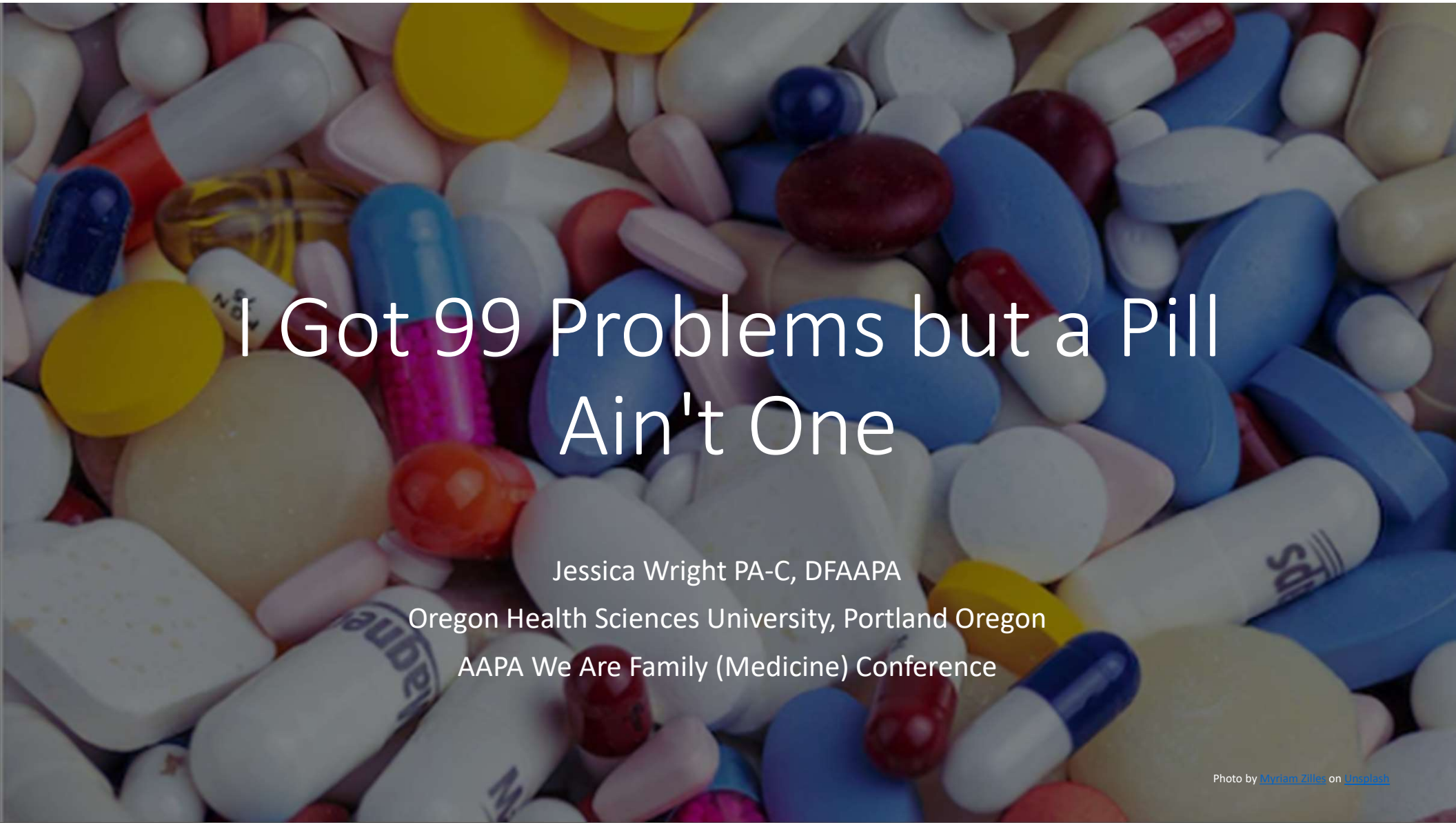


I Got 99 Problems but a Pill Ain't One

Jessica Wright PA-C, DFAAPA

Oregon Health Sciences University, Portland Oregon

AAPA We Are Family (Medicine) Conference

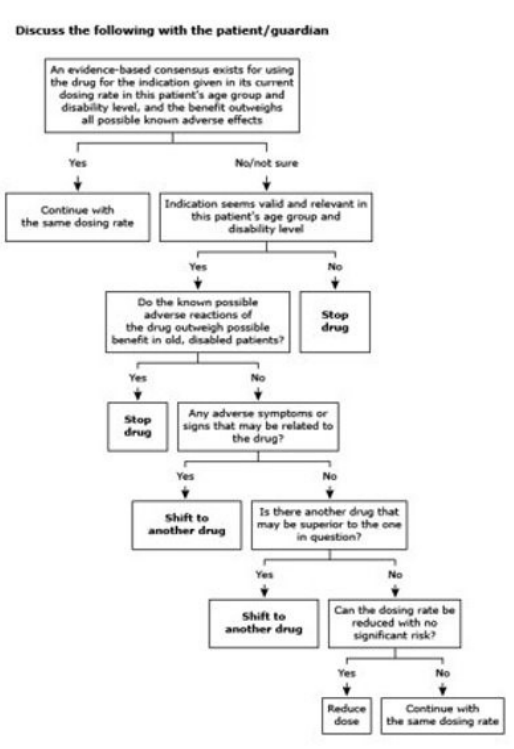
Disclosures

Non-Declaration Statement:

- I have no relevant relationships with ineligible companies to disclose within the past 24 months.

