Deprescribing for Older Adults

Heather Brislen, MD, FACP

Disclosure:

- Athena Health (electronic medical record)
  - Paid consulting and beta testing on product development
  - Client advising (sales consultant)


512
65 85
512

Polypharmacy, aka High Medication Burden

- Too many meds that aren't aligned with goals of care OR are otherwise inappropriate for that patient

- Other definitions vary (4 medications? 5 medications?)
  - "patients taking more than four medications have an increased risk of injurious falls, and the risk of falls increases significantly with each additional medication, regardless of medication type"
    - *Leipzig RM, Cumming RG, Tinetti ME. Drugs and falls in older people: a systematic review and meta-analysis: II. Cardiac and analgesic drugs. J Am Geriatr Soc. 1999;47(1):40-50.*

- But ONE can be too many – if it is inappropriate, causes an ADE or even just substantial side effects that outweigh the therapeutic benefit

Who is at risk for polypharmacy/high medication burden?

- Age over 62 / comorbidities / multiple prescribers and pharmacies / OTCs
- Advancing age alters both pharmacokinetics and pharmacodynamics
  - Slower metabolism
  - Increased side effects
  - Increased odds of drug-drug interactions

Who is at risk for polypharmacy/high medication burden?

- Any cognitive impairment increases the risks associated with medication burden
- Often co-incident with side effects (iatrogenic confusion)
- Leading to – falls, nonadherence, increased mortality, increased cost, worsening functional impairment

- Patients with a prognosis shorter than one year are taking an AVERAGE of 11.5 medications per day

Prescribing cascades are a source of polypharmacy

- Prescribing cascades are also more common in older adults
  - Defn: An adverse drug event misinterpreted as a new medical condition resulting in a new medication being prescribed to treat the ADE

- Cholinesterase inhibitors (donepezil) → Urinary Incontinence → anti-spasmodics (oxybutynin = anticholinergic)
- Thiazides → hyperuricemia → gout treatment
- NSAIDS → increased blood pressure → antihypertensives

BEST PRACTICES IN PHARMACOLOGY

Recommendations from the Choosing Wisely Campaign

BEST PRACTICES IN PHARMACOLOGY

Recommendations from the Choosing Wisely Campaign

Recommendation	Sponsoring organization
Do not prescribe medications for patients currently on five or more medications, or continue medications indefinitely, without a comprehensive review of their existing medications, including over-the-counter medications and dietary supplements, to determine whether any of the medications or supplements should or can be discontinued.	American Society of Health-System Pharmacists
Do not prescribe a medication without conducting a drug regimen review.	American Geriatrics Society

Source: For more information on the Choosing Wisely Campaign, see http://www.choosing-wisely.org. For supporting citations and to search Choosing Wisely recommendations relevant to primary care, see https://www.aafp.org/afp/recommendations/search.htm.

Source: For more information on the Choosing Wisely Campaign, see http://www.choosingwisely.org. For supporting citations and to search Choosing Wisely recommendations relevant to primary care, see https://www.aafp.org/afp/recommendations/search.htm.

Medication Reconciliation

- To do it right is difficult and WORTH THE WORK

- Prescriptions
  - How many prescribers
- Supplements
- Over the counter meds
- Inhalers
- Eyedrops
- Topicals
  - All give a sense of medication burden even if not a risk for ADE or DDI

Deprescribing is:

- An active removal of inappropriate, harmful or ineffective meds
- It is a very communication-intensive intervention!
  - Reconciliation is HARD AND WORTH THE TIME – start with a good list (aim for a perfect list)
    - Grouping by indication is good for patient engagement
    - Get rid of supplements not clearly justified
  - Consider the big picture and tradeoffs
  - Prioritize highest risk and low hanging fruit
  - Monitor closely -

Approaches to deprescribing

- Beers Criteria
  - By the 2023 American Geriatrics Society Beers Criteria® Update Expert Panel. American Geriatrics Society 2023 updated AGS Beers Criteria® for potentially inappropriate medication use in older adults. J Am Geriatr Soc. 2023 May 4. doi: 10.1111/jgs.18372. Epub ahead of print. PMID: 37139824.
- Stopp and Start criteria
  - O'Mahony D, O'Sullivan D, Byrne S, O'Connor MN, Ryan C, Gallagher P. STOPP/START criteria for potentially inappropriate prescribing in older people: version 2. Age Ageing. 2015 Mar;44(2):213-8. doi: 10.1093/ageing/afu145. Epub 2014 Oct 16. Erratum in: Age Ageing. 2018 May 1;47(3):489. PMID: 25324330; PMCID: PMC4339726.
- Medication Appropriateness Index:
  - https://globalrph.com/medcalcs/medication-appropriateness-index-calculator/

