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CABINET FOR HEALTH AND FAMILY SERVICES

Kentucky Medicaid Polypharmacy Initiative

A state-wide initiative to optimizing medications

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Outline

- Systemic perspective on the importance and challenges of deprescribing
- Polypharmacy Risks & Consequences
- Promoting a deprescribing clinical environment
- Addressing deprescribing barriers
- Reviewing deprescribing for certain drugs/drug classes
- Kentucky Medicaid Polypharmacy Initiative Update

What is **polypharmacy**?

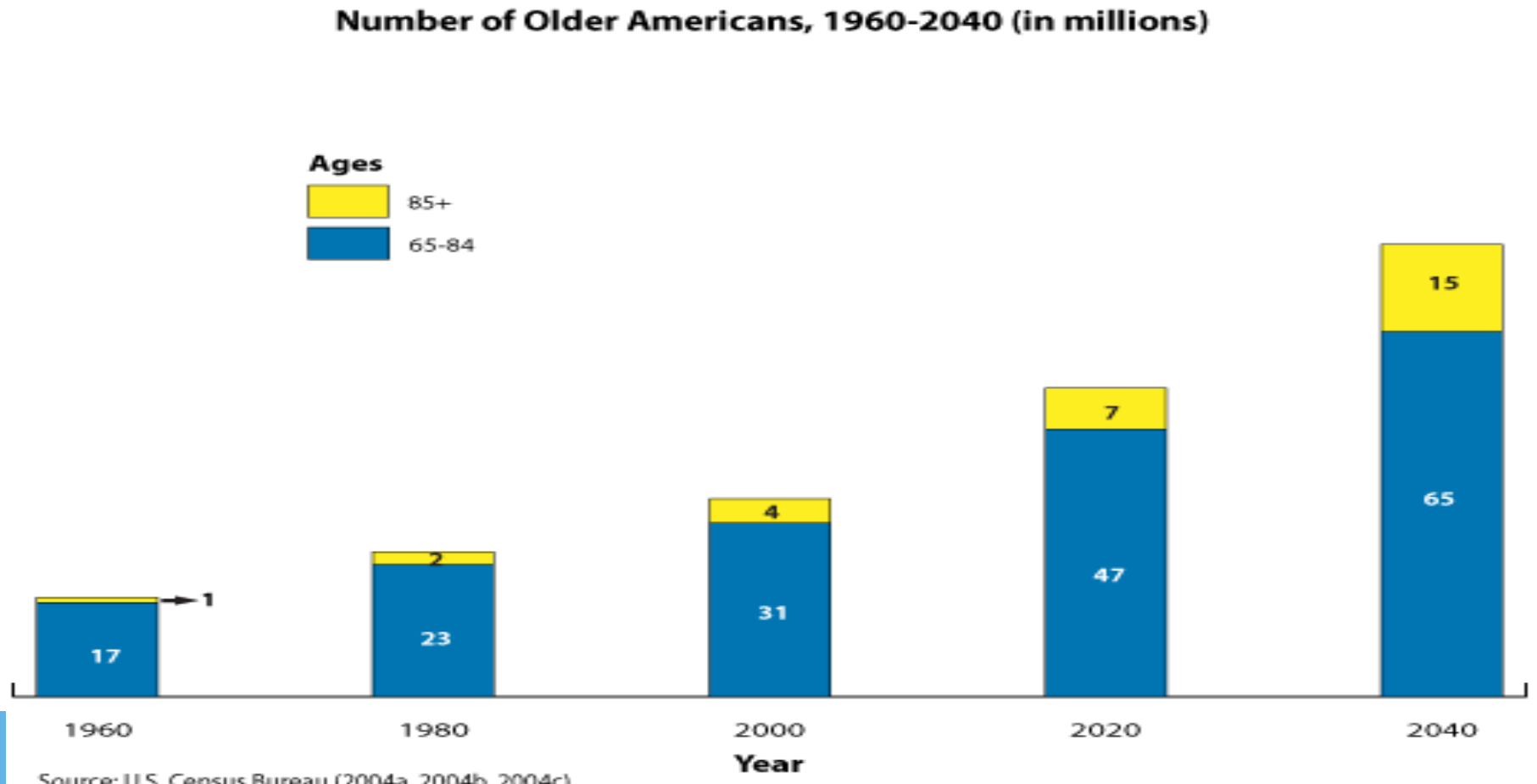
- Concurrent use of multiple medications by a single patient for one or more conditions
  - Often, 5 or more medications, but the number may vary by definition
- Benefits of multiple medications are outweighed by the negative effects
  - Class of medication or appropriateness can still lead to negative effects

External Influence on Patients and Families?