Tools of Choice for Deprescribing

Magic Eight Ball Vectors by Vecteezy



https://www.uptodate.com/contents/drug-prescribing-for-older-adults

Tools of Choice for Deprescribing

- A: Magic 8 Ball to guide your next steps

- B: Complicated decision tree

Objectives

Identify commonly prescribed high-risk medications

Identify resources for deprescribing

Practice case-based deprescribing

High Risk Highlights

Anticholinergics

Benzos

Z-drugs

Potpourri

Prescribing Cascades

Anticholinergics and Anticholinergicesque™ Drugs

Anticholinergics

First generation antihistamines: diphenhydramine (Benadryl), hydroxyzine (Vistaril), Promethazine (Phenergen), Meclizine (Antivert)

Anticholinergicesque ™

Antispasmodics (GI/GU): Scopalamine, Dicyclomine (Bentyl), Oxybutynin (Ditropan)

Antidepressants: Amitryptline, Doxepin, Nortripyline (Pamelor), Paroxetine (Paxil)

Red as a beet
-cutaneous vasodilation

Dry as a bone
-anhidrosis

Hot as a hare
-hyperthermia

Blind as a bat
-mydriasis / blurred vision

Mad as a hatter
-delirium, confusion, memory impairment

Full as a flask
-urinary retention, constipation

Benzodiazepines and Z-drugs

Benzodiazepines

- Short or intermediate acting: Alprazolam (Xanax), Lorazepam (Ativan), Temazepam (Restoril), Triazolam (Halcion)
- Long-acting: Diazepam (Valium), Clonazepam (Klonipin)

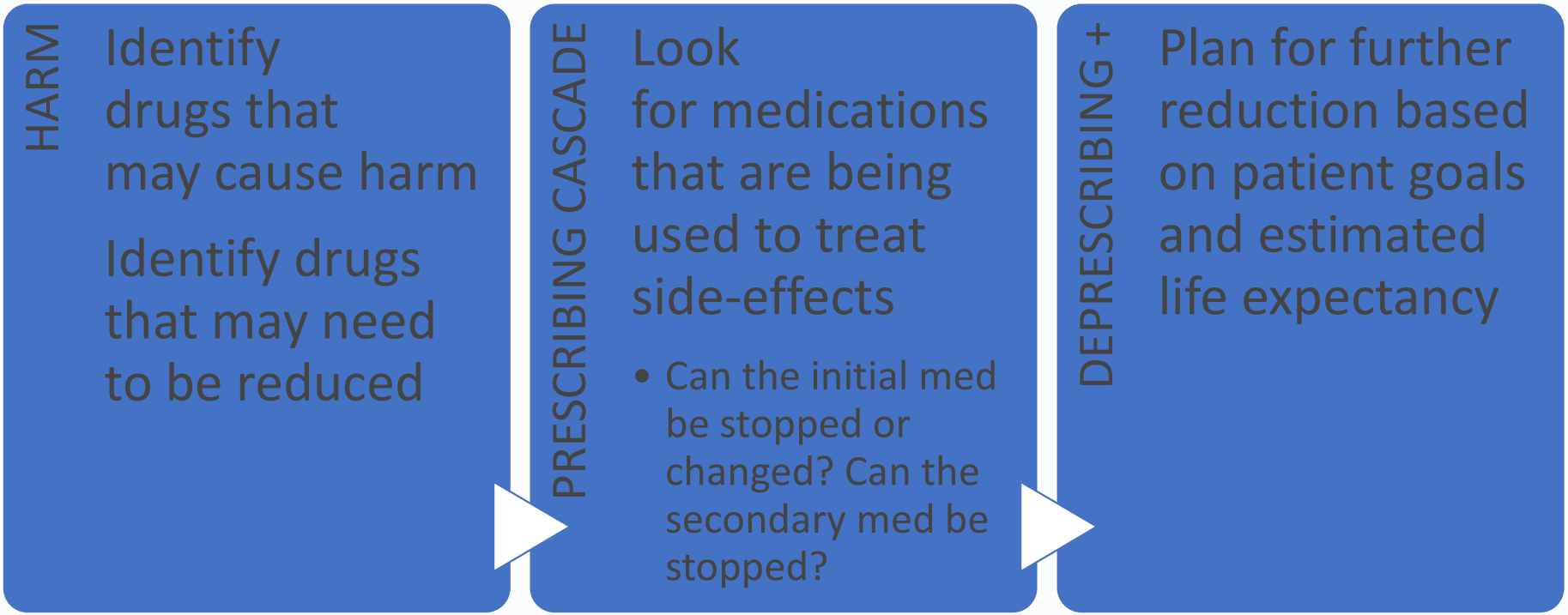
Z-drugs

- Zaleplon (Sonata)
- Zolpidem (Ambien)

Potpourri

- Antiemetics
  - Promethazine, Prochlorperazine
- Opioids (not all of them!)
  - Fentanyl, Morphine, XR preparations
- Corticosteroids
  - Prednisone, Dexamethasone
- Fluroquinolones
  - Ciprofloxacin, Levofloxacin

Jessica's Deprescribing Method



Harm

Tools to Identify High Risk Medications

Beer's List

JOURNAL OF THE AMERICAN GERIATRICS SOCIETY

AGS Geriatrics Healthcare Professionals
Leading Change. Improving Care for Older Adults.

