HCCI
HOME CENTERED CARE INSTITUTE

GUIDELINES FOR DEPLOYING A DEPRESCRIBING ALGORITHM

- **Physiological changes and aging that impact medications**
  - Overall decrease in total body water
  - Decrease in muscle mass
  - Increase in body fat
  - Overall decrease in each organ's volume, weight and reserve capacity begins in 3rd decade with > 25% or more functional loss at 6th decade
  - No biomarkers to suggest pharmacokinetic changes of aging requiring case-by-case evaluation
- **Watch for inappropriate medication use**
  - Under-prescribing/over-prescribing/mis-prescribing
    - Wrong dose: renal excretion, etc.
    - Interactions: drug-disease and drug-to-drug
    - Duplications: two meds of same indication and class
    - Wrong drug: better choice
    - PRESCRIBING CASCADE!
  - Recent hospitalization
  - Recent visit to specialist
- **Tools to help de-escalate**
  - Beers Criteria® (available at AmericanGeriatrics.org)
    - First developed in 1991 by geriatrician
    - Updated by American Geriatrics Society (AGS)
    - EBM rec's on drugs to avoid in elderly with quality of evidence
    - Need to filter through lens of clinical judgement
    - Can be overwhelming focus on common drug classes with known problems, i.e., Benzodiazepine, antipsychotics, first-generation antihistamines, etc.
    - Includes over 50 medications designated in five categories:
      - Avoided by most older people (outside of hospice and palliative care settings
      - Avoided by older people with specific health conditions
      - Avoided in combination with other treatments because of the risk for harmful "drug-drug" interactions
      - Used with caution because of the potential for harmful side effects
      - Dosed differently or avoided among people with reduced kidney function, which impacts how the body processes medicine

- **teps to de-escalate**

  STEP 1: Identify the issue/reconcile all medications and indication for them, paying attention to possible prescribing cascade

  - Include OTC and supplements
  - Compliance – WHEBSS

    W = What
    H = How
    E = Efficacy
    B = Barriers
    S = Side effects
    S = Skipped dose

  STEP 2: Review overall risk of medications using Beers/STOPP, clinical knowledge of the patient's pharmacokinetics (ex: renal disease) and adherence

  STEP 3: Assess each drug for continuation

  - If there is no indication found for use in Step 1
  - It is part of a prescribing cascade; prescribed to treat ADR
  - Preventative drug that is unlikely to offer continued benefit based on prognosis
  - Drug is burdensome for patient – financial burden, requires complicated monitoring, difficult to adhere to, etc.

  STEP 4: Prioritize drugs for discontinuation

  - First those with greatest harm
  - Easiest to discontinue, minimal withdrawal

  STEP 5: Implement and closely monitor

- **Tapering Meds**
  - General guide to tapering medicine:
    - Halve the dose: at the next scheduled visit, review progress then either maintain (at half dose), continue to taper (quarter dose) or stop
    - View the discontinuation process as a trial
    - Stop one medicine at a time so that any withdrawal event(s) can be easily attributed to the medicine that is being stopped
    - Time taken to taper may vary from days to weeks to months

CONSIDERATIONS BASED ON MEDICATION CATEGORIES

- **Benzodiazepines**
- **Antihypertensives**
- **Statins**
  - Stop statin based on an assessment of individual benefits and risks
  - Stopping may be justified in a person with relatively low risk of a cardiovascular event, with adherence issues or experiencing troublesome adverse effects
  - In most cases, statins can be stopped without the need for tapering
  - Statins should not be stopped in patient's history of or admitted for cardiovascular events including acute coronary syndrome, myocardial infarction and stroke
- **Warfarin**
  - In older people taking warfarin, low initial and maintenance dosages are recommended (dose adjusted to maintain the INR at lower of range of 2-3)
  - The optimum duration of warfarin therapy is determined by the condition being treated and its severity
  - Some taper long-term treatment over several weeks
- **NSAIDS**
  - Consider stopping NSAID therapy when risks outweigh benefit
  - Risks associated with NSAIDs usually relate to declining renal function in the older age group and adverse gastrointestinal effects
  - NSAIDS may also reduce the effectiveness of antihypertensive therapy
  - Some patients may tolerate abrupt discontinuation but tapering the dose allows for other analgesics to be introduced or increased
- **Acid suppressants**
  - Many people remain on acid suppressants despite there being no ongoing clinical indication (e.g., NSAID stopped or H. pylori successfully treated)
  - Often possible to maintain symptom control on a lower dose or PRN rather than on long term high dose maintenance therapy
  - Tapering dose of an acid suppressant (both PPIs and H2RAs) is recommended because of risk of rebound hypersecretion of gastric acid
  - If rebound hyperacidity is mistaken for a return of the underlying condition, acid suppressants may be restarted unnecessarily
  - Following discontinuance of omeprazole therapy, gastric acid secretion returns to baseline over a three- to five-day period

Summary

- Patients ≥ 65 years of age have one or more unnecessary medication many of which have several ADRs
- A total body water and muscle mass loss in conjunction with a body fat increase can affect pharmacokinetics in patients > 65 years of age
- Utilizing BEERS Criteria and the STOPP/START algorithm can identify inappropriate or unnecessary medications
- Drugs in which there is either no indication for, were implemented in a prescribing cascade, are preventative with little to no immediate benefits, or are particularly burdensome should be stopped
- Remember to taper medications that can't be stopped abruptly

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