Managing Multimorbidity in the PALTC Setting

Ariel Cole, MD, FAAFP, CMD
Director, AdventHealth Geriatrics Fellowship
Geriatrics Education Director, FSU COM

Learning Objectives

1. Review the definition of multimorbidity and the associated risks

2. Assess the applicability of clinical practice guidelines to older adults with multimorbidity

3. Apply the 5 guiding principles to the evaluation of older adults with multimorbidity and managing their care

4. Understand the challenges that physicians must overcome when caring for older adults with multimorbidity

New rehab admission:
80-year-old woman who has 7 chronic diseases, takes 11 medications, recently fractured her pelvis, wants a GLP-1 medication, and her son thinks she's developing dementia.

What do you tackle first?

TOPICS

- Approach to the Older Adult with Multimorbidity
- Guiding Principles
- Action Steps for Decision Making
- Controversies and Challenges

ARS Question

ARS Question 1

What makes caring for older adults with multimorbidity most challenging?

A. Polypharmacy
B. Conflicting guidelines
C. Limited time
D. Patient priorities
E. Family expectations

What is most important to older adults?

- Longevity
- Quality of life
- Avoiding disability
- Maintaining independence
- Symptom management
- Activities

Definition of Multimorbidity

Multimorbidity is also known as "multiple chronic conditions"

Defined as ≥3 chronic diseases: **Affects more than 50% of older adults**

Associated with increased rates of:

- Death
- Disability
- Adverse treatment effects
- Institutionalization
- Use of health care resources
- Decreased QOL

Multimorbidity

Older adults with multimorbidity are heterogeneous in terms of:

- Illness severity
- Functional status
- Prognosis
- Personal priorities
- Risk of adverse events

Multimorbidity requires a flexible approach to care

Individuals are heterogenous, even with the same conditions

Treatment options vary

Approach To Evaluation and Management

Five domains:

- Patient preferences
- Interpreting the evidence
- Prognosis
- Clinical feasibility
- Optimizing therapies and care plans

Mrs G

- 80 year old widow, lives alone in large house
  - daughter lives out of state, son lives 2 hrs away
- In SNF rehab, fell at home with pelvis fracture, no surgical intervention
- Chronically experiences SOB with exertion and joint pain in hips and knees
- Vitals: 138/76, P 80, RR 20, Weight 190lb, BMI 33
- PMHx:
  - COPD (former smoker, quit in 2002)
  - HTN
  - HLD
  - Afib, intermittent
  - DM 2
  - Hypothyroidism
  - Osteoarthritis
- Issues:
  - Post fracture
    - pain control
    - clinical osteoporosis
  - Interested in semaglutide oral for weight loss
  - Cost of meds

Mrs G’s medication list

- Hydrocodone/APAP 5/325mg PO TID PRN
- Levothyroxine 75mcg PO daily
- Apixaban 5mg PO BID
- Losartan/HCTZ 50/12.5mg PO daily
- Pantoprazole 40mg PO daily
- Rosuvastatin 10mg PO daily
- Metoprolol tartrate 50mg PO BID
- Metformin 500mg PO BID
- Empagliflozin 10mg PO daily
- Tylenol PM OTC QHS
- B complex vitamin

Guiding Principles #1: Patient Preferences

For Mrs G, what matters most?

Care provided in accordance with CPGs may not adequately address patients' individual preferences

Older adults should have the opportunity to evaluate choices and prioritize their preferences for care within personal and cultural contexts

Patient Priorities Care Framework

- Health Outcome Goals:
  - What do you want to achieve?
- Health Care Preferences
  - What are you willing/able to do?
- Priorities
  - What is the one thing you most want to focus on?

Mrs G – Preferences: Pain control

- Mrs G's pain control tx options
  - Opioid/tramadol
  - Acetaminophen/NSAID
  - Suzetrigine
- "What matters most to you as you consider these options?"
- "What do you hope for? What are your expectations?"
- "What concerns or worries do you have about these choices?"

Decision pause: Personal Preferences

- What would you do next?
- Set appropriate expectations
- Weigh risks/benefits
- Discuss support
- Consider cost

Guiding Principle 2: Interpreting the Evidence

Recognize the limitations of the evidence base when applying the medical literature to older adults with multimorbidity.