SPECIAL ARTICLE | Free Access

American Geriatrics Society 2023 updated AGS Beers Criteria® for potentially inappropriate medication use in older adults

By the 2023 American Geriatrics Society Beers Criteria® Update Expert Panel

First published: 04 May 2023 | https://doi.org/10.1111/jgs.18372 | Citations: 42

Listen to the GeriPal Podcast with the authors at https://bit.ly/GeriPalEp266
Panel Members and Affiliations are provided in Appendix.
See related Editorial by Rochon and Hilmer

Photo by kazuend on Unsplash

Beer's List

https://agsjournals.onlinelibrary.wiley.com/doi/10.1111/jgs.18372

Table 2. 2019 American Geriatrics Society Beers Criteria® for Potentially Inappropriate Medication Use in Older Adults[a]

Organ System, Therapeutic Category, Drug(s)	Rationale	Recommendation	Quality of Evidence	Strength of Recommendation
Anticholinergics[b]				
First-generation antihistamines Brompheniramine Carbinoxamine Chlorpheniramine Clemastine Cyproheptadine Dexbrompheniramine Dexchlorpheniramine Dimenhydrinate Diphenhydramine (oral) Doxylamine Hydroxyzine Meclizine Promethazine Pyrilamine Triprolidine	Highly anticholinergic; clearance reduced with advanced age, and tolerance develops when used as hypnotic; risk of confusion, dry mouth, constipation, and other anticholinergic effects or toxicity Use of diphenhydramine in situations such as acute treatment of severe allergic reaction may be appropriate.	Avoid	Moderate	Strong
Antiparkinsonian agents Benztropine (oral) Trihexyphenidyl	Not recommended for prevention or treatment of extrapyramidal symptoms with antipsychotics; more effective agents available for treatment of Parkinson disease	Avoid	Moderate	Strong
Antispasmodics Atropine (excludes ophthalmic) Belladonna alkaloids Clidinium-chlordiazepoxide Dicyclomine Homatropine (excludes opthalmic) Hyoscyamine Methscopolamine Propantheline Scopolamine	Highly anticholinergic, uncertain effectiveness	Avoid	Moderate	Strong
Antithrombotics				
Dipyridamole, oral short acting (does not apply to the extended-release combination with aspirin)	May cause orthostatic hypotension; more effective alternatives available; IV form acceptable for use in cardiac stress testing	Avoid	Moderate	Strong
Anti-infective				
Nitrofurantoin	Potential for pulmonary toxicity, hepatoxicity, and peripheral neuropathy, especially with long-term use; safer alternatives available	Avoid in individuals with creatinine clearance <30 mL/min or for long-term suppression	Low	Strong
Cardiovascular				
Peripheral alpha-1 blockers for treatment of hypertension Doxazosin Prazosin Terazosin	High risk of orthostatic hypotension and associated harms, especially in older adults; not recommended as routine treatment for hypertension; alternative agents have superior risk/benefit profile	Avoid use as an antihypertensive	Moderate	Strong


STOPP/START

STOPP/START-V3

https://static-content.springer.com/esm/art%3A10.1007%2Fs41999-023-00777-y/MediaObjects/41999_2023_777_MOESM1_ESM.pdf

Screening Tool of Older Persons' Prescriptions (STOPP) version 3.

The following prescriptions are potentially inappropriate to use in patients aged 65 years and older.

Section A: Indication of medication

1. Any drug prescribed without a clinical indication.

2. Any drug prescribed beyond the recommended duration, where treatment duration is well defined.

3. Any duplicate drug class prescription for daily regular use (as distinct from PRN use) e.g., two concurrent NSAIDs, SSRIs, loop diuretics, ACE inhibitors, anticoagulants, antipsychotics, opioid analgesics (optimisation of monotherapy within a single drug class should be observed prior to considering a new agent).

Section B: Cardiovascular System

1. Digoxin for heart failure with normal systolic ventricular function (no clear evidence of benefit)

2. Verapamil or diltiazem with NYHA Class III or IV heart failure (may worsen heart failure with reduced ejection fraction i.e., HFREF).

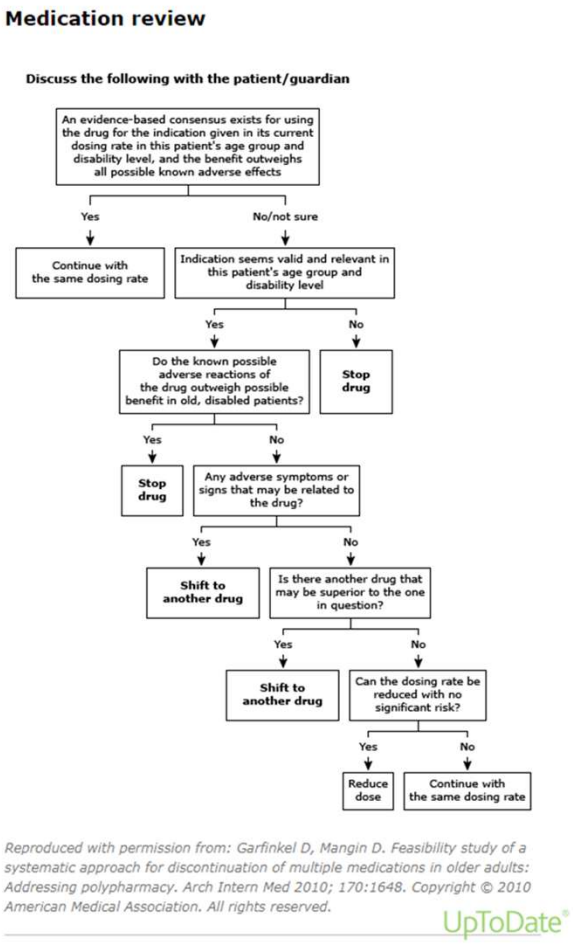
3. Beta-blocker in combination with verapamil or diltiazem (risk of heart block).

