A Humorous Look at a Serious Subject

David A. LeVine, MD, CMD
Eric S. Kane, Esq.

1

Objectives . . .

- Restate the steps to proper advance care planning
- Paraphrase the ever-changing paradigm of the physician-patient relationship
- Describe the roles Appointed Guardian, Guardian Advocate, Supportive decision-making agreement supporter, Health Care Surrogate, Proxy by Statute, DPOA,

2

. . . Objectives

- Distinguish terminology: "(in)competency" vs. "(in)capacity"
- Define new terms e.g. Ethical will, Affidavit of Health Care Proxy, POLST, PDDO, MAID, DNAR, AND, SAFE
- Apply knowledge of Advance care planning to various clinical case scenarios

3

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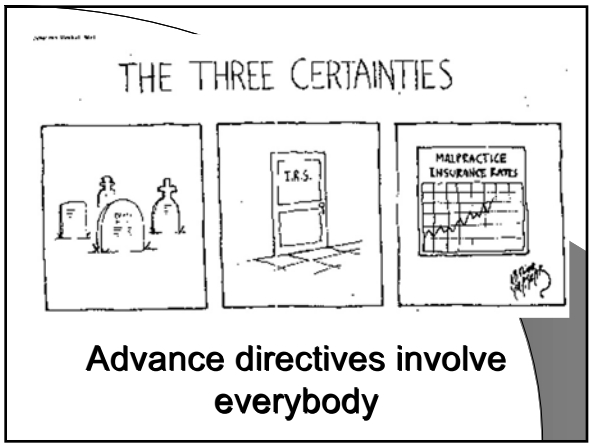
THE THREE CERTAINTIES
I.R.S.
MALPRACTICE INSURANCE RATES
Advance directives involve everybody

5


BIZARROCOMICS.COM
Facebook.com/BizarroComics
I suppose this was inevitable.

6

Patient Self Determination Act

- The patient with decision-making capacity may refuse unwanted medical treatment, even if this may result in their death (even in cases where the individual does not have life-threatening illness).
- Patients who lack capacity to make the decisions at hand have the same rights as those who have capacity (through authorized surrogate decision makers).

7

Health care Surrogate vs. Proxy

- "Proxy" - A competent adult who has not been expressly designated to make health care decisions for a particular incapacitated individual, but who is authorized pursuant to FS765.401 to make healthcare decisions for an individual.
- "Surrogate" - Any competent adult expressly designated by a principal to make decisions on behalf of the principal upon the principal's incapacity.

8

"Seinfeld" The Comeback (1997)

9

Role of the proxy/surrogate

- Entrusted to speak for the patient
- Involved in the discussions
- Must be willing, able to take the proxy role
- "Substituted Judgment Standard" –what the patient would want under the circumstances
- If there is no indication what the principal would have chosen, the surrogate may consider the patient's best interest in deciding what proposed treatments are to be withheld or withdrawn.

10

"Seinfeld" The Comeback (1997)

11

New Provision in the Florida Health Care Surrogate Law

- A principal may stipulate that the authority of the surrogate to receive health information or make health decisions (or both) is exercisable immediately without the necessity for a determination of capacity as provided in 765.204
- If disagreement between principal and surrogate, the principal overrides surrogate

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13

Proxy Statute (FS765.401)

1. Judicial Appointed Guardian/Guardian advocate
2. Spouse
3. Adult Children (majority)
4. Parent(s)
5. Adult Sibling(s) (majority who are reasonably available)
6. Adult Relative (who exhibited special care and concern and who has regular contact)
7. Close adult friend
8. Clinical social worker who is licensed to FS491 or a graduate of a court-approved guardianship program chosen by the bioethics committee (proxy can not be an employee of the medical provider/facility)

14

What is a guardian advocate?

- Florida statutes allows a Guardian Advocate to be appointed as a less intrusive and costly alternative to full guardianship. However, it is only available for persons with a developmental disability (as explained in Chapter 393,FS) or a person with mental illness (as explained in Chapter 394,FS).

15

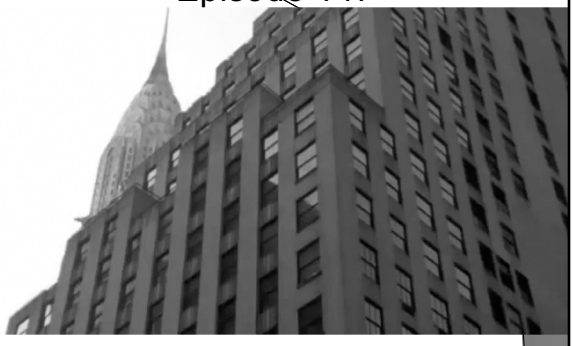
16

Patient and proxy education

- Define key medical terms
- Describe possible situations and outcomes– common and severe
- Instead of citing statistics on risks (pneumonia, infection, stroke, etc.), explain what may happen if things go well or go badly
- Explain benefits, burdens of treatments
  - Life support may only be short-term
  - Any intervention can be refused
  - Recovery cannot always be predicted

17

"Seinfeld" The Comeback (1997) Episode 147



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REMEMBER: IMPLIED CONSENT!

The patient and physician need to realize that not wishing to complete an advance directive is the same as consenting to all possible treatment in an emergency situation including electrocardioversion, intubation, and ventilation

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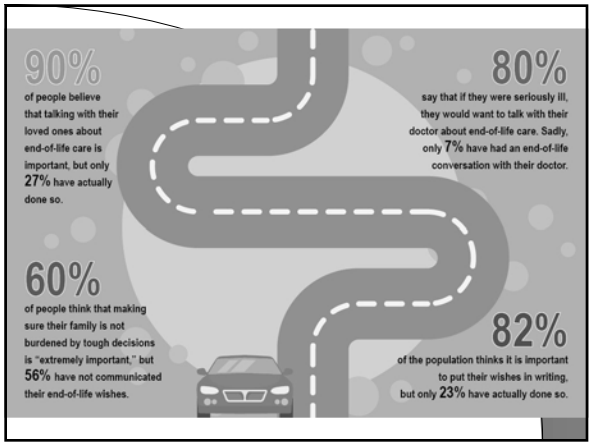

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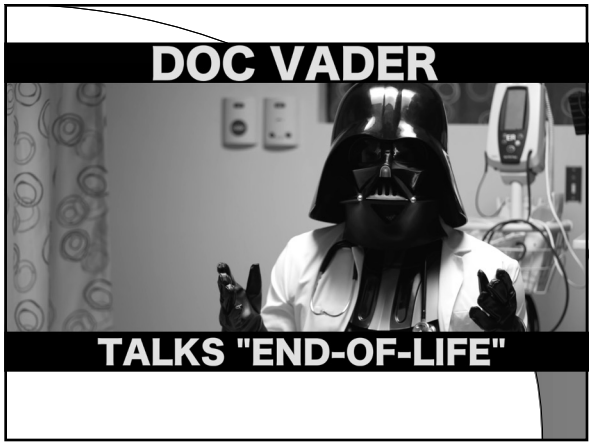

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96% of people who die in La Crosse have advanced directives

22

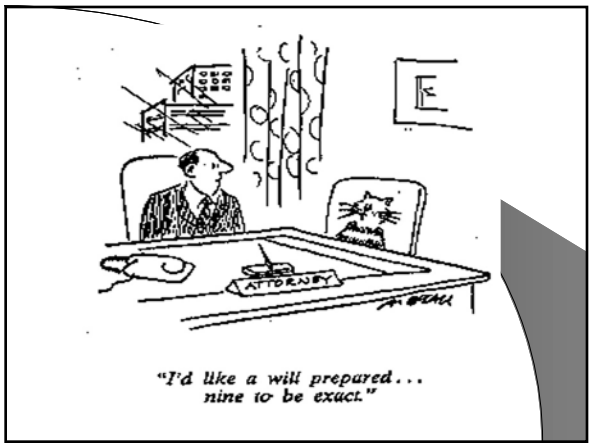
Common pitfalls

- Failure to plan
- Proxy absent for discussions
- Unclear patient preferences
- Focus too narrow
- Communicative patients are ignored
- Making assumptions

23

The Living Will

24



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DECLARATION OF LIVING WILL

THIS DECLARATION is made under Florida Law and I, [redacted] willfully and voluntarily make known my desire that my dying shall not be artificially prolonged under the circumstances set forth below, and do hereby declare:

If at any time I should have a terminal condition and my attending physician has determined that there can be no recovery from such condition and my death is imminent, where the application of life-prolonging procedures would serve only to artificially prolong the dying process, I direct that such procedures be withheld or withdrawn, and that I be permitted to die naturally with only the administration of medication or the performance of any medical procedure deemed necessary to provide me with comfort, care or to alleviate pain. I do not want nutrition and hydration (food and water) to be provided by gastric tube, intravenously or otherwise artificially administered.

In the absence of my ability to give directions regarding the use of such life-prolonging procedures, it is my intention that this Declaration shall be honored by my family and physician as the final expression of my legal right to refuse medical or surgical treatment and accept the consequences for such refusal.

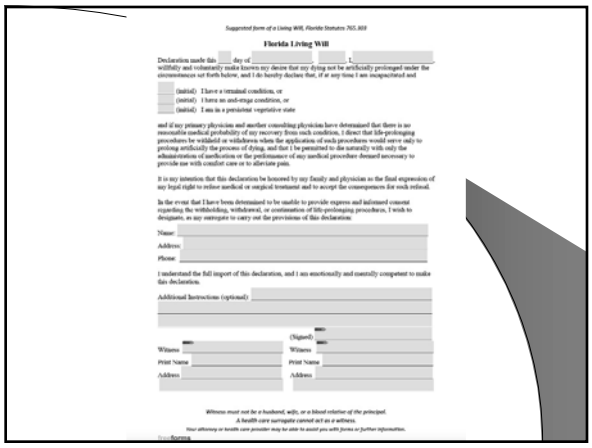
If I have been diagnosed as pregnant and that diagnosis is known to my physician, this Declaration shall have no force and effect during the course of my pregnancy.

I understand the full import of this Declaration and I am emotionally and mentally competent to make this Declaration.

26

performance of any medical procedure deemed necessary to provide me with comfort care or to alleviate pain. I DO (X) I DO NOT ( ) desire that nutrition and hydration (food and water) be withheld or withdrawn when the application of such procedures would serve only to prolong artificially the process of dying.

27



Florida Living Will

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(initial) I have a terminal condition, or
(initial) I have an end-stage condition, or
(initial) I am in a persistent vegetative state

and if my primary physician and another consulting physician have determined that there is no reasonable medical probability of my recovery from such condition, I direct that life-prolonging procedures be withheld or withdrawn when the application of such procedures would serve only to prolong artificially the process of dying, and that I be permitted to die naturally with only the administration of medication or the performance of any medical procedure deemed necessary to provide me with comfort care or to alleviate pain.

Witness _____ Witness _____
Print Name _____ Print Name _____
Address _____ Address _____

Witness must not be a husband, wife, or a blood relative of the principal.
A health care surrogate cannot act as a witness.

29

New Living Will Form

I_____, being of sound mind and body, do not wish to be kept alive indefinitely by artificial means.

Under no circumstances should my fate be put in the hands of peckerwood politicians who couldn't pass ninth-grade biology if their lives depended on it. If a reasonable amount of time passes and I fail to sit up and ask for (Please initial all that apply)

_____a martini, _____a margarita, _____a beer, _____a steak _____ the remote control,_____ A bowl of ice cream, _____ A Kailua on the rocks,_____ Sex,

It should be presumed that I won't ever get better. When such a determination is reached, I hereby instruct my appointed person and attending physicians to pull the plug, reel in the tubes, and call it a day.

Under no circumstances shall the members of the Legislature enact a special law to keep me on life-support machinery. It is my wish that these boneheads mind their own damn business, and pay attention instead to the future of the millions of Americans who aren't in a permanent coma.

Signature: _____
Date:_____
Witness:_____

30

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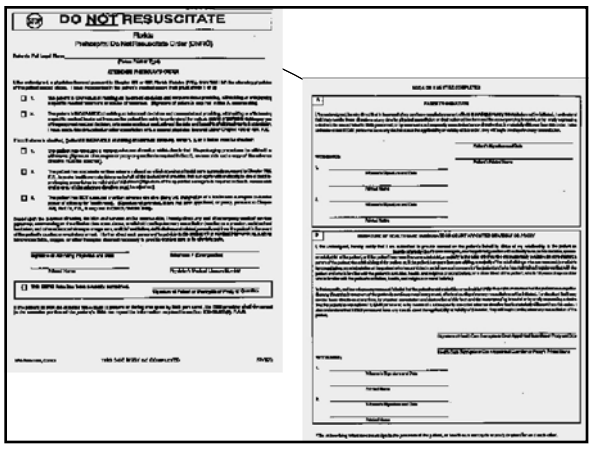
Five Wishes

My wish for:

- The person I want to make care decisions for me when I can't
- The kind of medical treatment I want or don't want
- How comfortable I want to be
- How I want people to treat me
- What I want my loved ones to know

32



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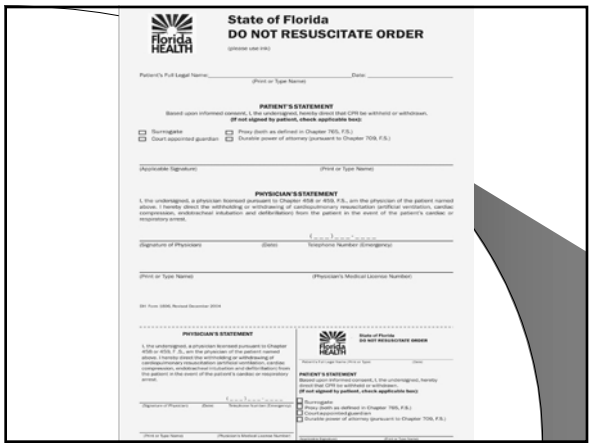

State of Florida
DO NOT RESUSCITATE ORDER

34

Allow a Natural Death (do not attempt resuscitation) Order

AND DNAR

Address

Final Documentation Box

Reason for making decision (e.g. patient's wishes, futility of resuscitation):

Who has been involved in the decision? (give name and relationship/role)

If it has not been appropriate to discuss this decision with the patient then the family/ carers should be aware of it, as part of the general treatment and care plan.

Medical Practitioner (print name)

Signature

Date

Next Review Date	Signature; review completed	Date Signed

35

POLST (Physician Orders for Life- Sustaining Treatment)

Oregon's registry for people who have made decisions about what kind of medical treatment they want in a life-threatening situation.

The POLST program has been around for two decades and was created to go further than standard "Do Not Resuscitate" orders in making hospitals aware of people's end-of-life wishes.

The registry was just instituted in 2009 to help streamline communication among medical professionals about POLST, especially in crisis situations. Since then, several other states have created similar programs.

POLST
physician orders for life-sustaining treatment

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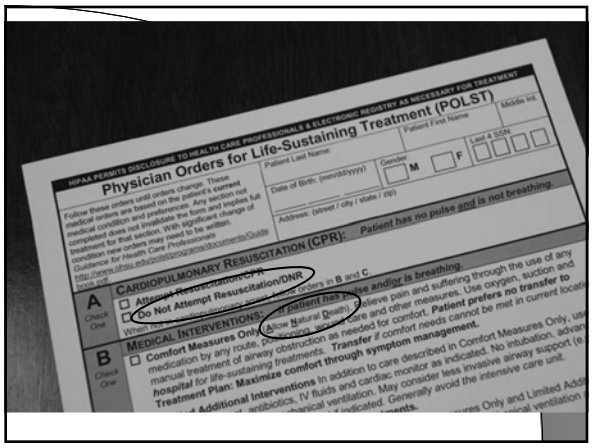

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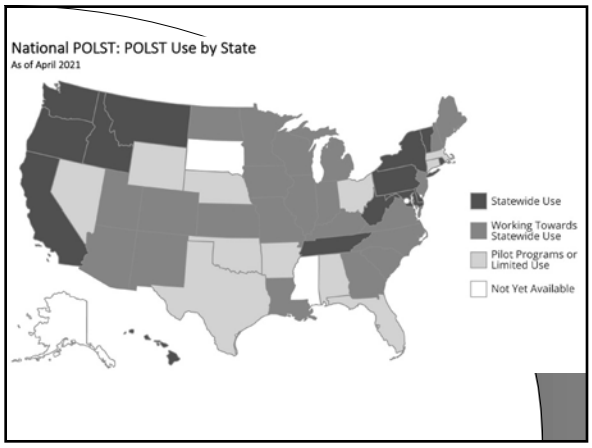

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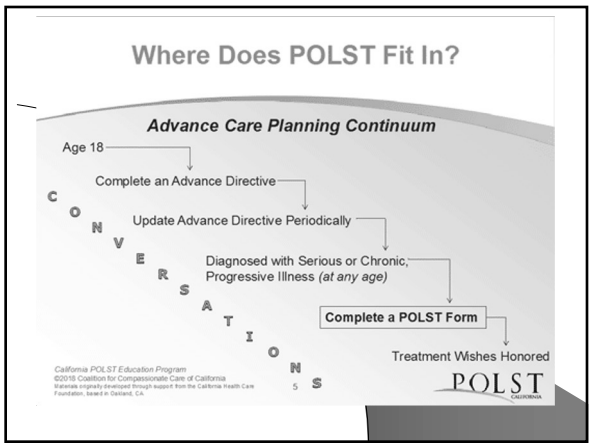
Differences Between POLST and Advance Directive

Characteristics	POLST	Advance Directive
Population	Seriously Ill	All Adults
Timeframe	Current and Future Care	Future Care
Form Can Completed By:	Physician / Healthcare Professionals	Patients
Healthcare Agent / Surrogate	Authorized to discuss options if patient lacks capacity.	Cannot complete form.
Transfer/Portability	Provider responsibility	Patient/Family Responsibility
Periodic Review	Provider responsibility	Patient/Family Responsibility

39

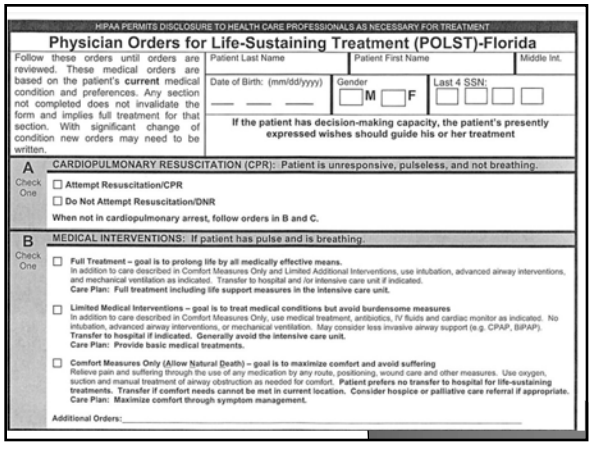


40

How often do POLST forms need to be updated?

- This form does not expire but should be reviewed whenever the patient:
- (1) is transferred from one care setting or level to another;
- (2) has a substantial change in health status; (3) changes primary provider; or
- (4) changes his/her treatment preferences or goals of care.

41



HIPAA PERMITS DISCLOSURE TO HEALTH CARE PROFESSIONALS AS NECESSARY FOR TREATMENT

Physician Orders for Life-Sustaining Treatment (POLST)-Florida

Follow these orders until orders are reviewed. These medical orders are based on the patient's **current** medical condition and preferences. Any section not completed does not invalidate the form and implies full treatment for that section. With significant change of condition new orders may need to be written.

Patient Last Name | Patient First Name | Middle Int.

Date of Birth: (mm/dd/yyyy) ___ ___ ___ | Gender ☐ M ☐ F | Last 4 SSN: ☐☐☐☐

If the patient has decision-making capacity, the patient's presently expressed wishes should guide his or her treatment

A Check One — CARDIOPULMONARY RESUSCITATION (CPR): Patient is unresponsive, pulseless, and not breathing.

☐ **Attempt Resuscitation/CPR**

☐ **Do Not Attempt Resuscitation/DNR**

When not in cardiopulmonary arrest, follow orders in B and C.

B Check One — MEDICAL INTERVENTIONS: If patient has pulse and is breathing.

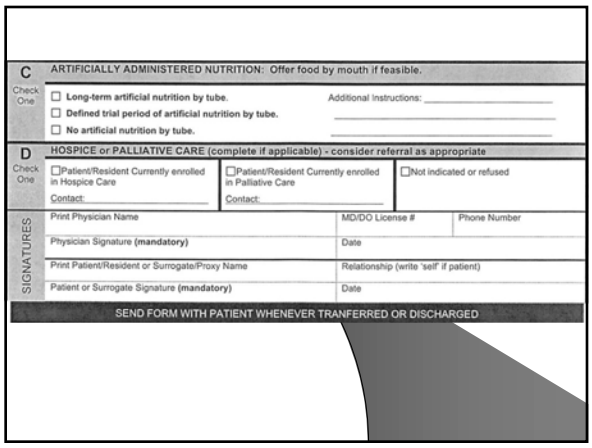
☐ **Full Treatment – goal is to prolong life by all medically effective means.**
In addition to care described in Comfort Measures Only and Limited Additional Interventions, use intubation, advanced airway interventions, and mechanical ventilation as indicated. Transfer to hospital and /or intensive care unit if indicated.
Care Plan: Full treatment including life support measures in the intensive care unit.

☐ **Limited Medical Interventions – goal is to treat medical conditions but avoid burdensome measures**
In addition to care described in Comfort Measures Only, use medical treatment, antibiotics, IV fluids and cardiac monitor as indicated. No intubation, advanced airway interventions, or mechanical ventilation. May consider less invasive airway support (e.g. CPAP, BiPAP).
Transfer to hospital if indicated. Generally avoid the intensive care unit.
Care Plan: Provide basic medical treatments.

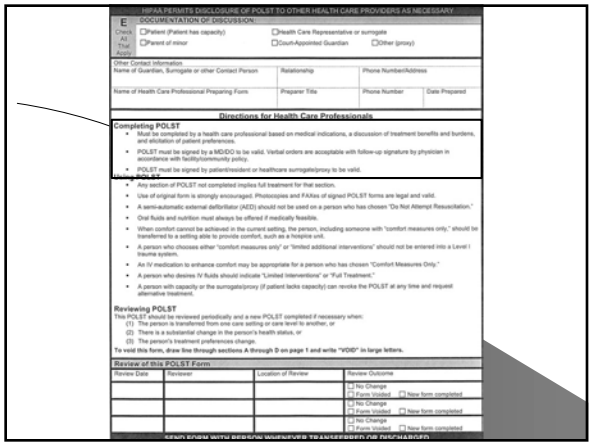
☐ **Comfort Measures Only (Allow Natural Death) – goal is to maximize comfort and avoid suffering**
Relieve pain and suffering through the use of any medication by any route, positioning, wound care and other measures. Use oxygen, suction and manual treatment of airway obstruction as needed for comfort. **Patient prefers no transfer to hospital for life-sustaining treatments. Transfer if comfort needs cannot be met in current location. Consider hospice or palliative care referral if appropriate.**
Care Plan: Maximize comfort through symptom management.

Additional Orders:_____

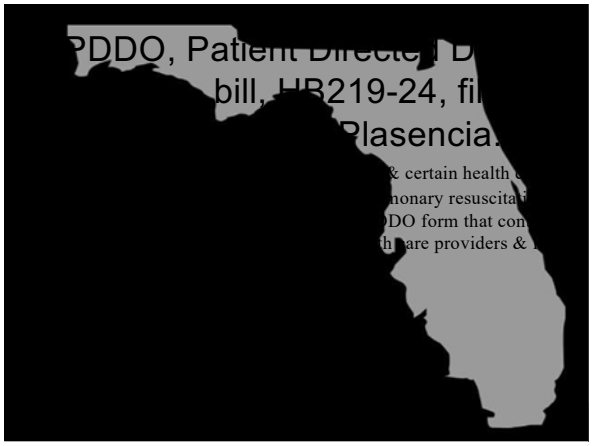
42


C ARTIFICIALLY ADMINISTERED NUTRITION: Offer food by mouth if feasible.
Check One
☐ Long-term artificial nutrition by tube. Additional Instructions: _____
☐ Defined trial period of artificial nutrition by tube.
☐ No artificial nutrition by tube.
D HOSPICE or PALLIATIVE CARE (complete if applicable) - consider referral as appropriate
Check One
☐Patient/Resident Currently enrolled in Hospice Care Contact: _____
☐Patient/Resident Currently enrolled in Palliative Care Contact: _____
☐Not indicated or refused
SIGNATURES
Print Physician Name | MD/DO License # | Phone Number
Physician Signature (mandatory) | Date
Print Patient/Resident or Surrogate/Proxy Name | Relationship (write 'self' if patient)
Patient or Surrogate Signature (mandatory) | Date
SEND FORM WITH PATIENT WHENEVER TRANFERRED OR DISCHARGED

43


HIPAA PERMITS DISCLOSURE OF POLST TO OTHER HEALTH CARE PROVIDERS AS NECESSARY
E DOCUMENTATION OF DISCUSSION:
Check All That Apply: ☐Patient (Patient has capacity) ☐Health Care Representative or surrogate ☐Parent of minor ☐Court-Appointed Guardian ☐Other (proxy)
Other Contact Information
Name of Guardian, Surrogate or other Contact Person | Relationship | Phone Number/Address
Name of Health Care Professional Preparing Form | Preparer Title | Phone Number | Date Prepared
Directions for Health Care Professionals
Completing POLST
• Must be completed by a health care professional based on medical indications, a discussion of treatment benefits and burdens, and elicitation of patient preferences.
• POLST must be signed by a MD/DO to be valid. Verbal orders are acceptable with follow-up signature by physician in accordance with facility/community policy.
• POLST must be signed by patient/resident or healthcare surrogate/proxy to be valid.
Using POLST
• Any section of POLST not completed implies full treatment for that section.
• Use of original form is strongly encouraged. Photocopies and FAXes of signed POLST forms are legal and valid.
• A semi-automatic external defibrillator (AED) should not be used on a person who has chosen "Do Not Attempt Resuscitation."
• Oral fluids and nutrition must always be offered if medically feasible.
• When comfort cannot be achieved in the current setting, the person, including someone with "comfort measures only," should be transferred to a setting able to provide comfort, such as a hospice unit.
• A person who chooses either "comfort measures only" or "limited additional interventions" should not be entered into a Level I trauma system.
• An IV medication to enhance comfort may be appropriate for a person who has chosen "Comfort Measures Only."
• A person who desires IV fluids should indicate "Limited Interventions" or "Full Treatment."
• A person with capacity or the surrogate/proxy (if patient lacks capacity) can revoke the POLST at any time and request alternative treatment.
Reviewing POLST
This POLST should be reviewed periodically and a new POLST completed if necessary when:
(1) The person is transferred from one care setting or care level to another, or
(2) There is a substantial change in the person's health status, or
(3) The person's treatment preferences change.
To void this form, draw line through sections A through D on page 1 and write "VOID" in large letters.
Review of this POLST Form
Review Date | Reviewer | Location of Review | Review Outcome
☐ No Change ☐ Form Voided ☐ New form completed
☐ No Change ☐ Form Voided ☐ New form completed
☐ No Change ☐ Form Voided ☐ New form completed
SEND FORM WITH PERSON WHENEVER TRANSFERRED OR DISCHARGED

44



45

Ethical Will (Zava'ah)

The ethical will is a document designed to pass ethical values from one generation to the next.

