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HADI Hawai'i Alzheimer's Disease Initiative

A PROJECT OF THE UH CENTER ON AGING

www.hawaii.edu/aging/hadi

Reducing Polypharmacy in Dementia patients

April 25, 2017

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WHAT IS THE PROBLEM?

- Causes more cognitive impairment – ASEs
- Reduced quality of life for the patient
- Harm to the patient in form of disability, pain, nausea, avoidable injuries
- Caregiver/decision makers' lack of awareness of the disability and lack of oversight of care
- Nearly 30% of Emergency room visits d/t medications result in hospital admission *

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P. Gallagher¹, C. Ryan², S. Byrne², J. Kennedy² and D. O'Mahony³

STOPP (Screening Tool of Older Person's Prescriptions) and START (Screening Tool to Alert doctors to Right Treatment). Consensus validation; International Journal of Clinical Pharmacology and Therapeutics, Vol. 46 – No. 2/2008 (72-83)

Emergency Department Visits

- For the Elderly, what 2 drugs are most often responsible for ED visits?
 - A. Methamphetamine and Methadone
 - B. Insulin and Warfarin
 - C. Glipizide and Digoxin
 - D. Amiodarone and Glyburide

B. Insulin and Warfarin

POLYPHARMACY DEFINITIONS

- Taking many medications
- Taking too much of a drug
- Multiple drugs in same class
- Drugs that are not needed
- Drugs that are ineffective
- Drugs used to treat side effects caused by another drug
- Drugs that interact with other drugs



POLYPHARMACY PROBLEMS

ADVERSE SIDE EFFECTS



- Nausea/Vomiting
- Confusion
- Constipation
- ANOREXIA
- Abdominal Pain
- FALLS/Fractures
- Bleeding
- Edema (swelling)
- Kidney damage
- Loose Stools
- High Blood Pressure
- Head Injury-Subdural
- “Super Bugs” (C. Diff etc)
- Very low blood sugars
- Urinary retention/incontinence
- Blood Clots
- Pulmonary Fibrosis
- Death

POLYPHARMACY OUTCOMES

- **INCREASED HEALTH CARE COSTS**
 - For the unnecessary drugs
 - For the costs of treating the adverse problems
 - Falls, Fractures, Bleeding in the head
 - Gastrointestinal Bleeding
 - Kidney Failure
 - Heart Failure
- **INCREASED INDIRECT COSTS**
 - Placement in Nursing Home
 - Law suits, malpractice insurance
 - Increased staffing needs

WHERE TO START?

THE BEERS LIST

- Evidence Based
- Found at www.AmericanGeriatrics.org
- Potentially Inappropriate Medications in Elderly
- First Developed by Dr. Mark Beers



RESOURCES-REFERENCES

- Beer's List of Potentially Inappropriate Medications (PIMS) in Elderly – [Beers List to Print](#) on American Geriatrics Society (AGS) website. Also app called “Geriatrics At Your Fingertips” has lookup feature. \$9.99/yr for members
- Alternatives for medications listed in AGS Beer's List – [Alternative medications for PIMS](#)
- More Tip Sheets from AGS foundation
<http://myagsonline.americangeriatrics.org/new-item/new-item5>

HOW CAN WE IMPROVE?

CHOOSING WISELY

- Developed with the American Board of Internal Medicine Foundations and AGS; Part 1 & Part 2
- AGS Choosing Wisely – 10 Things to questions about medications and tests for older adults.
[AGS Choosing Wisely](#)



CHOOSING WISELY-Antipsychotics

- Don't use **ANTIPSYCHOTICS** as the first choice to treat Neuro-Psychiatric Symptoms of Dementia (NPSD)

Assess elder for:

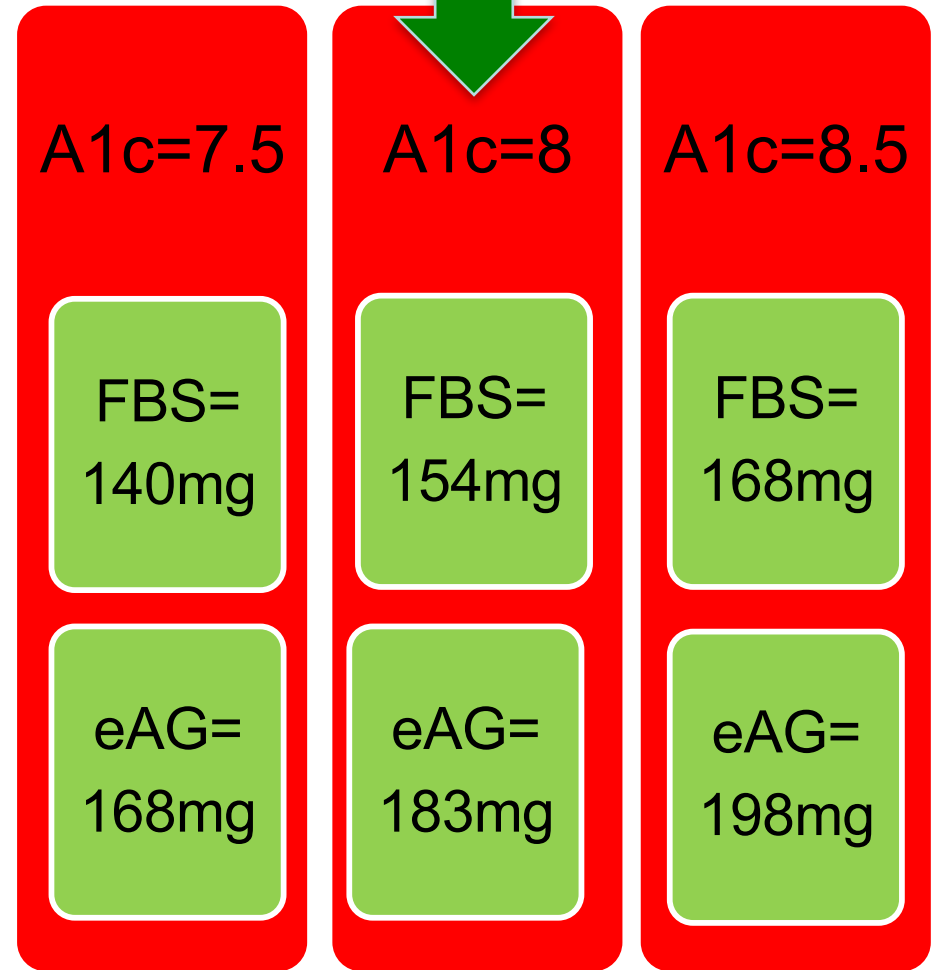
- **PAIN**
- **CONSTIPATION**
- **HUNGER**
- **COLD**

CHOOSING WISELY-Antipsychotics

- Antipsychotics have black box warning for increased risk of Mortality in the form of stroke and heart attack
- NOT FDA approved for behavioral & psychological symptoms in dementia (NPSD)
- Atypicals in psychosis: Aripiprazole, Olanzapine, Risperidone, Quetiapine
- **Conventional:** Haloperidol-use sparingly/low dose

CHOOSING WISELY-Diabetes

- Avoid using **DIABETES** medication other than metformin to achieve hemoglobin A1c <7.5% in most older adults; moderate control better to avoid **Hypoglycemia** (Should be updated to include DDP-4 Inhibitors (Gliptins))



A1c=Hemoglobin A1c;
FBS=Fasting Blood Sugar; mg/dL
eAG=estimated average glucose₁₄

CHOOSING WISELY-Benzodiazepines

- Don't use **BENZODIAZEPINES*** or other sedative – hypnotics in older adults as first choice or Insomnia, agitation or delirium
 - Look for underlying cause of sleep problems!
 - Must be weaned to avoid severe adverse withdrawal effects-if on habitually
 - Are used for alcohol withdrawal
 - Implicated in aspiration pneumonia in Dementia patients
- * lorazepam, alprazolam, temezepam, diazepam, chlordiazepoxide, clonazepam

CHOOSING WISELY-Antimicrobials

- Don't use **ANTIMICROBIALS** to treat bacteriuria in older adults unless specific urinary tract symptoms are present (dysuria, gross hematuria, suprapubic pain, + fever or leukocytosis +pyuria)
- It is a myth that change in mental status, falls or urinary frequency are symptoms of a urinary tract infection in the non-catheterized patient. Look for other causes in those cases.

CHOOSING WISELY-Antimicrobials

- Urinary frequency in patients with dementia is often a matter of the brain disorder itself when experiencing acute illness (encephalopathy)
- Attending to treating their pain, and other comfort needs and distraction is the best solution.
- Psychotropic drugs and some antibiotics can cause “akathisia” (severe distressing restlessness – especially in anemia) causing or worsening urinary frequency.

CHOOSING WISELY-AChEIs

- Don't prescribe Acetylcholinesterase Inhibitors (AChEI) for dementia without periodic assessment for perceived cognitive benefits and adverse gastrointestinal and cardiac effects.
- Indicated for early to moderate Alzheimer's Disease
- 3 Brands equally but modestly effective;
 - Donepezil
 - Galantamine
 - Rivastigmine

CHOOSING WISELY-Appetite Stimulants

- Avoid using prescription appetite stimulants or high-calorie supplements for treatment of anorexia or cachexia in older adults;
- Instead, optimize social support, discontinue medications that interfere with eating, provide appealing food and assist.
- Clarify Goals and expectations.