Decision Tree

The Choose Your Own Adventure of Deprescribing

Up To Date

https://www.uptodate.com/contents/drug-prescribing-for-older-adults



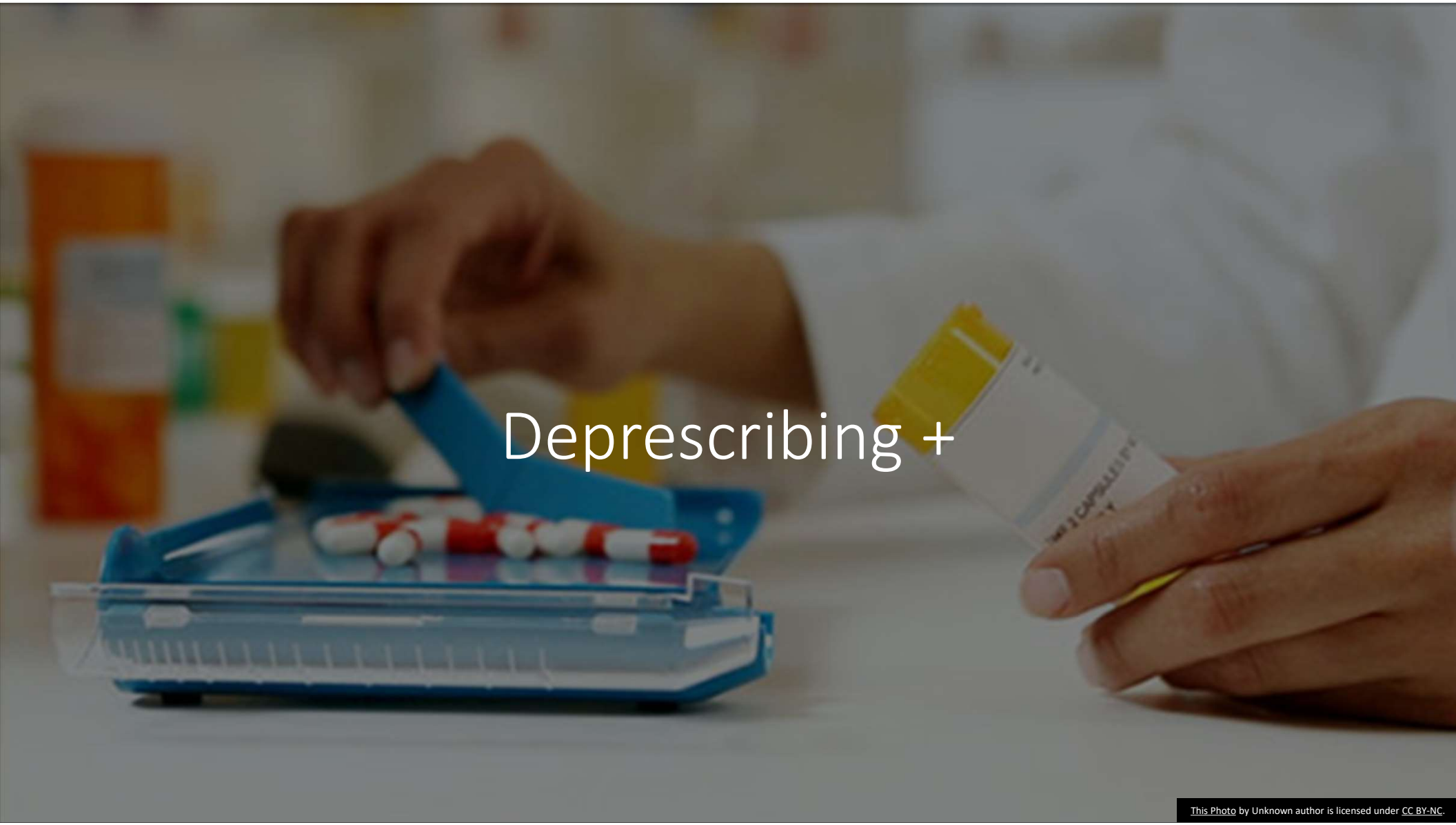
Reproduced with permission from: Garfinkel D, Mangin D. Feasibility study of a systematic approach for discontinuation of multiple medications in older adults: Addressing polypharmacy. Arch Intern Med 2010; 170:1648. Copyright © 2010 American Medical Association. All rights reserved.

UpToDate®


Prescribing Cascades

ThinkCascades

Drug A	Side effect	Drug B
Cardiovascular System (n=2)		
Calcium Channel Blocker	Peripheral edema	Diuretic
Diuretic	Urinary incontinence	Overactive bladder medication
Central Nervous System (n=4)		
Antipsychotic	Extrapyramidal symptoms	Antiparkinsonian agent
Benzodiazepine	Cognitive impairment	Cholinesterase Inhibitor or memantine
Benzodiazepine	Paradoxical agitation or agitation secondary to withdrawal	Antipsychotic
Selective Serotonin Reuptake Inhibitor (SSRI) / Serotonin-norepinephrine Reuptake Inhibitor (SNRI)	Insomnia	Sleep agent (e.g., Benzodiazepines, Benzodiazepine Receptor Agonists, Sedating antidepressant, Melatonin)
Musculoskeletal System (n=1)		
NSAID	Hypertension	Antihypertensive
Urogenital System (n=2)		
Urinary Anticholinergics	Cognitive impairment	Cholinesterase inhibitor or memantine
Alpha-1 Receptor Blocker	Orthostatic hypotension, dizziness	Vestibular sedative (e.g., betahistine, Antihistamines, Benzodiazepines)