What evidence applies to Mrs G?

- Significant evidence gaps exist concerning condition and treatment interactions, particularly in older adults with multimorbidity

Mrs G – Evidence: GLP-1

- Mrs G is asking about GLP-1 Rx
- She is obese (BMI 33) with DM2
- What other medical conditions might benefit from GLP-1 tx?
- What might be the harms?

ARS Question

ARS Question #2

Mrs G is considering a GLP-1 Rx.

In addition to obesity and DM2, evidence supports benefit for which of the following conditions?

A. Knee osteoarthritis
B. Cardiovascular events
C. Obstructive sleep apnea
D. All of the above

GLP-1 in Octogenarians

Potential benefits

- Lower cardiovascular events
- Reduce progression of CKD
- Improve knee OA
- Improve OSA
- Improve HFpEF sx

Potential Risks

- Sarcopenia/lean muscle mass loss (25-39% of total weight loss)
- Osteoporosis (11% increased fragility fracture risk)
- GI adverse effects/malnutrition
- Accelerate frailty

CENTRAL ILLUSTRATION: Frailty and Effects of Semaglutide in Obesity-Related HFpEF

STEP-HFpEF Pooled Cohort

1,145 Participants	52 Weeks	2.4 mg Semaglutide

Baseline Frailty Distribution (Frailty Index)

Follow-Up Frailty Distribution (Frailty Index)

Treatment Effects: Semaglutide vs Placebo

Mean difference between Semaglutide and Placebo groups

	Nonfrail	More frail	Most frail	
Weight Loss Benefit (%)	−6.9	−8.0	−8.8	$P_{interaction} = 0.385$
KCCQ-CSS (Points)	−1.5	+3.7	+11.0	$P_{interaction} < 0.001$

Semaglutide Improves Frailty Status Over Time

52-Week Follow-up

Key Outcomes vs Placebo:

↑ Frailty Improvement
OR: 3.16 (95% CI: 2.44-4.09)
$P < 0.0001$

↓ Frailty Deterioration
OR: 0.50 (95% CI: 0.28-0.89)
$P = 0.018$

Clinical Impact

- Greatest HF symptom benefits in most frail patients
- Consistent weight loss across all frailty levels
- Significant reduction in frailty burden over time
- Safe and effective in high risk frail population

Pandey A, et al. JACC Heart Fail. 2025;13(10):102610.

What would happen if we follow every CPG for Mrs G?

- 12-15 daily medications
  - Multiple dosing schedules
  - Drug-drug interactions
  - Logistical and financial burden
  - Adverse effects
- 9 Specialists
- Physical therapy and nutrition
- Numerous labs, imaging

Limitations of Clinical Practice Guidelines (CPGs)

- Most CPG focus on management of only **one** disease
- Older adults with multimorbidity are regularly excluded or under-represented in clinical trials and observational studies, which translates to less representation in meta-analyses, systematic reviews, and guidelines
- Patients in PALTC setting are rarely included
- **CPG-based care may be cumulatively impractical, irrelevant, or even harmful for individuals with multimorbidity**

Decision pause: Interpreting the Evidence

- Does the bulk of evidence weigh toward or against starting a GLP-1?
- Does cost or other factors specific to Mrs G affect that decision?

Guiding Principle 3: Prognosis

- Will Mrs G live long enough to benefit?

- Frame clinical management decisions within the context of risks, burdens, benefits, and prognosis (eg, remaining life expectancy, functional status, quality of life) for older adults with multimorbidity.

- Prognosis includes life expectancy, functional status and quality of life

- Discussion of prognosis can serve as an introduction to difficult conversations
  - Advance care planning
  - Patient preferences, treatment rationales, and therapy prioritization

Guiding Principle 3: Prognosis

- Prognosis informs, but does not dictate, management decisions within the context of patient preferences
  - **The time horizon to benefit for a treatment may be longer than the individual's projected life span**
    - risks of polypharmacy and drug-drug and drug-disease interactions may be unjustifiable
  - **Screening tests are non-beneficial/harmful if the time horizon to benefit exceeds remaining life expectancy**
    - associated harms and burdens increase with age and comorbidity

Mrs G – Prognosis: Osteoporosis

- Is Mrs G likely to live long enough to benefit from a bisphosphonate?
- Would you encourage her to get a screening mammogram?
- Dexa scan?
- Influenza shot?