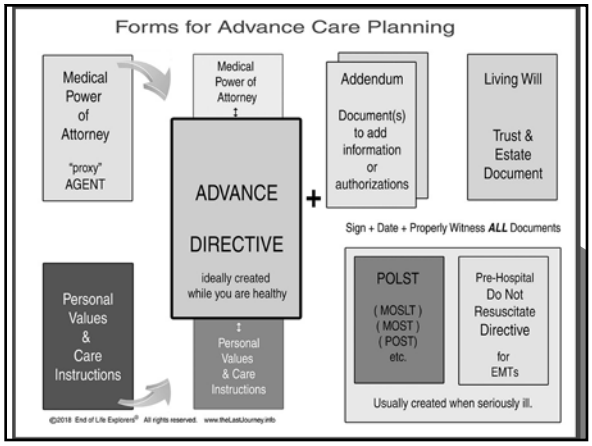
The original template for its use came from Genesis 40:1-33. A dying Jacob gathered his sons to offer them his blessing and to request that they bury him not in Egypt, but instead in Canaan in the cave at Machpelah with his ancestors.

46

The purpose of the ethical will is pass on wisdom and love to future generations

- Cultural and spiritual values
- Blessings and expressions of love for, pride in, hopes and dreams for children and grandchildren
- Life-lessons and wisdom of life experience
- Requests for forgiveness for regretted actions
- Rationale for philanthropic and personal financial decisions
- Stories about the meaningful "stuff" for heirs to receive
- Clarification about and personalization of health directives
- Requests for ways to be remembered after death.

47



48

Advance Directive Documents

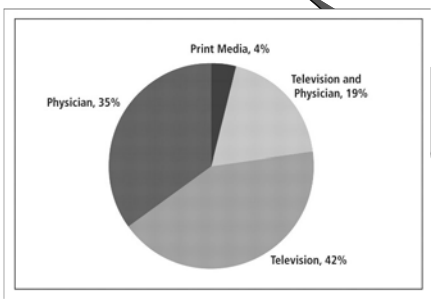
- Last Will and Testament (Trustee designation)
- DPOA (often with medical DPOA)
- Living Will (often with HCS designation)
- Health Care Surrogate designation
- Ethical Will
- Florida DNRO (yellow form)
- CMO
- DNAR
- AND
- Portable medical orders go by 15 different names: POLST/ MOLST/ POST /MOST /TPOPP/ COLST/ DMOST/ IPOST/ TOPP/ LaPOST
- PDDO (Florida)
- Supportive Decision Making Agreement

49

Supported Decision Making Agreement

50

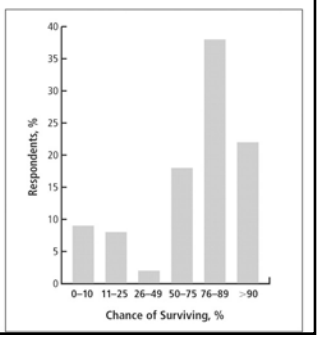
How Misconceptions Among Elderly Patients Regarding Survival Outcomes of Inpatient Cardiopulmonary Resuscitation Affect Do-Not-Resuscitate Orders



51

Misconceptions Among Elderly Patients Regarding Survival Outcomes of Inpatient Cardiopulmonary Resuscitation

- >60% of older pts over 65 believe there is a >75% chance they will be successfully resuscitated



52

Facts regarding code survival and outcomes

Code success in hospital setting overall survival to discharge range from 12-17% for all populations with <8 % surviving 30 days post hospital (UTD Jan 2024)

Patients with stable metastatic cancer have a 6.2% survival to discharge rate. If their condition is deteriorating in hospital, survival drops to 0% (Cancer 2001, 92:1905-1912)

Study of 434,000 Medicare pts found those 85 and older had a 6% chance of surviving hospitalization, and chronically ill elderly have < 5% chance of leaving hospital. Of the survivors, >50% will die within a year post arrest.

Cardiac arrest in community and nursing facilities have similar outcomes to each other and about 1/2 to 1/3 of the success of a hospital setting

53

Decreased likelihood of survival to discharge:

- Age
- Cancer especially metastatic CA
- Cerebrovascular accident
- Congestive heart failure
- Homebound status
- Hypotension
- Pneumonia
- Sepsis
- Serum creatinine level above 1.5 mg/dL

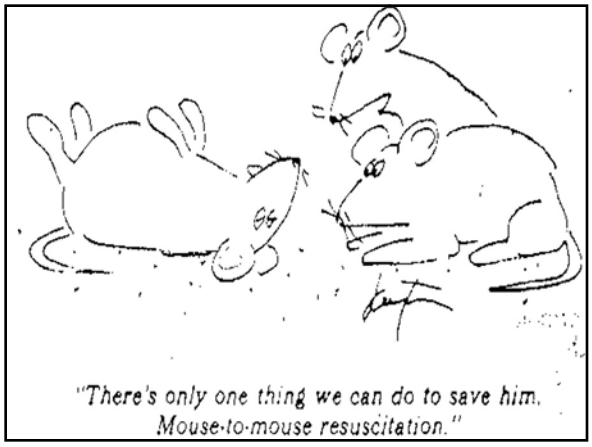
Are cardiac patients more likely or less likely to survive resuscitation?

Acute myocardial infarction on admission and a history of coronary artery disease were both associated with an increased likelihood of survival to discharge.

54

Despite initiatives to require discussion of Advanced Directives with patients on hospital admission, the DNR order is written on approximately 3-4% of the hospitalized patients in U.S.

55



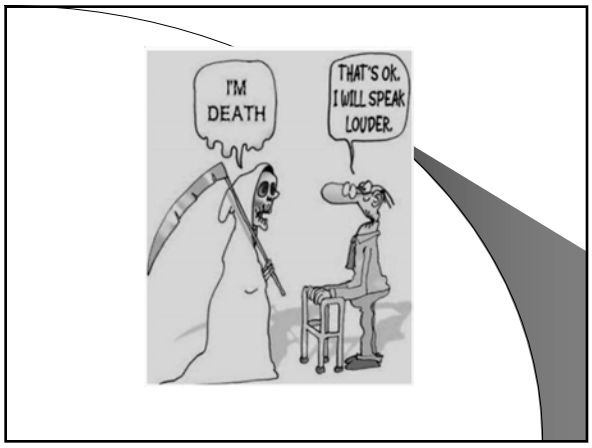
56

Life-sustaining treatments

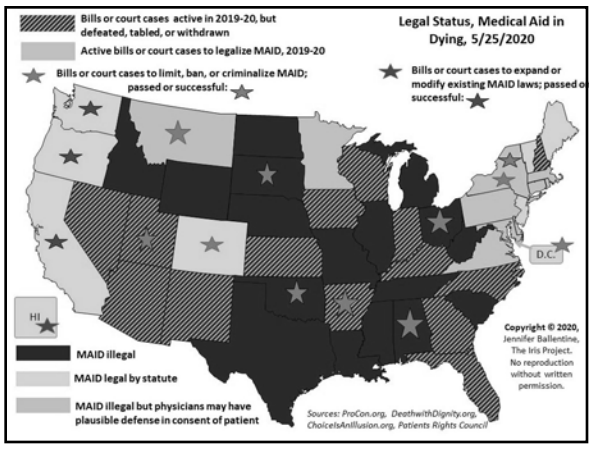
- Resuscitation
- Elective intubation
- Surgery
- Dialysis
- Blood transfusions, blood products
- Diagnostic tests
- Artificial nutrition, hydration
- Antibiotics, O2
- Other treatments
- Future hospital, ICU admissions

57

58


I'M DEATH
THAT'S OK. I WILL SPEAK LOUDER.

59


Bills or court cases active in 2019-20, but defeated, tabled, or withdrawn
Active bills or court cases to legalize MAID, 2019-20
Bills or court cases to limit, ban, or criminalize MAID; passed or successful:
Legal Status, Medical Aid in Dying, 5/25/2020
Bills or court cases to expand or modify existing MAID laws; passed o successful:
D.C.
HI
MAID illegal
MAID legal by statute
MAID illegal but physicians may have plausible defense in consent of patient
Sources: ProCon.org, DeathwithDignity.org, ChoiceIsAnIllusion.org, Patients Rights Council
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60

61

Determining capacity to give informed consent

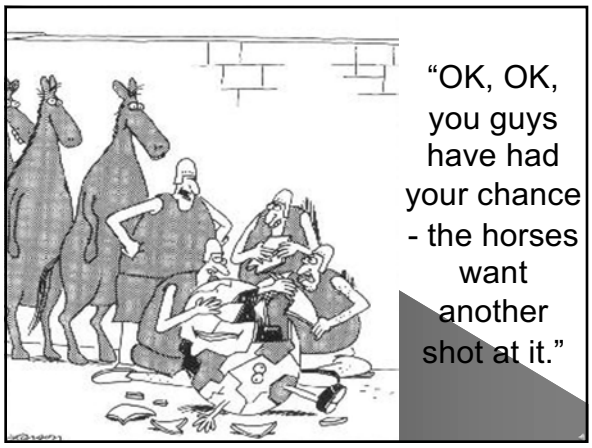
- Problem treatment would address
- What is involved in the treatment / procedure
- What is likely to happen if the patient decides not to have the treatment
- Treatment benefits
- Treatment risks (common and severe)
- Other options/alternatives

62

Special Circumstances: Health Care Surrogate Limitations

- Making End of Life Decisions Without Clear Advanced Directives(Living Will) –degree of certainty varies by state
- Termination of Pregnancy
- Voluntary admission to psychiatric facility
- Electro Convulsive Therapy
- Futile Care

63



64

The changing paradigm

- Paternity
- Autonomy/Self-determination
- Mutuality
  - Shared decision making
  - Patient/Family centered care

65

Models of decision making

TABLE 4.3 Models of treatment decision-making in a doctor–patient dyad

Analytical stages		Paternalistic (intermediate)	Shared (intermediate)	Informed
Information exchange	Flow	One way (largely)	Two way*	One way (largely)
	Direction	Doctor → patient	Doctor ↔ patient	Doctor → patient
	Type	Medical	Medical and personal	Medical
	Amount*	Minimum legally required	All relevant for decision-making	All relevant for decision-making
Deliberation		Doctor alone or with other doctors	Doctor and patient (plus potential others)	Patient (plus potential others)
Deciding on treatment to implement		Doctors	Doctor and patient	Patient

* Minimum required.

66

QUESTIONS WE NEED TO ASK?

Dr. Ronnie Rosenthal, professor of surgery and geriatrics at Yale Schoolof Medicine and co-leader for the Quality in Geriatric Surgery Project
Dr Zara Cooper associate professor of surgery at Harvard Medical School

- What does living well mean to you?
- How does your health affect your day-to-day life?
- What do you hope to do in the next year?
- What should I know about you to give good care?
- Regarding health, what's most important to you?
- What are you expecting to gain from this procedure?
- What conditions or treatments worry you the most?
- What abilities are so critical to you that you can't imagine living without them?

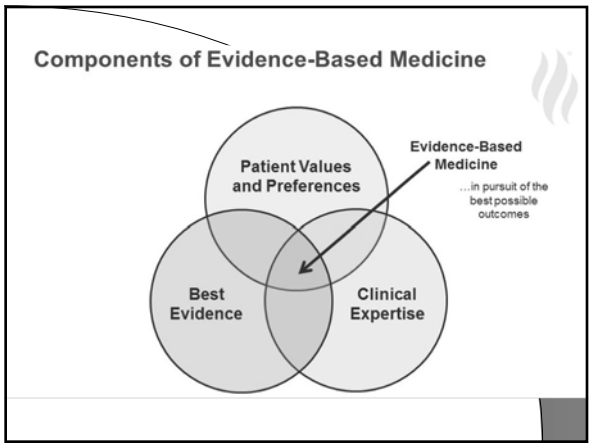
67

"Older patients, it turns out, often have different priorities than younger ones. More than longevity, in many cases, they value their ability to live independently and spend quality time with loved ones"

Dr. Clifford Ko, professor of surgery at UCLA's David Geffen School of Medicine

68

69

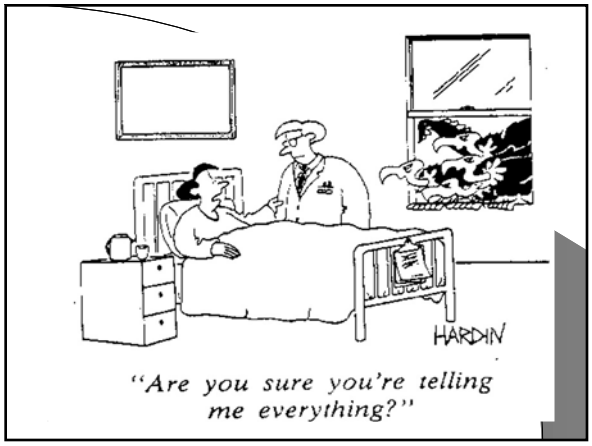


70

Communication is the key

- Many conflicts occur because of lack of communication between medical staff, patient, and family
- Most desirable to communicate before major dilemmas occur (if possible) so that everyone is comfortable with the treatment plan.
- Care plan meetings, frequent telephone and face-to-face communication by physicians, health-care extenders, nursing staff, patients, and families

71



72

"Seinfeld" The Comeback (1997)

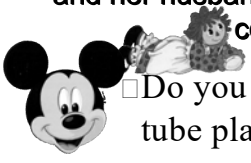
73

Applying Advance directives

Case Scenarios

74

Minnie is readmitted to your SNF following a stroke. She has mild cognitive impairment. She has no Living Will or HCS designation. She is noted to have dysphagia with aspiration. She refuses all food and medicine. Both her husband, Mickey and their daughter, Ann, want a feeding tube, and her husband signs the informed consent.



- Do you order G-tube placement?

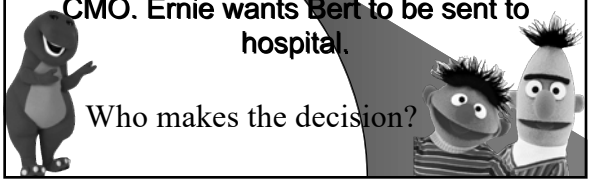
75

Do you order G-tube placement?

- A. YES
- B. NO
- C. NOT ENOUGH INFO
- D. Feeling too groggy from a big meal to think clearly right now

76

Bert has vascular dementia and suspected sepsis. He has no written Living Will or HCS documentation. His brother, Ernie, visits Burt at your LTC facility everyday. Burt's son, Barney, has never called nor seen his father since his LTC admission 3 yrs ago. His son, Barney, is notified and requests CMO. Ernie wants Bert to be sent to hospital.



Who makes the decision?

77

Who makes the decision?

- A. Ernie, the involved brother
- B. Barney, the distant son
- C. Courts need to decide
- D. Have all involved parties watch TV episodes of Barney and Sesame Street together before making their final decision.

78

Raggedy Ann has dementia and needs THR after a fracture. You determine Ann is incapacitated and therefore cannot give informed consent.
Her boyfriend, Donald, has Durable Power of Attorney.

Can he give consent?

79

Can he give consent?

- A. YES
- B. NO
- C. NOT ENOUGH INFO
- D. Only if Donald Duck puts on some pants?

80

Bert is alert, oriented, but depressed. You have discovered that he has cancer. Bert's son, Mickey, the lawyer, and Bert's wife, Barbie, don't want Bert to know this as they feel this info will make him severely depressed, and they believe he will give up.
Do you tell him anyway?

81

Do you tell him anyway?

- A. YES, the patient has the right to know what is going on and needs all pertinent information so that he can make an informed decision
- B. NO, the family knows the patient better than you do and their request should be honored
- C. Consult psychiatry to get an opinion
- D. Consult the patient.

82

Ann is admitted to your LTC facility with diagnosis of dysphagia due to prior stroke and vascular dementia with aspiration. Ann has a Living Will and Health Care Surrogate form naming her frail elderly husband as her HCS and her daughter, Barbie as her alternate HCS. Barbie demands G-tube and threatens to sue if her mother is allowed to aspirate.

Do you insert G-tube?

83

Do you insert G-tube?

- A. YES
- B. NO
- C. NOT ENOUGH INFO
- D. Offer a J-tube instead, as the risk of aspiration is proven to be lower

84

Barney has been your patient for over 25 years and is now well over 100 years old. You have discussed EOL issues, and Barney has made it clear to you that when his time comes , he is ready to die. He has completed a Living Will and a DNRO(including the wallet sized DNRO form). While at a restaurant with friends, he chokes and has a cardiopulmonary arrest. His well-meaning friends start CPR and call 911. He is successfully resuscitated and stabilized on a ventilator in the ICU but still unconscious.

His family arrives at the ICU and demands that Barney's wishes be carried out and that he be taken off the ventilator immediately. Do you comply?

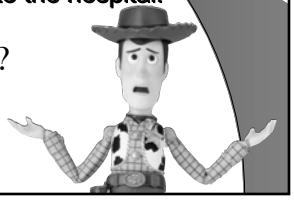
85

Do you remove the ventilator?

- A. YES.
- B. NO.
- C. NOT ENOUGH INFO
- D. Resign from the case and turn the patient over to the critical care doc to figure it out.

86

Woody has terminal widespread metastatic cancer that has failed all therapy. While in the nursing facility, he expressed to his wife, family, and you that he wants to go home with Hospice and comfort measures only. Prior to leaving the building, the patient vomits, has a drop in blood pressure, and lapses into a coma. Wife demands you send him to the hospital.



Do you call "911"?

87

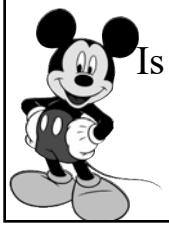
Do you call “911”?

- A. YES
- B. NO
- C. Call Hospice instead
- D. Call Buzz Lightyear

88

Ann has dementia and terminal disease and lacks capacity. She has no Living Will. Her son, Mickey, the attorney, completes a Living Will document through his legal office which he signs and has notarized on her behalf.

Is this document valid?



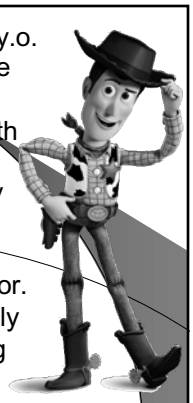
89

Is this document valid?

- A. YES
- B. NO
- C. Only if 2 witnesses sign the document
- D. Use your “Call a Friend” lifeline and get Attorney Kane on the phone

90

Woody is a presumed healthy 59 y.o. man who was hospitalized with the flu. Upon hospital discharge, he suffers a sudden cardiac event with coma. EEG shows minimal brain activity and no chance of recovery documented by 2 separate neurologist. He has multi-system failure and is already on a ventilator. He has no Living Will, but his family believes he would want everything done. His kidneys are failing.



Do you begin dialysis per HCS's request?

91

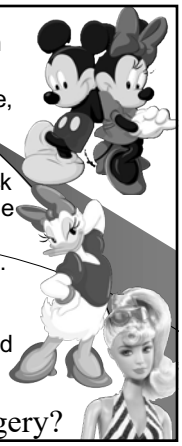
Do you begin dialysis?

- A.YES. The patient has previously expressed his advanced directives orally, and his family acting as his proxy desires dialysis knowing the patient will die without it
- B. NO. Patient is not going to get better.
- C. Time to call the Ethics committee
- D. Defer the decision to the nephrologist.

92

93

Mickey and Minnie Mouse went through an amicable divorce after 40 years of marriage. Two years after their marriage, Minnie Mouse completed a living will naming her husband, Mickey, as her HCS, and her maid of honor, Daisy Duck as her HCS alternate. Mickey and Minnie have one 36 y.o. daughter, Barbie. Minnie Mouse is incapacitated in a SNF. Despite their divorce, Mickey Mouse, visits her every evening to help her eat dinner. Minnie Mouse fell at the SNF and fractured her hip and requires surgery



Who signs the consent for surgery?

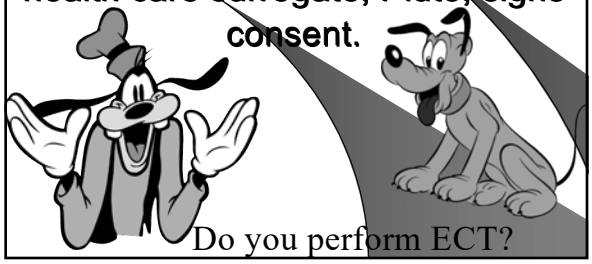
94

Who signs the consent for surgery?

- A. Mickey, Minnie's written and documented designated health care surrogate on Minnie's properly completed and witnessed living will, who understands Minnie's wishes after 40 years of marriage and clearly cares about her well-being
- B. Daisy Duck, her best friend and health care surrogate alternate
- C. Barbie, her adult daughter, and healthcare surrogate per the Florida proxy statute as Minnie is no longer married to Mickey.
- D. Walt Disney

95

Goofy is …well… goofy. He is incapacitated. The psychiatrist recommends ECT. His documented health care surrogate, Pluto, signs consent.



Do you perform ECT?

96

Do you perform ECT?

- A. YES
- B. NO
- C. NOT ENOUGH INFORMATION
- D. Since Goofy and Pluto are both dogs, maybe you are the one that needs some serious psychiatric intervention

97

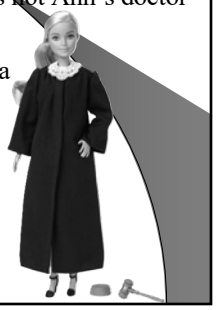
Mickey and Minnie have a 13 y.o. child, Anne. They would like their close friend, Dr. Barbie, to be Anne's HCS and fill out a HCS form naming Barbie as Anne's HCS.

Is this form legal in Florida?

98

Is this form legal in Florida?

- A. YES, but only if Dr. Barbie is not Ann's doctor
- B. YES, this is legal in Florida
- C. NO, this is not legal in Florida
- D. I will defer to Judge Barbie



99

Daisy has been living in Orlando with Donald for the past 43 years (although they were never officially married). Her living relatives are a 17 y.o. son and a 19 y.o. niece. Daisy has never completed a Living Will or HCS document. She becomes ill and is now incapacitated.

Who make medical decisions on Daisy's behalf?

100

Who makes medical decisions on Daisy's behalf?

- A. Donald
- B. Her son
- C. Her niece
- D. Clinical Social Worker appointed by the Ethics Committee

101

Minnie Mouse is declining rapidly in her SNF. She is widowed. She is still full code.
She does not have a Living Will, POLST or DNR.
Mickey Mouse, her only child, has been incarcerated for murder with a life sentence and has not seen his mother for over 10 years.

Can Mickey still make end of life decisions for his mother despite being a convicted felon ?

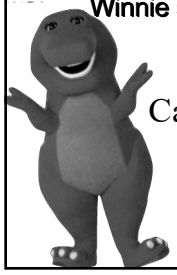
102

Can Mickey still make end of life decisions for his mother despite being a convicted felon ?

- A. NO… as a felon, he loses his legal rights.
- B. YES… he is still the proxy by state law
- C. Not enough information
- D. What jury would ever convict Mickey Mouse?

103

Barney is 102 years old and breaks his hip . Fortunately, his best friend and well-documented healthcare surrogate, Winnie, was present, instructed staff to call "911" and follows Barney to the hospital.
Winnie signs the consent for surgery.



Can surgery proceed?

104

Can surgery proceed?

- A. YES
- B. NO
- C. NOT ENOUGH INFORMATION
- D. Can we go home?

105

Minnie is a 69 year old alert, oriented retired nurse with severe COPD from smoking. She had a psych consult and is not depressed. She has a Living Will. She has been hospitalized and intubated with AECOPD and pneumonia on several occasions. She is now hospitalized with recurrent pneumonia and impending respiratory failure. She will die without BiPAP or intubation but refuses both despite potential reversibility once pneumonia is treated.

Do you let her die?

106

Do you let her die?

A. YES – pt has the right to refuse treatment
B. NO - her Living Will is only valid if patient has a terminal illness with no reasonable chance of recovery.
C. Ask her family to intervene
D. Consult ethics committee

107

Barney is a 65 y.o. convicted convict with end stage pulmonary disease. He has no known relatives or close friends. He has no Living Will or HCS form completed. While in jail he developed pneumonia with sepsis and prolonged hypoxia with severe brain damage. He is now comatose in your ICU for past 6 weeks on a ventilator. Attending hospitalist, pulmonologist and neurologist document no chance of recovery

Can you discontinue the vent?

108

Can you discontinue the vent?

- A.YES
- B. NO
- C. Consult Ethics committee to appoint licensed clinical social worker to make the decision.
- D. Start a guardianship process through the judicial system

109

- Minnie is a 95 y.o. frail WF with end stage dementia who resides in your long-term care facility.
- Her daughter, Daisy, originally was her original DPOA for finances and healthcare and Minnie's brother (who is now deceased) was the alternate.
- 3 years ago, the patient moved away from her daughter and close to her granddaughter, Barbie.
- Barbie was given DPOA for finances only and Barbie's spouse, Tammy, was alternate DPOA.
- The patient has no written Living Will, but Barbie recalls her grandmother telling her 30 years ago that she wanted everything done.

You feel coding this patient would be would be cruel and pointless. What do you do?

110

What do you do?

- A. Keep her a Full Code per the wishes of her granddaughter, Barbie, the DPOA, who recalls that the patient wanted everything done.
- B. Consult her daughter, Daisy.
- C. Ask for guardianship with the court system
- D. NOT SURE

111

Ann is a 65-year-old woman with metastatic, non-small-cell CA of the lung, COPD, and HTN who presents with progressive SOB and back pain. She has acute tachypnea and O2 sat of 84% on 4L NC. CT scan shows marked progression of her disease and new metastases to her spine. You begin a discussion about advance directives and code status. The patient asks for guidance regarding resuscitation.