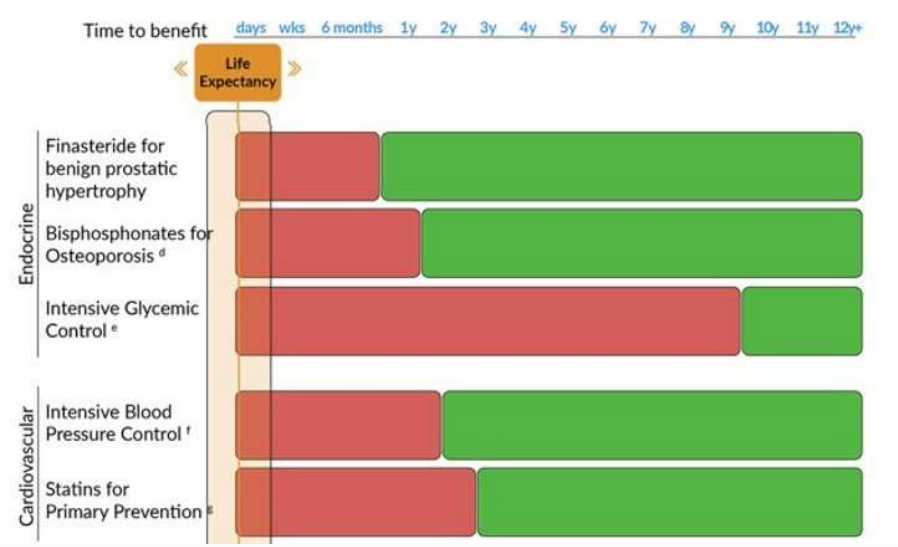
Eprognosis

Life Expectancy

https://eprognosis.ucsf.edu/calculators/

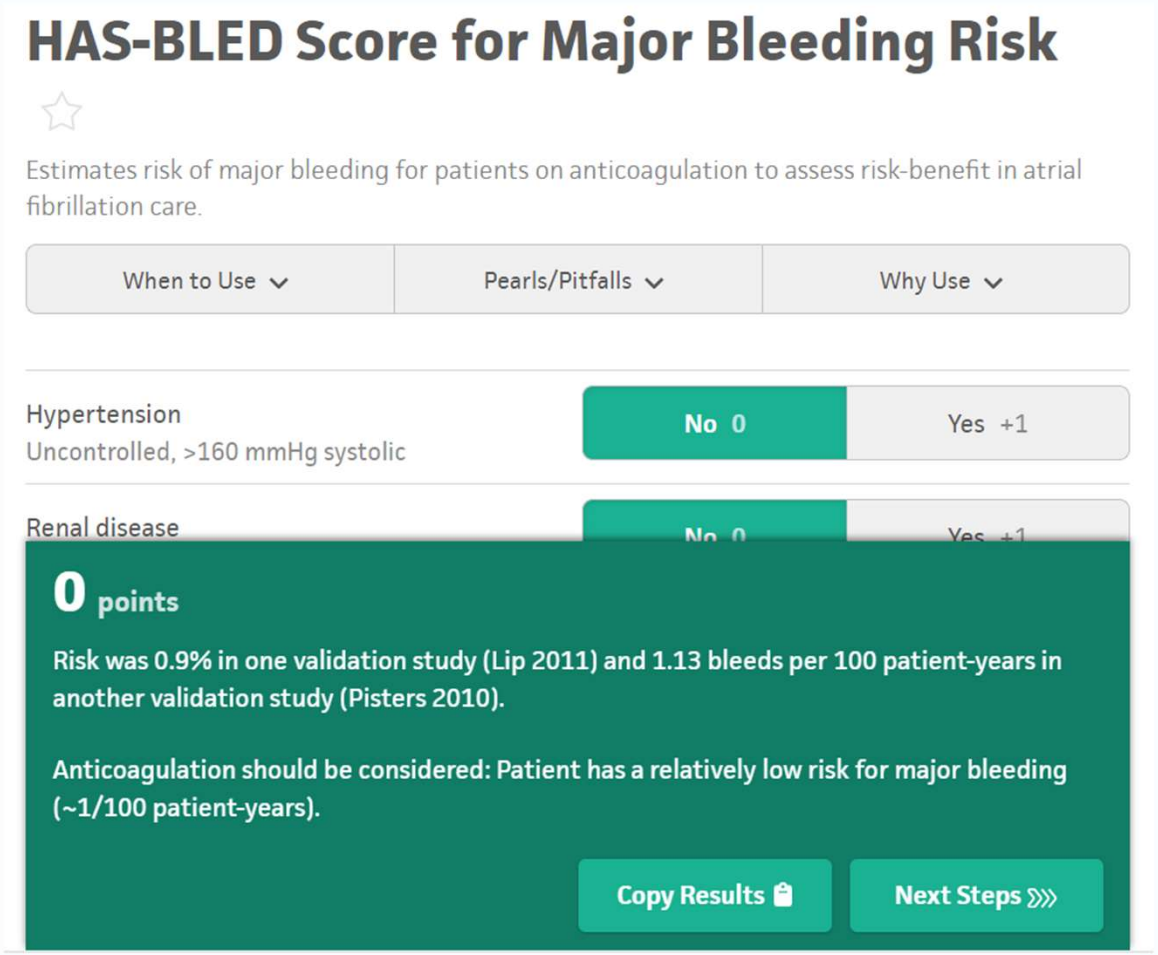
Time to Benefit

https://eprognosis.ucsf.edu/time_to_benefit.php



MDCALC

https://www.mdcalc.com/




Cases

Case 1: Greta

76 yo nursing home dwelling woman with chronic pain, neuropathy, hx of CVA, CKD III and depression admitted for nonhealing coccyx ulcer, chronic malnutrition due to decreased appetite and mostly wheelchair bound due to frequent falls. She reports that her depression is not well controlled and she struggles with diarrhea, which has complicated her wound healing.