BEERS List

- Medications or classes to avoid in older adults
- Just updated 2023
- Diseases/conditions and medications to avoid in older adults with these diseases
- Medications to be used with caution
  - 27% of nursing home residents
  - 20% of NM Medicare Adv recipients
  - 20-30% of community dwelling older adults
  - … are prescribed potentially inappropriate medications from the Beers list

TABLE 1. 2023 American Geriatrics Society Beers Criteria® for Potentially Inappropriate Medication Use in Older Adults

Organ System, Therapeutic Category, Drug(s)[a]	***Recommendation,*** Rationale, *Quality of Evidence (QE[b]), Strength of Recommendation (SR[c])*
Antihistamines	
First-generation antihistamines ■ Brompheniramine ■ Chlorpheniramine ■ Cyproheptadine ■ Dimenhydrinate ■ Diphenhydramine (oral) ■ Doxylamine ■ Hydroxyzine ■ Meclizine ■ Promethazine ■ Triprolidine	***Avoid*** 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. Cumulative exposure to anticholinergic drugs is associated with increased risk of falls, delirium, and dementia, even in younger adults. Consider total anticholinergic burden during regular medication reviews and be cautious in "young-old" as well as "old-old" adults. Use of diphenhydramine in situations such as acute treatment of severe allergic reaction may be appropriate. *QE = Moderate; SR = Strong*
Anti-infective	
Nitrofurantoin	***Avoid in individuals with CrCl <30 mL/min or for long-term suppression.*** Potential for pulmonary toxicity, hepatoxicity, and peripheral neuropathy, especially with long-term use; safer alternatives available. *QE = Low; SR = Strong*

STOPP criteria: Screening Tool of Older Persons' Prescriptions - (STOPP)

- Section A: Indication of medication - Prescriptions are potentially inappropriate to use in patients aged 65 years and older if they fail the following screening for indication:
  - 1. Any drug prescribed without an evidence-based clinical indication.
  - 2. Any drug prescribed beyond the recommended duration, where treatment duration is well defined.
  - 3. Any duplicate drug class prescription e.g. two concurrent NSAIDs, SSRIs, loop diuretics, ACE inhibitors, anticoagulants (optimisation of monotherapy within a single drug class should be observed prior to considering a new agent).
- Subsequent Sections are a BEERS-like list of medications to avoid in specific circumstances (well cited and distilled compared to BEERs)

START Criteria: Screening Tool to Alert doctors to Right Treatment- (START)

- Medications that are usually safe and effective in older adults
- “Unless an elderly patient’s clinical status is end-of-life and therefore requiring a more palliative focus of pharmacotherapy, the following drug therapies should be considered where omitted for no valid clinical reason(s).”

  - Even though our topic is deprescribing, this list can be galvanizing and reassuring when all prescribing in older patients starts to feel fraught and inappropriate
  - Examples:
    - Statin therapy for secondary prevention in patients under 85
    - Bisphosphonates in osteoporosis
    - Mom
    - Apple Pie

Medication Appropriateness Index:

Patient:

Drug reviewed:

ANSWER THE FOLLOWING QUESTIONS - COMMENTS ARE OPTIONAL

1. Is there an indication for the drug? No
   Indication Comments:
2. Is the medication effective for the condition? No
   Condition Comments:
3. Is the dosage correct? No
   Dosage Comments:
4. Are the directions correct? No
   Directions Comments:
5. Are the directions practical or capable of being put into practice?
   No - impractical
   Practicality Comments:

FINAL RESULTS

Inappropriate	Appropriate
	
Medication Inappropriateness	Medication Appropriateness

Comments:
Indication Comments:
Condition Comments:
Dosage Comments:
Directions Comments:
Practicality Comments:
Drug interactions Comments:
Drug-disease Comments:
Duplication Comments:
Duration Comments:
Expense Comments:

Background

Generally a score equal to or greater than 3 indicates an inappropriate medication.

