Practical Approaches to Polypharmacy

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No conflicts of interest
Disclaimer

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Objectives

• Understand the impact of polypharmacy on morbidity and mortality
• Create a framework for systematically addressing a medication list
• List several approaches for simplifying a medication list through medication reconciliation and deprescribing
Case

• 55-year-old cis-gender male living with HIV for 20 years returns to clinic for 6 month HIV visit. Takes bictegravir/tenofovir AF/emtricitabine once daily, HIV VL <20 copies and CD4 count 1,100 cells/mm³. The patient has been undetectable for years and adherence has not been a concern.

• Upon review of systems, patient indicates that he has felt ‘foggy’ and dizzy more over the last six months, but denies any falls.

• He is co-managed by pain management, nephrology and gastroenterology.
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Case

- Does this patient meet criteria for ‘polypharmacy’?

- What health risks can polypharmacy contribute to?

- What steps can you take to reduce the burden of polypharmacy?
Polypharmacy – Why Does It Matter?
The Problem

• Prescribing medicine is a skill and needs to be honed and updated
• Medications have the potential for enormous benefits, but also significant harm
• 84% of older adults take ≥ 1 prescription medication
• Approximately 35% of older adults take ≥ 5 prescription medications (including OTC/herbal)
  - 20% of medications used in older adults may be inappropriate
• Polypharmacy is the greatest predicator for adverse drug events (falls, hospitalization, death)
• **In persons with HIV:**
  - Polypharmacy has been associated with slow gait speed and recurrent falls
  - Polypharmacy is significant as PWH have higher rates of frailty, osteoporosis, CVD, and cognitive related concerns compared with non-HIV infected persons

Definitions

• Polypharmacy
  - Regular use of 5 or more medications on a daily basis

• Medication Therapy Problems (aka Medication Related Problems)
  - When the use (or non-use) of a specific medication results in a less than optimal clinical outcome for the patient

• Prescribing Cascade
  - Begins when an adverse drug reaction is misinterpreted as a new medical condition
  - Another medication prescribed for new condition \(\rightarrow\) more adverse drug reactions
  - Increase costs, pill burden, hospitalizations, and functional decline
Cascade Example

- Arthritis
  - Hypertension
- CCB
- Ankle swelling
- Allopurinol
  - Gout
  - Falls due to postural hypotension
  - Restricted Activity
  - Loss of confidence
  - Indigestion
- NSAID
- Diuretic
Polypharmacy – What Can I Do About It?
WHO Guide to Rational Prescribing

• Step 1 – Define the patient’s problem
• Step 2 – Specify the therapeutic objective
• Step 3a – Choose your standard treatment
• Step 3b – Verify the suitability of your treatment (STEPs)
• Step 4 – Start treatment
• Step 5 – Give information, instructions, and warnings
• Step 6 – Monitor (and STOP) treatment
Goals of Deprescribing

- Improve overall health outcomes
- Reduce medication burden
  - Increase adherence to medications needed
- Reduce falls and cognitive impairment
- Decrease hospitalizations and death
- Decrease costs
- Improve overall quality of life
### Targeted Populations for Deprescribing

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<tr>
<td>- Polypharmacy</td>
<td>- Beers Criteria &amp; STOPP/START</td>
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<td>- Multimorbidity</td>
<td>- Proton pump inhibitors</td>
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<td>- Renal impairment</td>
<td>- Nonsteroidal anti-inflammatories</td>
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<td>- Multiple prescribers</td>
<td>- Anticholinergics</td>
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<tr>
<td>- Nonadherence</td>
<td>- Benzodiazepines</td>
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<td>- Limited life expectancy</td>
<td>- Long-acting sulfonylureas</td>
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<td>- Dementia</td>
<td>- Insulins</td>
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<td>- Transitions of care</td>
<td>- Aspirin for older adults</td>
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European Geriatric Medicine (2023) 14:625–63
J Am Geriatr Soc. 2023;71:2052–2081
Deprescribing Process

• Step 1
  - Review ALL of the patient’s medications and look for ‘legacy prescribing’

• Step 2
  - Talk to the patient about the deprescribing process weighing preferences & evidence

• Step 3
  - Deprescribe medications and develop a taper schedule if needed
  - Stop ONE medication at a time
  - Coordinate with pharmacy

• Step 4
  - Create a follow-up plan for monitoring and assessment
Additional Resources for Polypharmacy


- STOPP/START criteria: https://www.cgakit.com/m-2-stopp-start
  - Screening Tool Of Older People's Prescriptions (STOPP)
  - Screening Tool to Alert to Right Treatment (START)


- Additional guidelines & tools: https://www.deprescribing.org

- Liverpool drug interaction checker: https://www.hiv-druginteractions.org/checker

- Remember team work! Engage team members in clinic and pharmacy to perform regular med list updates/reviews and stewardship

Courtesy of Brian Wood
General Approaches

- Medication reconciliation - "Pharmaceutical Janitorial Work"
  - Contact the pharmacy and obtain a list of current medications and fill history
  - Inquire about over-the-counter, herbal, and recreational drugs
  - Auto-import into the electronic health record
  - Have the patient bring in all their medications (works well with tele-health)

- Review medication / problem list and identify
  - Medications without indication and legacy medications
  - Inappropriate dosing
  - Beers, STOPP/START medications

- Shared decision making and prioritizing stopping medications
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