

# MULTIMORBIDITY

AGS Geriatrics Evaluation and Management Tools (Geriatrics E&M Tools) support clinicians and systems that are caring for older adults with common geriatric conditions.

From the AMERICAN GERIATRICS SOCIETY

## Geriatrics Evaluation & Management Tools

### BACKGROUND

- One of the greatest challenges in geriatrics is providing optimal care (patient centered and evidence based) for older adults with multiple chronic conditions, or multimorbidity.
- More than 50% of older adults have  $\geq 3$  chronic diseases, with distinct, cumulative effects for each individual.
- Multimorbidity is associated with increased rates of death, disability, adverse effects, institutionalization, use of health care resources, and decreased quality of life.
- Most clinical practice guidelines (CPGs) focus on management of a single disease, but CPG-based care for several co-occurring diseases may be impractical, irrelevant, or even harmful for individuals with multimorbidity.
  - Older adults with multimorbidity are regularly excluded or under-represented in trials and observational studies, which means there is less focus on older adults in meta-analyses and systematic reviews and guidelines.
- It is particularly appropriate to apply the approach described in this document for those older adults with multimorbidity who appear to be at greatest risk of adverse effects on health status, function, or quality of life and who require complex health care management, decision making, or coordination.

### APPROACH

The five domains outlined in this document are relevant to the care of older adults with multimorbidity.

#### Domain 1: PATIENT PREFERENCES

##### *Elicit and incorporate patient preferences into medical decision making.*

- It is important to distinguish between *eliciting preferences* and *making treatment decisions*.
  - *Eliciting preferences*: Individuals voice their opinions about treatment options and potential outcomes based on personal values and priorities.
    - Example: "I do not want mechanical ventilation because being at home is really important to me, and I do not want to return to the hospital even temporarily. I know my life is short, and I do not want to be bedbound or in a state where I couldn't interact with my family."
  - *Making treatment decisions*: The patient chooses a specific treatment option.
    - Example: "I do not want mechanical ventilation."
- All clinical decisions require an assessment of patient preferences.
  - Less complex decisions may need a brief investigation of preferences to make treatment decisions.
  - More complex decisions may need a more detailed investigation of preferences to make treatment decisions.
- Older adults with multimorbidity need to be adequately informed about the expected benefits and harms of treatment options before eliciting their preferences to make a treatment decision:
  - Present the likelihood of the event occurring or not occurring.
  - Offer absolute rather than relative risks (see Interpreting the Evidence, below).
  - Use visual aids.
  - Assess patient understanding of the information presented (eg, using a "teach back" technique).
  - For individuals who cannot understand the implications of different options, surrogate decision makers may need to assist with decision making.
- The patient's decision-making styles should be accommodated.
  - Patients may want family, friends, or caregivers to be included in decision making or even to make the decision for them.
- Preferences and treatment decisions may change over time and should be reexamined.
- The principle of eliciting preferences and involving patients in the decision-making process does not mean that the patient has the right to demand any available treatment without a reasonable expectation of some benefit.

#### Domain 2: INTERPRETING THE EVIDENCE

##### *Recognize the limitations of the evidence base, and interpret and apply the medical literature specifically to older adults with multimorbidity.*

- **Applicability and Quality of Evidence**
  - Were people with multimorbidity, or even older adults, included in sufficient numbers to make the study findings relevant?
- **Outcomes**
  - Are the outcomes reported meaningful for the patient?
  - Example: Intermediate outcomes in themselves, such as lowered cholesterol, do not affect individuals as directly as patient-important outcomes such as reduction in myocardial infarction.

**Domain 2:  
INTERPRETING  
THE EVIDENCE  
(cont'd)**

- **Harms and Burdens**
  - Were adverse events adequately reported?
  - Were potential effects on other conditions studied?
  - Could treatment interactions occur?
  - Were financial costs and treatment complexity considered?
- **Absolute Risk Reduction**
  - Are study results conveyed in terms of absolute risk reduction (ARR) or relative risk reduction (RRR)?
  - ARR is based on the risk of an outcome without treatment (baseline risk) minus the risk of the outcome with treatment.
  - If baseline risk is not reported, RRR is uninterpretable, because the baseline risk may be different for older adults with multimorbidity than for the general population.
- **Time Horizon to Benefit**
  - The length of time needed to accrue an observable, clinically meaningful risk reduction for a specific outcome
  - Is the older adult with multimorbidity at significant risk of dying before benefiting from a treatment?
    - Example: Because the time horizon to benefit of tight glycemic control in diabetes is believed to be at least 5–7 years, rigorous control of blood glucose is unlikely to help, and more likely to harm, older adults with multimorbidity who are at high risk of dying from another condition.
- **Time Horizon to Harm**
  - The length of time in which meaningful adverse events occur

**Domain 3:  
PROGNOSIS**

- Frame clinical management decisions within the context of risks, burdens, benefits, and prognosis (eg, remaining life expectancy, functional status, quality of life).**
- Prognosis informs, but does not dictate, management decisions within the context of patient preferences.
  - It is helpful to prioritize decisions based on remaining life expectancy to minimize treatments or interventions unlikely to provide benefit.
    - Using this approach, decisions are categorized by prognosis:
      - Short-term = death expected within the next year
      - Mid-term = death expected within the next 5 years
      - Long-term = death expected beyond 5 years
    - If the patient's projected remaining life expectancy is shorter than the time horizon to benefit for a medication, the medication would not be advised, because it can raise the risk of polypharmacy, or drug-drug and/or drug-disease interactions without providing benefit.
    - If the patient's projected remaining life expectancy is shorter than the time horizon to benefit of screening, the screening test may be nonbeneficial or even harmful, especially because associated harms and burdens of many of these tests increase with age and comorbidity.
  - Clinicians should offer to discuss prognosis with patients (a majority of older adults wish to discuss prognosis, while a minority do not).
  - Tools for estimating remaining life expectancy are listed in *Guiding Principles for the Care of Older Adults with Multimorbidity Pocket Card*.
  - Prognostic indices can be found at [www.epronosis.org](http://www.epronosis.org).

**Domain 4:  
CLINICAL  
FEASIBILITY**

- Consider treatment complexity and feasibility when making clinical management decisions.**
- The more complex a treatment regimen, the higher the risk of nonadherence, adverse reactions, decreased quality of life, increased economic burden, and increased strain and depression.
  - Clinicians should assess the patient's ability to adhere to the treatment plan or medication regimen on an ongoing basis (eg, patients with cognitive impairment may be able to take medications only once daily when a family member is available to supervise).
    - Various tools that measure medication management capacity are listed in *Guiding Principles for the Care of Older Adults with Multimorbidity Pocket Card*.
  - Clinicians should discuss patient preferences and incorporate this information to develop feasible treatment plans and/or medication regimens.

**Domain 5:  
OPTIMIZING  
THERAPIES AND  
CARE PLANS**

- Use strategies for choosing therapies that optimize benefit, minimize harm, and enhance quality of life.**
- Clinicians should prioritize treatments and interventions, with the goal of optimizing adherence to the most essential pharmacologic and nonpharmacologic therapies.
  - Factors to consider when identifying interventions that should not be started or should be stopped:
    - Likelihood of benefit in terms of altering the person's baseline risk for the particular outcome
    - Risk of harm
    - Comparison of the time horizon to benefit and the patient's projected remaining life expectancy (prognosis)
  - Clinicians should identify and reduce inappropriate medications (see *AGS Geriatrics Evaluation and Management: Appropriate Prescribing and Guiding Principles for the Care of Older Adults with Multimorbidity Pocket Card*).