- https://globalrph.com/medcalcs/medication-appropriateness-index-calculator/

In general – four steps:

- Reconcile diligently
- Identify targets based on:
  - Lack of indication/utility
  - Active side effects or other toxicity
  - High risk/low appropriateness
- Engage the patient
- Follow up diligently

What makes a medication a candidate for deprescribing?

What makes a medication a target deprescribing?

- Is it necessary?
- Is there a therapeutic endpoint? (Plavix, bisphosphonates …)
- Is this drug treating the effects of another drug?
- Could we consolidate treatment? (can one drug be used to treat two conditions?)
- Might this interact with other conditions – other medications?
- What kinds of side effects is it causing – what are the tradeoffs?
- How well does the patient know this medication, how to take it, and what ADEs to watch for?

Low hanging fruit

- Anticholinergic meds!
  - Bladder medications (oxybutynin)
  - Antihistamines (ALL of them – even H2 blockers)
  - Antihistamines taken for sleep
- Insulin
- Aspirin
- Benzodiazepines
- Sleep aids
- PPIs (risk of hip fx, B12 deficiency)

- Aspirin Nsaids and anticoagulants, Plavix in combination
- Is there a role for PPI prophylaxis?
- TCAs (for pain, sleep) – in the setting of dementia, glaucoma, BPH
- SSRIs and hyponatremia
- ACHEis with any bradycardia – medication induced or otherwise, or syncope
- BB (cardiac, tremor, headache) in the setting of COPD
- NSAIDS in HTN – or with CHF (try topicals!)
- Alpha blockers for BPH with orthostasis

Drugs that should be expired after a time

- Plavix
- PPIs
- Benzos
- Opioids

Side effects!
Common medications that cause:

- Worsening cognition:
  - Anticholinergics
  - Benzos
  - Opioids
- Constipation
  - Opioids
  - Calcium channel blockers
  - Calcium
  - Iron
- Orthostasis
  - Anticholinergics
  - Antihypertensives
  - Sulfonylureas
- Falls
  - Benzos
  - Neuroleptics
  - Vasodilators (CCB, alpha blockers, nitrates, ACEi/ARBs)
  - Hypnotic Z-drugs (zolpidem, etc)

Examples – common opportunities for deprescribing

Cholinesterase inhibitors and memantine

- Stopping a dementia medication is often a hard conversation/decision for patients and families
- Consider deprescribing if:
  - No clear indication
  - Significant side effects present unacceptable trade-offs
  - Significant ongoing decline in function despite the medication
  - Severe agitation
- Be aware – When either of these is stopped, cognitive function is likely to get worse. Though WITHOUT a decline in global function or quality of life

Antihyperglycemics – DMII medications of all types

- It is appropriate to relax A1C targets in diabetic patients with limited life expectancy
- From AGS Choosing Wisely:
  - Diabetes: A1C goal 7-7.5% for healthy older adults,
  - 7.5-8% if moderate comorbidity and < 10 years life expectancy
  - 8-9% if limited life expectancy (from AGS Choosing Wisely).

- Symptoms of hyperglycemia (polyuria, polydipsia, fatigue) are not usually present at A1C of less than 9

Antihypertensives - orthostasis

- Be deliberate about choosing an appropriate BP goal
- Use more lenient goal <150/90 in frail elderly.
- Be vigilant in watching for side effects of treatment
  - Dizziness
  - Fatigue
  - Edema
  - Falls
- Check for orthostasis before accelerating treatment
  - One minute standing (instead of 3) is probably sufficient to determine risk (NEJM Journal Watch 2017).

Medications that cause withdrawal when stopped

CONSIDER TAPERING:

- Dementia meds – anticholinesterase inhibiters
- Seizure meds – gabapentin
- Antidepressants
- Antipsychotics
- Baclofen
- Benzodiazepines
- Beta blockers
- PPIs (and even more withdrawal from H2 blockers)

Tapering rule of thumb: 50% decrease every 2-4 weeks – monitor at each interval and two-4 weeks after cessation (can try alternate day dosing in some cases, PPIs)

Short term prescribing trials as a preventive tactic

- Alpha blockers for BPH
  - There is very low risk to the patient if they run out and forget or fail to refill it
  - Patients that are receiving meaningful benefit are likely to experience a rebound in their symptoms and be proactive about requesting the medication be permanently added to their regimen
- Donepezil – the recommendation for starting cholinesterase inhibitor treatment for dementia is for a 90 day trial
  - to evaluate response and possible side effects (nausea, weight loss, incontinence, bradycardia)
  - Resist the urge to add 3 refills to that first prescription!