- What do you tell her regarding her odds of surviving a code in the hospital?

112

What do you tell her regarding her odds of surviving a code in the hospital?

- A. 20%
- B. 5-10%
- C. She will not survive CPR
- D. Don't give her odds as the decision should be left to the patient

113

Goofy has no Living Will. He had an intracranial bleed and in now on a ventilator which is not weanable. His wife, Minnie, wants the ventilator withdrawn as he expressed wishes with her privately that he would not want to be kept alive on a ventilator.

Can you pull the plug?

114

SCENARIO #1:Goofy has brain function on EEG. The neurologist feels, however, that there is no chance of neurological recovery. You agree and both of you document this on the chart.

115

Can You Pull The Plug?

- A. YES
- B. NO
- C. NOT SURE

116

SCENARIO #2: Pulmonologist talks to you, the attending physician, on the phone and both of you agree that the patient is terminal and life support should be withdrawn. The pulmonologist documents this conversation on the chart.

117

Can You Pull The Plug?

- A. YES
- B. NO
- C. NOT SURE

118

SCENARIO #3: The pulmonologist and you, the attending physician, agree that the patient is terminal and document. The neurologist and the cardiologist, however, disagree and document.

119

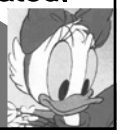
Can You Pull The Plug?

- A. YES
- B. NO
- C. NOT SURE

120

Daisy is 94 y.o. and has end stage COPD. She has no known family, close friend, or Health Care Surrogate. She has spoken to you, her physician, regarding wishes for no heroics, but she has not filled out a written Living Will. She presents with respiratory failure and will die if not intubated.

What do you do?



121

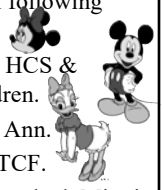
What do you do?

- A. Intubate her
- B. Honor her previously expressed wishes and institute CMO only
- C. Ethics Committee consultation
- D. Not enough information

122

- Minnie is a 85 y.o lady who suffered TBI following MVA 7 years ago. She is incapacitated.
- Her husband, Mickey, is her documented HCS & DPOA. There is no alternate and no children.
- Mickey hired Daisy as a personal CG for Ann.
- 3 years ago, Minnie, was admitted to a LTCF.
- 1 year later, unbeknownst to LTCF, Mickey had Minnie sign divorce papers, and he married Daisy.
- Mickey has continued to make medical decisions for his ex-wife, Minnie, over the past 2 years.
- Minnie's only sibling, Buzz, wants to take over decision making and has hired an attorney for guardianship.

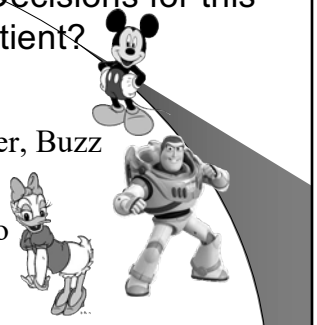
Who makes decisions for this patient?



123

Who Makes Decisions for this Patient?

- A. Mickey
- B. Minnie's Brother, Buzz
- C. Daisy
- D. Not enough info



124

Barney presents to the ER with a ruptured abdominal aortic aneurysm. He is initially alert and oriented and adamantly refuses emergency surgery. After losing consciousness from blood loss, his wife, Minnie, demands that you operate, and she signs consent.

What do you do?

125

What do you do?

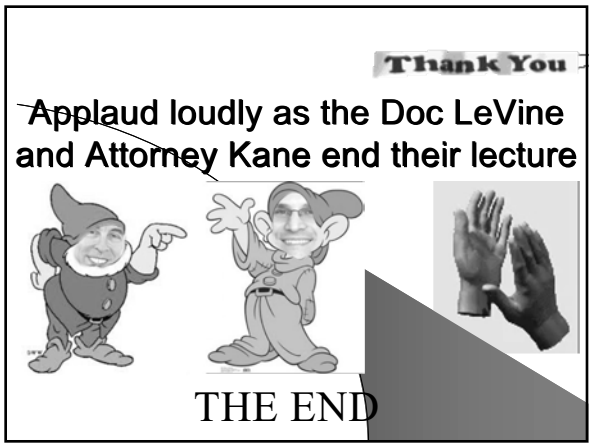
- A. Operate per the wife's wishes
- B. Don't operate per the patient's wishes before he slipped into a coma
- C. Consult Ethics Committee
- D. Call your malpractice attorney ASAP

126

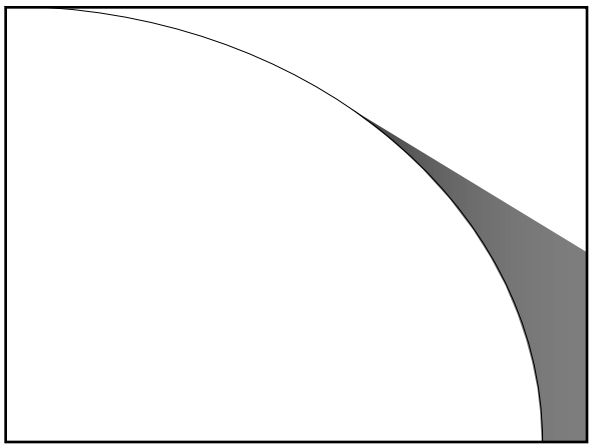
Woody, attending a medical lecture, complains of severe auditory pain after listening to a talk on Advanced Directives. He asks the Doc to end it all.

What do you do?

127



128



129

130

Barbie is 16 y.o. unaccompanied homeless girl in Florida with a 2 y.o. child that requires surgery.

Can she give consent?

131

Can she give consent?

- A. YES - she is the mother of the child and has no known family
- B. NO – she is a minor per Florida laws and a Clinical Social Worker assigned by the hospital Ethics committee would be required to give consent.
- C. Ask the 2 y.o. what she wants with the understanding that 2-year-olds often say “no” to everything.

132

Barbie is now 17y.o., and one of the elderly volunteers who worked with her and befriended her 1 year ago, was so impressed with her maturity, kindness, and knowledge that he listed Barbie as his only HCS in his Living Will. The volunteer is now comatose with a stroke and needs consent for intervention.

Who gives consent?

133

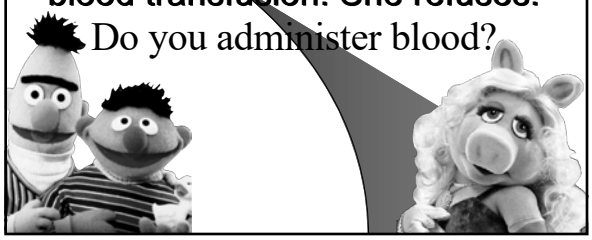
Who can give consent?

- A. Barbie as she is listed as the HCS on a properly completed and witnessed Living Will
- B. The closest adult relative or friend per the proxy statute
- C. Clinical Social Worker assigned by the hospital Ethics committee.
- D. Ken

134

Ms. Piggy is a mother of two small children, Bert and Ernie. She is hemorrhaging from a miscarriage and will die without blood transfusion. She refuses.

Do you administer blood?



135

Do you administer blood?

- A.YES
- B. NO
- C. Request judicial intervention
- D. Not a geriatric question… Next slide please.

136

Best Practices in the Post-Acute & Long-Term Care Continuum 2024
November 2, 2024
2:55 PM – 3:55 PM
State Regulatory Update

Kimberly Smoak, MSH, QIDP
Deputy Secretary/State Survey Agency Director
Agency for Health Care Administration

1

Objectives

- Share and discuss the most commonly cited nursing home deficiencies and ways to improve.
- Brief overview of the recent immediate jeopardy findings in nursing homes.
- Discuss emergency preparedness and response requirements and the role of the medical director, nurse leaders, and pharmacists.
- Review the State Adverse Incident Data and Federal Facility Reporting Incidents.
- Discuss Facility Assessment and Medical Directors Role

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Facility Assessment Requirements

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QSO-24-13-NH Revised Guidance for LTC Facility Assessment Requirements (June 18, 2024)

- Facility Assessment requirements have been revised and moved to 42 CFR 483.71.
- The new requirements were implemented on August 8, 2024.
- Appendix PP has been updated to include the revised regulatory requirements and updated guidance for F838- Facility Assessment.

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4

4

Overview

- The facility must conduct and document a facility-wide assessment to determine what resources are necessary to competently care for its residents during day-to-day operations, including nights, weekends, and emergencies.
- Active involvement from:
  - Nursing home leadership and management, including a member of the governing body, medical director, administrator, and director of nursing; and
  - Direct care staff (RN/LPN/CNAs).
  - The facility must also solicit and consider input from residents, resident reps, and family members.

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5

5

Overview, cont.

- The facility must use this facility assessment to:
  - Inform staffing decisions (ensure a sufficient number with appropriate competencies and skill sets to care for residents' needs).
  - Consider specific staffing needs for each resident unit in the facility.
  - Considering staffing needs for each shift, such as day, evening, and night, and adjusting as necessary.

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Overview, cont.

- Develop and maintain a plan to maximize recruitment and retention of direct care staff.
- Inform contingency planning for events that do not require activation of the facility's emergency plan but can potentially affect resident care, such as the availability of direct care nurse staffing or other resources.

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7

Survey Process

- Surveyors will determine whether a facility assessment contains the required components under the regulation.
- The Surveyor is not to evaluate the quality of the assessment.

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8

8

Survey process, cont.

- Examples of questions the surveyors would consider:
  - Does the facility assessment include an evaluation of the resident population and its acuity based on evidence-based, data-driven methods?
  - Does the assessment address skills and competencies?
  - Was the assessment conducted with input from individuals stated in the regulation?

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9

Now on to the top ten!

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10

10

Top Federal Tags: Calendar Year 2022

Rank	Tag	Regulation
1.	F-761	Label/Store Drugs and Biologicals
2.	F-689	Free of Accident Hazards/Supervision/Devices
3.	F-695	Respiratory/Tracheostomy Care and Suctioning
4.	F-684	Quality of Care
5.	F-812	Food Procurement, Store/Prepare/Serve-Sanitary
6.	F-584	Safe/Clean/Comfortable/Homelike Environment
7.	F-656	Develop/Implement Comprehensive Care Plan
8.	F-677	ADL Care Provided
9.	F-880	Infection Prevention and Control
10.	F-842	Resident Records- Identifiable Information

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11

Top Federal Tags: Calendar Year 2023

Rank	Tag	Regulation
1.	F-684	Quality of Care
2.	F-812	Food Procurement, Store/Prepare/Serve-Sanitary
3.	F-689	Free of Accident Hazards/Supervision/Devices
4.	F-761	Label/Store Drugs and Biologicals
5.	F-656	Develop/Implement Comprehensive Care Plan
6.	F-584 F-695 F-880	Safe/Clean/Comfortable/Homelike Environment Respiratory/Tracheostomy Care and Suctioning Infection Prevention and Control
9.	F-842	Resident Records- Identifiable Information
10.	F-755	Pharmacy Services/Procedures/Pharmacist/Records

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12

Top Federal Tags: Calendar Year 2024
(January to September)

Rank	Tag	Regulation
1.	F-684 F-812	Quality of Care Food Procurement, Store/Prepare/Serve-Sanitary
3.	F-880	Infection Prevention and Control
4.	F-584	Safe/Clean/Comfortable Homelike Environment
5.	F-761 F-695	Label/Store Drugs and Biologicals Respiratory/Tracheostomy Care
7.	F-689	Free of Accident Hazards/Supervision/Devices
8.	F-842	Resident Records- Identifiable Information
9.	F-656	Develop/Implement Comprehensive Care Plan
10.	F-641	Accuracy of Assessments

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Summary of Top Ten

- **A few thoughts**
  - F880- Infection prevention and control is back in the top 3.
  - F761- Storage of drugs and biologicals, two years ago, was top-cited and now is down to #5; however, it is still in the top 10.
  - F584-Homelike Environment; F695-Respiratory/Tracheostomy Care and Suctioning; and F689-Free of Accident Hazards/ Supervision/Devices continue to stay in the top ten year after year.

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Federal Facility Reported Incidents And State Adverse Incident Data

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Federal Facility Reported Incidents

	2023	2024 (1/1-9/30)
Abuse	7,560	6,243
Neglect	3,245	2,897
Misappropriation	1,235	991
Injury of Unknown Origin	867	661
Total Number of Reports	**12,907**	**8,268**
Total Number of Complaints	**999**	**541**

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16

State Adverse Incidents

	2023	2024 (1/1-9/30)
Death	22	24
Brain or Spinal damage	4	4
Permanent disfigurement	3	1
Fractures	310	224
Resulting Limitation	6	4
No Consent	23	16
Transfers	444	333
Law enforcement involvement	259	264
Elopement	106	91
Total Number of Reports	**764**	**621**
Total Number of Complaints	**148**	**56**

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17

17

Reporting Reminders

- Seeing greater transparency with reporting.
- Some facilities are still struggling with showing a complete investigation.
- Document the medical director's involvement in system failures. Sometimes, there's a note that will say "Medical Director in agreement," but that doesn't show how the Medical Director was involved.
- Verified reports with system failures don't always include appropriate corrective action.

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Have Questions??

- Please contact the Office of Risk Management and Patient Safety directly at (850) 412-4489 Or (850) 412-4577 Or by email at **FEDREP@AHCA.myflorida.com**
- **Office of Risk Management and Patient Safety (myflorida.com)**

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19

19

Immediate Jeopardy Review

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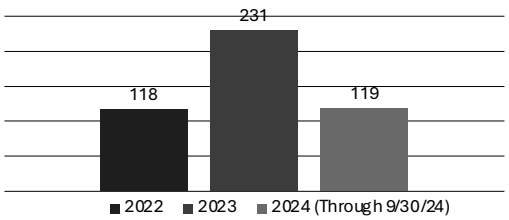
20

20

Total Number of IJ Citations by Calendar Year 2022 Through 2024



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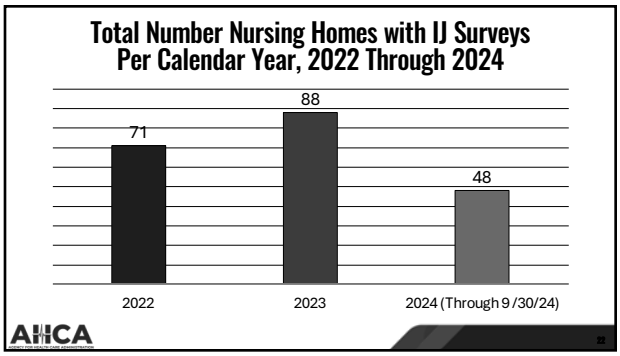
21

21


Total Number Nursing Homes with IJ Surveys Per Calendar Year, 2022 Through 2024
71
88
48
2022
2023
2024 (Through 9/30/24)
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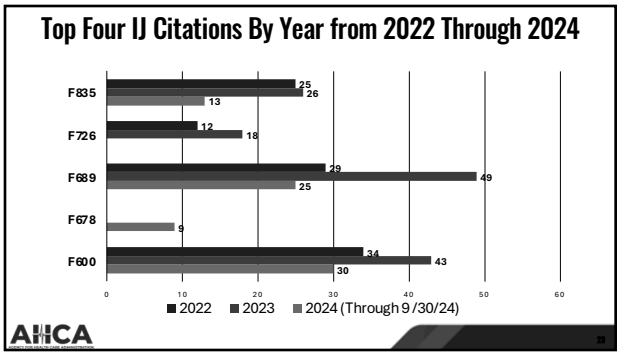
22


Top Four IJ Citations By Year from 2022 Through 2024
F835
F726
F689
F678
F600
25
26
13
12
18
29
49
25
9
34
43
30
0
10
20
30
40
50
60
2022
2023
2024 (Through 9/30/24)
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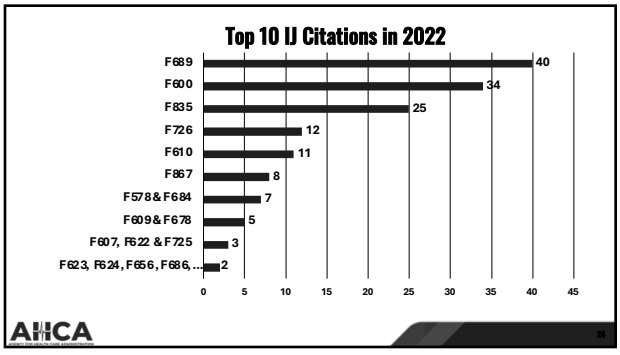
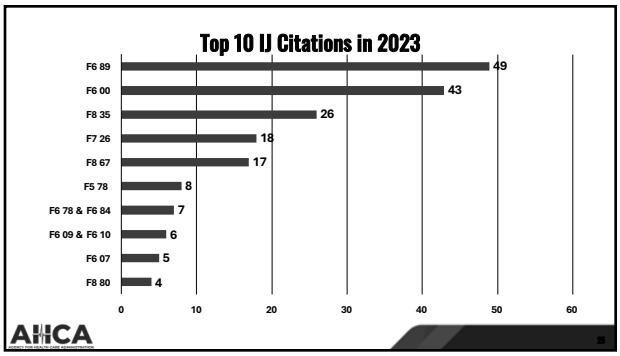
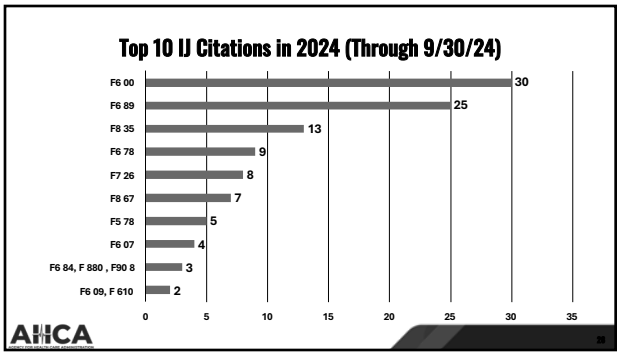
23


Top 10 IJ Citations in 2022
F689
F600
F835
F726
F610
F867
F578 & F684
F609 & F678
F607, F622 & F725
F623, F624, F656, F686, ...
40
34
25
12
11
8
7
5
3
2
0
5
10
15
20
25
30
35
40
45
AHCA

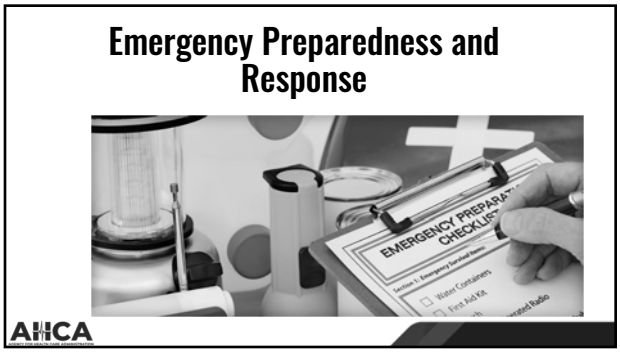
24


Top 10 IJ Citations in 2023
F6 89
F6 00
F8 35
F7 26
F8 67
F5 78
F6 78 & F6 84
F6 09 & F6 10
F6 07
F8 80
49
43
26
18
17
8
7
6
5
4
0
10
20
30
40
50
60
AHCA

25


Top 10 IJ Citations in 2024 (Through 9/30/24)
F6 00
F6 89
F8 35
F6 78
F7 26
F8 67
F5 78
F6 07
F6 84, F 880 , F90 8
F6 09, F 610
30
25
13
9
8
7
5
4
3
2
0
5
10
15
20
25
30
35
AHCA

26


Emergency Preparedness and Response
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27

Emergency Preparedness

- What is the Medical Directors' Role?
  - Engage in emergency response and preparedness planning.
  - Effective emergency Response and Preparedness Planning must include active participation from a facility's Medical Director.

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Active Role of Medical Director

- Emergency planning requirements:
  - Providing continuity of care in an emergency, including care when contracted services, supplies, etc., cannot be fulfilled during the event.
  - Assessing the impact on residents when power is lost to the facility for patient care equipment and heating and cooling the facility for the safety of residents.
  - Engaging and coordinating with the community to meet public health emergencies.

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Active Role, cont.

- Reviewing the feasibility of the facility's plan as part of cooperation and collaboration with/ Emergency Preparedness officials, including types and duration of energy sources available in an emergency.
- Ensuring any environment where residents are provided care is a safe setting.

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30

Resident Safety

- The Medical Director has an important role in resident safety.
- According to federal requirements, the Medical Director is responsible for:
  - Implementation of resident care policies.
  - The coordination of medical care in the facility
- Go back to Facility Assessment requirements.

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Emergency Response Reminders

- For Nursing Home Leaders
  - Keep the lines of communication open (before, during, and after the event)
  - Provide ongoing support for staff
  - Be available to staff during storms
  - Work hand-in-hand with other healthcare providers
  - Hold a debriefing session after the storm passes

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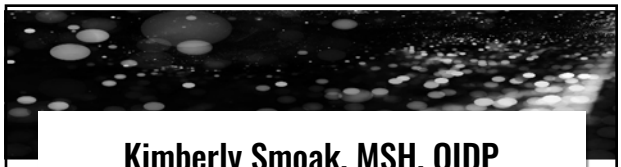
32



Kimberly Smoak, MSH, QIDP

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Kimberly.Smoak@ahca.myflorida.com

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Documentation, Coding and Billing in PALTC:2024

Robert A. Zorowitz, MD, MBA, FACP, AGSF, CMD
Regional Vice President, Health Services (Northeast)
Humana, Inc.

Best Care Practices In the Post-Acute & Long-Term Care Continuum

fmda The Florida Society For Post-Acute and Long-Term Care Medicine

1

Speaker Disclosures

Dr. Zorowitz is an employee and stockholder of Humana, Inc.

The opinions presented in this presentation represent those of Dr. Zorowitz and do not represent the positions of Humana

All financial relationships have been identified, reviewed, and mitigated by The Society prior to this presentation.

2

2

Learning Objectives

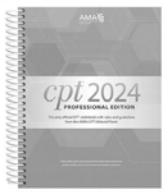
By the end of the session, participants will be able to:

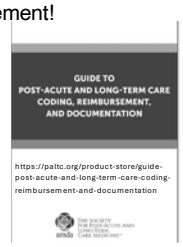
- Understand the E&M guidelines for Nursing Facilities and Home/Residence Services
- Understand the Medical Decision-Making criteria
- Be familiar with reporting prolonged services
- Be familiar with reporting Split/Shared Services
- Understand the distinction between CMS payment policy and federal statutory regulations

3

3

Tip for Accurate Coding: Know Your Codes and Reimbursement!





Medicare Physician Fee Schedule Lookup: https://www.cms.gov/medicare/physician-fee-schedule/search

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4

Choosing Level of Care for E&M Services

Select the appropriate level of E/M services based on the following:

The level of the MDM as defined for each service ◀ OR ▶ The total time for E/M services performed on the date of the encounter.

From 8/9/2022 Webinar L. Levy, B. Hollmann P. "E/M 2023: Advancing Landmark Revisions Across More Settings of Care," downloaded on 10/2/2022 from https://www.ama-assn.org/practice-management/cpt/cpt-evaluation-and-management

5

5

1. History and Physical Examination

- Must be performed and documented as clinically appropriate
- No longer an element in the selection of the level of E&M service codes
- No need to document gratuitous reviews of systems for the purpose of claims unless performed or reviewed as clinically appropriate
- Remain important activities clinically and to support medical necessity of the service

6

6

2. Time

Total time on the date of the encounter,

To select the level based on time, the indicated total time must be met or exceeded

Includes both face-to-face time *with the patient* and/or family/caregiver and non-face-to-face time (must include a face-to-face encounter)

Includes time regardless of location

Do not count time spent on:

- Travel
- General teaching not limited to discussion that is required for the management of a specific patient
- Other services that are reported separately

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E&M Total Time Spent on Calendar Day of the Encounter

Pre-visit

- Preparing to see patient, review of tests
- Independently reviewing results and communicating results to patient/caregiver

Visit

- Obtaining/reviewing separate history
- Performing exam and evaluation
- Counseling/educating patient and caregiver

Post-visit

- Ordering medications, tests
- Documentation in EMR
- Referring or communicating with other HCP (not separately reported)
- Care coordination (not separately reported)

Document: *"I personally spent ____ minutes on the calendar day of the encounter, including pre and post visit work."*

8

3. Medical Decision Making 2024

Level of MDM (Based on 2 out of 3 Elements of MDM)	Number and Complexity of Problems Addressed at the Encounter	Amount and/or Complexity of Data to be Reviewed and Analyzed	Risk of Complications and/or Morbidity or Mortality of Patient Management
Straightforward	Minimal	Minimal or None	Minimal
Low	Low	Limited	Low
Moderate	Moderate	Moderate	Moderate
High	High	Extensive	High

- To qualify for a particular level of MDM, two of the three elements for that level of MDM must be met or exceeded
- The details and examples of Medical Decision-Making are described entirely in the 2024 CPT Manual

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Type of Medical Decision Making By Components

Level of MDM (Based on 2 out of 3 Elements of MDM)	Number and Complexity of Problems Addressed at the Encounter	Amount and/or Complexity of Data to be Reviewed and Analyzed	Risk of Complications and/or Morbidity or Mortality of Patient Management
Straightforward	Minimal	Minimal or None	Minimal
Low	Low	Limited	Low
Moderate	Moderate	Moderate	Moderate
High	High	Extensive	High

- To qualify for a particular level of MDM, two of the three elements for that level of MDM must be met or exceeded
- The details and examples of Medical Decision-Making are described entirely in the 2024 CPT Manual

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Type of Medical Decision Making By Components

Level of MDM (Based on 2 out of 3 Elements of MDM)	Number and Complexity of Problems Addressed at the Encounter	Amount and/or Complexity of Data to be Reviewed and Analyzed	Risk of Complications and/or Morbidity or Mortality of Patient Management
Straightforward	Minimal	Minimal or None	Minimal
Low	Low	Limited	Low
Moderate	Moderate	Moderate	Moderate
High	High	Extensive	High

- To qualify for a particular level of MDM, two of the three elements for that level of MDM must be met or exceeded
- The details and examples of Medical Decision-Making are described entirely in the 2024 CPT Manual

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Why learn Medical Decision Making when I can use time?