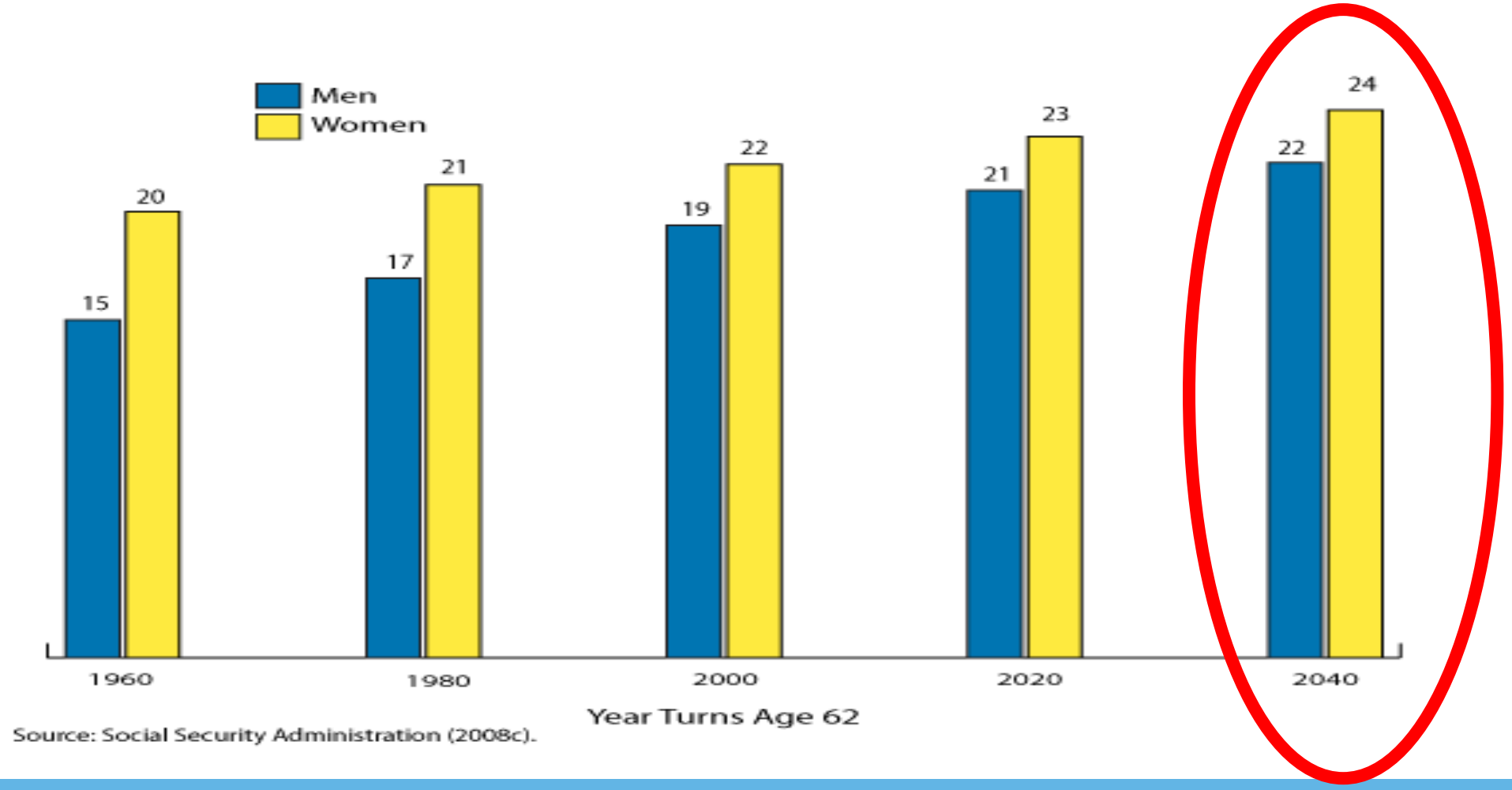
- Jardiance Commercial (2023) - YouTube

"This is one of those new miracle drugs.
If you can afford it, it's a miracle."

Number of Older Americans, 1960 -2040 (in millions)



Remaining Years of Life Expectancy at Age 62, 1960 -2040



Source: Social Security Administration (2008c).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www.glasbergen.com
Pharmacy
GLASBERGEN
"Each capsule contains your medication,
plus a treatment for each of its side effects."