ARS Question

ARS Question 3

What would you estimate is Mrs G's 5 year risk of mortality?

A. 33%
B. 50%
C. 66%
D. 75%

Eprognosis

Comprehensive Prognostic Tool for Adults ≥ 70

This comprehensive prognostic tool estimates 5-,10-, and 14-year risk of mortality, incident ADL disability, and incident walking disability for community-dwelling older adults.

Scroll to the bottom for more detailed information.

	Mortality		ADL Disability*		Walking Disability**	
	YOUR PATIENT	AVERAGE FOR AGE	YOUR PATIENT	AVERAGE FOR AGE	YOUR PATIENT	AVERAGE FOR AGE
5-year risk	**66%**	30%	**42%**	26%	**23%**	17%
10-year risk	**96%**	62%	**71%**	50%	**44%**	33%
14-year risk	**100%**	81%	**82%**	62%	**55%**	43%
Compare to others your patient's age your patient's risk at 10 year is:	Higher than average		Higher than average		Higher than average	

* ADL Disability: Needing help or unable to do 1 of the 5 ADLS

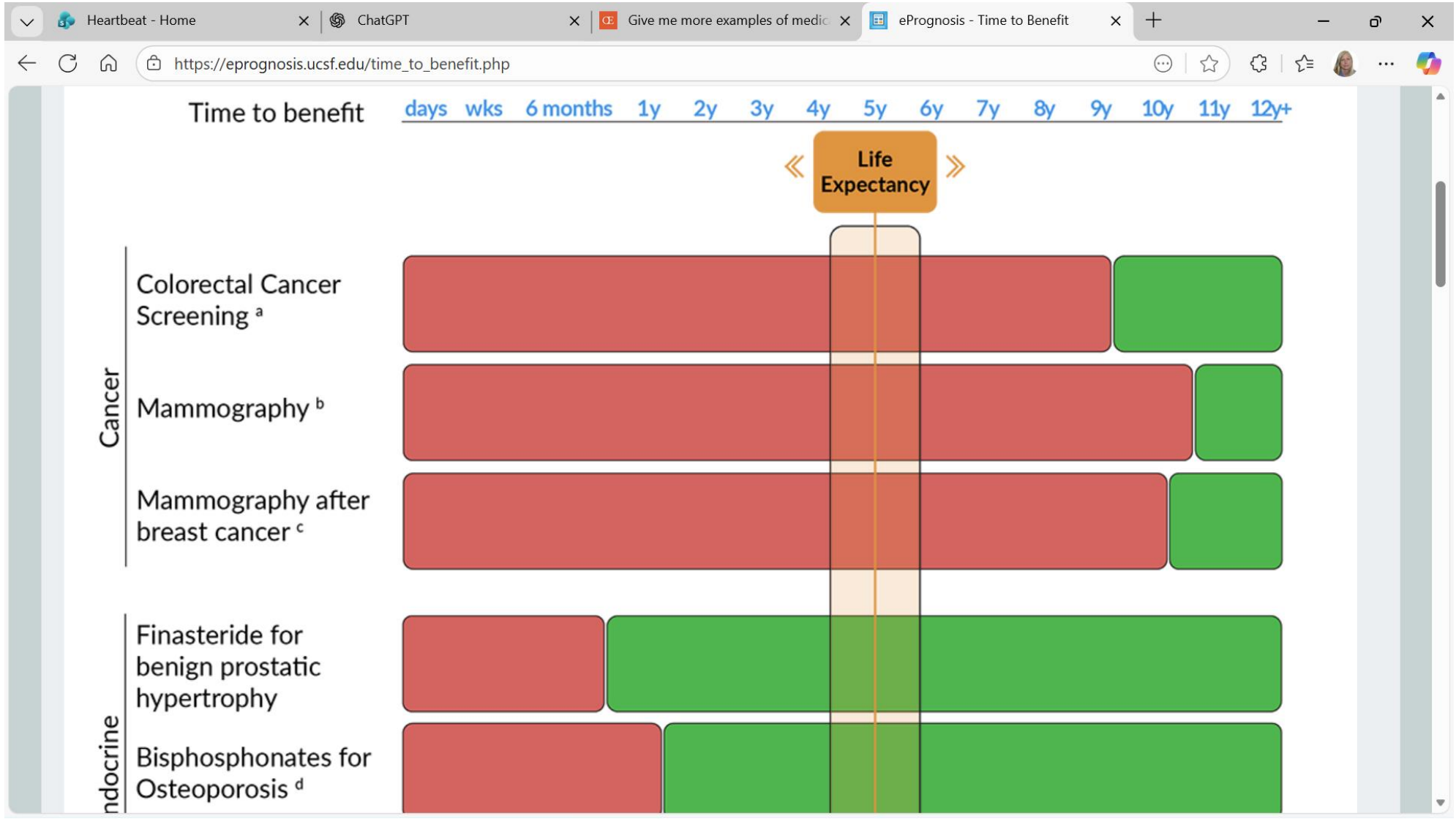
** Walking Disability: Needing help or unable to walk across the room