Case 1:Greta

- Tylenol 1000 mg TID
- Amlodipine 2.5 mg once daily
- Atorvastatin 20 mg once daily
- Buproprion SR 150 mg one tab BID
- Clopidogrel 75 mg once daily
- Gabapentin 600 mg one tab in a.m., at lunch and 2 tabs at bedtime
- Meloxicam 15 mg once daily
- Metformin 500 mg twice daily
- Metoprolol succinate 25 mg once daily
- Ranitidine 150 mg twice daily
- Oxycodone 5 mg one tab q 6 hours PRN
- Trazodone 100 mg once nightly
- Loperamide 2 mg as needed

76 yo nursing home dwelling woman with chronic pain, neuropathy, hx of CVA, CKD III and depression admitted for nonhealing coccyx ulcer, chronic malnutrition due to decreased appetite and mostly wheelchair bound due to frequent falls. She reports that her depression is not well controlled and she struggles with diarrhea, which has complicated her wound healing.

Case 2: James

86 yo community-dwelling male with hx of CAD s/p PCA (2016), angina, atrial fibrillation, HFpEF, anxiety with depression, chronic back pain with radiculopathy, type II DM, CKD (Cr 1.7), admitted for generalized weakness and falls, has an unintentional weight loss and is now around 155 pounds.

Photo by Andrew Rivera on Unsplash

Case 2: James

- Lorazepam 0.5 mg once nightly
- Lisinopril 10 mg once daily
- Buspirone 30 mg once daily
- Apixaban 5 mg twice daily
- Nitroglycerin 0.4 mg SL PRN
- Rosuvastatin 20 mg once daily
- Isosorbide CR 60 mg once daily
- Gabapentin 600 mg TID
- Norco 5/325 0.5 mg q 6 PRN
- Ibuprofen 800 mg TID PRN
- Lyrica 200 mg once daily
- Metformin SR 1500 mg once daily
- Seroquel 25 mg nightly
- Tamsulosin 0.4 mg daily
- Trazodone 150 mg once nightly

86 yo community-dwelling male with hx of CAD s/p PCA (2016), angina, atrial fibrillation, HFpEF, anxiety with depression, chronic back pain with radiculopathy, type II DM, CKD (Cr 1.7), admitted for generalized weakness and falls, has an unintentional weight loss and is now around 155 pounds.

Case 3: Virginia

81 yo assisted living facility dwelling woman with PMH of hypertension, depression, chronic lower back pain due to lumbar compression fracture, SLE with pericarditis, anxiety with depression, Type II DM (A1c 6.7%) admitted for altered mental status and fall. Has been newly diagnosed with atrial fibrillation.

Case 3: Virginia

- Amlodipine 10 mg daily
- Duloxetine 120 mg once daily
- Famotidine 20 mg twice daily
- Glipizide 10 mg twice daily
- Furosemide 20 mg daily and once daily PRN leg swelling
- Hydroxychloroquine 200 mg daily
- Hydroxyzine 25 mg twice daily PRN anxiety
- Naproxen 500 mg twice daily
- Pantoprazole 40 mg once daily
- Pioglitazone 45 mg once daily
- Prednisone 5 mg once daily
- Tramadol 50 mg twice daily as needed
- Trazodone 50 mg once nightly

81 yo assisted living facility dwelling woman with PMH of hypertension, depression, chronic lower back pain due to lumbar compression fracture, SLE with pericarditis, anxiety with depression, Type II DM (A1c 6.7%) admitted for altered mental status and fall. Has been newly diagnosed with atrial fibrillation.

Case 4: Miriam

83 yo independent living facility dwelling, retired high school principal with PMH of hypertension Type II DM, CKD II (Cr 1.0), mild chronic anemia, OA, macular degeneration and falls, she weighs 142 lbs. Hospitalized 10 months ago and went through 3 ½ weeks of rehab for left hip and rib fractures after a fall in her apartment. Her low velocity hip fracture qualifies as a fragility fracture giving her the diagnosis of osteoporosis.

Case 4: Miriam

- ASA 81 mg daily
- Amlodipine 7.5 mg daily
- Calcium 500 mg BID with meals
- Cyanocobalamin 500 mcg daily
- Furosemide 20 mg BID + PRN 20 mg daily ankle swelling
- Lisinopril 20 mg daily
- Omeprazole 20 mg BID
- Potassium 20 mEq BID
- Magnesium 400 mg daily
- Meclizine 25 mg Q6H PRN dizziness
- MVI
- Trazodone 50 mg QHS
- PRN acetaminophen, diclofenac topical gel, PEG, tramadol, TUMS

83 yo independent living facility dwelling,
retired high school principal with PMH of hypertension Type II DM, CKD II (Cr 1.0),
mild chronic anemia, OA, macular degeneration and falls, she weighs 142 lbs. Hospitalized 10 months ago and went through 3 ½ weeks of rehab for left hip and rib fractures after a fall in her apartment. Her low velocity hip fracture qualifies as a fragility fracture giving her the diagnosis of osteoporosis.

Case 5: Robert

76 years old, community-dwelling. Formerly robustly healthy retired physicist with metastatic prostate cancer diagnosed several months ago.