EATING PROBLEMS

- Avoid medications **not** specifically aimed at treating the real problem
- Avoid “Appetite Stimulants” – There are none approved by FDA for the elderly, nor is there supportive quality medical evidence
- The underlying problem needs attention!
- Medications are the **MOST** common cause of anorexia in the elderly with unintended wt loss
- Avoid Over the Counter Weight Loss Supplements. They are **NOT** FDA approved

DRUGS THAT CAN CAUSE ANOREXIA

- Acetylcholinesterase Inhibitors
 - Donepezil, Galantamine, Rivastigmine
- Antidepressants; (Bupropion, fluoxetine, & other SSRIs, SNRIs) Mirtazapine is an exception
- Digoxin – narrow therapeutic range in elderly
- Amiodarone & other antiarrhythmics
- Narcotics
- Alpha Blockers
- Antiseizure medications (Topiramate, Lamictyl)
- Metformin

Other Causes of Anorexia in Elders

- CONSTIPATION
- Depression
- Cancer (cytokines)
- Rheumatoid Arthritis
- Heart Failure
- Dementia – decreased hunger and pleasure from food
- Possibly other drugs – consider Alpha Blockers (Doxazosin, Tamsulosin, Prazosin)

More to avoid

GASTROINTESTINAL Drugs to avoid

- Proton Pump Inhibitors (PPIs) to reduce stomach acid: omeprazole, lansoprazole, pantoprazole, esomeprazole, without clear goals or guidance
- Have side effects: change in acidity of stomach with resulting decreased absorption of vitamins and minerals (Vit B-12, Iron, Calcium)
- Implicated in increased rates of respiratory infections and clostridium difficile

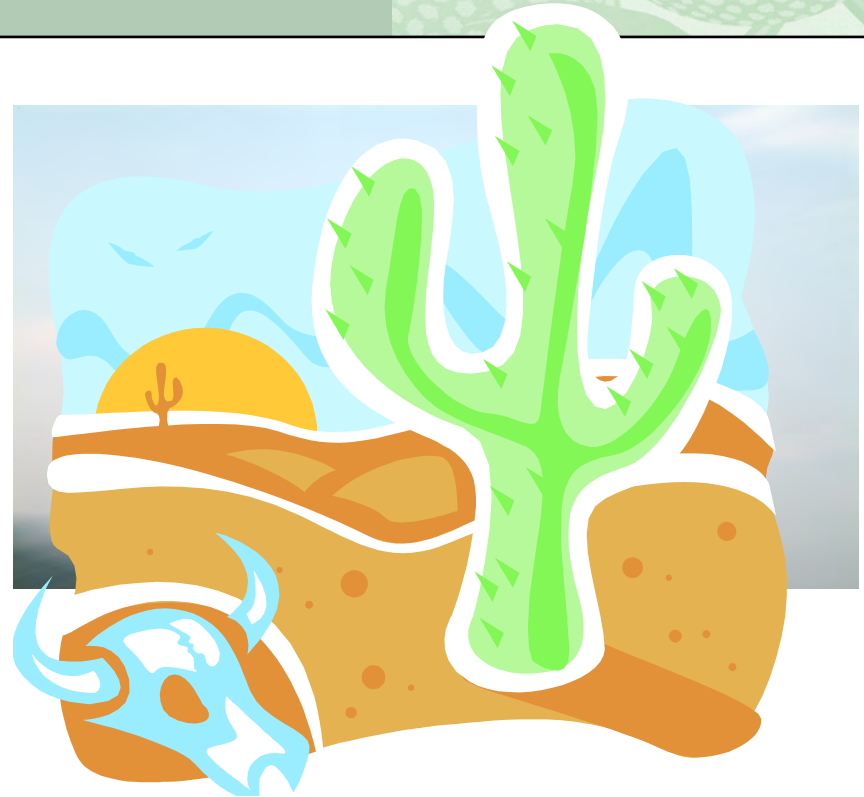
KNOW THY ANTICHOLINERGIC DRUGS

ANTICHOLINERGIC drugs – AVOID

- Older Antihistamines (chlorpheniramine, brompheniramine)-in many cold medications and cough syrups
- Benadryl (Diphenhydramine)
- **TYLENOL PM!!!** – Its Tylenol + Benadryl
- Drugs for Overactive Bladder (OAB)
- Some Antipsychotic medications
- Parkinson's Drugs (Artane, Cogentin), but may be unavoidable
 - PS: These drugs block Donepezil etc

ANTICHOLINERGIC DRUG EFFECTS

- DRY mouth
- Blurry vision
- **CONSTIPATION**
- Urinary Retention
- CONFUSION
- Falls due to hypotension
- Delirium including Hallucinations and Agitation
- Cumulative Effect with multiple Drugs



Medication Reconciliation

Medication **RECONCILIATION** at every opportunity
(especially between locations)

- At Every Provider Visit
- Take a detailed list, and, preferably, the bottles to appointments
- Your provider does not remember exactly what you are taking
- **NO, the computer does not know what you are taking** – your provider can only guess

QUESTIONS ??😊

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