Finish

Time to Benefit

Rx	Outcome	Time
Bisphosphonate	Decreased fracture risk	1-2 years
Statins	Primary prevention of CV events Stroke risk reduction	2.5 years 4-5 years
Tight glycemic control in DM	Microvascular complications	8+ years
Breast cancer screening	Breast cancer detection	10+ years
SGLT2 inhibitors in HFpEF	Hospitalization reduction	< 6 mo

https://eprognosis.ucsf.edu



ARS Question

ARS Question 4

Regarding osteoporosis management, what would you do next?

A. Order dexa scan
B. Calculate her FRAX score
C. Start alendronate
D. Order zoledronic acid infusion
E. Order denosumab q 6 mo
F. Start an anabolic agent

Guiding Principle 4: Clinical Feasibility

What can Mrs G realistically do?

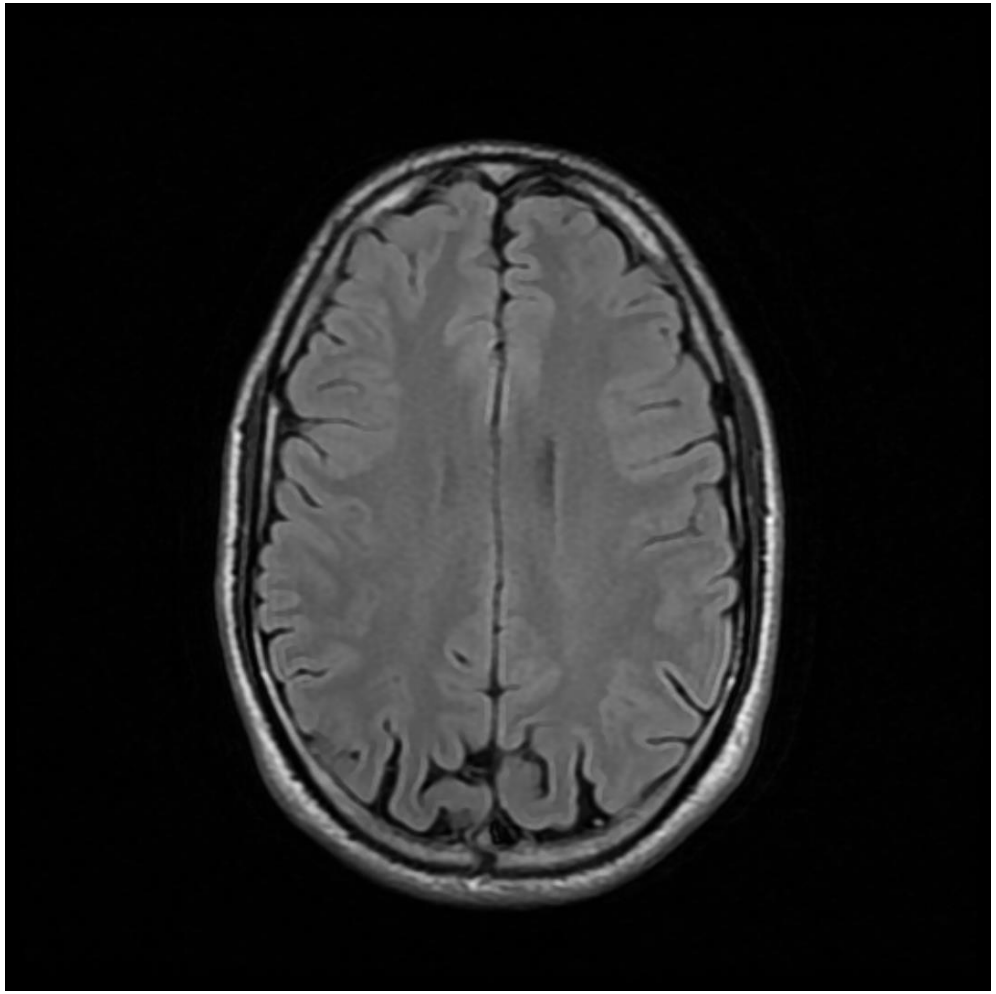
Complex regimen → higher risk of nonadherence, adverse reactions, impaired QOL, economic burden, and caregiver strain and depression.