HCPCS Code	Short Description	Total Time in Minutes*	Medical Decision Making	Price (2024)	Work RVU
99304	1st nf care sf/low mdm 25	25	Straightforward or low	$78.26	1.5
99305	1st nf care moderate mdm 35	35	Moderate	$129.99	2.5
99306	1st nf care high mdm 50	50	High	$177.47	3.5
99307	Sbsq nf care sf mdm 10	10	Straightforward	$39.29	0.7
99308	Sbsq nf care low mdm 20	20	Low	$72.69	1.3
99309	Sbsq nf care moderate mdm 30	30	Moderate	$105.11	1.92
99310	Sbsq nf care high mdm 45	45	High	$149.97	2.8

*Note highlighted times were increased by 5 minutes over 2023 Total Time
Price is National Payment Amount

2024 conversion factor is $32.74 per RVU

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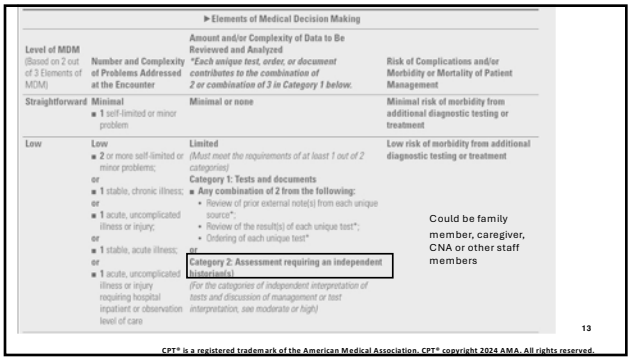
►Elements of Medical Decision Making
Level of MDM (Based on 2 out of 3 Elements of MDM)
Number and Complexity of Problems Addressed at the Encounter
Amount and/or Complexity of Data to Be Reviewed and Analyzed *Each unique test, order, or document contributes to the combination of 2 or combination of 3 in Category 1 below.
Risk of Complications and/or Morbidity or Mortality of Patient Management
Straightforward
Minimal
■ 1 self-limited or minor problem
Minimal or none
Minimal risk of morbidity from additional diagnostic testing or treatment
Low
Low
■ 2 or more self-limited or minor problems;
or
■ 1 stable, chronic illness;
or
■ 1 acute, uncomplicated illness or injury;
or
■ 1 stable, acute illness;
or
■ 1 acute, uncomplicated illness or injury requiring hospital inpatient or observation level of care
Limited
(Must meet the requirements of at least 1 out of 2 categories)
Category 1: Tests and documents
■ Any combination of 2 from the following:
• Review of prior external note(s) from each unique source*;
• Review of the result(s) of each unique test*;
• Ordering of each unique test*
or
Category 2: Assessment requiring an independent historian(s)
(For the categories of independent interpretation of tests and discussion of management or test interpretation, see moderate or high)
Low risk of morbidity from additional diagnostic testing or treatment
Could be family member, caregiver, CNA or other staff members
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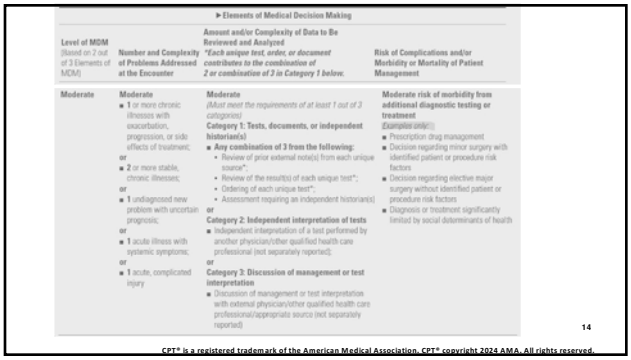
►Elements of Medical Decision Making
Level of MDM (Based on 2 out of 3 Elements of MDM)
Number and Complexity of Problems Addressed at the Encounter
Amount and/or Complexity of Data to Be Reviewed and Analyzed *Each unique test, order, or document contributes to the combination of 2 or combination of 3 in Category 1 below.
Risk of Complications and/or Morbidity or Mortality of Patient Management
Moderate
Moderate
■ 1 or more chronic illnesses with exacerbation, progression, or side effects of treatment;
or
■ 2 or more stable, chronic illnesses;
or
■ 1 undiagnosed new problem with uncertain prognosis;
or
■ 1 acute illness with systemic symptoms;
or
■ 1 acute, complicated injury
Moderate
(Must meet the requirements of at least 1 out of 3 categories)
Category 1: Tests, documents, or independent historian(s)
■ Any combination of 3 from the following:
• Review of prior external note(s) from each unique source*;
• Review of the result(s) of each unique test*;
• Ordering of each unique test*;
• Assessment requiring an independent historian(s)
or
Category 2: Independent interpretation of tests
■ Independent interpretation of a test performed by another physician/other qualified health care professional (not separately reported);
or
Category 3: Discussion of management or test interpretation
■ Discussion of management or test interpretation with external physician/other qualified health care professional/appropriate source (not separately reported)
Moderate risk of morbidity from additional diagnostic testing or treatment
Examples only:
■ Prescription drug management
■ Decision regarding minor surgery with identified patient or procedure risk factors
■ Decision regarding elective major surgery without identified patient or procedure risk factors
■ Diagnosis or treatment significantly limited by social determinants of health
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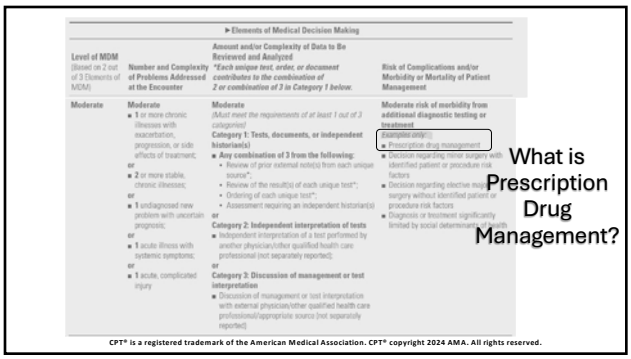
►Elements of Medical Decision Making
Level of MDM (Based on 2 out of 3 Elements of MDM)
Number and Complexity of Problems Addressed at the Encounter
Amount and/or Complexity of Data to Be Reviewed and Analyzed *Each unique test, order, or document contributes to the combination of 2 or combination of 3 in Category 1 below.
Risk of Complications and/or Morbidity or Mortality of Patient Management
Moderate
Moderate
■ 1 or more chronic illnesses with exacerbation, progression, or side effects of treatment;
or
■ 2 or more stable, chronic illnesses;
or
■ 1 undiagnosed new problem with uncertain prognosis;
or
■ 1 acute illness with systemic symptoms;
or
■ 1 acute, complicated injury
Moderate
(Must meet the requirements of at least 1 out of 3 categories)
Category 1: Tests, documents, or independent historian(s)
■ Any combination of 3 from the following:
• Review of prior external note(s) from each unique source*;
• Review of the result(s) of each unique test*;
• Ordering of each unique test*;
• Assessment requiring an independent historian(s)
or
Category 2: Independent interpretation of tests
■ Independent interpretation of a test performed by another physician/other qualified health care professional (not separately reported);
or
Category 3: Discussion of management or test interpretation
■ Discussion of management or test interpretation with external physician/other qualified health care professional/appropriate source (not separately reported)
Moderate risk of morbidity from additional diagnostic testing or treatment
Examples only:
■ Prescription drug management
■ Decision regarding minor surgery with identified patient or procedure risk factors
■ Decision regarding elective major surgery without identified patient or procedure risk factors
■ Diagnosis or treatment significantly limited by social determinants of health
What is Prescription Drug Management?
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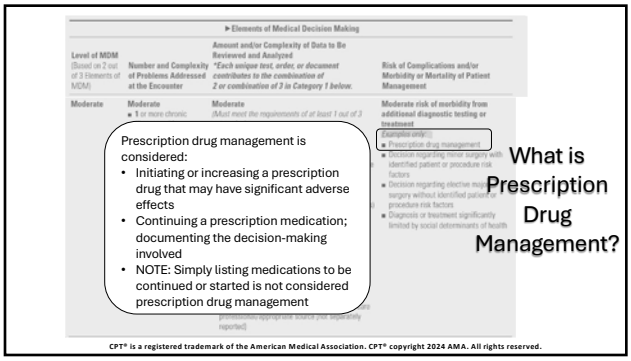
►Elements of Medical Decision Making
Level of MDM (Based on 2 out of 3 Elements of MDM)
Number and Complexity of Problems Addressed at the Encounter
Amount and/or Complexity of Data to Be Reviewed and Analyzed
*Each unique test, order, or document contributes to the combination of 2 or combination of 3 in Category 1 below.
Risk of Complications and/or Morbidity or Mortality of Patient Management
Moderate
Moderate
■ 1 or more chronic
Moderate
(Must meet the requirements of at least 1 out of 3
Moderate risk of morbidity from additional diagnostic testing or treatment
Examples only:
■ Prescription drug management
■ Decision regarding minor surgery with identified patient or procedure risk factors
■ Decision regarding elective major surgery without identified patient or procedure risk factors
■ Diagnosis or treatment significantly limited by social determinants of health
Prescription drug management is considered:
• Initiating or increasing a prescription drug that may have significant adverse effects
• Continuing a prescription medication; documenting the decision-making involved
• NOTE: Simply listing medications to be continued or started is not considered prescription drug management
What is Prescription Drug Management?
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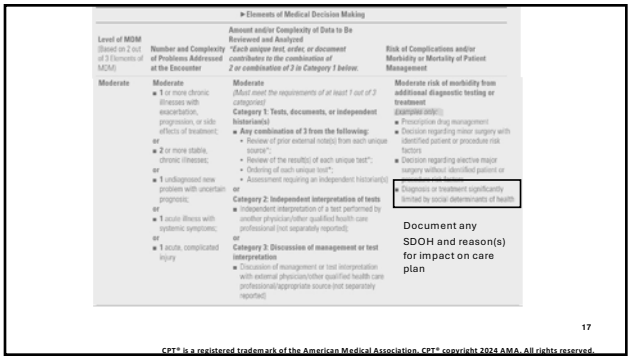
►Elements of Medical Decision Making
Level of MDM (Based on 2 out of 3 Elements of MDM)
Number and Complexity of Problems Addressed at the Encounter
Amount and/or Complexity of Data to Be Reviewed and Analyzed
*Each unique test, order, or document contributes to the combination of 2 or combination of 3 in Category 1 below.
Risk of Complications and/or Morbidity or Mortality of Patient Management
Moderate
Moderate
■ 1 or more chronic illnesses with exacerbation, progression, or side effects of treatment;
or
■ 2 or more stable, chronic illnesses;
or
■ 1 undiagnosed new problem with uncertain prognosis;
or
■ 1 acute illness with systemic symptoms;
or
■ 1 acute, complicated injury
Moderate
(Must meet the requirements of at least 1 out of 3 categories)
Category 1: Tests, documents, or independent historian(s)
■ Any combination of 3 from the following:
• Review of prior external note(s) from each unique source*;
• Review of the result(s) of each unique test*;
• Ordering of each unique test*;
• Assessment requiring an independent historian(s)
or
Category 2: Independent interpretation of tests
■ Independent interpretation of a test performed by another physician/other qualified health care professional (not separately reported);
or
Category 3: Discussion of management or test interpretation
■ Discussion of management or test interpretation with external physician/other qualified health care professional/appropriate source (not separately reported)
Moderate risk of morbidity from additional diagnostic testing or treatment
Examples only:
■ Prescription drug management
■ Decision regarding minor surgery with identified patient or procedure risk factors
■ Decision regarding elective major surgery without identified patient or
■ Diagnosis or treatment significantly limited by social determinants of health
Document any SDOH and reason(s) for impact on care plan
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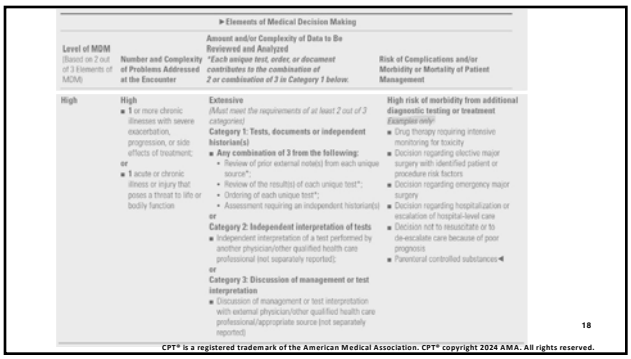
►Elements of Medical Decision Making
Level of MDM (Based on 2 out of 3 Elements of MDM)
Number and Complexity of Problems Addressed at the Encounter
Amount and/or Complexity of Data to Be Reviewed and Analyzed
*Each unique test, order, or document contributes to the combination of 2 or combination of 3 in Category 1 below.
Risk of Complications and/or Morbidity or Mortality of Patient Management
High
High
■ 1 or more chronic illnesses with severe exacerbation, progression, or side effects of treatment;
or
■ 1 acute or chronic illness or injury that poses a threat to life or bodily function
Extensive
(Must meet the requirements of at least 2 out of 3 categories)
Category 1: Tests, documents or independent historian(s)
■ Any combination of 3 from the following:
• Review of prior external note(s) from each unique source*;
• Review of the result(s) of each unique test*;
• Ordering of each unique test*;
• Assessment requiring an independent historian(s)
or
Category 2: Independent interpretation of tests
■ Independent interpretation of a test performed by another physician/other qualified health care professional (not separately reported);
or
Category 3: Discussion of management or test interpretation
■ Discussion of management or test interpretation with external physician/other qualified health care professional/appropriate source (not separately reported)
High risk of morbidity from additional diagnostic testing or treatment
Examples only:
■ Drug therapy requiring intensive monitoring for toxicity
■ Decision regarding elective major surgery with identified patient or procedure risk factors
■ Decision regarding emergency major surgery
■ Decision regarding hospitalization or escalation of hospital-level care
■ Decision not to resuscitate or to de-escalate care because of poor prognosis
■ Parenteral controlled substances◄
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Additional HIGH MDM for Nursing Facility

"When selecting a level of medical decision making (MDM) for nursing facility services, the number and complexity of problems addressed at the encounter is considered. For this determination, a **high-level MDM type specific to initial nursing facility care** by the ***principal**** physician or other qualified health care professional is recognized. This type is:

"**Multiple morbidities requiring intensive management**: A set of conditions, syndromes, or functional impairments that are likely to require frequent medication changes or other treatment changes and/or re-evaluations. The patient is at significant risk of worsening medical (including behavioral) status and risk for (re)admission to a hospital.

"The definitions and requirements related to the amount and/or complexity of data to be reviewed and analyzed and the risk of complications and/or morbidity or mortality of patient management are unchanged."

*The principal/attending physician should append the modifier **–AI** to the initial nursing facility claim to identify as the principal attending physician responsible for the overall care

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Nursing Facility Care Services 2024

Initial Nursing Facility Care

Patient: New or Established			
Code	99221	99222	99223
REQUIRED ELEMENTS			
Medically Appropriate History and/or Examination	X	X	X
Medical Decision Making Level			
Straightforward or Low	X		
Moderate		X	
High			X
OR			
Total Time (On Date of the Encounter)			
Minutes	25	35	50

Subsequent Nursing Facility Care

Patient: New or Established				
Code	99307	99308	99309	99310
REQUIRED ELEMENTS				
Medically Appropriate History and/or Examination	X	X	X	X
Medical Decision Making Level				
Straightforward	X			
Low		X		
Moderate			X	
High				X
OR				
Total Time (On Date of the Encounter)				
Minutes	10	20	30	45

Level of MDM (Based on 2 out of 3 Elements of MDM)	Number and Complexity of Problems Addressed at the Encounter	Amount and/or Complexity of Data to be Reviewed and Analyzed	Risk of Complications and/or Morbidity or Mortality of Patient Management
Straightforward	Minimal	Minimal or None	Minimal
Low	Low	Limited	Low
Moderate	Moderate	Moderate	Moderate
High	High	Extensive	High

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Discharge from SNF/NF

- Medicare Part B payment policy requires a face-to-face visit with the patient provided by the physician or the qualified NPP to meet the SNF/NF discharge day management service as defined by the CPT code.
- The E/M discharge day management visit shall be reported for the date of the actual visit by the physician or qualified NPP even if the patient is discharged from the facility on a different calendar date.
- The Discharge Day Management Service may be reported using CPT code 99315 or 99316, depending on the code requirement, for a patient who has expired, but only if the physician or qualified NPP personally performed the death pronouncement.

Medicare Claims Policy Manual, Chapter 12, Section 30.6.13

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Nursing Facility Discharge Services

HCPCS Code	Short Description	Natl Pmt Price (2024)	Work RVU
99315	Nf dschrg mgmt 30 min/less	$79.57	1.5
99316	Nf dschrg mgmt 30 min+	$127.70	2.5

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Home *and* Assisted Living Facility Care 2024

(Place of service codes have not changed)

"The following codes are used to report evaluation and management services provided in a home or residence. Home may be defined as a private residence, temporary lodging, or short-term accommodation (eg, hotel, campground, hostel, or cruise ship).

"**These codes are also used when the residence is an assisted living facility**, group home (that is not licensed as an intermediate care facility for individuals with intellectual disabilities), custodial care facility, or residential substance abuse treatment facility."

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Home Care, Assisted Living, Residential Care Codes Now Combined into a Single Code Set : Home/Residence Visits

HCPCS Code	Short Description	Total Time in Minutes	Level of Medical Decision Making	2024 National Payment Amount	Work RVU
99341	Home/res vst new sf mdm 15	15	Straightforward	$48.13	1
99342	Home/res vst new low mdm 30	30	Low	$76.29	1.65
99344	Home/res vst new mod mdm 60	60	Moderate	$138.51	2.87
99345	Home/res vst new high mdm 75	75	High	$196.79	3.88
99347	Home/res vst est sf mdm 20	20	Straightforward	$44.21	0.9
99348	Home/res vst est low mdm 30	30	Low	$74.66	1.5
99349	Home/res vst est mod mdm 40	40	Moderate	$124.10	2.44
99350	Home/res vst est high mdm 60	60	High	$180.75	3.6

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fmda THE FLORIDA SOCIETY FOR POST-ACUTE AND LONG-TERM CARE MEDICINE

Prolonged Services

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The CY 2023 Physician Fee Schedule Final Rule:

- "G" codes for prolonged services
  - G0316 Prolonged Hospital or Observation Services
  - G0317 Prolonged Nursing Home Services
  - G0318 Prolonged Home or Residence Services
  - G2212 Prolonged Office/outpatient
- Converted Non-face-to-face prolonged service codes 99358-99359 to status "I," i.e. "Not valid for Medicare purposes" or "Ineligible."
- Other CPT Codes for Prolonged Services are not reimbursed by CMS, but may be paid by commercial, Medicaid or some Medicare Advantage payers—check with your payers
- Clarified the time horizon for nursing home prolonged service codes

Medicare Claims Processing Manual, Chapter 12, page 71
https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/Downloads/clm104c12.pdf [26]

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Time Thresholds for Prolonged Services

Primary E/M Service	Prolonged Code*	Service Time (as per code descriptor)	Time Threshold to Report Prolonged Service	Count Physican/NPP time spent within this time period (surveyed time frame)
Initial NF Visit (99306)	G0317	50 mins	95 mins	1 day before visit + date of visit + 3 days after
Subsequent NF visit (99310)	G0317	45 mins	85 mins	1 day before visit + date of visit + 3 days after
NF Discharge Day Mngmt	n/a	n/a	n/a	n/a
Home/Residence Visit New (99345)	G0318	75 mins	140 mins	3 days before visit + date of visit + 7 days after
Home/Residence Visit Estab. (99350)	G0318	60 mins	110 mins	3 days before visit + date of visit + 7 days after

* Time must be used to select visit level. Prolonged service time can be reported when furnished on any date within the primary visit's surveyed timeframe and includes time with or without direct patient contact by the physician or NPP. Consistent with CPT's approach, we do not assign a frequency limitation.

Medicare Claims Processing Manual, Chapter 12, page 71
https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/Downloads/clm104c12.pdf [27]

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G0317

- ***G0317*** *Prolonged* ***nursing facility*** *evaluation and management service(s) beyond the total time for the primary service (when the primary service has been selected using time on the date of the primary service);*
- *each additional 15 minutes by the physician or qualified healthcare professional, with or without direct patient contact*
  - *(list separately in addition to CPT codes 99306, 99310 for nursing facility evaluation and management services).*
  - *(Do not report G0317 on the same date of service as other prolonged services for evaluation and management 99358, 99359, 99418).*
  - *(Do not report G0317 for any time unit less than 15 minutes)*

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How to Use G0317

- May only be used if reporting the following nursing facility codes, using ***time***:
  - 99306 Initial nursing facility care, per day, 50 minutes must be met or exceeded, *but threshold is 95 minutes to report G0317 X 1*
  - 99310 Subsequent nursing facility care, per day, 45 minutes must be met or exceeded, *but threshold is 85 minutes to report G0317 X 1*
- May be reported for prolonged time within the surveyed time frame:
  - One day before the E&M service
  - On the day of the E&M service
  - Up to 3 days after the E&M service
- May be reported only when the prolonged time equals or exceeds 15 minutes beyond the maximum time specified by the codes
- May be reported for each 15-minute increment beyond the maximum time specified in the codes; ***there is no frequency limitation***
- Includes both face-to-face and non-face-to-face time; may be discontinuous

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G0318

- G0318 *Prolonged* ***home or residence*** *evaluation and management service(s) beyond the total time for the primary service (when the primary service has been selected using time on the date of the primary service);*
- *each additional 15 minutes by the physician or qualified healthcare professional, with or without direct patient contact*
  - *(list separately in addition to CPT codes 99345, 99350 for home or residence evaluation and management services).*
  - *(Do not report G0318 on the same date of service as other prolonged services for evaluation and management 99358, 99359, 99417).*
  - *(Do not report G0318 for any time unit less than 15 minutes).*

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How to Use G0318

- Would be reportable when the total time for the **home or residence** visit (specified in the time file) is exceeded by 15 or more minutes
- Reportable as add on code to:
  - 99345 Home or residence visit for the evaluation of a new patient, 75 minutes must be met or exceeded; *threshold of 140 minutes total to report G0318 X 1*
  - 99350 Home or residence visit for the evaluation of an established patient, 60 minutes must be met or exceeded; *threshold of 110 minutes to report G0318 X 1*
- May be reported for prolonged service(s) spent during:
  - The pre-service 3-days before the E&M visit
  - During the intraservice time on the day of the visit
  - The post-service time up to 7 days after the day of the visit

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When prolonged services for a nursing facility visit (e.g. 99306, 99210) spans several days, what date of service is reported for the prolonged service code G3017?

Answer: In CY 2023, care relative to the initial nursing facility service (99306), and prolonged time for the service (G0317), may occur over a 5-day timespan. This includes the date prior to 99306, the date of on which 99306 is completed and the 3 dates subsequent to the 99306.

For example, 99306 performed on January 5th would include the timespan of January 4th through January 8th for services by the same billing provider/group. Since 99306 requires 95 minutes of time before prolonged service(s) can be added, 99306 may be performed over a period of more than one date. When this is the case, 99306 should be billed for the DOS on which the 95 minute timeframe has been completed. Prolonged services performed beyond the date of 99306 **should be billed with the DOS on which they were completed**, within a 3 day timeframe after the date of 99306.

NOTE: Some payers' systems may not be able to recognize G0317 if the date of service differs from the date of service of the index service, i.e. 99306 or 99310.

https://www.nrsmedicare.com/ca/evaluation-and-management?selectedArticleId=5205244&lob=96664&state=97133&region=93623

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Prolonged Services: Payment and wRVU for 2024

HCPCS Code	Short Description	Non-Facility Price	Facility Price	Work RVU
G0316	Prolong inpt eval add15 m	$31.11	$29.47	0.61
G0317	Prolong nursin fac eval 15m	$31.11	$29.47	0.61
G0318	Prolong home eval add 15m	$30.45	$29.14	0.61

Medicare Claims Processing Manual, Chapter 12, page 71
https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/Downloads/clm104c12.pdf

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Split Visits

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Split or Shared Visits

30.6.18 - Split (or Shared) Visits
(Rev. 11288; Issued: 03-04-22; Effective: 01-01-22; Implementation: 02-15-22)
A. Definition of Split (or Shared) Visit
A split (or shared) visit is an evaluation and management (E/M) visit in the ***facility setting*** *that is performed in part by both a physician and a nonphysician practitioner (NPP) who are in the same group, in accordance with applicable law and regulations such that the service could be could be billed by either the physician or NPP if furnished independently by only one of them. Payment is made to the practitioner who performs the substantive portion of the visit.*
Facility setting means an institutional setting in which payment for services and supplies furnished incident to a physician or practitioner's professional services is prohibited under our regulations.

--Medicare Claims Processing Manual, Chapter 12

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Split or Shared Visits

E/M Visit Code Family	Place of Service Code(s), examples	2023 Definition of Substantive Portion	2024 Definition of Substantive Portion
Other Outpatient	05, 09, 22, 24, etc.	History, or exam, or MDM or more than half of total time	More than half the total time OR MDM*
Inpatient/Observation/ Hospital/**SNF**	21, 31	History, or exam, or MDM or more than half of total time	More than half the total time OR MDM*
NF	32	Cannot use split visit **or** "incident to"	Cannot use split visit **or** "incident to"
Office	11	Cannot use ("incident to" applies)	Cannot use ("incident to" applies)
Home/Residence	12-16	Cannot use ("incident to" applies)	Cannot use ("incident to" applies)
Emergency Department	23	History, or exam, or MDM or more than half of total time	More than half the total time OR MDM*
Critical Care	21, 21, etc.	More than half of total time	More than half the total time

*Substantive portion of MDM requires clinician made or approved management plan for the **number and complexity of problems addressed at the encounter** and takes responsibility for that plan with its inherent **risk of complications and/or morbidity or mortality of patient management**.

Medicare Claims Processing Manual, Chapter 12, page 73
https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/Downloads/clm104c12.pdf

paltc23

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Payment: Fun Facts to Know and Tell!

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What is a medically necessary visit?

