Medications that should generally be avoided when seeing patients over the age of 65 in the urgent care (after hours) setting.

A. Older adults are at high risk for adverse drug reactions due to:
1. Reduced reserve capacity due to age and illness
2. Medical conditions not obvious in the Problem List or notes (history of falls, cognitive impairment, etc in patients at risk of drug-disease interactions)
3. Unclear medication regimen or poor medication reconciliation (Drug-drug interactions, polypharmacy)

B. Lack of familiarity of an older patient by an urgent care physician mandates judicious use of medications. Principles of proper prescribing performance in the urgent care setting include:
1. Appropriate choice of medications with proven benefit
2. Avoidance of medications that may ameliorate presenting localized symptoms but marginalizes safety by placing patient at risk for global functional loss
3. Avoidance of ineffective medications
4. Minimizing unnecessary polypharmacy

C. Polypharmacy is the classic risk factor for most geriatric syndromes. Patients do not always seek a medication at an urgent care visit and often just seek reassurance. Avoidance of polypharmacy may be the most appropriate treatment.
1. A recent article in Archives IM suggested that in hospitalized older adults the risk for an ADR in an older patient more than 7 medications was 86% (OR = 4). A patient on 5 - 7 medications had an OR = 2.
2. Polypharmacy is one of the classic risk factors for falls in community dwelling older adults
3. Adding new medications is one of the classic risk factor for having an older adult develop new onset (incident) delirium in the hospital

D. The medications below are associated with increased utilization:
1. Skeletal muscle relaxants:
   - Avoid: Cyclobenzaprine (Flexeril) and methocarbamol (Robaxin) and (carisoprodol) Soma (all SMRs are contraindicated)

   Rationale: These medications are highly anti-cholinergic and can lead to altered mental status (delirium), dizziness, and falls.
   - The American Geriatrics Society states unequivocally that SMRs "should not be prescribed in the mistaken belief that they relieve muscle spasm."
   - SMRs have been strongly associated with increased fracture risk.

   Non Pharmacologic alternatives might include:
   1. Physical Therapy
   2. Heating packs/Ice
   3. Exercise handouts

   Pharmacologic Alternatives might include:
   1. Acetaminophen
   2. Narcotics (ensuring proper bowel regimen and discussion on potential side effects)
   3. NSAIDs (recognizing renal and ulcer risk factors and consideration of the use of concomitant omeprazole in the geriatric patient, especially if the NSAID is likely to be used for chronic pain management)

2. Cough medications with anti-cholinergic properties:
   - Avoid: Promethazine (Phenergan) products
Rationale: Anticholinergic agents lead to falls, dizziness, and altered mental status. Older patients with URI symptoms are physiologically compromised and hence at high risk for developing a geriatric syndrome.

Non-Pharmacologic alternatives might include:
1. No cough medication
2. Reassurance

Pharmacologic alternatives might include:
1. Guaifenesin (Robitussin) OTC
2. Benzonatate (Tessalon)
3. Guaifenesin (Robitussin) with Codeine
4. Treatment of gerd, reactive airways or post nasal drip

Special considerations:
Avoid all OTC cold formulations due to anti-histamine components

3. Nitrofurantoin (Macrobid) in patients with renal insufficiency

Rationale: For the treatment of an uncomplicated lower tract cystitis, this medication may be poorly concentrated in the urinary system. Nitrofurantoin should be considered potentially ineffective for patients (of any age) with a GFR < 60.

Consider: GFR prior to prescription

Pharmacologic alternatives might include:
1. See KP-SCal ID Gold Card for antibiotic recommendations

4. Long acting Benzodiazepenes:

Avoid: Diazepam (Valium) and chlordiazepoxide (Librium)

Rationale: Diazepam has a long and unpredictable half life. Its active metabolites can last for days. They are associated with falls and fractures.

Consider: Risk for withdrawals if the patient has had chronic benzodizepene dependence

Non pharmacologic alternatives might include:
1. follow up with psychiatry
2. follow up with mental health
3. follow up with primary care physician
4. relaxation techniques
5. non pharmacologic handouts for insomnia

Pharmacologic alternatives might include: (Please give warning of side effects and risk when driving while using these medications)
1. For anxiety: SSRIs (preferred); Lorazepam (Ativan) - if a benzo must be given
2. For pre-procedure: Lorazepam
3. For insomnia: Trazodone

5. Older anti-histamines for the treatment of pruritis / hives:
Avoid: Diphenhydramine (Benadryl) and hydroxyzine (Atarax)
Rationale: Highly anti-cholinergic medications that can lead to dizziness, acute urinary retention, falls and fractures

Consider: diphenhydramine 50mg was shown to cause more driving impairment in young adults as 0.1% blood alcohol concentration.

Non-pharmacologic alternatives might include:
1. Treatment of underlying cause
2. Evaluation of prescribed medications
3. Emollients

Pharmacologic alternatives might include:
1. Cetirazine (Zyrtec)
2. Fexofenadine (Allegra)
3. Loratadine (Claritin)
4. Steroid creams

6. Medications for Vertigo
Avoid: Meclizine and diazepam (Valium)

Rationale: Meclizine is anti-cholinergic and may cause dizziness.

