Updated Beers Criteria 2012

Potentially Inappropriate Medication Use in Older Adults

Carrie Allen PharmD, CGP, BCPS
Appreciation is extended to:

- Baptist Health Foundation
- Methodist Healthcare Ministries Foundation
- The South, West, & Central Consortium Geriatric Education Center of Texas (SWAC-C GEC)
- Golden Manor Jewish Senior Services in San Antonio, Texas
- Prior Trust
- Many other individuals and organizations who support the mission of mmLearn.org
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Wa,wa,wa, wa,wa, wa (Adults in Peanuts Cartoons)

- [http://www.americangeriatrics.org/](http://www.americangeriatrics.org/)
- Smart phone: Beers Criteria App – Free
- Lots of materials, tables, handouts, PowerPoint
- Face book, Twitter, you name it
Beers or Beers?
So What Are These Criteria Again?

- 1st edition ~ 20 years ago, for nursing homes
  - Give guidance about medications that may do more harm than good in vulnerable older adults
  - Last revision before this was 2003
- Potentially Inappropriate Medications (PIMS) in individuals 65 and older
  - FYI 60 y.o. & Celexa (citalopram, 20mg max)
- Now expanded to use in outpatient care, inpatient care, clinics nursing homes, EHR etc.
So What Are These Criteria Again?

- Often a compliance measure HEDIS, CMS, Insurance companies…though they often don’t pay for the ones we want them too.
- 2012 is the 4th version, which is more scientifically rigorous overall
  - Modified Delphi Criteria
  - Evidence rankings, recommendation rankings
  - Science isn’t always real life & time gets us all
Example

- Example: Desiccated thyroid
- Beers Recommendation:
  Avoid it – other thyroid preparations are safer and more effective
  Quality of evidence – Low (old, trials not as rigorous or as numerous as comparable medications)
  Strength of recommendation – strong… 2+2 = 5 (?)
- Consensus criteria
Beers PIMS: 3 groups

1. Medications to avoid (regardless of disease or condition)
2. Medications that are potentially inappropriate when used if someone has a particular disease or syndrome (e.g. HF)
3. Medications to be used with caution (newer, evidence still emerging, differing opinions/consensus) *New category
   » look both ways before crossing the street and then look back again
Beers PIMS - Some meds were removed or moved since 2003

» Some had come off market, some just didn’t have enough evidence and some had issues not exclusive to the elderly
» Fluoxetine by itself as a PIMS, insufficient data
» Though still included in terms of SIADH and SSRI
» Ferrous sulfate > 325mg daily
» Long term use of stimulant laxatives (bisacodyl), except in when taking opiate analgesics
Some meds were added since 2003

• Some were added independent of why you would use them & some were added relating to only a specific diagnosis or syndrome
  » Glyburide (↑risk of hypoglycemia, prolonged hypoglycemia)
  » Sleep aids such as zolpidem (Ambien), eszopiclone (Lunesta), Zaleplon (Sonata), used for > 90 days
  » Megace
  » Caffeine in insomnia
  » H1 blockers (diphenhydramine) & H2 blockers (Zantac) in delirium
  » Antipsychotics added to use w/ caution list
Detailed discussion for each medication
Highlights of Old and New

• I encourage you to check out the AGS website and the tools there or the article containing the criteria.

• REMEMBER: This list is NOT
  » An “evil drug list” (*Potentially* is the word)
  » An absolute contraindication for use, or meant to be a punitive tool
  » A substitute for individual clinical judgment
Not a rule, or list of “do not do”

- But it is something to consider closely
- Always think medications as a cause of a change in condition, even if it is not new
- These people are variable and/or declining
- Think and consider closely before asking for new meds or prescribing new meds
Prescribing Cascade