Education and assessments must be ongoing, multifaceted, and individualized, and delivered via a variety of methods and settings, because patients often recall a small percentage of discussions with clinicians.

Mrs G – Clinical Feasibility

Mrs G's son calls after visiting his mother- concerned about her memory

He reports family history of Alzheimer's and is aware of new Rx recently available as well as blood testing.



Mrs G- Clinical Feasibility

- Cognitive Assessment (MoCA, etc)
- Initial cognitive workup
  - CBC, CMP, TSH, B12
  - MRI brain without contrast
- Blood-based biomarker
  - pTau217
  - pTau181
  - Amyloid Beta 42/40 ratio
- Amyloid PET scan

Mrs G- Clinical Feasibility
Anti-amyloid monoclonal antibody meds

- Amyloid Targeting Therapies for Alzheimer's
  - Donanemab and Lecanemab
  - IV, q 2 or 4 wks, for 12-18 mo
  - Lecanemab now available in SC weekly dosing
  - Frequent MRI's first 6 months of treatment- monitoring for Amyloid Related Imaging Abnormalities
    - Edema and hemorrhages
  - Persons living alone were not included in the trials due to risk of seizures, confusion, etc

Decision pause: Feasibility

- Often we are unaware of the logistical burden of the interventions proposed
  - Scheduling labs/imaging
  - Interacting with pharmacy
  - Insurance, prior authorization
  - Scheduling and rescheduling appointments
  - Managing transportation

Guiding principle 5: Optimizing Therapies and Care Plans

What can we do for Mrs G to maximize benefit, minimize harm, and enhance quality of life?

Older adults with multimorbidity are at risk of:

- Polypharmacy
- Suboptimal medication use
- Potential harms from various interventions

Reducing the number of meds can lower the risk of adverse drug reactions

PA and LTC setting may be ideal to trial deprescribing interventions

Mrs G Polypharmacy

Medication List

- Alendronate 70mg PO weekly
- Calcium/Vitamin D 600mg/400IU daily
- Levothyroxine 75mcg PO daily
- Apixaban 5mg PO BID
- Losartan/HCTZ 50/12.5mg PO daily
- Pantoprazole 40mg PO daily
- Rosuvastatin 10mg PO daily
- Metoprolol tartrate 50mg PO BID
- Metformin 500mg PO BID
- Empagliflozin 10mg PO daily
- Tylenol PM OTC QHS
- B complex vitamin

Problem List

- COPD (former smoker, quit in 2012)
- HTN
- HLD
- Afib, intermittent
- DM 2
- Hypothyroidism
- Osteoarthritis
- Osteoporosis

ARS Question

ARS Question 5

Which medication would you prioritize to discontinue?