Non Pharmacologic alternatives may include:
1. Modified therapeutic epley (NEJM 11/18/99)
2. PT referral
3. Home epley exercises

7. All Irritable bowel medications
Avoid: Dicyclomaine (Bentyl), hyoscyamine (Levbsin), and (Belladonna/Phenobarbital/Atropine/Scopolamine) Donnatol

Rationale: These anticholinergic medications lead to constipation, sedation, dizziness, and confusion

Consider:
1. Efficacy questioned with deleterious side effects.
2. The diagnosis of IBS is better made in the primary care or GI specialty setting.
3. Donnatol (and similar medications) should be given as a "diagnostic" trial in a patient presenting with abdominal pain with a negative work up.

Non pharmacologic might alternatives
1. reassurance if there is no evidence of an acute GI process
2. stress management
3. diet / fiber

8. Certain anti-emetics:
Avoid: Trimethobenzamide (Tigan) and (promethazine) Phenergan

Rationale:
Tigan considered a weak anti-emetic with significant EPS side effects according to the updated Beers List
Phenergan is highly anti-cholinergic (see above)
Pharmacologic alternatives might include:
Ondansetron (Zofran)

Special consideration:
Avoid long term use of metoclopramide (Reglan) when possible. If initiated as a motility agent, always ask if it is helping their GI symptoms

E. Older patients are at high risk for drug-disease interactions. Older adults that are at especially high risk for adverse drug reactions are those with cognitive impairment or falls/fear of falls. Avoidance of polypharmacy in patients with cognitive impairment should always be strongly considered.

1. Assess cognition:
   a. Rationale: 5 to 7% of patients > 70 yo have dementia and the rate doubles every 5 years.
      Lack of efficacy and ADRs of a newly prescribed medication might be due to poor understanding of the instructions
   b. Consider: Assessing the cognition of the patients caretaker as well as the patient
   c. Avoid all anticholinergics in patients with cognitive impairment
   d. In patients with cognitive impairment, always avoid tertiary TCAs due to their highly anti-cholinergic components (including amitriptyline, imipramine, and doxepin). Secondary TCAs such as nortriptyline at low doses (<=20mg) may be acceptable for cases of debilitating peripheral neuropathy if the clinician deems the symptomatic benefits outweigh the potential anti-cholinergic risks (JAGS July 2008)

   Non pharmacologic alternatives for TCAs might include:
   For depression: Ambulation (with consideration of risk for falls), increased social interaction, mental health evaluation
   For incontinence: Timed Toileting, Keegles, bladder retraining, Physical Therapy evaluation, Uro-Gyn evaluation
   For neuropathy: No medications

   Pharmacologic alternatives for TCAs might include:
   For depression: Sertraline (Zoloft), citalopram (Celexa)
   For incontinence: see below - when non-pharmacologic treatment is unsuccessful

   For neuropathy: Capsaicin cream, Lidocaine cream;
   if an oral medication must be used, venlafaxine 37.5mg q HS (or nortriptyline 10 - 20 mg q HS may be considered)

   Special consideration:
   Most urinary anti-spasmsotics are anti-cholinergic. Urge Incontinence (UI) often coexists with cognitive impairment due to the shared risk factor of older age. Nursing home placement in patients with dementia is not necessarily due to cognitive loss but may be due to problems such as incontinence that makes caring for the patient more difficult. Pharmacologic treatment of UI warrants a discussion amongst the patient and family on whether potential worsening of cognition or gait is more problematic than poorly controlled incontinence. Brand drug Oxytrol (oxybutynin transdermal) might be a safer alternative if a UI medication is to be used due to the avoidance of the first pass metabolism at the liver.

2. Assess falls risk:
a. Avoid anticholinergic agents, anti-psychotics, and sedative-hypnotics
   Anticholinergic medications cause dizziness and somnolence and is a classic risk factor for falling
   Anti-psychotics and sleep agents can lead to falls due to somnolence and confusion (dementia w behavioral disturbances excluded)
   Avoid anticholinergics (see medications listed above) including prochlorperazine (Compazine)
   Avoid zolpidem
   In patients with dementia without behavioral disturbances avoid: haloperidol, risperidone (Risperdal), olanzapine (Zyprexa), quetiapine (Seroquel), and clozapine (Clozaril)
   (Anti-psychotics are potentially appropriate in patients with dementia WITH behavioral disturbances)

b. Rationale: 30% of community dwelling adults > 65 fall; 50% of community dwelling adults > 85 fall; One in 10 falls lead to a fracture

c. Consider: functional limitations due to the consequence of falls and fractures when prescribing any medication, including categories noted above.

d. Non-pharmacologic alternatives might include:
   1. Avoidance of polypharmacy
   2. Non-pharmacologic sleep protocols
      (avoid caffeine, adequate exercise, not reading in bed, not going to the bedroom until tired, treatment of depression)
   3. Behavioral programs for agitation
      Structured environments and activities

e. Pharmacologic alternatives include
   1. Trazodone is the preferred agent for insomnia.
   2. Consider the work up and diagnosis of a dementia WITH behavioral disturbances if an older adult (without a history of schizophrenia) is being prescribed an antipsychotic. Remind the patient's family that if an anti-psychotic is not helpful, it should be discontinued and follow up discussion with the patient's PCP should be made.
   3. Ondansetron (Zofran) should be the preferred anti-emetic agent