

## Beers Criteria

The Beers criteria are guidelines used in elderly patients to help clinicians avoid harmful polypharmacy. It lists drugs and drug classes that should have their doses modified or not used at all in the elderly. Drug classes included in this criteria include anticholinergics, benzodiazepines, Proton Pump Inhibitors (PPIs), Antihistamines, Antidepressants, NSAIDs, Antispasmodics, Opioids, Alpha-Blockers, and Antiparkinsonian Agents.



PLAY PICMONIC

### Use

#### Elderly

##### [Old-person](#)

Elderly patients (>65 years old) have a higher risk of developing unexpected, preventable side effects, such as falls, delirium, hip fractures, and urticaria. The risk increases with the use of more than five medications.

#### Avoiding Harmful Polypharmacy

##### [Avoid-sign Polly-pharmaceuticals](#)

The Beers criteria helps clinicians to avoid inappropriate prescriptions that can be harmful to geriatric patients. The goal is to prescribe safely.

### Drug Classes

#### Anticholinergics

##### [Ant-tie-cola](#)

Anticholinergics that may need dose adjustment in the elderly include first-generation antihistamines, antiparkinsonian agents, and antispasmodics. Drug clearance is reduced with age. Side effects may include dry mouth, constipation, and confusion.

#### Benzodiazepines

##### [Benz-dice](#)

Benzodiazepines can increase the risk of falls in elderly patients. Flurazepam, long-acting benzodiazepines, and excessive daily doses of short-acting benzodiazepines can increase this risk.

#### Proton Pump Inhibitors (PPIs)

##### [Proton Pump with Inhibiting-chains](#)

PPIs are widely used. However, they can cause side effects in elderly patients, especially if used long-term. Side effects may include Clostridium difficile infection, osteoporotic-related fractures, dementia, vitamin B12 deficiency, community-acquired pneumonia, and kidney disease.

## Antihistamines

### Ant-tie-history-man

The elderly should avoid first-generation antihistamines due to inadequate drug clearance. Side effects may include constipation, confusion, and dry mouth.

## Antidepressants

### Ant-tie-depressed Emo

Tricyclic antidepressants can be harmful in elderly patients due to side effects such as sedation and orthostatic hypotension. SSRIs can be used as an antidepressant in the elderly with caution.

## NSAIDs

### N-sad

NSAIDs are included due to the risk of GI bleeding. They should also be avoided in symptomatic heart failure patients and high-risk groups such as those aged >75 years old or patients taking corticosteroids, anticoagulants, or antiplatelet drugs. Meloxicam is known to have more CNS side effects compared with other NSAIDs.

## Antispasmodics

### Ant-tie on Spaceship

Certain antispasmodics should be avoided in the elderly due to their anticholinergic effects. However, they still can be administered for short-term palliative care.

## Opioids

### Poppy-droid

The reduction of CYP3A4's function to clear opioids from the body can be seen in elderly patients. Because of this, the use of opioids should be cautioned. Opioids should not be used alongside benzodiazepines due to their risk of overdose. Gabapentin/pregabalin should also be avoided with opioids due to its sedation-related side effects.

## Alpha Blockers

### Afro Block-guy

Alpha-blockers are used for the treatment of hypertension. Orthostatic hypotension may occur in the elderly due to these medications. Examples of these drugs include Doxazosin, Prazosin, and Terazosin.

## Antiparkinson Agents

### Ant-tie Park-in-sun Garage

Elderly patients should avoid antiparkinson agents such as Benztropine and Trihexyphenidyl. These agents may be used in patients with Parkinson's, but not for the prevention of extrapyramidal symptoms in patients taking antipsychotics.