- "Medically necessary E/M visits for the diagnosis or treatment of an illness or injury or to improve the functioning of a malformed body member are payable under the physician fee schedule under Medicare Part B."—Medicare Claims Processing Manual, Chapter 12, Physicians/Non-physician Practitioners
- "Services or supplies that: are proper and needed for the diagnosis or treatment of your medical condition, are provided for the diagnosis, direct care, and treatment of your medical condition, meet the standards of good medical practice in the local area, and aren't mainly for the convenience of you or your doctor."—CMS at https://www.cms.gov/apps/glossary/search.asp?Term=medically+necessary&Language=English&SubmitTermSrch=Search
- "Medical necessity of a service is the overarching criterion for payment in addition to the individual requirements of a CPT code. It would not be medically necessary or appropriate to bill a higher level of evaluation and management service when a lower level of service is warranted. The volume of documentation should not be the primary influence upon which a specific level of service is billed. Documentation should support the level of service reported."—Medicare Claims Processing Manual, Chapter 12, Physicians/Non-physician Practitioners

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In other words

The visit must be medically necessary AND

The level of service reported must be medically necessary (supported by H&P, MDM etc.)

THEREFORE: **Documentation must support both the medical necessity of the visit itself AND the level of service being reported**

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Mandated regulatory physician visits: Frequency

F712

(Rev. 173, Issued: 11-22-17, Effective: 11-28-17, Implementation: 11-28-17)

§483.30(c) Frequency of physician visits

- **§483.30(c)(1) The residents must be seen by a physician at least once every 30 days for the first 90 days after admission, and at least once every 60 thereafter.**
- **§483.30(c)(2) A physician visit is considered timely if it occurs not later than 10 days after the date the visit was required.**
- **§483.30(c)(3) Except as provided in paragraphs (c)(4) and (f) of this section, all required physician visits must be made by the physician personally.**
- **§483.30(c)(4) At the option of the physician, required visits in SNFs, after the initial visit, may alternate between personal visits by the physician and visits by a physician assistant, nurse practitioner or clinical nurse specialist in accordance with paragraph (e) of this section.**

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Mandated regulatory physician visits: Content

DEFINITIONS §483.30(c) Must be seen, for purposes of the visits required by §483.30(c)(1), means that the physician or NPP must make actual face-to-face contact with the resident, and at the same physical location, not via a telehealth arrangement. There is no requirement for this type of contact at the time of admission, since the decision to admit an individual to a nursing facility (whether from a hospital or from the individual's own residence) generally involves physician contact during the period immediately preceding the admission.

--State Operations Manual; Appendix PP—Guidance to Surveyors, page 445. Downloaded on 10/11/2022 from: https://www.cms.gov/files/document/appendix-pp-guidance-surveyor-long-term-care-facilities.pdf

IMPLICATIONS

- Though payment policy allows nursing home visits to be performed via Telehealth (payment policy), this does not apply to regulatory visits (federal regulations)
- **Mandated regulatory** visits must be face-to-face
- Other visits may be performed via Telehealth

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Authority for Non-Physician Practitioners to Perform Visits, Sign Orders and Sign Medicare Part A Certifications/Recertifications When Permitted by the State

	Initial Comprehensive Visit /Orders	Other Required Visits^	Other Medically Necessary Visits & Orders+	Certification/ Recertification ‡
SNFs				
PA, NP & CNS employed by the facility	May not perform/ May not sign	May perform alternate visits	May perform and sign	May not sign
PA, NP & CNS not a facility employee	May not perform/ May not sign	May perform alternate visits	May perform and sign	May sign subject to State Requirements
NFs				
PA, NP, & CNS employed by the facility	May not perform/ May not sign	May not perform	May perform and sign	Not applicable
PA, NP, & CNS not a facility employee	May perform/ May sign*	May perform	May perform and sign	Not applicable

State Operations Manual Appendix PP - Guidance to Surveyors for Long Term Care Facilities. https://www.cms.gov/medicare/provider-enrollment-and-certification/guidanceforlawsandregulations/downloads/appendix-pp-state-operations-manual.pdf

* A NPP may provide admission orders if a physician personally approved in writing a recommendation for admission to the facility prior to admission. For additional requirements on physician recommendation for admission and admission orders, see §483.30(e), F710.

^ Other required visits are the physician visits required by §483.30(c)(1) other than the initial comprehensive visit.

+ Medically necessary visits are independent of required visits and may be performed prior to the initial comprehensive visit.

‡ Though not part of a compliance determination for this section, this requirement is provided for clarification and relates specifically to coverage of a Part A Medicare stay, which can take place only in a Medicare-certified SNF.

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Initial Comprehensive Nursing Facility Evaluation vs. Initial Nursing Facility Visit

- **Initial Nursing Facility Services**
  - Refers to CPT Codes 99304-99306
  - May be reported once per admission, per physician or other qualified health care professional
- **Initial Comprehensive Nursing Facility Visit**
  - Refers to the mandated regulatory visit that may only be performed by a physician (with certain exceptions)
  - Must include review of total program of care, including medications and treatments
  - Must be performed within 30 days of admission
  - May be reported with Initial Nursing Facility Services code 99304-99306 + modifier –AI to denote attending physician

Medicare Claims Processing Manual, Chapter 12, page 73
https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/Downloads/clm104c12.pdf

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If a nurse practitioner or physician assistant performs a history and physical prior to the attending physician's comprehensive visit in a nursing facility, how should these two encounters be coded?

From the Medicare Claims Processing Manual, Chapter 12, Sect. 30.6.13:

- "Beginning January 1, 2006, the new CPT codes, Initial Nursing Facility Care, per day, (99304 - 99306) shall be used to report the initial federally mandated visit. Only a physician may report these codes for an initial federally mandated visit performed in a SNF or NF (with the exception of the qualified NPP in the NF setting who is not employed by the facility and when State law permits, as explained above)."*

From the 2024 AMA CPT Manual:

- "The principal physician or other qualified health care professional may work with others (who may not always be in the same group) but are overseeing the overall medical care of the patient, in order to provide timely care to the patient. Medically necessary assessments conducted by these professionals prior to the initial comprehensive visit are reported using subsequent care codes (99307, 99308, 99309, 99310)."

*with modifier –AI to denote the primary attending physician

Medicare Claims Processing Manual, Chapter 12, page 73
https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/Downloads/clm104c12.pdf

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What do I bill upon readmission from a hospitalization?

It depends—

For Medicare Part A Skilled Nursing Facility patients, The SNF PPS includes an "interrupted stay" policy that if a patient in a covered Part A SNF stay is discharged from the SNF but returns to the same SNF no more than three consecutive calendar days after having been discharged, then this would be considered a continuation of the same SNF stay (see 83 FR 39162, 39243). In such cases, no new patient assessments are required…

- Note that MA payers may have different contractual arrangements with facilities

2019 Final Rule 83 FR 39162 https://www.govinfo.gov/app/details/FR-2018-08-08/2018-16570

https://www.cms.gov/Regulations-and-Guidance/Guidance/Transmittals/2019Downloads/R2278OTN.pdf

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Now that 99318 Annual Nursing Home Visit has been deleted, how can I report an annual comprehensive exam?

- May use subsequent nursing facility visit codes 99307-99310, selecting the level by either total time of the visit or medical decision-making
- Alternately, consider incorporating the Medicare Wellness Visit into your practice
- Note: Components of Wellness Exams may not be goal-concordant with frail, elderly nursing home residents; may need to customize components of wellness visits to appropriately meet the needs of nursing home residents

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Nursing Home Admission and Other Visits on the Same Day

- Emergency department visit services provided on the same day as a nursing facility assessment are not paid
- Hospital discharge and nursing facility admission may be reported separately even if performed on the same day
- Payment for evaluation and management services provided in sites other than the nursing facility are included in the payment for initial nursing facility care when performed on the same date
- Discharge Day Management Service may be reported using CPT code 99315 or 99316, depending on the code requirement, for a patient who has expired, but only if the physician or qualified NPP personally performed the death pronouncement.

Medicare Claims Policy Manual, Chapter 12, Section 30.6.13

Medicare Claims Processing Manual, Chapter 12
https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/Downloads/clm104c12.pdf

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Can I report G2211 with a Nursing Facility Service Code?

- G2211 Ofice/Outpatient Visit Complexity Add-on Service
- Add-on to E&M Service to recognize additional complexities associated with longitudinal patient relationship due to:
  - Primary care **OR**
  - Ongoing medical care of patient with single serious or complex condition
  - Is specialty-agnostic
- May be reported **only** with Office/Outpatient Services 99202-99215
- May **not be** reported with Nursing Facility Services 99304-99310
- May **not be** reported with Home/Residence Services 99341-99350
- May **not be** reported when service with –25 modifier is reported

https://www.cms.gov/files/document/mm13473-how-use-office-and-outpatient-evaluation-and-management-visit-complexity-add-code-g2211.pdf

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What do I bill upon readmission from a hospitalization?

- For long term care Nursing Facility residents it is somewhat unclear…
- Under §483.20(b) Comprehensive Assessments, "For purposes of this section, "readmission" means a return to the facility following a temporary absence for hospitalization or therapeutic leave."
- From CPT 2024: "Regulations pertaining to the care of nursing facility residents govern the nature and minimum frequency of assessments and visits. These regulations also govern who may perform the initial comprehensive visit."
- And in the CPT 2024 language to the Initial Nursing Facility Care codes: "Initial nursing facility care codes 99304, 99305, 99306 may be used once per admission, per physician or other qualified health care professional regardless of length of stay. They may be used for the initial comprehensive visit performed by the principal physician or other qualified health care professional."
- And according to the 2023 Physician Fee Schedule Final Rule:
  - "The initial comprehensive assessment required under 42 CFR 483.30(c)(4) will be billed as an initial NF visit (CPT code 99304–99306)."

https://www.govinfo.gov/content/pkg/FR-2022-11-18/pdf/2022-23873.pdf

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What do I bill when I assume the care of a patient from another provider?

- Bill an Initial Nursing Facility Care code if assuming care from non-related provider (different practice, different TIN)
- Clarified in the 2024 CPT manual
  - "Initial nursing facility care codes 99304, 99305, 99306 may be used once per admission, **per physician** or other qualified health care professional, regardless of length of stay".
  - "An initial service may be reported when the patient has not received any face-to-face professional services from the physician or other qualified health care professional or another physician or other qualified health care professional of the exact same specialty and subspecialty who belongs to the same group practice *during the stay*".
  - "An initial service may also be reported if the patient is a new patient as defined in the Evaluation and Management Guidelines".

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Questions

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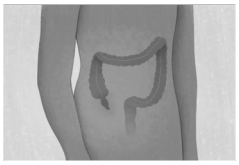
APPENDIX



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Telehealth Services

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Nursing Home Codes and Telehealth - 2024

Code	Short Descriptor	Status
99302	Nursing facility care init	Provisional
99305	Nursing facility care init	Provisional
99306	Nursing facility care init	Provisional
99307	Nursing fac care subseq	Permanent addition – q 14 day limit on hold
99308	Nursing fac care subseq	Permanent addition – q 14 day limit on hold
99309	Nursing fac care subseq	Permanent addition – q 14 day limit on hold
99310	Nursing fac care subseq	Permanent addition – q 14 day limit on hold
99315	Nursing fac discharge day	Provisional
99316	Nursing fac discharge day	Provisional

https://www.cms.gov/Medicare/Medicare-General-Information/Telehealth/Telehealth-Codes

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Home and Residence Codes and Telehealth

Code	Short Descriptor	Status
99341	Home visit new patient	Provisional
99342	Home visit new patient	Provisional
~~99343~~	~~Home visit new patient~~	~~Provisional~~ 99343 was deleted
99344	Home visit new patient	Provisional
99345	Home visit new patient	Provisional
99347	Home visit est patient	Permanent
99348	Home visit est patient	Permanent
99349	Home visit est patient	Provisional
99350	Home visit est patient	Temporary Addition until Dec. 31, 2024

https://www.cms.gov/Medicare/Medicare-General-Information/Telehealth/Telehealth-Codes

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Other Telehealth provisions of the final rule

- Provided a step-by-step process for evaluating services that could potentially be provided via telehealth (provisional vs. permanent)
- Delayed in-person requirements for telehealth behavioral health services until January 1, 2025
- Continues to allow distant site practitioners to use their currently enrolled practice location instead of home address when providing telehealth services from home
- Allows qualified OT, PT, SLP and audiologists to continue to be included as telehealth practitioners through 12/31/2024
- Recognizes marriage and family therapists (MFT) and mental health counselors) MHC) as telehealth practitioners, effective 1/1/2024

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Time Thresholds to Report Prolonged E&M Services: 2024

Primary E/M Service	Prolonged Code*	Service Time (as per code descriptor)	Time Threshold to Report Prolonged Service	Count Physican/NPP time spent within this time period (surveyed time frame)
Initial NF Visit (99306)	G0317	50 mins	95 mins	1 day before visit + date of visit + 3 days after
Subsequent NF visit (99310)	G0317	45 mins	85 mins	1 day before visit + date of visit + 3 days after
NF Discharge Day Mngmt	n/a	n/a	n/a	n/a
Initial IP/Obs. Visit (99223)	G0316	75 mins	90 mins	Date of visit
Subsequent IP/Obs. Visit (99233)	G0316	50 mins	65 mins	Date of visit
IP/Obs. Discharge Day Management (99238-9)	n/a	n/a	n/a	n/a
Consults	n/a	n/a	n/a	n/a
Cognitive Assessment and Care Planning (99483)	G2212	60 mins (typical)	100 mins	3 days before visit + date of visit + 7 days after
Home/Residence Visit New (99345)	G0318	75 mins	140 mins	3 days before visit + date of visit + 7 days after
Home/Residence Visit Estab. (99350)	G0318	60 mins	110 mins	3 days before visit + date of visit + 7 days after

* Time must be used to select visit level. Prolonged service time can be reported when furnished on any date within the primary visit's surveyed timeframe and includes time with or without direct patient contact by the physician or NPP. Consistent with CPT's approach, we do not assign a frequency limitation.

https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/Downloads/clm104c12.pdf

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Advance Care Planning

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Advanced Care Planning

- Between a physician or other qualified healthcare professional (QHCP) and a patient, family member, or surrogate. Can do audio only.
- Patient does not need to be present
- Counseling and discussing advance directives
- With or without completing relevant legal forms.
- Consent because of co-pay "Is it ok if we talk about your wishes for your care?"

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Examples of Advance Directives

- Health Care Proxy,
- Durable power of attorney for healthcare
- Living will
- Physician Orders for Life-Sustaining Treatment (POLST) or state-specific equivalent.

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Advance care planning payment 2024

HCPCS Code	Short Description	Non-Facility Price	Facility Price	Work RVU
99497	Advncd care plan 30 min	$80.55	$73.35	1.5
99498	Advncd care plan addl 30 min	$69.75	$69.09	1.4

- 99497 : 16-45 minutes (CPT "Halfway" convention)
- 99497 + 99498: 46 – 74 minutes
- Additional 99498: each additional 30 minutes (16 minute minimum)
- Can be billed in addition to the E & M codes:
  - Office/Outpatient
  - Nursing Facility
  - Home/residence
  - Transitional Care Management

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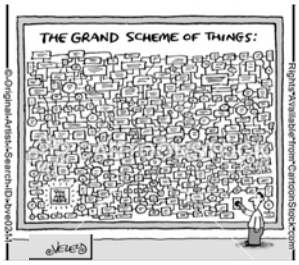
G2211 Office/Outpatient Visit Complexity Add-On Code



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New Office/Outpatient Visit Complexity Code

- Created by CMS and effective January 1, 2024.
- G2211 recognizes additional complexities associated with primary care or ongoing medical care of a patient with a single serious or complex condition—longitudinal relationship
- Most likely use in primary care, but may also be used by specialists with longitudinal relationship with patient
- This add-on code may be reported only with Office/Outpatient evaluation and management (E/M) services 99202-99215; cannot be reported in skilled nursing facility/nursing facility (SNF/NF) or Home/Residence.
- Cannot be reported when services requiring modifier -25 reported
- CMS will pay an additional $16.04 for services reported with G2211.

https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/Downloads/clm104c12.pdf 64

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G2211 Office/Outpatient (O/O) Visit Complexity Add-On

Visit complexity inherent to evaluation and management associated with medical care services that serve as the continuing focal point for all needed health care services and/or with medical care services that are part of ongoing care related to a patient's single, serious condition or a complex condition. (Add-on code, list separately in addition to office/outpatient evaluation and management visit, new or established).

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Reference Materials

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Name of Service	
AMA Link to 2023 Evaluation and Management CPT Code Revisions	https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwiTv7DP3NP6AhW4IlkEHSZ-CTsQFnoECBAQAQ&url=https%3A%2F%2Fwww.ama-assn.org%2Fsystem%2Ffiles%2F2023-e-m-descriptors-guidelines.pdf&usg=AOvVaw3602CDkiKKTlCu7BZECisg
CMS Website on COVID-19 Waivers	https://www.cms.gov/coronavirus-waivers
Appendix PP: State Operations Manual—Guidance to Surveyors (All the F-tags and federal regs for nursing facilities)	https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/downloads/som107ap_pp_guidelines_ltcf.pdf
Medicare Claims Processing Manual, Chapter 12 (Physician/Non-physician Practitioners)	https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/Downloads/clm104c12.pdf
CMS List of Covered Telehealth Services	https://www.cms.gov/Medicare/Medicare-General-Information/Telehealth/Telehealth-Codes
Health and Human Services Telehealth Info	https://www.telehealth.hhs.gov/
CMS COVID-19 Waivers	https://www.cms.gov/coronavirus-waivers

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Name of Service	Where to find the information
Chronic Care Management Services	https://www.cms.gov/outreach-and-education/medicare-learning-network-mln/mlnproducts/downloads/chroniccaremanagement.pdf
Cognitive Assessment and Care Services	https://www.alz.org/careplanning/downloads/cms-consensus.pdf
Advance Care Planning Services	https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/Downloads/AdvanceCarePlanning.pdf
2023 Medicare Physician Fee Schedule Final Rule (Source for CMS Prolonged Service 'G' Codes)	https://www.govinfo.gov/content/pkg/FR-2022-11-18/pdf/2022-23873.pdf
2024 Medicare Physician Fee Schedule Final Rule	https://public-inspection.federalregister.gov/2023-24184.pdf
Care Management Services in Rural Areas	https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/FQHCPPS/Downloads/FQHC-RHC-FAQs.pdf

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Name of Service	Where to find the information
The Initial Preventive Physical Exam ("Welcome to Medicare Visit")	https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/preventive-services/medicare-wellness-visits.html
Annual Wellness Exam (AWV)	https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/preventive-services/medicare-wellness-visits.html
Incorporating the AWV into the Nursing Facility (This is one example of how to incorporate part of the AWV into nursing home practice)	Little MO, Sanford AM, Malmstrom TK, Traber C, Morley JE. Incorporation of Medicare Annual Wellness Visits into the Routine Clinical Care of Nursing Home Residents. J Am Geriatr Soc. 2020 Dec 18. doi: 10.1111/jgs.16984. Epub ahead of print. PMID: 33339071. https://agsjournals.onlinelibrary.wiley.com/doi/epdf/10.1111/jgs.16984
Transitional Care Management Services	https://www.aafp.org/family-physician/practice-and-career/getting-paid/coding/transitional-care-management/faq.html (May require membership, password or fee) https://www.aafp.org/family-physician/practice-and-career/getting-paid/coding/transitional-care-management.html (May require membership, password or fee)
Behavioral Health Integration Services	https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/Downloads/BehavioralHealthIntegration.pdf
	https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/PhysicianFeeSched/Downloads/Behavioral-Health-Integration-FAQs.pdf
Medicare Physician Fee Schedule Lookup	https://www.cms.gov/medicare/physician-fee-schedule/search

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Documentation, Coding and Billing in PALTC:2024

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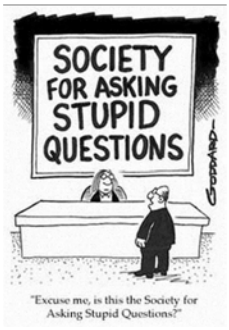

70

Strategies for Obtaining Needed Medications When Health Plans Restrict Access

Dana Saffel, PharmD,
CPh, BCGP, FASCP
President, CEO
PHARMACARE

1

Objectives

- Implement Medicare Part D entitlements that guarantee 30 to 120 days of access to restricted medications before a prior authorization is necessary
- Identify important elements that should be included in an explanation of medical necessity to accelerate approval
- Identify the language in the Medicare Part D rule, specific to long-term care, to support a request for coverage
- Differentiate healthcare providers and clinical records that should be consulted in the prior authorization process before the request is submitted

2

We've all had a similar experience …

3

What Does Medicare Part D Promise?

- Broad Formularies
  - Requires Part D formularies to be broad enough to not discourage enrollment by a group of beneficiaries.
- Part D sponsors will be required to provide *medically necessary prescription drug treatments*
  - Enrollees in the general Medicare population
  - Enrollees who reside in LTC facilities.
    - CMS expects Part D plans to provide coverage of dosage forms of drugs that are widely utilized in the LTC setting.

CMS. Medicare Prescription Drug Benefit Manual. Chapter 6 – Part D Drugs and Formulary Requirements. Rev. 18, 01-15-16.

4

What Is a Part D Covered Drug?

- FDA approved prescription drug, biologic, or biosimilar
  - Not covered by Medicare Part A or B
  - Not specifically excluded from coverage
- **Prescribed for a medically-accepted indication**
  - Any FDA-approved indication
  - An indication included in an approved compendia
    - American Hospital Formulary Service Drug Information
    - DRUGDEX® Information System
  - Part D plans should use utilization management (e.g., prior authorization) for drugs likely to be used for "off-label" or "not medially-acceptable" indications to ensure drugs are only covered for medically-acceptable indications
- On the Part D plan's formulary or treated as such via coverage determination or appeal

Excluded Drugs
- Agents when used for anorexia, weight loss, or weight gain
- Fertility agents
- Erectile dysfunction agents unless used for FDA-approved, non-ED use
- Cosmetic purposes or hair growth agents
- Cough and colds agents
- Prescription vitamins and mineral products
- Nonprescription drugs.

CMS. Medicare Prescription Drug Benefit Manual. Chapter 6 – Part D Drugs and Formulary Requirements. Rev. 18, 01-15-16.

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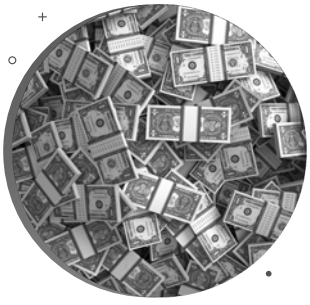


So Why Do Part D Plans Cover Drugs for Off-Label Uses?

But place restrictions on covering drugs that are being used for on-label, medically-appropriate uses …

6

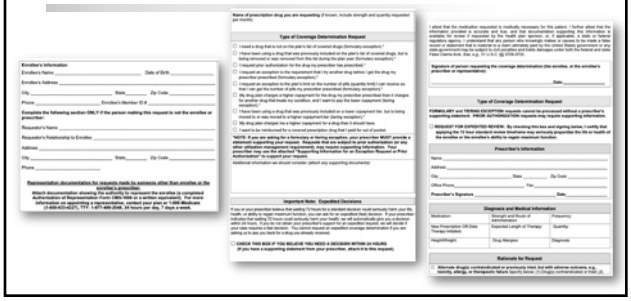
Utilization Management

- **Prior Authorization** (aka Coverage Exception)
  - Applies to formulary drugs.
  - Limits coverage of a drug to patients who meet certain requirements.
    - *If patient meets coverage criteria, the plan **WILL** cover requested drug.*
- **Step Therapy** (a type of Prior Authorization)
  - Applies to formulary and non-formulary drugs.
  - Must first try a less expensive drug on the plan's formulary, that's been proven effective for most people with the same condition, before the patient can obtain a more expensive drug.
    - *If patient has tried and failed formulary drugs or cannot tolerate them, the plan **WILL** cover requested drug.*
- **Quantity Limits**
  - Applies to formulary drugs, usually set at the highest on-label dosage per day.
  - For safety and cost reasons, plans may limit the amount of prescription drugs they cover over a certain period (usually 30 or 90 days).
    - *If patient has a medically-acceptable need for higher doses, the plan **MAY** cover requested quantity.*
- **Not on Formulary**
  - Applies to non-formulary drugs.
  - Must prove medical necessity and failed attempts or intolerability of formulary drug options.
    - *If patient has a medically-acceptable need for the non-formulary drug, the plan **MAY** cover requested drug.*

CMS. Medicare.gov. https://www.medicare.gov/drug-coverage-part-d/what-medicare-part-d-drug-plans-generally-plan-covered-prescription-drugs#:~:text=Prior%20Authorization,that%20you%20may%20request%20exceptions. Accessed September 24, 2024.

7

Prior Authorization Form (also Formulary Exception Request)



8

Type of Coverage Determination

- ❑ I need a drug that is not on the plan's list of covered drugs (Non-formulary Exception)
- ❑ I have been using a drug that was previously included on the plan's list of covered drugs, but is being removed or was removed from this list during the plan year (Non-formulary Exception)
- ❑ I request prior authorization for the drug my prescriber has prescribed (Prior Authorization)
- ❑ I request an exception to the requirement that I try another drug before I get the drug my prescriber prescribed (Step-Therapy Exception)
- ❑ I request an exception to the plan's limit on the number of pills (quantity limit) I can receive so that I can get the number of pills my prescriber prescribed (Quantity Limit Exception)
- ❑ My drug plan charges a higher copayment for the drug my prescriber prescribed than it charges for another drug that treat my condition, and I want to pay the lower copayment (Tiering Exception)
- ❑ I have been using a drug that was previously included on a lower copayment tier, but is being moved to or was moved to a higher copayment tier (Tiering Exception)
- ❑ My drug plan charged me a higher copayment for a drug than I should have.
- ❑ I want to be reimbursed for a covered prescription drug that I paid for out of pocket.

NOTE: If you are asking for a formulary or tiering exception, your PRESCRIBING PHYSICIAN must provide a statement to support your request. You cannot ask for a tiering exception for a drug in the plan's Specialty Tier. In addition, you cannot obtain a brand name drug at the copayment that applies to generic drugs.

https://www.cms.gov/files/document/modelcoveragedeterminationrequestform.pdf

9

Expedited Decision

Patient or Prescriber

- If you, or your prescribing physician, believe that waiting for a standard decision (which will be provided within 72 hours) could seriously harm your life or health or ability to regain maximum function, you can ask for an expedited (fast) decision. If your prescribing physician asks for a faster decision for you,or supports you in asking for one by stating (in writing or in a telephone call to us) that he or she agrees that waiting 72 hours could seriously harm your life or health or ability to regain maximum function, we will give you a decision within 24 hours. If you do not obtain your physician's support, we will decide if your health condition requires a fast decision.

☒ need an expedited coverage determination (attach physician's supporting statement, if applicable)

Prescriber

FORMULARY and TIERING EXCEPTION requests cannot be processed without a prescriber's supporting statement. PRIOR AUTHORIZATION requests may require supporting information.