 Lexapro → Insomnia

 Seroquel → Delirium

 Ambien → Incontinence

 Enablex → Incontinence
# Beers Criteria Highlights

<table>
<thead>
<tr>
<th>Medication</th>
<th>Recommendation</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Diphenhydramine, Doxylamine, Hydroxyzine</td>
<td>Avoid (strong)</td>
<td>↓ clearance, ↑Dry, dumb, confused, sleepy, tolerance to sedative effects</td>
</tr>
<tr>
<td>Benztropine, Trihexyphenidyl</td>
<td>Avoid (strong)</td>
<td>Better PD treatments Not rec for use in preventing EPS w/ AP use</td>
</tr>
<tr>
<td>Nitrofurantoin</td>
<td>Avoid for long term suppression and CrCl &lt; 60 ml/min (strong)</td>
<td>Pulmonary toxicity &amp; ↓ efficacy at low clearance</td>
</tr>
<tr>
<td>Dronedarone (Multaq)</td>
<td>Avoid in pt w/ HF or CrCl &lt; 30 ml/min (strong)</td>
<td>Worse outcomes reported, better to control rate than rhythm in Afib</td>
</tr>
<tr>
<td>Digoxin doses &gt; 125 mcg/D In HF</td>
<td>Avoid (strong)</td>
<td>In HF no more benefit, but ↑ toxicity at high doses</td>
</tr>
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<td>TCAs - amitriptyline</td>
<td>Avoid (strong)</td>
<td>↓ clearance, ↑ Dry, dumb, confused, sleepy orthostatic effects</td>
</tr>
<tr>
<td>Antipsychotics 1&lt;sup&gt;st&lt;/sup&gt; &amp; 2&lt;sup&gt;nd&lt;/sup&gt; generation (Haldol, Prolixin, Abilify, Zyprexa)</td>
<td>Avoid (strong)</td>
<td>Avoid for behavioral problems in dementia unless non-drug solutions fail &amp; pt is a threat to self/others. ↑ Risk of stroke and mortality in elderly w/dementia. Zyprexa &amp; syncope.</td>
</tr>
<tr>
<td>BZD (Valium, Restoril, Klonopin, Ativan, Xanax, Dalmane etc)</td>
<td>Avoid (strong)</td>
<td>Avoid any of these for insomnia, agitation or delirium (Falls). Elderly have sensitivity to longer acting agents. (Klonopin)</td>
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<td>Megace</td>
<td>Avoid (strong)</td>
<td>Minimal effect on weight gain. ↑ risk for clots and possibly death</td>
</tr>
<tr>
<td>Reglan</td>
<td>Avoid (strong), unless for gastroparesis</td>
<td>↑Risk for EPS</td>
</tr>
<tr>
<td>NSAIDS (Aspirin &gt; 325mg/D, Mobic, Motrin, Aleve etc)</td>
<td>Avoid chronic use unless nothing else works as well. Pt should take a gastroprotective agent. (strong)</td>
<td>↑Risk for GI bleeding, ulcer, even with gastroprotective therapy (Prilosec). Risk may be especially ↑ in people &gt; 75. Can exacerbate HF.</td>
</tr>
<tr>
<td>Skeletal muscle relaxants</td>
<td>Avoid (strong)</td>
<td>Poorly tolerated by elderly because of Dry, dumb, confused, sleepy side effects. ↑Risk of fracture</td>
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<td>Non-BZD sedative hypnotics (Ambien, Lunesta, Sonata)</td>
<td>Avoid (strong) use for &gt;90 D</td>
<td>Similar effects to BZD (falls), minimal improvement on sleep latency &amp; duration</td>
</tr>
<tr>
<td>Sliding scale insulin (if this then that)</td>
<td>Avoid (strong)</td>
<td>↑Risk for hypoglycemia (falls) w/out overall better control of blood sugar</td>
</tr>
<tr>
<td>Glyburide Chlorpropamide</td>
<td>Avoid (strong)</td>
<td>↑Risk for severe &amp;/or prolonged hypoglycemia (falls)</td>
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<td>Acetylcholinesterase Inhibitors (Aricept, Exelon, Razadyne) TCA (Amitriptyline)</td>
<td>Avoid if have propensity for falls/syncope (strong)</td>
<td>↑ orthostatic hypotension &amp;/or bradycardia</td>
</tr>
<tr>
<td><strong>-Anticholinergics</strong> (hydroxyzine, loratadine, meclizine, oxybutynin, olanzapine, etc)</td>
<td>Avoid in dementia or cognitive impairment (strong)</td>
<td>↑Risk for adverse CNS effects. AP have ↑ risk for stroke &amp; mortality in elderly</td>
</tr>
<tr>
<td>H2 blockers (Zantac, Pepcid) Zolpidem Antipsychotics (as needed and chronic use)</td>
<td></td>
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</tr>
<tr>
<td>Antiemetics (Reglan, Phenergan) Antipsychotics (except Seroquel and clozapine)</td>
<td>Avoid (strong) in Parkinson’s Disease (PD)</td>
<td>May worsen PD symptoms, works against what Parkinson’s treatments do</td>
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