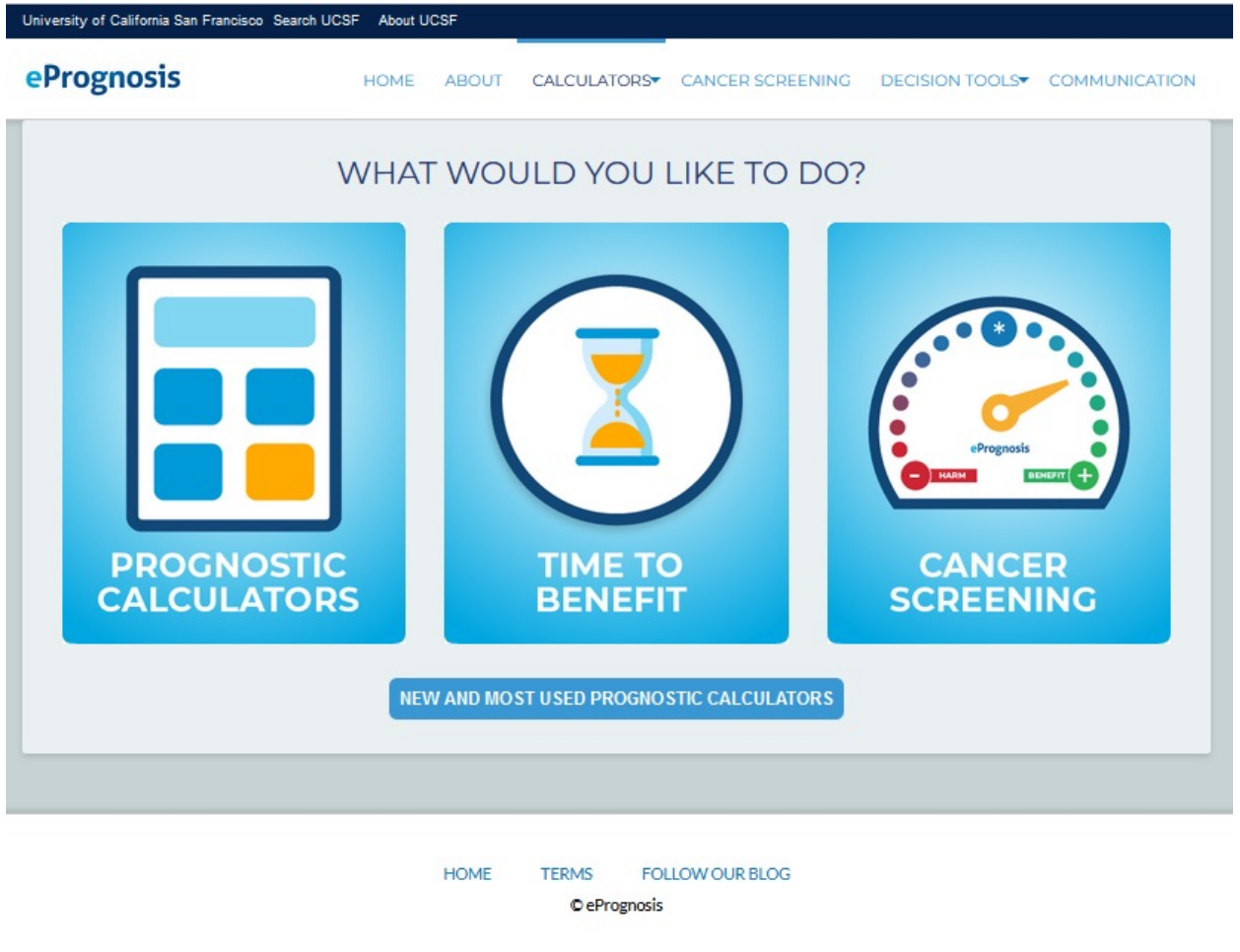
What makes a ~~medication~~ patient a candidate for deprescribing?