Polypharmacy Risk Factors

- Increasing age
- Practice guideline standards of care

  -multiple medical diagnoses
- Over-the-counter self-treatment

  -herbal & dietary supplement use
- Prescribing cascades

  -multiple symptoms & prescribers

Polypharmacy Consequences

- Adverse Drug Events (ADEs)
- Drug-Drug Interactions
- Risk of Medication Errors
- Geriatric Syndromes

  (falls, confusion, incontinence)

Polypharmacy Consequences vs. Deprescribing Benefits

- Adverse Drug Events (ADEs)
- Drug-drug Interactions
- Risk of Medication Errors
- Geriatric Syndromes

  (falls, confusion, incontinence)

- Medication Burden
- Risk for Geriatric Syndromes

  (falls, confusion, incontinence)
- Hospitalization and Death

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Polypharmacy Consequences

- Quality of Life (QoL)

"The quality of life is more important than life itself"

-Alexis Carrel

"Speed and efficiency do not always increase the quality of life"

-Robert Fulghum

Promoting a Culture of Deprescribing

1. All members of the **healthcare team** should **participate in** the steps of **deprescribing**—a collaborative approach that includes the resident, family, **provider, nurse, social worker, and pharmacist**.

2. **Families and caregivers** should participate in **shared decision-making** to establish and monitor goals of care with respect to medication use while considering effectiveness, safety, and non-pharmacological alternatives

3. Prescribers in every healthcare setting will **document reasons for use, goals of therapy, and timelines for each medication**.

4. The entire team should **observe for signs and symptoms of a potential ADE** after medication initiation or adjustment that might prompt a review for deprescribing.

Deprescribing *Barriers*

- ❑Limited time
- ❑Lack of guidelines
- ❑Communication gaps
- ❑Multiple prescribers
- ❑Patient & Family reluctance

Deprescribing *Barriers*

- ✓Limited time
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- ❑Multiple prescribers
- ❑Patient & family reluctance

Limited Time

- How many have seen this tool before?
- How many of you have used it?

MAI
Medication Appropriateness Index
(modified)

		Yes	+/-	No	Comment
1	Is there an indication for the drug ?				
2	Is the medication effective for the condition ?				
3	Is the dosage correct ?				
4	Are the directions correct ?				
5	Are the directions practical ?				
6	Are there clinically significant drug- drug interactions ?				
7	Are there clinically significant drug-disease/condition interactions ?				
8	Is there unnecessary duplication with other drug(s) ?				
9	Is the duration of therapy acceptable ?				
10	Is this drug the least expensive alternative compared to others of equal utility ?				

High-Risk Medications

2019 Beers Criteria:

List of problematic medications in older adults—grouped into 5 categories as:

- Potentially Inappropriate
- Typically Avoided (in certain medical conditions)
- To be Used with Caution
- Involved in Drug-Drug Interactions
- Requiring Renal Adjustment

STOPP (Screening Tool For Older Persons' Prescriptions) and

START (Screening Tool to Alert to Right Treatment) Criteria

- Suggest when medications are to be both avoided or used
- Categorized by systems in the body, such as cardiovascular, respiratory & nervous system

Drug Categories to Deprescribe

- Acetylcholinesterase Inhibitors
- Alpha Blockers (non-selective)
- Anticholinergics
- Antipsychotics
- Benzodiazepines
- Hypnotics
- H2 Blockers
- Proton Pump Inhibitors
- Urinary Antimuscarinics
- Muscle Relaxants
- Opioids
- Statins (primary prevention)
- Sulfonylureas
- TZDs (Thiazolidinedione)
- Supplements & Vitamins
- Tricyclic Antidepressants
- NSAIDs
- Hormone Replacements

Drug Categories to Deprescribe

- **Dietary Supplements**: only use vitamins/minerals to treat an active acute deficiency
- **Cardiovascular Meds**: reconsider statins and aspirin; consolidate agents when possible
- **GI Meds**: evaluate PPIs and H2 blockers for appropriate indications
- **DM Meds**: eliminate sliding scale insulins; optimize oral options to de-intensify insulin regimen
- **Allergy Meds**: evaluate continued need for nasal corticosteroids; consider changing scheduled antihistamines to PRN
- **Anticholinergic Meds**: reduce anticholinergic burden; decrease fall risk
- **Topicals/Treatments**: discontinue when duration of therapy is complete
- **Acute Meds**: should always have a specified duration of use
- **PRN Meds**: should always be evaluated for non-use and duplication