☒ REQUEST FOR EXPEDITED REVIEW: By checking this box and signing below, I certify that applying the 72-hour standard review timeframe may seriously jeopardize the life or health of the enrollee or the enrollee's ability to regain maximum function.

F756 requires medications to be available in a timely manner (interpreted as the next dose or day). CMS states "as a matter of general practice, LTC facility residents must receive their medications as ordered without delay" .

https://www.cms.gov/files/document/qso-24-10-nh.pdf

CMS. State Operations Manual. Appendix PP. Guidance to Surveyors for Long Term Care Facilities. Rev 211 02-02-23

10

Supporting Information

- Diagnosis and Medical Information
  - Medication, Strength, Route of Administration of requested drug
  - Date Started (check if *new start*)
  - Expected Length of Therapy
  - Patient Height/Weight
  - Drug Allergies
  - Diagnosis – list all diagnoses treated with requested drug w/ICD-10 codes
    - If the condition being treated is a symptom, provide the diagnosis causing the symptoms (if known)
  - Other RELAVENT DIAGNOSES
  - DRUG HISTORY
    - Drug name, dose, total daily dose
    - Dates of drug trial
    - Describe Failure or Intolerance
  - Current drug regimen for the condition requiring the requested drug

It is valuable to list ALL diagnoses present in a NF resident as multiple-comorbidities documents resident frailty and may trigger a more thoughtful medical review.

Nursing staff can provide this information from the NF resident's chart. LTC pharmacy may also have this history.

11

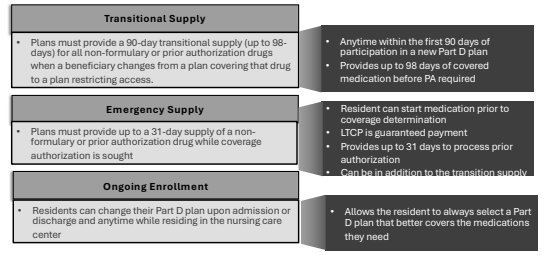
Rationale For Request

- ❑ Alternate drug(s) contraindicated or previously tried, but with adverse outcome
- ❑ Patient is stable on current drug(s); high risk of significant adverse clinical outcome with medication change
  - Explain anticipated significant adverse clinical outcome and why it is expected (e.g., falls, hospitalization, undue pain or suffering, significant limitation of functional status)
- ❑ Medical need for different dosage form and/or higher dosage
- ❑ Request for formulary tier exception
- ❑ Other (explain below)
- ❑Required Explanation

Ms/Mr [name] is a frail, [age], nursing home patient with [#] comorbidities who requires [drug] to treat [condition]. S/he has previously tried alternate medications listed in the Drug History and is unable to tolerate] or [failed to achieve an acceptable response]. [Drug] is necessary due to [reasons] and its use is supported by [clinical practice standard]. A delay in receiving [drug] is expected to worsen her condition] and may result in significant harm or require the need to hospitalize Ms/Mr [name].

12

Beneficiaries Residing in Nursing Facilities Have Special Benefits



1. CMS. Part D Manual Chapter 6. v.011. September 2016.
2. Medicare.gov. Special circumstances (Special Enrollment Periods) | Medicare. https://www.medicare.gov/basics/get-started-with-medicare/get-more-coverage/joining-a-plan/special-enrollment-periods. Accessed September 16, 2024.
3. CMS Part D Memo. Chapter 3. SNP Enrollment and Disenrollment Guidance. June 2017.

13

Transitional Supply

Purpose

To promote continuity of care and avoid interruptions in ongoing drug therapy while a switch to a therapeutically equivalent drug or the completion of an exception request to maintain coverage of an existing drug based on medical necessity reasons can be effectuated.

Benefits

1. New enrollees into prescription drug plans
2. Enrollees who switch from one plan to another after the start of the contract year
3. Current enrollees affected by negative formulary changes across contract years
4. Enrollees residing in LTC facilities

Ensures Access to

1. Part D drugs that are not on a sponsor's formulary
2. Drugs previously approved for coverage under an exception once the exception expires
3. Part D drugs that are on a sponsor's formulary but require prior authorization or step therapy, or that have an approved QL lower than the beneficiary's current dose, under a plan's utilization management requirements

Time Frame

- Within the first 90 days of enrollment in a new prescription drug plan

Amount Covered

- Nursing Facility Beneficiary: 90-day supply (up to 98-day supply depending on dispensing system)
- All Other Beneficiaries: 30-day supply (may be less if the prescription is for a lesser day's supply)

CMS. Medicare Prescription Drug Benefit Manual. Chapter 6 – Part D Drugs and Formulary Requirements. Rev. 18. 01-15-16.

14

Emergency Supply

Purpose

- To ensure nursing facility residents receive their medications as ordered without delay

Benefits

- Enrollees residing in a nursing facility

Ensures Access to

- Restricted drugs, including non-formulary drugs and drugs with a prior authorization or step-therapy requirement

Time Frame

- Anytime during the plan year, or
- After the 90-day transition supply if a new Part D plan enrollee is already taking the drug

Amount Covered

- 31-day supply (may be less if the prescription is for a lesser day's supply)
- A Part D plan does not have to provide more than a one-time 31-day emergency fill of a particular drug per LTC stay

15

LTC Pharmacy Must Bill Part D Plan for Transitional Supply or Emergency Supply

What you can do …

- Instruct LTC Pharmacy to bill the Part D plan *before* sending a prior authorization request or a "non-covered medication" form.
- Instruct LTC Pharmacy to notify facility of "non-covered medication" status *only after* receiving confirmation from the Part D plan.
- Work with facility to amend the pharmacy agreement to require billing Part D plan for transitional supply or emergency supply.
- Require medication coverage communication from the LTC pharmacy to be resident-centric.
  - Replace "Non-Covered Medication Notification" with "Medication Coverage Concern"
  - Remove check-box stating 3-day supply will be sent and billed to facility
  - Add
    - ❑ Transitional supply sent. Coverage will end on _(date)_. Please submit for coverage exception to the resident's Part D plan prior to this date.
    - ❑ Emergency supply sent. Coverage will end on _(date)_. Please submit for coverage exception to the resident's Part D plan prior to this date.
    - ❑ Plan has denied the request for coverage exception. Please consider changing to _(drug)_ which is a formulary alternative covered by the plan. If medication is continued without Part D plan coverage, the cost will be _($ amount)_ and will be billed to the _resident / _facility.


Omnicare

NON-COVERED MEDICATION NOTIFICATION

16

Writing a Compelling Coverage Request

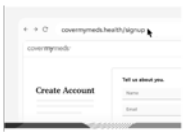
Ms/Mr [name] is a frail, [age], nursing home patient with [comorbidities] who requires [drug] to treat [condition]. S/he has previously tried alternate medications listed in the Drug History and [is unable to tolerate] or [failed to achieve an acceptable response]. [Drug] is necessary due to [reasons] and its use is supported by [clinical practice standard]. A delay in receiving [drug] is expected to worsen her condition] and may result in significant harm or require the need to hospitalize Ms/Mr [name].

- Use the resident's name
- State their age
- Mention/describe their frailty (if appropriate)
- State that they are a nursing home resident
- List all comorbidities
- List other medications tried for condition (if appropriate) and primary concern with each drug
- State reason for requested drug
- State clinical practice standard (be as specific as you can)

17

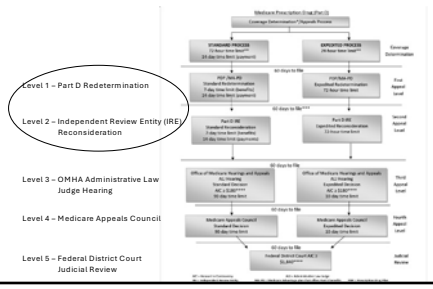
Who Can Assist With a Request for a Coverage Exception

- Nursing facility DON / staff can
  - Provide demographic information
  - Provide current diagnoses list
  - Provide historical information on drugs tried and resident's failure to respond or intolerance
- LTC Pharmacy can
  - Initiate coverage exception request in CoverMyMeds
  - Provide historical information on drugs tried
- Office staff can
  - Complete coverage exception request for your signature/e-sig
  - Monitor for response from Part D plan
  - Notify LTC Pharmacy and nursing facility of response



18

What To Do When a Plan Says "No" … Appeal



19

One for the road…

20

One more for the road…

Dr. Glaucomflecken is the online persona of Dr. Will Flanary, a U.S.-based ophthalmologist, comedian and cancer survivor.

21

Anticoagulants in Older Adults

Anita Rajasekhar MD, MS, FACP
November 3, 2024

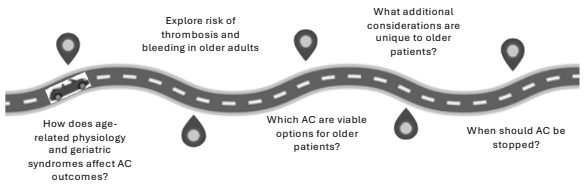
1

Learning Objectives

- Review evidence to support anticoagulation in older adults
- Explain the unique challenges of anticoagulation including increased risks of bleeding, frailty, and comorbid conditions in older adults
- Discuss how to tailor anticoagulation therapy in older adults by applying risk assessment tools to balance bleeding and thrombotic risks
- Evaluate patient cases to differentiate between high-risk and low-risk older adults for anticoagulation, and analyze when to adjust or discontinue therapy based on clinical factors

2

Roadmap for Our Discussion



3

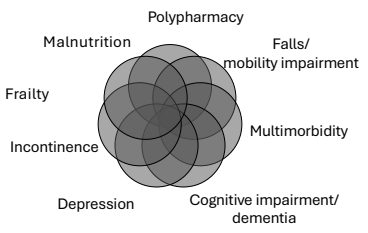
Age-related physiologic changes

Age-related physiologic changes	Potential impact on OAC and outcomes
Decreased skeletal muscle mass & total body water	• Increased plasma concentrations of apixaban and edoxaban if <60kg • Increased risk of major bleeding with edoxaban if body weight <60kg • Decreased hepatic clearance of warfarin
Decline in GFR	• Increased plasma concentrations of dabigatran>edoxaban>rivaroxaban>apixaban, esp if CrCl <30ml/min
Decrease in liver size and blood flow	• Increased DOAC plasma concentration if moderate (rivaroxaban) or severe (apixaban, edoxaban, dabigatran) hepatic dysfunction • Reduced warfarin clearance
Reduced activity in Vit K redox recycling symptom	• Increased warfarin sensitivity with about 20% lower warfarin dose requirements
Increased prevalence amyloid angiopathy, and cerebral atrophy	• Increased risk ICH
Increased prevalence of diverticular and peptic ulcer disease	• Increased risk of GI bleeding

Styby et al. Thrombosis Research 238 (2024) 1–10

4

Geriatric syndromes



Small, if any, increase in absolute risk of fall-related major bleeding

Styby et al. Thrombosis Research 238 (2024) 1–10

5

Case 1: Audience Response Question

87M to ER after fall

BP 154/85 HR ~95 bpm (irreg), wt 82kg

HTN, DM2, HLD, OA, macular degeneration

Hb 12.0 g/dL, INR 1.0 SCr 1.1mg/dL

Lisinopril, Metformin, Atorvastatin, Meloxicam, low dose aspirin

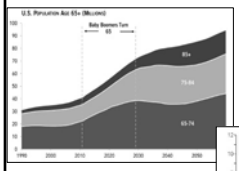
ECG - atrial fibrillation

A. Low dose aspirin
B. LMWH→ warfarin
C. Apixaban
D. Rivaroxaban
E. DOAC + ASA

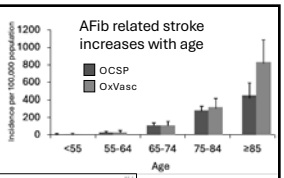
What would you start this patient on to reduce the risk of AFib-related stroke?

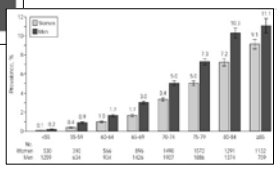
6

Why is this important to discuss?



US population is aging





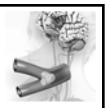
AFib prevalence increases with age

OCSP: Oxfordshire Community Stroke Project; OXVASC: Oxford Vascular Study. Yiin GS, *et al. Circulation* 2014; 130(15):1236-44.

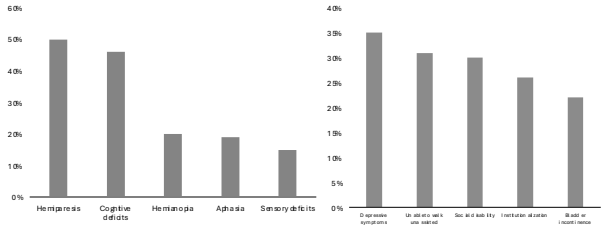
https://www.census.gov/en.html
Go et al. JAMA. 2001 May 9;285(18):2370-5.

7

Stroke causes death and disability



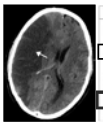
30-day mortality up to 20%



Kelly-Hayes et al. J Stroke Cerebrovasc Dis. 2003 May-12(3):119-26. Grosjewicz Neurol Clin. 2008 Nov-26(4):871-95. Feigin et al. Lancet Neurol. 2003-2(1):43.

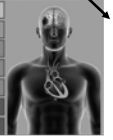
8

Stroke risk assessment in Afib: CHA_2DS_2-VASc score



	CHADS2 – VASc Score	
C	Congestive Heart Failure	1
H	Hypertension (>140/90 mmHg)	1
A	Age > 75	2
D	Diabetes Mellitus	1
S_2	Prior TIA or stroke	2
V	Vascular disease (MI, aortic plaque etc)	1
A	Age 65-74	1
Sc	Sex category (Female = 1 pt)	1

Score	Risk of stroke	
0	0.2%	Low
1	0.6%	Moderate
2	2.2%	High
3	3.2%	
4	4.8%	
5	7.2%	
6	9.7%	
7	11.2%	
8	10.8%	
9	12.2%	



No AC

Consider AC

Recommend AC

2020 ACC/AHA. 2021 Feb, 77 (5) 629–658

9

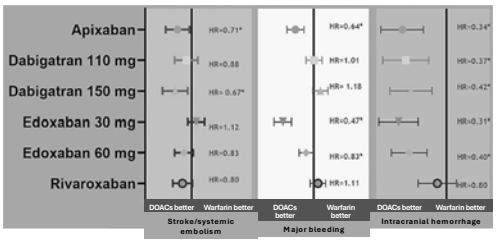
VTE recurrence: risk assessment models

	Men and HERDOO2	Vienna Risk Model	DASH
Gender	X	X	X
D-dimer	X	X	X
Signs of Post-thrombotic syndrome	X		
Obesity	X		
Age	X		X
Location of DVT/PE		X	
Provoked?			X

10

RCT Evidence for Anticoagulation in Older Patients with AFib

Network metanalysis of 28,135 patients >75 years with AFib



Malik AH, et al. Am J Cardiol. 2019 Jun 15;123(12):2051-2057.

11

Stroke/Systemic embolism in age >_75yo: DOACs vs VKA in ARISTOPHANES registry

	apixaban vs. warfarin		dabigatran vs. warfarin		rivaroxaban vs. warfarin	
	incidence rate/ 100 person-years	HR (95% CI)	incidence rate/ 100 person-years	HR (95% CI)	incidence rate/ 100 person-years	HR (95% CI)
Stroke/SE						
75-79 years	1.03 v. 1.79	0.53 (0.42-0.66)	1.51 v. 1.75	0.86 (0.63-1.17)	1.33 v. 1.72	0.76 (0.64-0.9)
≥ 80 years	1.76 v. 2.59	0.62 (0.55-0.71)	2.14 v. 2.59	0.82 (0.66-1.03)	2.16 v. 2.57	0.79 (0.71-0.88)

Lip GYH, et al. Stroke. 2018;49:2933- 2944.

12

Bleeding Risk Also Increases with Age

HAS-BLED Bleed Score

Clinical characteristic	Points
Hypertension	1
Renal or hepatic dysfunction	1 or 2
History of stroke	1
History of bleeding	1
Labile INR	1
Age >65	1
Drugs or alcohol	1 or 2

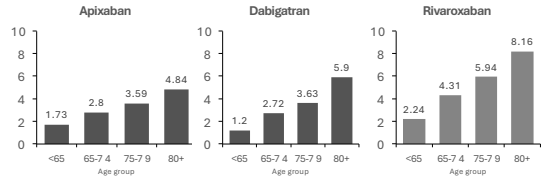
DOAC Bleed Score

Clinical characteristic	Points
Age 65-69	2
Age 70-74	3
Age 75-79	4
Age ≥ 80	5
CrCl 30-60 ml/min	1
CrCl <30 ml/min	2
BMI <18.5 kg/m2	1
Stroke/TIA/embolism	1
Diabetes	1
Hypertension	1
Single/Dual antiplatelet	2/3
NSAID use	1
Bleeding history	3
Liver disease	2

- Bleed risk scores should NOT be used in isolation to decide on prescribing anticoagulants
- Assess for & address modifiable bleed risk factors
- In our case patient
  - Need for aspirin?
  - Optimize BP
  - Minimize NSAID use
  - Assess fall risk with mac degen

13

Real world evidence of Major bleeding on DOACs (ARISTOPHANES registry N=466,991)



Lip GY, et al. Stroke 2018; 49(12):2933-44.

14

Major Bleeding in age >_75yo: DOACs vs VKA in ARISTOPHANES registry

	apixaban vs. warfarin		dabigatran vs. warfarin		rivaroxaban vs. warfarin	
	incidence rate/ 100 person-years	HR (95% CI)	incidence rate/ 100 person-years	HR (95% CI)	incidence rate/ 100 person-years	HR (95% CI)
Major bleeding						
75-79 years	3.59 v. 5.45	0.61 (0.54-0.69)	3.63 v. 5.34	0.68 (0.56-0.82)	5.94 v. 5.44	1.07 (0.98-1.16)
≥ 80 years	4.84 v. 6.88	0.65 (0.6-0.7)	5.9 v. 6.61	0.89 (0.78-1.02)	8.16 v. 6.52	1.17 (1.1-1.25)

Lip GYH, et al. Stroke. 2018;49:2933- 2944.

15

Comment on: 2023 updated AGS Beers Criteria for potentially inappropriate medication use in older adults

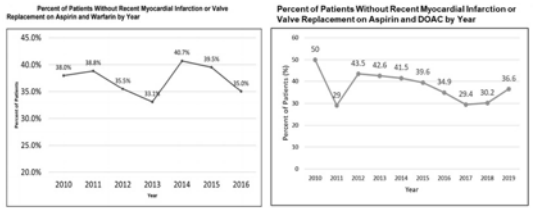
	Key excerpts from Beers Criteria
Warfarin- avoid as initial therapy (unchanged)	A recommendation to "avoid" is not an absolute contraindication.
Dabigatran- use with caution (unchanged)	Medications listed in the Beer's Criteria are *potentially* inappropriate, not definitely inappropriate.
	The criteria are a blunt instrument, and it is not possible to delineate all specialized use cases and possible exceptions to the criteria.
Rivaroxaban- CHANGED from use with caution to avoid for long-term treatment	Prescribing for older adults is often a complex endeavor involving consideration of many factors , particularly the preferences and goals of the older person and their family.
	Rivaroxaban may be a reasonable option in select circumstances.

J Am Geriatr Soc. 2023;71(7):2052-2081. doi:10.1111/ jgs.18372
Burnett AE, et al. J Am Geriatr Soc. 2023. https://doi.org/10.1111/jgs.18579

16

Anticoagulation + Antiplatelet Therapy: Common Practice

- 1/3 of patients on OAC are also on inappropriate antiplatelet therapy



Schaefer et al. 2019 Apr 1;179(4):533-541. 2. Schaefer JK et al. JAMA Internal Medicine. 2020;179(6)948-956. 3. Steinberg BA et al. Circulation. 2013 Aug 13;128(7):721-9. 4. So CH et al. J Thromb Thrombolysis. 2017 Jan;43(1):7-17. 5. Valeriani et al. J Thromb Haemost. 2020 Jul;18(7):1661-1671. 6. Kumar S et al. Cardiol Rev. 2016 Sep-Oct;24(5):218-23

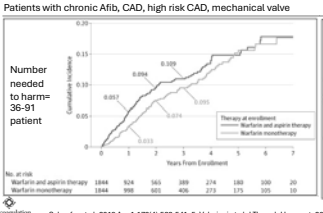
17

Anticoagulation + Antiplatelet Therapy: Risk vs Reward

- Addition of antiplatelet potentiate efficacy of OAC?
- No difference in thrombotic outcomes (exception mechanical heart valve)
- 2x increase in major bleeding

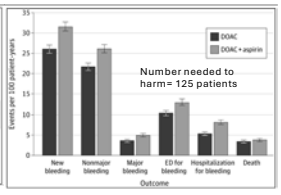
Patients with chronic Afib, CAD, high risk CAD, mechanical valve

Number needed to harm= 36-91 patient



Patient with Acute VTE

Number needed to harm= 125 patients



Schaefer et al. 2019 Apr 1;179(4):533-541. 5. Valeriani et al. J Thromb Haemost. 2020 Jul;18(7):1661-1671. 6. Dentali et al. Arch Intern Med. 2007;167(2):117–124

18

Antiplatelet + Anticoagulant Use in NH residents

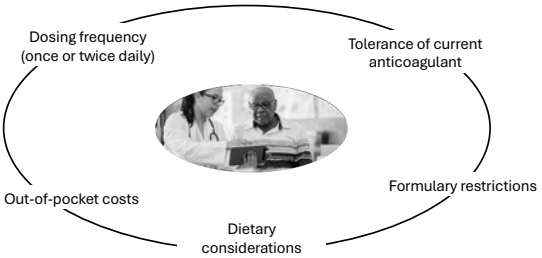
- Cross-sectional study
- 12 NH chains (709 facilities across 40 states)
- ≥100 days in a NH and had AF and a CHA2DS2-VASc (>1 men, > 2 women)
- Stratified:
  1) OAC plus antiplatelets (N=582)
  2) OAC only (N=1281)
  3) antiplatelets only (N=1523)
  4) no antithrombotic (N=1366)

12% receiving dual antithrombotic therapy and 45% receiving antiplatelets with no indication for use

Ko et al. *JAMA Intern Med*. doi:10.1001/jamainternmed.2024.1819

19

Key Considerations in Choosing an Anticoagulant WITH Your Older Patient



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Case 2: Audience Response Question

84-year-old man at his PCP office is diagnosed with new onset AFib.

He recently moved into an assisted-living facility after wife died 6 months ago.

HTN managed x 20 years with ACEI. **Severe OA** causing mobility limitations. **DM2** occasionally requiring medication adjustment. **Early-stage dementia** with mild memory impairment but still able to make decisions about his care.

Endorses mild fatigue and **has fallen once in the last year** (able to get up on his own and did not sustain serious injury)

Weight 72kg (5 kg↓) SCr 1.2 mg/dL INR 1.0 **CHA_2DS_2-Vasc= 4**

What would you start to prevent AFib-related stroke?

A. Low-dose ASA
B. LMWH→ VKA
C. DOAC
D. Withhold antiplatelets and anticoagulation

21

Older patients less likely to be prescribed OAC

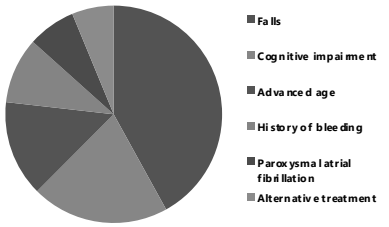
- Swedish registry (2009-2012) of 12,000 first-time stroke patients with AFib

Age group	Valid Observations	OAC Prescribing Frequency	Proportion (%)
18-69	1789	1098	61.4
70-79	2909	1531	52.6
80-89	5342	1551	29.0
90+	1993	209	10.5

Sjolander et al., Stroke 2015; 48: 2220-5.

22

Prescriber criteria for withholding AC



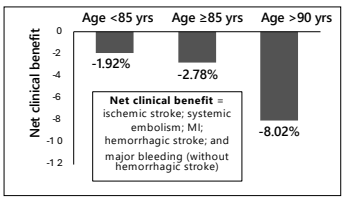
Other reasons:
- Short life-expectancy
- Fear of bleeding
- Perceived harm>benefit
- Poor health
- Geriatric syndromes

Bo M et al. Eur J Intern Med. 2017;41:18-27 2. Bahri O et al., J Am Geriatr Soc 2015;63:71-76.

23

Net clinical benefit of OACs is higher in older age groups

Any OAC vs. No AC: PREFER-AF (European Registry) 2012-2014

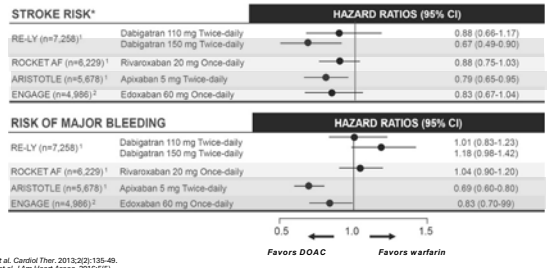


Most OAC treatment in the registry was warfarin (~6% NOACs)

Patti G, et al. *Am Heart Assoc. 2017 Jul; 6(7): e005657*

24

Net clinical benefit of DOACs preserved ≥ 75 years



Ng KH, *et al. Cardiol Ther.* 2013;2(2):135-49.
Kato ET, *et al. J Am Heart Assoc.* 2016;5(5).

25

Case 3: Audience Response Question

82- year-old woman on **warfarin x 10 years** for AFib brought into anticoagulation clinic by her grandson

Increasingly reliant on others for help with ADLs, including transportation to medical appointments, because of vision, stamina and cognition issues

Weight 57 kg (5 kg↓) SCr 1.8 mg/dL INR 2.2 (TTR ~75%)

Her grandson asks you about "another blood thinner" he saw on TV that is "easier to use" and asks if this might be an option for her

How would you adjust this patient's anticoagulation regimen?

