

TABLE 124-2 PRESENTATIONS OF DISEASE IN OLDER ADULTS*

DIAGNOSIS	POTENTIAL PRESENTING SYMPTOMS AND SIGNS
Myocardial infarction	Altered mental status Fatigue Fever
Infection	Functional decline Altered mental status Functional decline Hypothermia
Hyperthyroidism	Altered mental status Anorexia Atrial fibrillation Chest pain Constipation Fatigue Weight gain
Depression	Cognitive impairment Failure to thrive Functional decline
Electrolyte disturbance	Altered mental status Falls
Malignancy	Fatigue Personality changes Altered mental status Fever
Pulmonary embolus	Pathologic fracture Altered mental status Fatigue Fever Syncope
Vitamin deficiency	Altered mental status Ataxia Dementia
Fecal impaction	Fatigue Altered mental status Chest pain Diarrhea
Aortic stenosis	Urinary incontinence Altered mental status Fatigue

*This table represents only a limited list of select disease processes and presentations; it is not meant to serve as an exhaustive reference for use during patient care activities.

failure to thrive, weight loss, cognitive decline, or depression. In the presence of infection, older adults may not reliably mount fever or experience localized symptoms. Studies have demonstrated that lowering the threshold definition of fever can improve the diagnostic utility of body temperature as a sign of bacterial infection. Although chest pain remains the most common and important symptom of ischemic heart disease, dyspnea in the absence of chest pain is a commonly reported symptom, particularly in older adults and those with multiple comorbidities.

In truth, any medical illness may manifest nonspecifically among older adults, particularly those in frail health. Nonspecific symptoms related to an underlying illness include changes in mentation, difficulty with balance and falls, new urinary incontinence (UI), and a general change in functional ability. These presentations are often referred to as the “geriatric syndromes” and are detailed later. A lack of understanding of how disease presentation differs among older adults can lead to delays in diagnosis and treatment and result in worse outcomes. Research indicates that altered presentation predicts not only suboptimal care, but future functional decline and increased mortality.

MEDICATIONS

Medication-related problems are very common in older adults. In the United States, outpatients over age 65 take, on average, three to five medications. Although medications may be indicated for specific medical conditions, use of multiple medications increases the risk for drug-drug interactions and associated adverse drug events. Altered pharmacokinetics and pharmacodynamics contribute to adverse drug events, which are a common cause of hospitalization and morbidity in older persons. Common changes in pharmacokinetics include changes in body composition, with increased fat stores and decreased body water. Fat-soluble medications, such as benzodiazepines, have a prolonged duration of effect because of this phenomenon. Age-related declines in glomerular filtration rates result in decreased clearance of many medications, including such drugs as atenolol, digoxin, and lithium. Accurate calculations of creatinine clearance will inform drug choice and dosing and improve prescribing safety. Pharmacodynamic changes include decreased sensitivity to certain commonly prescribed drugs, such as β -blockers, and increased sensitivity to other agents, such as narcotics and warfarin.

Given the risks of medication use in older adults, health care providers and systems must employ strategies to improve both the effectiveness and safety of prescribing. Evidence-based recommendations include the following:

- Maintain an up-to-date medication list, including over-the-counter medications and herbal supplements.
- Comprehensively review medications at least once annually (if not at every visit) and, in particular, at the time of transitions between care settings (e.g., after hospitalization). A clear indication for each medication, and documentation of response to therapy (particularly for chronic conditions) should be included.
- Assess for duplication and drug-drug or drug-disease interactions. Using a drug information database will help with this process.
- Assess adherence and affordability and inquire about the patient’s system for administering medications (e.g., a pillbox).
- Assess for specific classes of medications commonly associated with adverse events: warfarin, analgesics (particularly narcotics and nonsteroidal anti-inflammatory drugs [NSAIDs]), antihypertensives (particularly angiotensin-converting enzyme [ACE] inhibitors and diuretics), insulin and hypoglycemic agents, and psychotropics.
- Be suspicious that new symptoms arise from adverse effects of current drugs, not new disease.
- Minimize or avoid use of anticholinergic medications, which present specific risks.

In addition to following these general principles, prescribing providers also benefit from consulting lists of potentially inappropriate medications. The Beers List of Potentially Inappropriate Medications (PIMs) provides an evidence-based guide to drugs that should be avoided if possible or used with caution in older adults. A clear and rational approach to prescribing and ongoing management of medications that accounts for indication, interactions, and adherence may reduce the risk of common adverse events.