A. Tylenol PM OTC
B. alendronate
C. pantoprazole
D. rosuvastatin
E. empagliflozin

Deprescribing

- What is the easiest medication to stop?
- What medication provides the least value?
- What medication causes the greatest harm?
- What medication is the most expensive?
- What medication is causes the most logistical burden?

Optimizing Therapies- Prioritizing medications for discontinuation

- Any medication without an indication
- Medications no longer appropriate given age, renal function, etc
- Medications that worsen other conditions
- Medications that are particularly expensive or otherwise burdensome

Mrs G- Alendronate

- Reasons Alendronate might no longer be appropriate
  - Swallowing difficulty
  - Prognosis < 1 yr
  - New CKD with CrCl<35
  - Unable to follow instructions for proper use (due to physical/cognitive impairment)
  - 5 year duration of use- consider drug holiday

Mrs G- Pantoprazole

- Reasons Pantoprazole should be considered for discontinuation
  - No indication
  - Adverse outcomes
    - Osteoporosis and fractures
    - B12, magnesium deficiency
    - Pneumonia
    - C diff
    - GI malignancies

Mrs G- Rosuvastatin

- Reasons Rosuvastatin should be considered for discontinuation
  - Indication- DM2- primary Cardiovascular risk reduction
    - Evidence does not support statins for primary prevention at advanced age
  - Adverse outcomes
    - Myalgias
  - Risk of stopping statins
    - Increased risk of CV death when statins stopped, even in primary prevention indication

Mrs G- Empagliflozin

- Reasons Empagliflozin should be considered for discontinuation
  - Cost
  - Limited evidence for benefit in advanced age
  - A1c goal 8
- Adverse effects
  - Dehydration
  - Genital mycotic infections

Deprescribing steps

- Start with an accurate and complete medication and OTC list
- Prioritize medications for discontinuation
- Discontinue and communicate
  - Patient/care partners
  - Pharmacy
  - Specialists
- Follow-up and monitoring
- Continue with deprescribing

Geriatric Syndromes- Impact on Multimorbidity

- Mobility
  - Falls
  - Frailty
- Mentation
  - Cognitive Impairment
- Medication
  - Polypharmacy
- Matters Most

Guiding Principles

- Inquire about the patient's primary concern (and that of care partners, if applicable) and any additional objectives
- Review complete med list and care plan
- What are the current medical conditions and interventions?
- Is there adherence/comfort with treatment plan?
- Consider patient preferences
- Is relevant evidence available regarding important outcomes?
- Consider prognosis

Guiding principles

- Consider interactions within and among treatments and conditions
- Weigh benefits and harms of components of the treatment plan
- Communicate and decide for or against implementation or continuation of intervention/treatment
- Reassess at selected intervals for benefit, feasibility, adherence, alignment with preferences

Controversies and Challenges

- Ever-changing health status of the patient
- Multiple clinicians and settings
- Need for multiple simultaneous decisions
- Inadequacy of evidence base
- Scarcity of prognostic tools; conflicting results
- Treatments meant to improve one outcome may worsen another

Controversies and Challenges

Many clinical management regimens are too complex to be feasible

As clinicians attempt to reduce polypharmacy and unnecessary interventions, may fear liability regarding underuse of therapies

Patient-centered approaches are time-consuming for the already overwhelmed clinician within the current reimbursement structure and without an effective interprofessional team

Summary

- More than 50% of older adults have Multimorbidity: 3 or more chronic diseases
- Multimorbidity is associated with increased rates of death, disability, adverse effects, institutionalization, use of healthcare resources, and impaired QOL
- Older adults with multimorbidity are heterogeneous in terms of:
  - Illness severity
  - Functional status
  - Prognosis
  - Personal priorities
  - Risk of adverse events

Practice Recommendations

- Treat the patient—not each disease independently.
- Start every visit with "What matters most?"
- Guidelines inform care but rarely dictate care in multimorbidity.
- Every new medication should prompt consideration of deprescribing another.
- Functional status and quality of life are often more meaningful outcomes than disease-specific targets.

References

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ARS Answers

1. No correct answer- poll
2. D
3. C
4. No correct answer- poll
5. No correct answer- poll

Thank You!