A. Switch to low-dose ASA
B. Switch to rivaroxaban
C. Switch to apixaban
D. Continue current therapy with warfarin

Anticoagulation ECHO Out

26

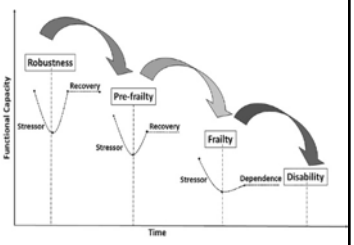
Frailty

Increased vulnerability due to aging-associated decline in reserve & function across multiple physiologic systems

Not well represented in RCTs

Multiple frailty scoring tools

Clinicians implicitly weigh multiple risk factors when deciding AC vs. no AC



Anticoagulation ECHO Out

Xue Q. Clin Geriatr Med. 2011 Feb; 27(1): 1–15.
Proietti M, et al Ageing Res Rev. 2022 Aug;79:101652.
Dent E, et al. J Nutr Health Aging. 2019;23(9):771-787.

27

Meta-analysis of frailty in AFib (N=1,187,000)

Prevalence of Frailty: 40%
Prevalence of Pre-frailty: 35%

OAC under-prescription in frail patients vs prefrail/robust: OR 0.83 (0.61-1.06)

Frail >80yo → OAC significantly less prescribed

Frail patients at higher risk for major outcomes compared to robust patients

All-cause death
OR 5.56 (3.46-8.94)

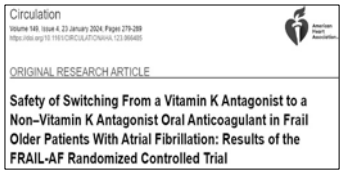
Stroke
OR 1.59 (1.00-2.52)

Bleeding
OR 1.64 (1.11-2.41)

Proietti. Ageing Res Rev. 2022 Aug;79:101652.

28

FRAIL-AF: Design



Circulation

ORIGINAL RESEARCH ARTICLE

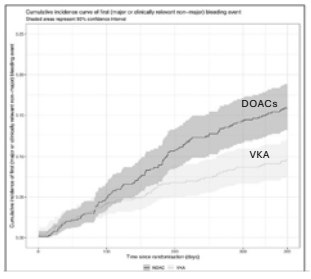
Safety of Switching From a Vitamin K Antagonist to a Non–Vitamin K Antagonist Oral Anticoagulant in Frail Older Patients With Atrial Fibrillation: Results of the FRAIL-AF Randomized Controlled Trial

- 8 Dutch thrombosis clinics
- Nonvalvular AFib patients ≥ 75 yo on VKA, eGFR ≥ 30ml/min
- Groningen frailty score ≥ 3
- Randomized, open label
  - Continue VKA (n=661)
  - Switch to DOAC (n=662)
- Superiority trial with planned interim analysis at 160 events

Joosten LPT, et al. Circulation. 2024;149:279–289

29

Cumulative incidence of bleeding DOACs vs VKA



Joosten. Circulation. 2024;149:279–289

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FRAIL-AF: Bleeding vs Thrombosis

Variable	Switch to NOAC		Continue with VKA		Hazard ratio (95% CI)
	n (%)	No. of events/100 patient-years (95% CI)	n (%)	No. of events/100 patient-years (95% CI)	
Primary outcome					
Major or CRNM bleeding	101 (15.3)	17.8 (14.5–21.6)	62 (9.4)	10.5 (8.0–13.4)	1.69 (1.23–2.32)
Secondary outcomes					
Bleeding outcomes separately					
Major bleeding	24 (3.6)	3.9 (2.5–5.9)	16 (2.4)	2.6 (1.5–4.2)	1.52 (0.81–2.87)
CRNM bleeding	84 (12.7)	14.6 (11.7–18.1)	49 (7.4)	8.2 (6.1–10.9)	1.77 (1.24–2.52)
Thromboembolic events	16 (2.4)	2.6 (1.5–4.3)	13 (2.0)	2.1 (1.1–3.6)	1.26 (0.60–2.61)
Composite of thromboembolic events plus major or CRNM bleeding	115 (17.4)	20.6 (17.0–24.7)	73 (11.0)	12.4 (9.8–15.6)	1.65 (1.23–2.21)
Composite of ischemic and hemorrhagic stroke	14 (2.1)	2.3 (1.3–3.8)	11 (1.7)	1.8 (0.9–3.2)	1.30 (0.59–2.87)
All-cause mortality	44 (6.7)	7.1 (5.2–9.5)	46 (7.0)	7.4 (5.4–9.8)	0.96 (0.64–1.45)

Joosten LPT, et al. Circulation. 2024;149:279-289

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FRAIL-AF: Discussion Points

Table 3. First Major or Clinically Relevant Nonmajor Bleeding* Location per Treatment Arm

Bleeding location	Major bleedings		CRNM bleedings	
	Switch to NOAC	Continue with VKA	Switch to NOAC	Continue with VKA
Skin, n (%)			23 (3.5)	10 (1.5)
Oropharyngeal, n (%)		1 (0.2)	19 (2.9)	16 (2.3)
Gastrointestinal, n (%)	9 (1.4)	1 (0.2)	8 (1.2)	3 (0.5)
Urogenital, n (%)			20 (3.0)	11 (1.7)
Brain,† n (%)	7 (1.1)	6 (0.9)		
Ophthalmic, n (%)		1 (0.2)	3 (0.5)	2 (0.3)
Musculoskeletal, n (%)	1 (0.2)		1 (0.2)	4 (0.6)
Lung, n (%)		1 (0.2)		
Other, n (%)	2 (0.3)	3 (0.5)	8 (1.2)	3 (0.5)

- Stopped early for futility (underpowered)
- Precludes drawing conclusions on differences between the groups
- VKA patients already tolerant
- DOAC choice not individualized or randomized (50% rivaroxaban)
- TTR not reported for VKA arm (likely >65-70% given setting)

Joosten LPT, et al. Circulation. 2024;149:279–289
Wallentin L, et al. Circulation. 2024;149:290–292

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Comorbidities to consider when choosing anticoagulant

- Renal insufficiency
  - dose reductions or avoidance for some DOACs
- Liver disease
  - Caution with VKA and DOACs based on Child-Pugh
- Underweight
  - Dose reduction with Apixaban/Edoxaban in AFib
- Cancer-associated VTE
  - Apixaban/Rivaroxaban/Edoxaban/LMWH > VKA
- Antiphospholipid syndrome
  - VKA > DOACs
- Mechanical Heart valves
  - VKA>DOACs

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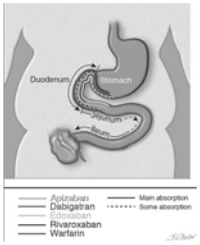
Comorbidities to consider when choosing anticoagulant

- Altered GI anatomy or enteral nutrition
  - Unpredictable absorption of OAC

DOACs for Enteral Administration

DOAC	Bioavailability	Safe to Crush?	Administer per NG/G Tube?
Apixaban	~50% (unaffected by food)	Yes	Yes
Rivaroxaban	>90% with food† (~66% without food)	Yes	Yes*
Dabigatran	***~5% (unaffected by food)***	***No***	***No***

*Doses ≤10 mg can be administered without regard to food
*Avoid administering post-pyloric



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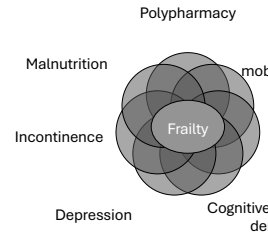
Geriatric Syndromes: Intersectionality of Multiple Conditions/Issues



- Most older AF patients have ≥ 1 geriatric syndrome
- ↑ # geriatric syndromes associated with ↓ anticoagulant use
- May be a key driver of undertreatment of AF
- Should be incorporated into decisions around stopping AC

Shah SJ, et al. Am Geriatr Soc. 2021 Feb;69(2):349-356.

35

Key Considerations in Choosing an Anticoagulant WITH Your Older Patient

Switching from VKA to DOAC might be associated with similar benefits regarding major bleeds, stroke and mortality.

However, it may be associated with a higher rate of GI bleeding.

Weigh potential gains of simpler treatment with potential increased risk of GI bleeding.

Most important is maintaining long-term adherence, whether on VKA or DOAC.

Wallentin L, et al. Circulation. 2024;149:290–292

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Case 4: Audience Response Question

- **96 yo** woman on apixaban for atrial fibrillation
- Brought into ED from long-term care facility after a **fall event** that she does not remember
- Has **advanced Alzheimer's** and is **fully dependent** for ADLs
- Patient **intermittently refuses** oral medications at long-term facility
- Head CT is negative for any bleeding and ED resident is asking for recommendations on resuming apixaban

What would you recommend?

A. Continue twice daily apixaban
B. Switch to once-daily rivaroxaban
C. Switch to VKA
D. Stop all anticoagulation

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Stopping Anticoagulants: Need for a Patient-Centered Framework

Competing risk of death from non-stroke causes, such as advanced dementia, diminishes the net clinical benefit (NCB) of anticoagulant therapy

After age 87 years and 92 years, NCB of warfarin and apixaban, respectively, falls below the minimal clinically relevant threshold

Recent data suggests roughly 1/3 of nursing home residents with AF and advanced dementia remain on anticoagulation in last 6 months of life

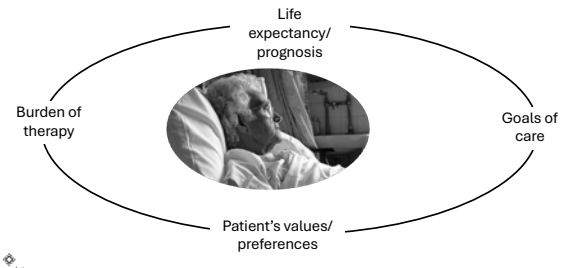
More high-quality data is needed to inform decision-making and drive antithrombotic stewardship initiatives in these patient populations

"Drive to Deprescribe" initiative (https://paltc.org/drive-deprescribe)

Ouellet GM, et al. JAMA Intern Med. 2021;181(8):1121-1123.
Shah SJ, et al. Circ Cardiovasc Qual Outcomes. 2019 Nov;12(11):e006212
Parks A, et al. JAMA Intern Med. 2021;181(8):1123.

38

Key Considerations in Stopping an Anticoagulant WITH Your Older Patient



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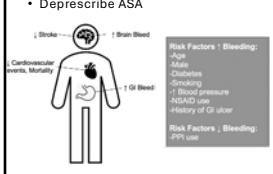
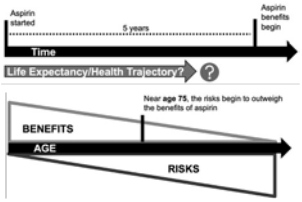
Antithrombotic Stewardship: Drive to Deprescribe (D2D) Initiative

- Post-Acute and Long-term Care Med Association (PALTmed) and American Society of Consultant Pharmacists (ASCP)
- Reduce polypharmacy and enhancing patient care
- Deprescribe ASA





https://paltc.org/drive-deprescribe

40

Practical considerations when managing anticoagulation in older patients

Checklist of clinical parameters to assess when initiating AC and during follow-up
✓ Assess Thrombotic Risk (CHA_2DS_2-Vasc or VTE recurrence)
✓ Assess bleeding risk using RAMs and other risks specific to elderly
✓Check baseline labs- renal function, coagulation tests, liver function, CBC
✓Check for CI to DOACs or VKA. Alternatives to AC e.g. LAAO
✓Choose suitable AC and dose (QD vs BID) and dose reductions
✓Identify potential drug-drug interactions
✓Reduce unnecessary medications (ASA and others with antiplatelet properties)
✓Evaluate need for PPI
✓Tailor patient education to elderly and repeat as needed. Consider additional teaching/adherence tools
✓Provide anticoagulation card/medication alert tag
✓Determine appropriate frequency of follow-up (early initial F/U may be required in older patients)
✓Explore reasons for nonadherence
✓Explore options for dose reduction or discontinuation of anticoagulation

41

Acknowledgements

Thanks to the Anticoagulation Forum for slides from a recent webinar on Anticoagulation in Older Patients
https://acforum.org/web/education-webinars.php

42

Balanced Wellbeing LLC

Improving Residential Life & Facility Compliance
Psychiatric & Psychological Care

Psychotropic Stewardship: Stay compliant with the regulations

Pari Deshmukh, MD
Medical Director, CEO
Balanced Wellbeing LLC

1

Dr. Pari Deshmukh, "Dr. Desh"

- Case Western Reserve University graduate (Chief Resident)
- Triple Board-Certified Integrative Psychiatrist
- Psychotherapist
- Distinguished Fellow of APA and Fellow of ASAM
- 12 years of daily post acute experience
- Leading the team of 130+ providers
- Servicing 200+ SNF, 200+ALFs, 30+GH
- Designed the program

2

Disclosures

Paid Speaker of

- Acadia – Nuplazid (Pimavensarin)
- Avanir – Nuedexta (Dextromethorphan/Quinidine) (in the past)
- Teva – Austedo (Deutetrabanazine)
- Neurorine – Ingrezaa (Valbenazine)
- Genesight pharmacogenomic (in the past)

3

Learning Objectives

- Know psychotropic medication regulations
- Discuss the details of common psychiatric medications
- Learn the commonly used and underutilized effective psychiatric medications
- Familiarize self with common clinical scenarios and treatment options
- Implement evidenced and experienced based psychiatric medicinal approaches to meet compliance and treat patients effectively

4

Quiz

What is the current state average of antipsychotic meds?

A) 14 %
B) 12.2 %
C) 10.4%
D) 8.9%
E) 6.5%

5

Quiz

What is the current state average of antianxiety, sedative, hypnotics meds?

A) 32%
B) 21%
C) 15%
D) 12%
E) 9%

6

Psychotropic Regulations

- Proper Indication
- Proper dosage and treatment
- Medication consent
- Document: Rationale, Impact of medications, Side Rationale
- Document monthly
- Behavioral monitoring
- Avoid starting unnecessary medications (Hospital, PCP, Nurse, Patient, Family, Psych provider)
- Psychotropic reductions

7

Psychotropic Reductions

- Prescribe according to severity
- Treat underlying medical issues
- Utilize psychotherapy services
- Put an end date on orders
- Select more effective medicines and doses
- Prefer non-psychotropic medicines
- Proactive and appropriate GDRs (including Dementia meds)
- Access to brand medicines
- Experience based clinical protocols

8

Regulation on accurate psych dx

A 82 yr. old Male is having difficulty adjusting to being in a place away from his home. He is not eating and sleeping well. He has low energy, motivation, and has lost interest in pleasurable activities. He is moving slower than usual. What do you think she has?

A. Depression
B. Anxiety
C. Bipolar Disorder
D. Schizophrenia

9

Regulation on accurate psych dx

74 yr. old Female with recent diagnosis of UTI. Patient is confused has altered sensorium. Her days and nights are mixed up. Patient Hallucinates at times and feels like there are people coming to her room who do not exist. Patient is getting combative and agitated at random times. What is her condition?

A. Dementia
B. Delirium
C. Pseudobulbar affect
D. Sundowning

10

Treatments

- **Depression** — Antidepressants
- **Psychosis** — Antipsychotics
- **Insomnia** — Sedatives and Hypnotics
- **Mood Stabilization** — Mood Stabilizers (certain seizure meds) Antipsychotics
- **Anxiety** — Antianxiety Mood Stabilizers, Antipsychotics Sedatives Hypnotics

11

Antidepressant Medicines

- **SSRI** — Prozac, Zoloft, Paxil, Celexa, Lexapro
- **SNRI** — Cymbalta, Effexor, Fetzima
- **TCA** — Amitriptyline, Nortriptyline, Doxepin
- **MAO-I** — Phenelzine, Tranylcypromine, Selegiline
- **Other** — Wellbutrin, Remeron, Buspar, Trintellix, Viibryd

12

Antipsychotic Medications

Typical
- Haldol
- Perphenazine
- Thorazine
- Mellaril
- Stelazine
- Fluphenazine
- Chlorpromazine

Atypical
- Clozaril
- Zyprexa
- Risperdal
- Seroquel
- Abilify
- Geodon
- Saphris (Secuado)

- Latuda
- Vraylar
- Nuplazid

13

Other Medications

Mood Stabilizers
- Depakote
- Tegretol
- Trileptal
- Lamictal
- Lithium

Benzodiazepines
- Ativan
- Xanax
- Klonopin
- Valium
- Librium

Other
- Buspar
- Nuedexta
- Stimulants

Hypnotics
- Ambien
- Restoril
- Lunesta
- Belsomra
- Melatonin

14

Common Behaviors/Symptoms

- Irritability
- Agitation
- Aggression
- Combativeness
- Low motivation
- Withdrawn
- Insomnia
- Restlessness

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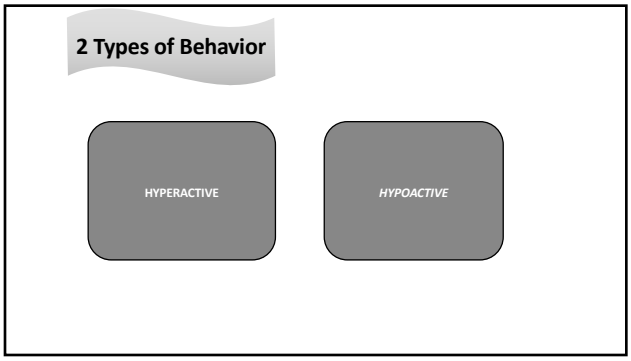
2 Types of Behavior
HYPERACTIVE
HYPOACTIVE

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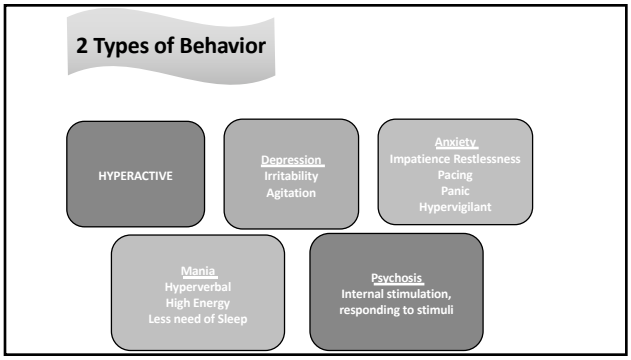
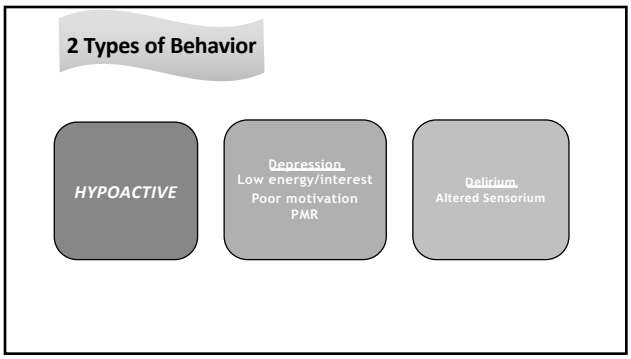

2 Types of Behavior
HYPERACTIVE
Depression
Irritability
Agitation
Anxiety
Impatience Restlessness
Pacing
Panic
Hypervigilant
Mania
Hyperverbal
High Energy
Less need of Sleep
Psychosis
Internal stimulation,
responding to stimuli

17


2 Types of Behavior
HYPOACTIVE
Depression
Low energy/interest
Poor motivation
PMR
Delirium
Altered Sensorium

18

Common Forms of Treatments

- **Treat**
  - Underlying medical condition
- **Remove**
  - Contributing medicines
- **Remove**
  - Triggers (sensory, pain, constipation, hunger, hydration)
- **Use**
  - Distraction, redirection
- **Use**
  - Psychotherapy
- **Use**
  - Psychiatric medication

19

Regulation on Medication Intakes

An 87 yr. old female, who thinks people are poisoning her, is refusing all medicines. As a result, patient is getting more agitated and restless. What can be done?

a) Give medicine in food
b) Give medicine in gel form
c) Give medicine in a long- acting injection
d) Give medicine in nasal forms
e) Any of the above depending on patient preference or give no medicine if patient still refuses

20

Regulations: AIMS

An 82 yr. old female, who was exposed to antipsychotic medicine, now has movements. AIMS score is high. What to do?

a) Find out if patient has hyperkinetic or hypokinetic movement
b) Monitor
c) Start Cogentin
d) Start Austedo
e) Start Ingrezza

21

Regulation: Chemical Restraints

A 62 yr. old male, with history of depression. Patient is sexually inappropriate with staff. Makes sexual comments to CAN's and nurses, tries to touch them. What to do?

a) Monitor, no intervention needed
b) Behavioral Redirection
c) Start anti – impulsivity medicine
d) Start Estrogen
e) B, C and D

22

Psychotropic Meeting Regulations

Monthly Meetings with:

- Psychiatrist/PMHNP
- DON
- Unit Managers
- Social Services
- Pharmacist
- Administrator
- Medical Team Members

23

Substance abuse regulations

A 66-year-old female, with history of alcoholism. Patient is craving for alcohol. Tries to go outside the facility to a nearby gas station to get alcohol. Couple of times, patient tried to drink hand sanitizer. Patient was educated multiple times, but she does not listen. What to do?

a) No Intervention needed as patient was adequately educated.
b) Send patient to 12 step meeting
c) Give 30 days notice to patients as it is not safe to return drunk
d) Start Naltrexone
e) Baker Act

24

Psychotherapy regulations

Psychotherapy can be ordered on Dementia patient …

a) True
b) False

25

Regulation on Telehealth

A 57 yr. old male, with history of suicide attempt and depression, is expressing wishes of ending life with a plan of using gun. Psych provider is not available to visit to facility. In this condition, it is allowed to Baker Act patient using a video call interview?

a) True
b) False

26

Early Interventions: Telepsychiatry

- Emergency Assessment
- Add/Remove 1:1 sitter
- Medication Adjustments
- Virtual Presence
- COVID Lockdowns
- Smart Phone is good enough

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Baker Act Regulations

A 68 yr. old female, with history of psychiatric hospitalization for depression. She has such a severe depression that she cannot do her ADLs. What to do?

a) Baker Act
b) No intervention needed
c) Initiate 1:1 sitter
d) Initiate treatment for depression and provide more assistance
e) Start q30min checks

28

Baker Act Regulations

A 68 yr. old male, with extreme combativeness. Patient is not redirectable. No insight. You Baker Acted patient. Patient was calm in psychiatric triage. The rescinded the Baker Act and they are sending patient back without intervention.
What to do?

a) Accept patient back and initiate the psychiatric treatment
b) Refuse to accept patient stating that patient is not safe to return to the facility
c) Accept patient but re-Baker Act the patient and send to another psych hospital
d) Find specialized psychiatric nursing home placement for the patient

29

Layers of Service

Layer 1 - Psychiatric Screening (PDPM)
Leyer 2 - Psychiatric Medication Management (FQIP)
Layer 3 - Psychological Evaluation and Psychotherapy/Talk/ Therapy/Counseling
Layer 4 - Follow Ups, Psychometric Scales, Patient Education
Layer 5 - Continuity of Care at Home Program
Layer 6 - Telepsych Follow Up for Med Adjustments and Refills

30

Research Studies

The summary of statistical significance is as follows:

Directly related to Psychiatric care	Statistical significance for Mean of Facility Adj %
	National Average
Physical restraints (L)	ns
Antipsychotic meds (s)	ns
Antipsychotic meds (L)	***↓
Antianxiety/hypnotic prev (L)	Ns
Antianxiety/hypnotic % (L)	*↓
Behavioural Sx affect others	***↓
Depress Sx (L)	***↓

ns: Non significant; SA: Vs Mean of State Avg %; NA: Vs Mean of National Avg %; *P<0.05; ***P<0.001.

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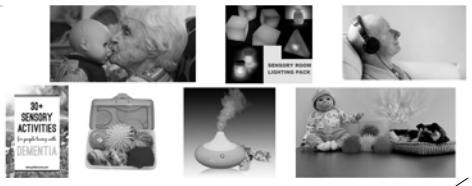
Regulation on Non-pharmacological Approach



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Regulation on Continuity of Care

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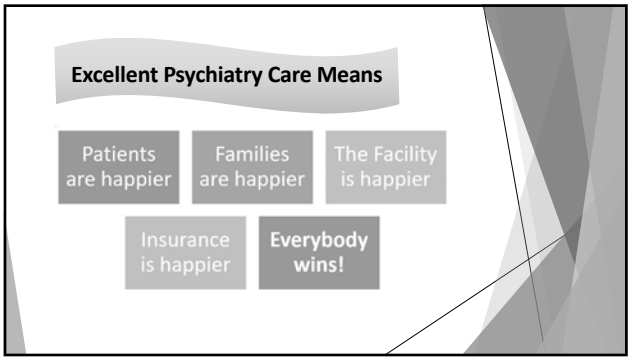

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Balanced Wellbeing LLC

Improving Residential Life & Facility Compliance
Psychiatric & Psychological Care

Thank you!

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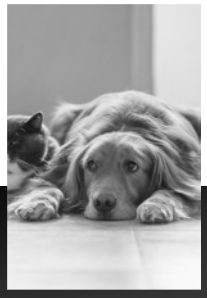
35

Animal Assisted Therapy in PALTC: Benefits and Opportunities



Elizabeth Hames, DO, CMD
Kenya Rivas, MD, FAAFP, CMD
Elizabeth Ruegg, DSW, LCSW

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Speaker Disclosures

The following speakers have disclosures:

- Dr. Elizabeth Hames: Medical Director, UHG/Optum.
- Dr. Kenya Rivas: Medical Director and Stockholder, UHG/Optum.
- Dr. Elizabeth Ruegg: no financial relationships to disclose.

All financial relationships have been identified, reviewed, and mitigated by The Society prior to this presentation.

3

Learning Objectives

By the end of the presentation, participants will be able to:

- Describe successful animal-assisted therapy programs in the PALTC continuum.
- Understand clinical benefits of animal-assisted therapy programs to patients in PALTC.
- Describe the challenges of animal-assisted therapy programs to the geriatric workforce and PALTC facilities.
- Describe strategies for reducing barriers to animal-assisted therapy program implementation.

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Introduction

- Caring for nursing home (NH) patients presents with medical challenges.
- Most are 65 y/o and older with multiple chronic health conditions.
- In the past 50 years, animal-assisted therapy (AAT) have risen from sporadic to mainstream in diverse settings, as an option.
- AAT in an institutionalized resident has been found to have a positive impact in the psychopathological status and resident's quality of life. [1]

1.Droes R.M., et al. Focus and effectiveness of psychosocial interventions for people with dementia in institutional care settings from the perspective of coping with the disease. Nonpharmacol Ther Dement. 2010; 1: 139-161

6

6

Introduction

- Various initiatives for using animals in NHs have been developed over the years, like animal visiting programs, residential companion animals, petting zoos.
- The spectrum of practice includes AAT with recreational, therapeutic and educational goals.
- Various organizations exist worldwide today to assist NHs in starting and maintaining such programs. [1]

"International Association of Human-Animal Interaction Organizations"

1. International Association of Human-Animal Interaction Organizations (IAHAIO). Available at: http://www.iahaio.org. Accessed October 20,2015.