- The patient is complaining about medication burden
- Or
- Medication reconciliation reveals poor understanding/adherence/other issues
- Patients with a limited life expectancy have less potential time to benefit from medication

Frail Scale

Component	Question
Fatigue	How much time during the previous 4 weeks did you feel tired? (all of the time, most of the time = 1 points)
Resistance	Do you have any difficulty walking up 10 steps alone without resting and without aids? (yes = 1 point)
Ambulation	Do you have any difficulty walking several hundred years alone with without aids? (yes = 1 point)
Illness	How many illnesses do you have out of a list of 11 total? (5 or more = 1 point)
Loss of Weight	Have you had weight loss of 5% or more? (yes = 1 point)

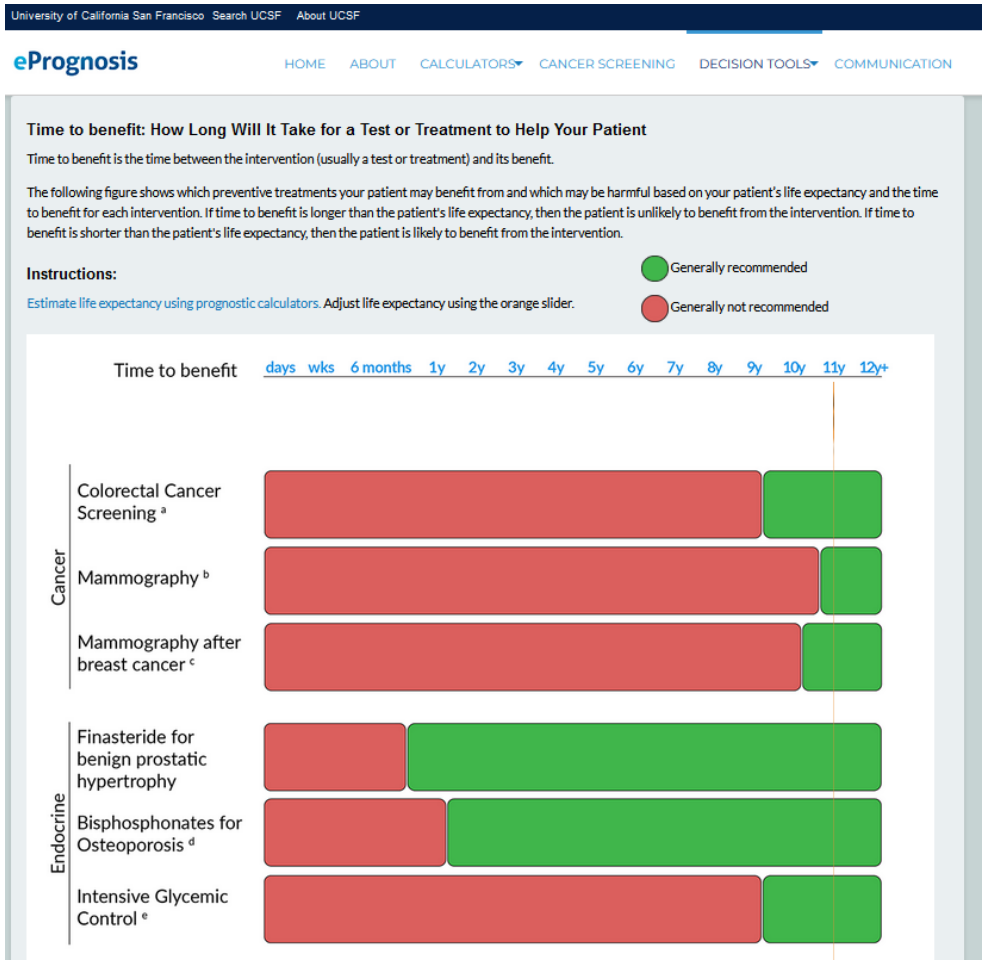
Frail Scale scores range from 0-5, one point for each component, 0=best to 5=worst
Robust = 0 points
Pre-Frail = 0-1 points
Frail = 3-5 points