Admitted from SNF with pneumonia and volume overload. This is his 3rd admission in the past 4 months following a fall with vertebral burst fracture and repeat episodes of pneumonia.

He had a functional decline following chemotherapy and his SNF stay and now requires 24 hour assistance from family. Fasting lipid panel shows dyslipidemia.

Case 5: Robert

- Ca Carbonate (Ca-D-Mg) 2 tablets BID with meals
- Lorazepam 0.5 mg TID PRN
- Omega 3 Fatty Acids 1 cap daily
- Tylenol 325 mg Q4H PRN pain
- Baclofen 20 mg QID PRN muscle spasms
- Co-Enzyme Q-10 75 mg daily
- Diphenhydramine-Tylenol (25-100 mg) QPM PRN insomnia
- Guaifenesin 100 mg/5 mL Q4H PRN cough/congestion
- Tamsulosin 0.4 mg daily
- Morphine ER 45 mg TID
- Multivitamin 1 tab daily
- Ondansetron ODT 4 mg Q8H PRN nausea/vomiting
- Oxycodone 5-20 mg Q6H PRN pain
- Polyethylene glycol 17 grams daily
- Ranitidine 150 mg BID PRN heartburn/indigestion
- Senna-docusate 8.6-50 mg BID

76 years old, community-dwelling. Formerly robustly healthy retired physicist with metastatic prostate cancer diagnosed several months ago.

Admitted from SNF with pneumonia and volume overlo ad. This is his 3rd admission in the past 4 months following a fall with vertebral burst fracture and repeat episodes of pneumonia.

He had a functional decline following chemot herapy and his SNF stay and now requires 24 hour assistance from family. Fasting lipid panel shows dyslipidemia.

Case 6: Sarge

84 yo memory care unit dwelling, retired army
sergeant with advanced dementia, dyslipidemia, atrial fibrillation, hypertension and frequent falls who presented to the hospital with subarachnoid hemorrhage

He is seeing you in follow-up after his hospital visit and family is asking if Sarge should resume his anticoagulant.

Case 6: Sarge

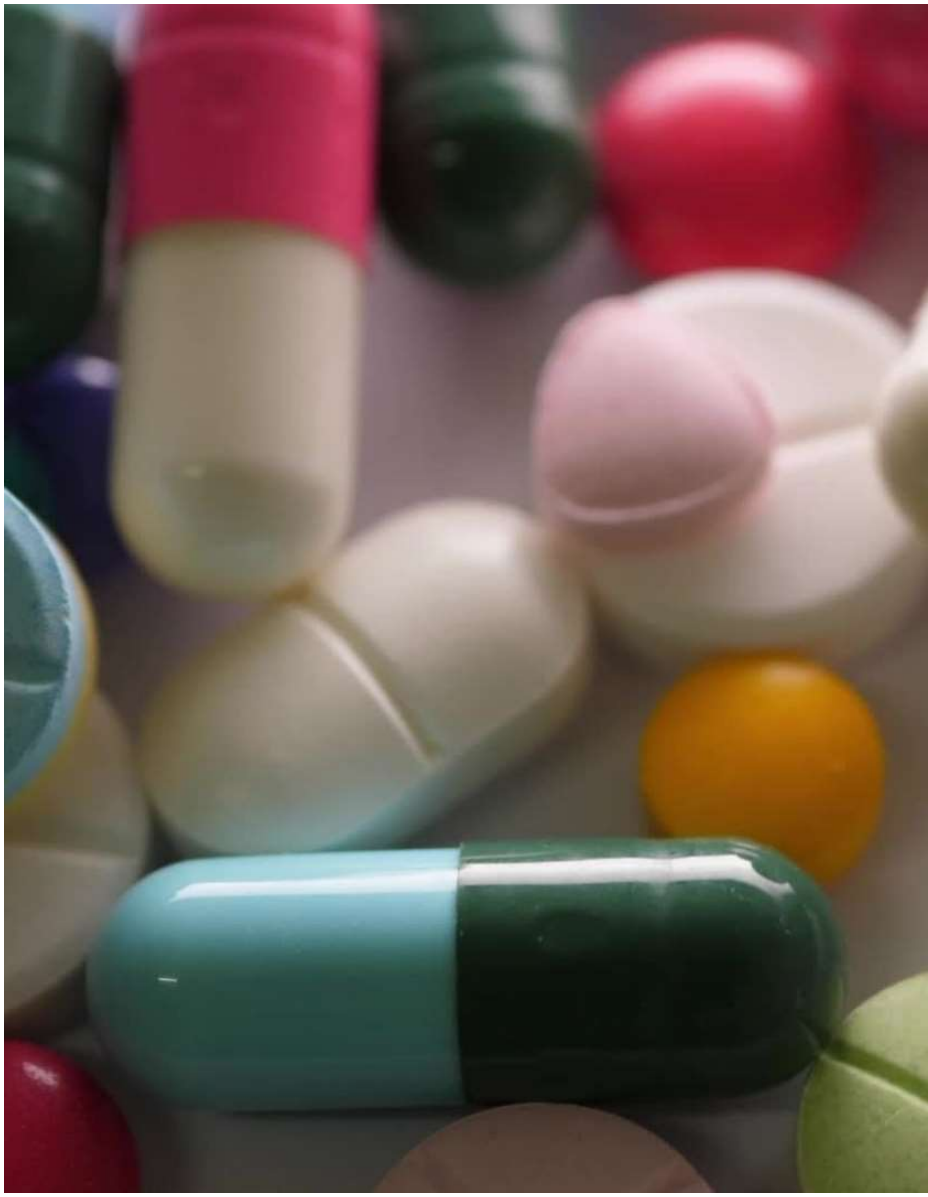
- Donepezil 23 mg once daily
- Vitamin D 2000 IU once daily
- Atorvastatin 10 mg once nightly
- Furosemide 20 mg once daily
- Fish Oil Omega 3 two capsules daily
- Warfarin 2 mg Tuesday and Thursday, 1 mg once nightly the remainder of the week
- Tylenol PM once nightly
- Oxybutynin ER 10 mg daily

84 yo memory care unit dwelling, retired army sergeant with advanced dementia, dyslipidemia, atrial fibrillation, hypertension and frequent falls who presented to the hospital with subarachnoid hemorrhage

He is seeing you in follow-up after his hospital visit and family is asking if Sarge should resume his anticoagulant.