7

Concepts

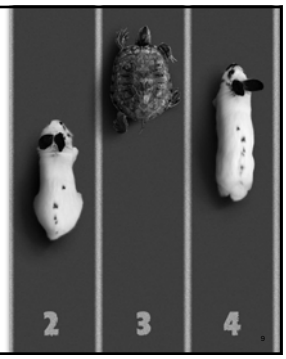
- ***Companion animals*:** "pet animal(s) with no specialized training."
- ***Visitation animals*:** "companion animals with suitable characteristics and trained for public visitation by humans, who volunteer to take them into facilities to bring enjoyment or other improvements in well-being to the people in those facilities." [1]

1. International Consortium of Animal Assisted Interactions (IC-AAI) Using uniform terminology in AAI around the globe. Workshop presented at: IAHAIO Annual Conference: changing perspectives on the human-animal relationship

8

Concepts

- **AAI:** an AAI is a goal oriented and structured intervention that intentionally includes animals in health, education and human services. Goal is therapeutic gains in humans.
- **Animal Assisted Therapy (AAT):** goal oriented, structured, focus on enhancing physical, cognitive, behavioral and/or socio-emotional functioning.
- **Animal Assisted Education (AAE):** delivered by educational service professionals. Promoting responsible pet ownership.



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Concepts

- **Animal Assisted Activity (AAA):** Informal visitation, It has motivational, educational and recreational purposes.
- **Animal Assisted Coaching/ Counseling (AAC**): focuses on enhancing personal growth of the recipient, social skills, and/or socio-emotional functioning of the patient.

"The goal is to attain optimal health outcomes, recognizing the interconnectedness between people and animals".

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Understand the Clinical Benefits of AAT

- There is a mutual benefit in the dynamic between humans and animals.
- AAT becomes a behavioral intervention that can address a multitude of clinical problems.
- Could be considered as an evidence-based program to improve patient's well-being. [1]

Could create a more home-like environments and retain NH staff

1. Orr N. Abbot R., Bethel A, et al. What are the effects of animals on the health and wellbeing of residents in care homes? A systematic review of the qualitative and quantitative evidence. *BMC Geriatr. 2023; 23: 170*

12

Understand the Clinical Benefits

- One of the recurrent challenges in elderly care management, is their combined complex debilitating illnesses in a restrict financial environment.
- The quality of life of our patients, specially in the NHs is enhanced with these programs.
- Pets increase opportunities for exercise, outdoor activities, and socialization. [1]
- May lower blood pressure, reduce fatty acid levels, lessen feelings of loneliness.

1. Anderson WP, Reid CM, Jennings GL. Pet ownership and risk factors for cardiovascular disease. Med J Aust 1992; 157:298

13

13

Understand the Clinical Benefits

- In a small, randomized, controlled study of 28 patients with chronic age-related disabilities living in a NH.
- Patients were randomly assigned to animal interaction "pet therapy."
- Compared with usual activities (control group).
- The "pet therapy" group patients had symptoms of depression improved, significant decrease in blood pressure values as compared with the control patients. [1]

1.Stas MF, Amati D, Costa C, et al. Pet-therapy: a trial for institutionalized frail elderly patients. Arch Gerontol Geriatr Suppl 2004;407.

14

14

Successful animal-assisted therapy programs in the PALTC Continuum

15

Animal Assisted Interventions (AAI) the Dutch survey

- **Methods:** used an online Dutch NH database, with 457 NH organizations invited to the digital survey, consisted of 45 questions, results were analyzed with SPSS statistics.
- **Results:** 244 surveys, 165 organizations were returned.
- 125 NHs used AAI in one way or another, 40 did not.
- NHs that did not offer AAI cited allergy and hygiene concerns.
- Most NHs used visiting animals, mostly dogs (108) or rabbits (76). A smaller number of NHs had resident animals, either living on the ward or in a meadow outside.
- Almost all programs involved AAI with a recreational purpose; none with therapeutic goals.
- 88 used alternatives when animals were not an option or not available.
- The most popular alternative was stuffed animals (83), FurReal Friends robotic toys (14), the sophisticated robot seal Paro in 7 NHs.

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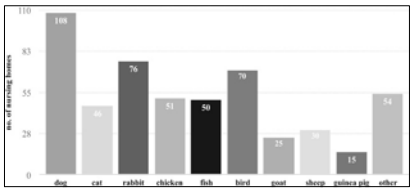
Fig. 2

Frequency per type of animal used in responding Dutch nursing homes (multiple choice, n = 125). Other (less than 10 mentions): llama, iguana, cow, horse, rat, donkey, duck, goose, piglet, potbellied pig.



Journal of the America 2016 *Journal of the American Medical Directors Association* 2016 17647-653DOI

: (10.1016/j.jamda.2016.03.015)

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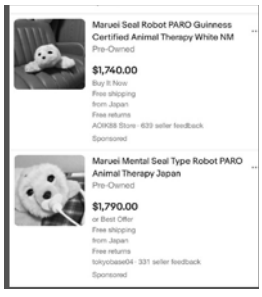

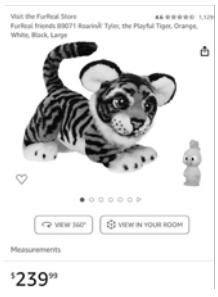

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Aibo: Artificial Intelligence robot: created in 1998. launching yearly models: dogs, lion cubs, huskies, bull temer

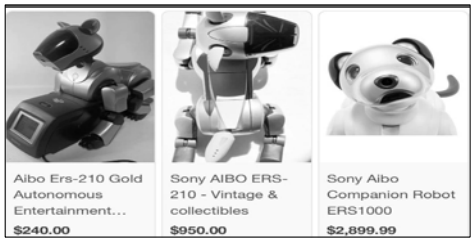

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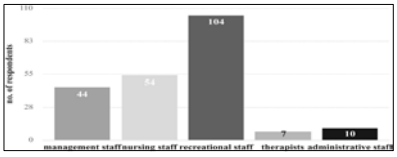
Fig. 1

Number of respondents per function profile (n = 219 respondents)



Journal of the American Medical Directors Association 2016 17647-653DOI: (10.1016/j.jamda.2016.03.015)

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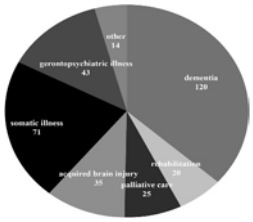
Fig. 4

Number of responding Dutch nursing homes using animal-assisted activities per medical category of participants (n = 125, multiple choice). Other: early-onset dementia, Korsakov, retirement home clients, day care.



Animal-Assisted Interventions in Dutch Nursing Homes: A Survey Lonneke Schuurmans, MD, Marie-Jose Enders-Slegers, PhD, Theo Verheggen, PhD, Jos Schols, MD, PhD Journal of the American Medical Directors Association Volume 17 Issue 7 Pages 647-653 (July 2016) DOI: 10.1016/j.jamda.2016.03.015

Journal of the American Medical Directors Association 2016 17647-653DOI: (10.1016/j.jamda.2016.03.015)

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Conclusions

- Most of the participating Dutch NHs offered AAI in recreational programs.
- Program directed to psychogeriatric patients.
- Most NHs do not have specific AAI protocols for animal welfare, hygiene, and safe issues during activities.
- They did not employ specific selection criteria for participating animals and their handlers.

22

22

Pet-Therapy: a trial for institutionalized frail elderly patients

- **Methods:** 28 subjects with chronic age-related disabilities in the NH in Torino were assigned to a pet-therapy intervention group, consisting of 3/week sessions of almost one-hour visit for 6 weeks with a little cat, vs a control group undergoing usual activity programs.
- The purpose of this study was to evaluate the effects of pet-therapy on NH inpatients.
- There were no differences in geographic or clinical characteristics and in mean duration of institutionalization between the two groups.
- **Results**: showed that patients with animal interaction had improved depressive symptoms and a significant decrease in blood pressure values.
- **Conclusions:** The pet-therapy programs are desirable components of the multidisciplinary treatment for frail elderly patients in the LTC.

1. Stasi MF, Amati D, Costa C, et al. Pet-therapy: a trial for institutionalized frail elderly patients. Arch Gerontol Geriatr Suppl. 2004;: 407.

23

24

Virtual Pet Visits during Covid-19 Pandemic, the Quality Improvement Project (QIP)

- Pet therapy has been discontinued to prevent the spread of the virus.
- Virtual pet therapy visits have not been studied before and may improve resident's mood.
- **Methods:** QIP over a 93-bed NH facility.
- 19 patients were interviewed with a 5-question survey sought to determine the impact of the discontinuation of pet therapy and mood.
- Virtual visits via iPads provided. Virtual analogue mood scale was used to rate mood.
- **Results:** 14/19 patients (73.7%) missed the prior visiting therapy pet.
- 68.4% rated their mood as sad due to discontinuation of therapy. 94.7% were willing to try virtual pet therapy.
- 100% stated that they liked the virtual pet visit. 5.3% mentioned it was better than actual pet visits.

1. DOI: https://doi.org/10.1016/j.jamda.2021.01.088

25

Animal-Assisted Therapy and Loneliness in NHs: Use of Robotic vs Living Dogs

- **Methods**: Residents were interviewed at 3 LTC in St. Louis, MO.
- **Exclusion criteria:** scored less than 24 on the modified mini-mental status exam, allergies to dogs or cats, score < 30 on the UCLA loneliness scale, or known history of psychiatric disease or Alzheimer's disease.
- Recruited subjects were randomized to a group that received no AAT (control) or to groups that received AAT with AIBO or a living dog.
- The AIBO used was a model 210A with hearing and communication capabilities.

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Fig. 1

Aibo and a resident of a long-term care facility.

Animal-Assisted Therapy and Loneliness in Nursing Homes: use of Robotic vs Living Dogs. Banks, Marian R. et al. Journal of the American Medical Directors Association, Volume 9, Issue 3, 173-177

Journal of the American Medical Directors Association 2008 9173-177DOI: (10.1016/j.jamda.2007.11.007)

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Animal-Assisted Therapy and Loneliness in NHs: Use of Robotic vs Living Dogs

- Residents in all 3 groups were given the UCLA loneliness scale, before intervention and 7 weeks after (posttest).
- **Results:** There were no statistical differences among the pretest UCLA loneliness scale scores for the Control (n=13), AIBO (n=12), or Dog 9(n=13). The mean loneliness score was 45.9+/- 1.16 (n=38).
- ANOVA showed a statistical difference among the groups.
- Newman-Keuls posttest showed that the Control group was statistically different from the AIBO (P<.05, n=12) and the Dog (P<0.5, n=13) group, but there was no statistically significant difference between the AIBO and Dog groups. Pretest loneliness scores correlated with posttest scores and with delta loneliness scores for control and combined results, but not for Dog or AIBO alone.
- **Conclusion:** Elderly patients living in LTC who received scheduled AAT with either a living or robotic dog, were significantly less lonely than those who did not receive AAT.

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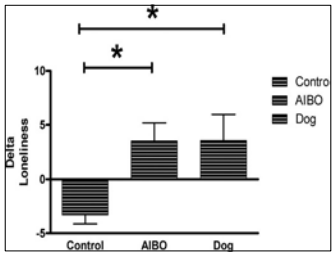
Fig. 2

Effects of AAT with a robotic dog (AIBO) and a living dog (Dog) on loneliness. AAT with either AIBO or a living dog resulted in similar improvements in loneliness when compared with a control group (P < .05) not receiving AAT



Journal of : (10.1016/j.jamda.2007.11.0the AmericaN Medical Directors Association 2008 Journal of the American Medical Directors Association 2008 9173-177DOI: (10.1016/j.jamda.2007.11.007) 07)

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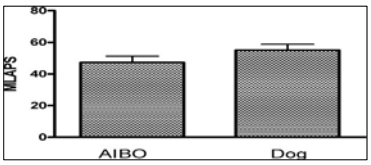
Fig. 4

Attachment as measured by the MLAPS in residents receiving AAT with either AIBO or a living dog. Both groups showed high levels of attachment that were not statistically different from each other.



Journal of the American Medical Directors Association 2008 9173-177DOI: (10.1016/j.jamda.2007.11.007)

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Poll Question: Has AAI proven to be effective for resident with severe cognitive impairment and agitation?

- True
- False
- Studies have shown equivocal results
- Don't know!

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Does Cognitive Impairment and Agitation in Dementia Influence Intervention Effectiveness? Finding from a Cluster-Randomized-Controlled Trial With The Therapeutic Robot, PARO.

- **Objectives:** to explore whether severity cognitive impairment and agitation of older people with dementia predict outcomes in engagement, mood states, and agitation after a 10-week intervention with the robotic seal, PARO.
- **Design:** Data from the PARO intervention-arm of a cluster-randomized controlled trial was used, which involved individual, nonfacilitated, 15-minute sessions with PARO; 3 afternoons per week per 10 weeks.
- **Sample:** 138 residents, aged >60 years, with dementia, from 9 LTC facilities.
- **Measures:** A series of stepwise multiple linear regressions were conducted. Dependent variables were participants' levels of engagement, mood states, and agitation at week 10.
- Predictor variables were baseline levels of cognitive impairment.[1]

1. https://doi.org/10.1016/j.jamda.2018.02.014

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Conclusions

- Participants with severe agitation, had poor response to PARO.
- Lower levels of agitation and higher cognitive functioning were associated with better responses.
- Recommendation was for PARO to be restricted to people with low-moderate severity of agitation.
- Further research is needed to determine the optimal participant characteristics for response to PARO.

- Doi: https://doi.org/10.1016/j.jamda.2018.02.014.

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Are robotic pets less effective than living dogs, when treating loneliness in the NHs?

- True
- False
- They compare the same
- Don't know

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LEARNING OBJECTIVES PART 2

By the end of the presentation, participants will be able to:

Describe the challenges of implementing animal-assisted therapy programs in PALTC

Describe strategies for reducing barriers to animal-assisted therapy program implementation

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CASE STUDY – MANY LESSONS LEARNED

A story of two cats

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POTENTIAL RISKS OF AAI

What are some potential risks of animal-assisted interventions?

- **Safety – for the animal and people involved**
  - Injuries (fall, bites, scratches)
- **Sanitation and hygiene**
- **Allergic reactions**
- **Possessive behavior** (reluctance to part with an animal)
- **Attachment problems and grief reactions**
- **Inability to bond with the animal**

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LEAD RISK ASSESSMENT TOOL

Brelsford 2020 [2]

LEAD Lincoln Education Assistance with Dogs Risk Assessment tool

extensive tool designed to enable educational and other settings to incorporate their own policy, procedures and wider best practice into AAI plan

importance of hazard identification and the implementation of control measures to prevent unnecessary risk or harm

a comprehensive risk assessment tool tailored to each specific setting

a call for and framework for developing comprehensive practice standards for AAI

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SERPELL'S 2020 SURVEY OF DOG THERAPY INDUSTRY

aim of this project was to survey a representative, national sample of U.S. therapy dog organizations to investigate commonalities and differences in the types of practices in current use

The findings: need further research, highlight issues relating to dog welfare, human safety, and infection control in which many organizations were inconsistent

approximately half of the organizations surveyed imposed no time limit on the length of visits

only a small minority of organizations prohibit the feeding of raw meat diets and treats – potential for zoonotic infections

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RISK MANAGEMENT : ANIMAL-ASSISTED INTERVENTIONS

STANDARDS FOR RISK MANAGEMENT

A primary concern is potential risk. Thorough risk management is critical.

- **Topics covered in AAI Practice Standards**:
  - Management of incidents.
  - Health and safety concerns / preventative measures
  - Infection prevention.
  - Insurance requirements.

"All therapy animal programming should reflect the field's standards of practice" (Murthy et al., 2015; Brelsford et al., 2020; Serpell et al., 2020).

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IAHAIO

International Association of Human-Animal Interaction Organizations (IAHAIO) global association of organizations for advancing the field of human-animal interaction

Task Force for the IAHAIO Definitions for Animal Assisted Intervention and Guidelines for Wellness of Animals Involved was established in March 2013.

promote respectful and responsible human and animal treatment during interventions

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AAI PRACTICE STANDARDS

1996 - Delta Society (then Pet Partners) Standards of Practice for Animal Assisted Interventions –defined a new field

2022 - Association of Animal-Assisted Intervention Professionals AAAIP

Practice standards articulate minimum standards for handlers, animals, and programs

Animal-assisted interventions can be delivered by volunteers, paraprofessionals, and professionals

- Certification program with multiple domains

The guideline includes a code of ethics and recommendations for best practices for animal handlers, therapy animals, for assessment of therapy teams, and for risk management

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AAI AND INFECTION PREVENTION

2 review articles noted MRSA and *c. Difficile* colonization in AAI visiting animals: hygiene routines and decolonization effective

Infection prevention policy for AAI to be developed in collaboration with the infection prevention practitioner:

- implement standard precautions for patient contact
- restrict therapy animal teams from patients on isolation precautions of any kind
- perform handwashing procedures before and after patient contact
- place a barrier, such as a towel or disposable impermeable barrier, on the patient's bed if the animal is to contact the bed
- approach the patient from his or her injury-free side and/or with the least amount of invasive devices
- evaluate the risk of zoonotic disease transmission
- perform therapy animal handler and therapy animal health screenings, ensure immunization, and determine frequency of evaluation
- perform therapy animal hygiene, including consideration of decolonization procedures
- develop a procedure for accidental animal waste elimination and waste disposal.

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AAI INFECTION PREVENTION STUDY

Canine decolonization program – 2018

45 patients with cancer and 4 dogs

tested for MRSA carriage before and after group therapy visits

Control: dogs were not decolonized for seven sessions and 15 percent of patients and 42 percent of dogs became MRSA carriers after a visit

Intervention group: 6 intervention sessions (dogs were decolonized) 4.5 percent of patients and 33 percent became a MRSA carrier after the visit.

antibacterial shampoo and wipes to decrease MRSA on the dogs significantly reduced transmission

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ONE HEALTH FRAMEWORK

One Health recognizes that the "health of the people is connected to the health of animals

goal is to attain optimal health outcomes recognizing the interconnectedness

adopted by CDC and World Bank

cooperation of human, animal, and environmental health partners

Goals:

- reduce zoonotic disease outbreak prevention in animals and people
- reduce antimicrobial-resistant infections and improve human and animal health.
- improve food safety and security

cooperation of human, animal, and environmental health partners

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Organizations that register therapy animals should have systems to identify, track, and resolve incidents and perceived incidents

Incidents:

aggression by the animal

inappropriate behavior by the handler or patient

injuries to the handler, patients, or animal

Practice Standards for Risk Management

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Practice Standards for Risk Management

Resolution of Incidents

remediation

re-evaluation

dismissal

Information about incidents should be freely shared between AAI registering agency and facility where AAI takes place

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Practice Standards for Risk Management

Health and Safety Concerns:

- Therapy animals should receive vaccinations to veterinary standards
- Therapy animals should not eat raw meat diets or treats
- Clients and animal handlers should perform thorough hand hygiene
- Handlers should be free of symptoms of communicable illness
- Therapy animals should be free of any signs of illness / parasites
- A clean barrier for each client should be used when interacting with the animal

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Practice Standards for Risk Management

Therapy animal teams need appropriate level of insurance coverage

Additional insurance through the registering organization is critical:

- general liability insurance with per-occurrence limit of at least $1 million with no animal/dog exclusions
- an additional umbrella liability policy of at least $1 million

Practitioners may need additional insurance

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ROBOT COMPARISON STUDY – *JAMDA* 2013 [10]

Paro vs Guide

Comparison of animal and non-animal robots in nursing home – 10 patients for one week

behaviors (touching, looking and smiling at the robot) during the interaction were collated from videotaped session – total time the resident performed certain behaviors was calculated

Paired t-tests were used to compare the two sets of interactions

Residents responded to Paro by smiling, touching, and talking to the robot significantly more often than to Guide

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CASE STUDY: AAI PROGRAM IN PALTC

What were the results?

PALTC environment was very difficult place to conduct research about AAI

Challenges noted: exclusive nature of sessions, interruptions, ethical issues, animal welfare, staffing constraints

Study serves as a tool for other potential researchers to understand the challenges and limitations of this type of attempted study

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DIRECTIONS FOR FUTURE RESEARCH

A systematic review of randomized controlled trials found that most research and published literature regarding AAI is descriptive:

- Case studies, non-randomized interventions with control conditions, and no control conditions
- small groups of participants

Difficult environment of PALTC was noted

Ethical considerations in use of robot animals in patients with dementia

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FINAL THOUGHTS : "SIGNIFICANCE"

A story of two cats

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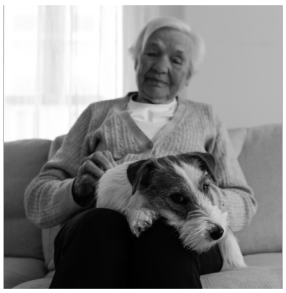

Best Practices for AAI Program Development in Long-Term Care Facilities

Dr. Elizabeth Ruegg
Saint Leo University

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- Assessing Need and Feasibility
- Program Goals
- Best Practices for Program Development
- Staff and Volunteer Training
- Animal Welfare
- Evaluating Outcomes
- Challenges and Solutions
- Future Directions

58

Assessing Need and Feasibility

- AAI should be tailored to the facility's needs, considering space, resident activity level, and budget (Franklin et al., 2022).
- Visiting teams are cost-effective relative to facility-resident animals such as cats, birds, or fish (Ebener & Oh, 2017; Pet Partners, n.d.).

59

Assessing Need and Feasibility

- Among registered therapy animal teams (an animal and their guardian-handler), dogs are the most common due to their biddability and predictability (Ebener & Oh, 2017; Stern & Chur-Hansen, 2013).
- Resident preferences and past experiences with pets should be considered for optimal program impact (Ebener & Oh, 2017).

60

Program Goals and Objectives

- Goals should focus on building bonds between animals and residents to improve quality of life through socialization, reminiscence, and reducing isolation (Kogan, 2001).
- Simple tasks (making seed cakes for birds or caring for a pet fish) can give residents a sense of purpose (Ebener & Oh, 2017).

61

Program Goals and Objectives

- Activities that encourage interaction (petting, grooming, walking, and playing with animals) can improve residents' physical, sensory, cognitive, and social-emotional functioning (Berry et al., 2012; Ebener & Oh, 2017).

62

Program Goals and Objectives

- Facilities with space limitations or low resident mobility can offer sedentary activities (Franklin et al., 2022).
- Guardian-handlers and facility staff can enhance engagement by prompting residents to talk to, look at, or touch the animals (Berry et al., 2012).

63

Program Goals and Objectives

- AAI programs should align with the existing program culture and activities to maximize AAI benefits (Ebener & Oh, 2017).
- Group-based AAIs in communal areas improve social engagement and program effectiveness (Franklin et al., 2022).

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Best Practices for Program Development

Develop policies for participation. All therapy animal teams should provide annual proof of:
- Veterinary health screening
- Current vaccinations
- Adverse incident insurance
- Training evidence
- Therapy animal program registration (Berry et al., 2012; Pet Partners, n.d.; Tufts Institute for Human-Animal Interaction, 2016).

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Best Practices for Program Development

- Implement and follow hygiene and safety protocols:
- Prohibit raw meat diets
- Use hand sanitizer during sessions; wash hands afterward
- Use cloth barriers under small animals placed on resident's laps (Brelsford et al., 2020).

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Best Practices for Program Development

All animal-handler teams should undergo
- rigorous training
- Evaluation
- registration and re-evaluation
- animal temperament assessments under realistic conditions (Lefebvre et al., 2008)

67

Best Practices for Program Development

Establish inclusion and exclusion criteria for residents
- willingness to interact with animals
- absence of allergies, phobias
- religious or cultural concerns

to ensure program safety and effectiveness (Berry et al., 2012).

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Staff and Volunteer Training

- Develop site-specific policies and procedures, including staff training on infection control and patient safety measures (Brelsford et al., 2020).
- Conduct comprehensive training for staff and volunteers on goals, responsibilities, infection control, and proper conduct (Hollingsworth, 2014).

69

Staff and Volunteer Training

- Ensure staff and handlers are well-versed in animal welfare and equipped to handle adverse incidents such as aggressive behavior or patient allergies (Linder et al., 2017).
- Encourage engagement through regular training updates, feedback sessions, and volunteer orientation programs (Hollingsworth, 2014).

70

Animal Welfare

- Prioritize animal welfare and consent. Require regular health checks, adherence to behavior standards, and avoidance of stressful situations for animals (Brelsford et al., 2020).
- Maintain a safe environment for residents and animals: Establish ground rules to prevent inappropriate behaviors like crowding, hugging, or dressing animals (IAHAIO, 2018).

71

Animal Welfare

- Include animals in good physical and emotional health, with temperament evaluations conducted by qualified professionals (IAHAIO, 2018).
- Set clear limits on interaction duration to prevent animal fatigue and stress (Lefebvre et al., 2008).

72

Evaluating Outcomes

- Guage program effectiveness through regular assessment of:
  - resident satisfaction
  - behavior changes; and
  - health metrics (Berry et al., 2012).

73

Evaluating Outcomes

- Use feedback mechanisms such as surveys and observation of volunteer teams and staff to refine program activities and address areas for improvement (Franklin et al., 2022).

74

Implementation Challenges and Solutions

- Potential challenges include staff/resident allergies, phobias, infection risks, and legal liabilities (Hollingsworth, 2014).
- Solutions: Develop protocols for allergy management, provide staff training, and ensure handlers have liability insurance (Brelsford et al., 2020; Hollingsworth, 2014).

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Implementation Challenges and Solutions

- Ensure continuous assessment and adjustments to accommodate changing resident needs and animal health conditions (Linder et al., 2017).
- Review existing AAI program protocols for additional policies and practice standards (Pet Partners, n.d.; Tufts Institute for Human-Animal Interaction, 2016)

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Future Directions

- No animal or human health agencies currently monitor or regulate AAI programs (Linder et al., 2017)
- Training and registration standards among therapy animal programs vary enormously (Linder et al., 2017)

77

Future Directions

- More and higher-quality research is needed to evaluate AAI benefits and standardize implementation across varied patient populations (Pope et al., 2016)

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Lessons Learned

1. Consider Animal Assisted Therapy as a potentially successful intervention in PALTC facilities

2. Infection control measures are essential

3. Individualized approach yields better results

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Thanks!

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