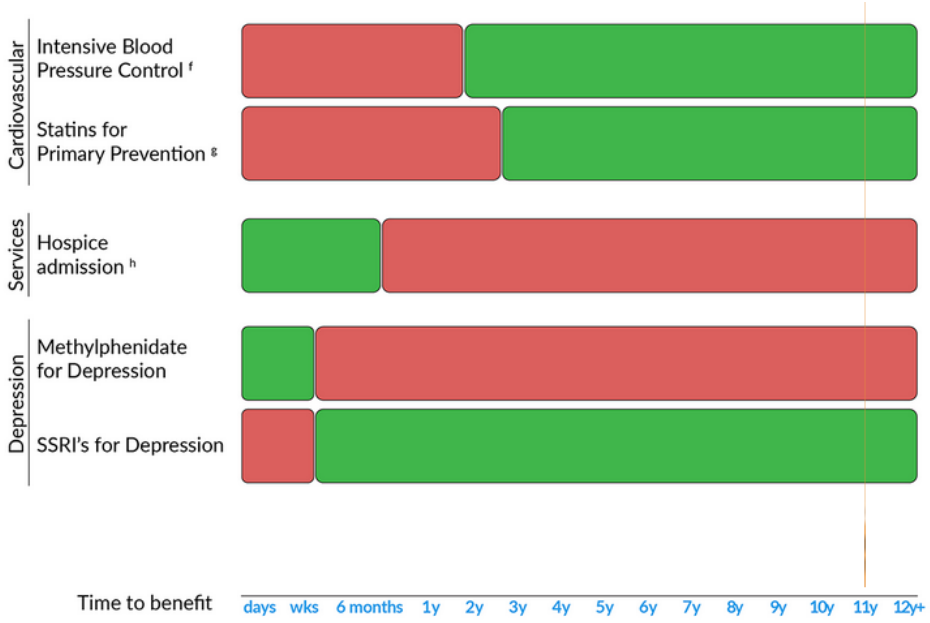


https://eprognosis.ucsf.edu/

How old is OLD?

- The life expectancy of 75 year olds is a BROAD range
  - Multimorbidity
  - Frailty
  - Social supports and SDOH
  - Cog impairment


University of California San Francisco Search UCSF About UCSF
ePrognosis
HOME ABOUT CALCULATORS CANCER SCREENING DECISION TOOLS COMMUNICATION
Time to benefit: How Long Will It Take for a Test or Treatment to Help Your Patient
Time to benefit is the time between the intervention (usually a test or treatment) and its benefit.
The following figure shows which preventive treatments your patient may benefit from and which may be harmful based on your patient's life expectancy and the time to benefit for each intervention. If time to benefit is longer than the patient's life expectancy, then the patient is unlikely to benefit from the intervention. If time to benefit is shorter than the patient's life expectancy, then the patient is likely to benefit from the intervention.
Instructions:
Estimate life expectancy using prognostic calculators. Adjust life expectancy using the orange slider.
Generally recommended
Generally not recommended
Time to benefit
days wks 6 months 1y 2y 3y 4y 5y 6y 7y 8y 9y 10y 11y 12y+
Cancer
Colorectal Cancer Screening a
Mammography b
Mammography after breast cancer c
Endocrine
Finasteride for benign prostatic hypertrophy
Bisphosphonates for Osteoporosis d
Intensive Glycemic Control e


Cardiovascular
Intensive Blood Pressure Control f
Statins for Primary Prevention g
Services
Hospice admission h
Depression
Methylphenidate for Depression
SSRI's for Depression
Time to benefit
days wks 6 months 1y 2y 3y 4y 5y 6y 7y 8y 9y 10y 11y 12y+

Talking about stopping (without “giving up”)

- The vast majority of older patients would be willing to deprescribe if their doctor said it was possible
  - Reeve E, Wolff JL, Skehan M, Bayliss EA, Hilmer SN, Boyd CM. Assessment of Attitudes Toward Deprescribing in Older Medicare Beneficiaries in the United States. JAMA Intern Med. 2018 Dec 1;178(12):1673-1680. doi: 10.1001/jamainternmed.2018.4720. PMID: 30326004; PMCID: PMC6583614.
- But still, it can be confusing! Patients tend to remember that they've always been encouraged to take all of their medications to stay healthy …

How to FRAME deprescribing conversations

- F – Fortify trust
- R – Recognize willingness or barriers to deprescribing
- A – Align deprescribing with goals of care
- M – Manage the cognitive dissonance / pt confusion
- E – Empower patients and caregivers to continue the conversation

- https://lowninstitute.org/communication-tips-from-a-rogue-deprescriber/
- (Cara Tannenbaum, MD, of the Canadian deprescribing network)

When to deprescribe?