Final Thoughts.....

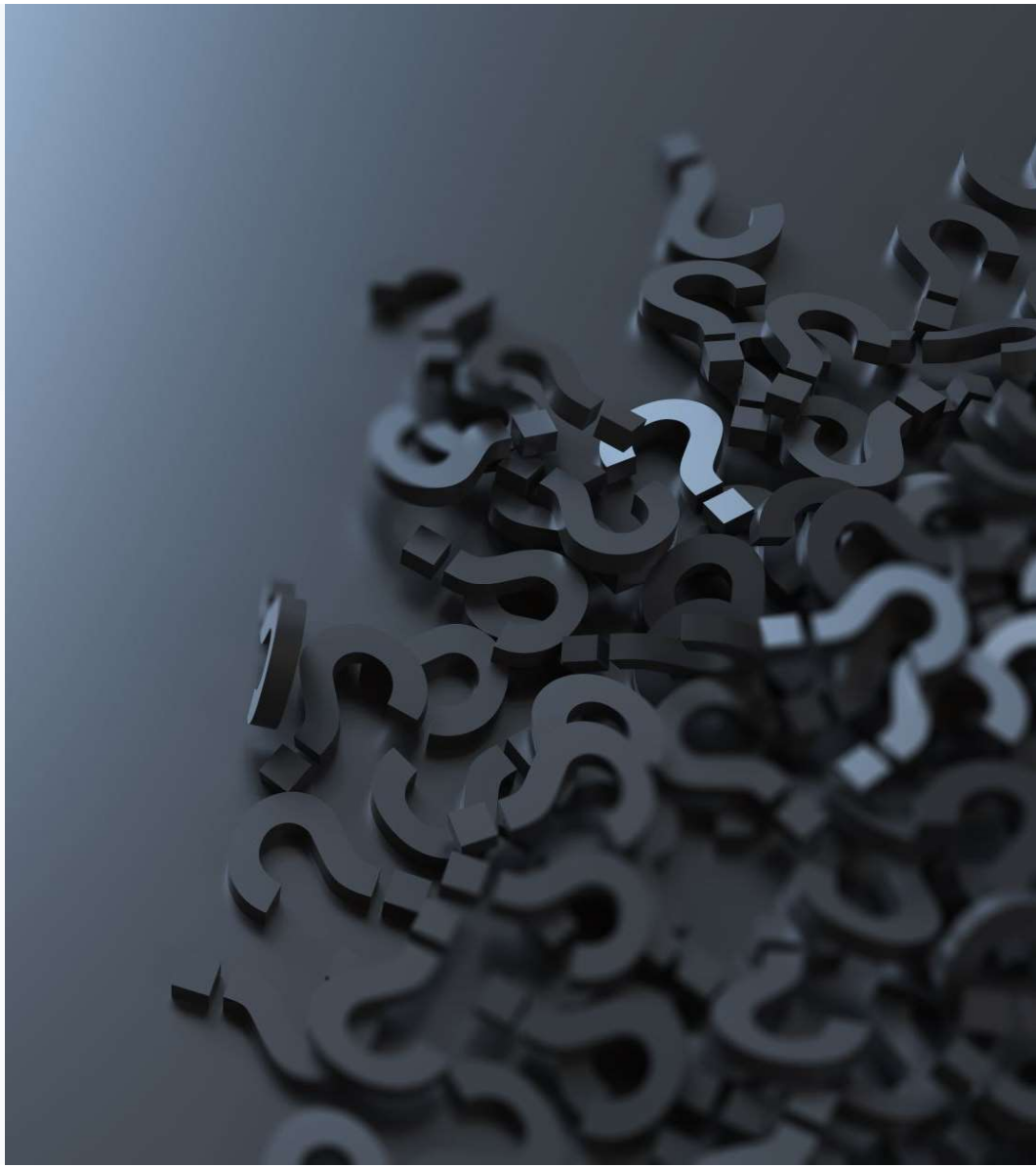
- Pick whatever system works for you and then use it.
- Always think about potentially stopping a medication before starting a new one.
- The only wrong way to deprescribe is to not do it.



Questions?

- Thank you to the course Co-Directors and the American Academy of Physician Associates for inviting me to speak on this very important topic.

- Contact Information:
  - Jessica Wright PA-C, DFAAPA
  - Wrighjes@ohsu.edu



References

- https://agsjournals.onlinelibrary.wiley.com/doi/10.1111/jgs.18372
- https://static-content.springer.com/esm/art%3A10.1007%2Fs41999-023-00777-y/MediaObjects/41999_2023_777_MOESM1_ESM.pdf
- https://www.uptodate.com/contents/drug-prescribing-for-older-adults
- https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9477172/
- https://eprognosis.ucsf.edu/calculators/
- https://eprognosis.ucsf.edu/time_to_benefit.php
- https://www.mdcalc.com/