- There is no wrong time to deprescribe
- Opportunities –
  - An adverse event
  - A new diagnosis
  - A change in prognosis or life expectancy
  - Even a birthday –
    - “It is true that age is just a number. But there are a LOT of 65 year olds out there that we’ve studied, and what see is that after that birthday, more and more, this medication can cause more problems than it solves.”

- Be Direct:
  - “I don’t think its good for you to be on this many medications. I want to help you make this a better and more manageable regimen”
- OR
- Be Indirect:
  - Did you know you are taking a sleeping pill?
  - Did you know that this medication affects memory and balance?

Tips for Talking about de-Rxing

- What medication do you feel helps you the most?
- Which would you most like to be rid of?
- Emphasize uncertain benefit and risk of harm
- Instead of “deprescribing,” try “optimizing your care”
- Let’s do a trial off this medication and see how you feel
- Emphasize monitoring - tapering/withdrawal/follow up

Key deprescribing tips:

- Try very hard to achieve perfect medication reconciliation
- All meds from one pharmacy if possible
- As few prescribers as possible, and a solid PCP presence
- Deprescribe slowly – aim for one drug per visit
- Work hard for patient understanding and buy in
  - (Have patients take their own notes, and repeat back to you the plan)

- The best and easiest candidates for deprescribing are:
  - Without indication
  - Parts of a prescribing cascade
  - No longer needed or useful – based on disease process or life expectancy
  - Potential for harm

Additional POC resources:

- Deprescribing.Org & Deprescribingnetwork.ca
  - Algorithms on PPIs, DM medications, Antipsychotics, Benzos, cholinesterase inhib/memantine
  - WONDERFUL patient handouts
  - https://deprescribing.org/
  - https://www.deprescribingnetwork.ca/patient-handouts
- US deprescribing network
  - https://deprescribingresearch.org/resources-2/resources-for-clinicians/

More resources

- Endsley S. Deprescribing Unnecessary Medications: A Four-Part Process. Fam Pract Manag. 2018 May/Jun;25(3):28-32. PMID: 29989773.
- Wu H, Kouladjian O'Donnell L, Fujita K, Masnoon N, Hilmer SN. Deprescribing in the Older Patient: A Narrative Review of Challenges and Solutions. Int J Gen Med. 2021 Jul 24;14:3793-3807. doi: 10.2147/IJGM.S253177. PMID: 34335046; PMCID: PMC8317936.
- Halli-Tierney AD, Scarbrough C, Carroll D. Polypharmacy: Evaluating Risks and Deprescribing. Am Fam Physician. 2019 Jul 1;100(1):32-38. PMID: 31259501.
- Watto, M, Williams P, Hosts. 2017 Sep 11/15, "Polypharmacy and deprescribing Parts 1 and 2," Podcast episodes. The Curbsiders, https://thecurbsiders.com/
- 2023 American Geriatrics Society Beers Criteria® Update Expert Panel. American Geriatrics Society 2023 updated AGS Beers Criteria® for potentially inappropriate medication use in older adults. J Am Geriatr Soc. 2023 May 4. doi: 10.1111/jgs.18372. Epub ahead of print. PMID: 37139824.
- O'Mahony D, O' Sullivan D, Byrne S, O'Connor MN, Ryan C, Gallagher P. STOPP/START criteria for potentially inappropriate prescribing in older people: version 2.Age Ageing. 2015;44(2):213-8.
- Tannenbaum C, Martin P, Tamblyn R, Benedetti A, Ahmed S. Reduction of inappropriate benzodiazepine prescriptions among older adults through direct patient education: the EMPOWER cluster randomized trial. JAMA Intern Med. 2014 Jun;174(6):890-8. doi: 10.1001/jamainternmed.2014.949. PMID: 24733354.