Communication Gaps

Phase 1: Gather Information

- **Use a team approach with resident/family**
- **Note resident's health status, goals & preferences**
- Review past adverse
- Weigh potential/existing risks and benefits

Phase 2: Identify Drugs to Deprescribe

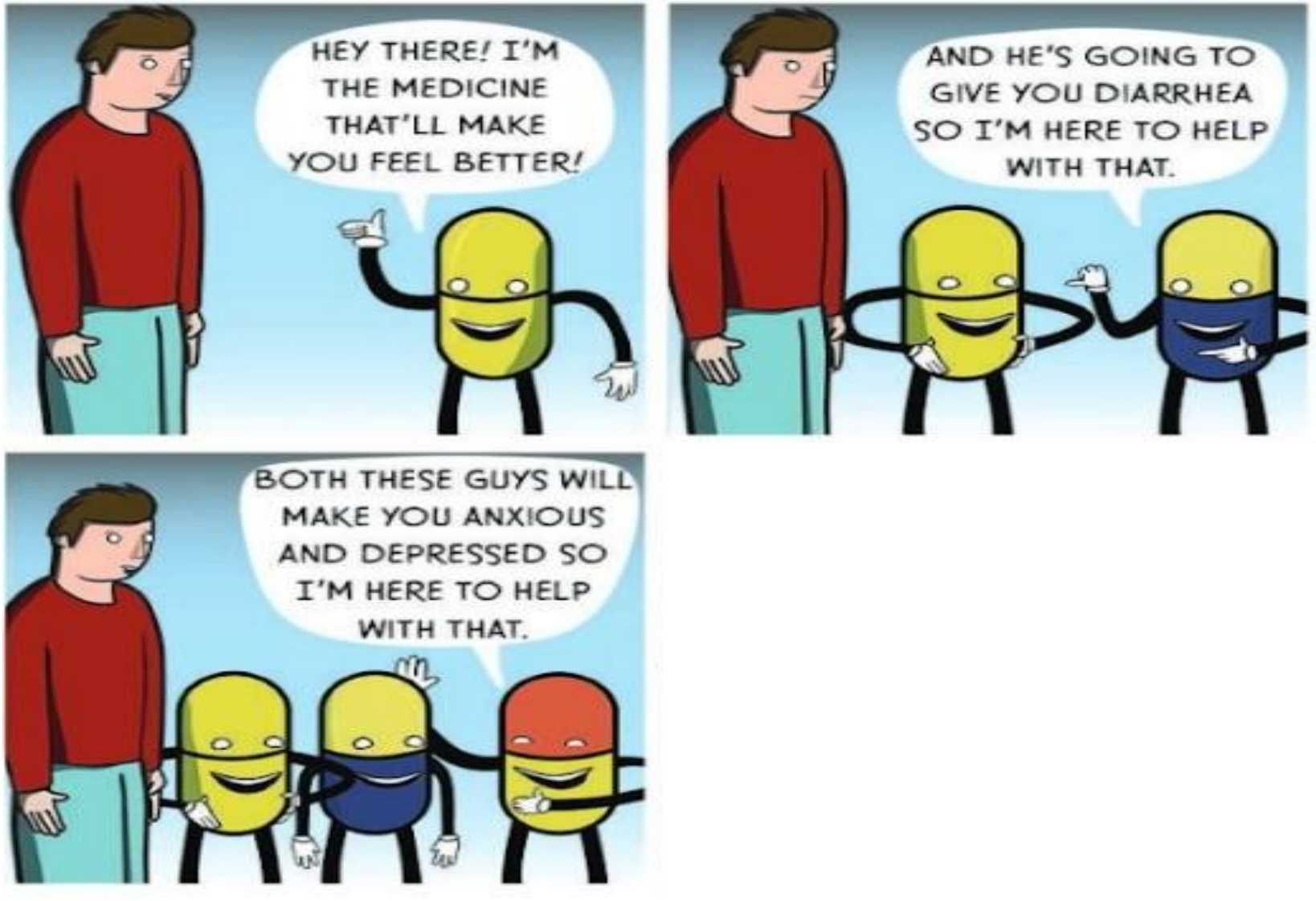
- No current indication
- Therapy duplication
- Drug-drug or drug-disease interaction
- **Result of a prescribing cascade**
- Potentially inappropriate (Beer's List or STOPP criteria)

Phase 3: Implement

- Prioritize – one drug at a time
- Start with the medication of greatest concern
- Treat it as a trial - Create a deprescribing plan with the resident and healthcare team
- **Monitor signs and symptoms of the related diagnosis** ***

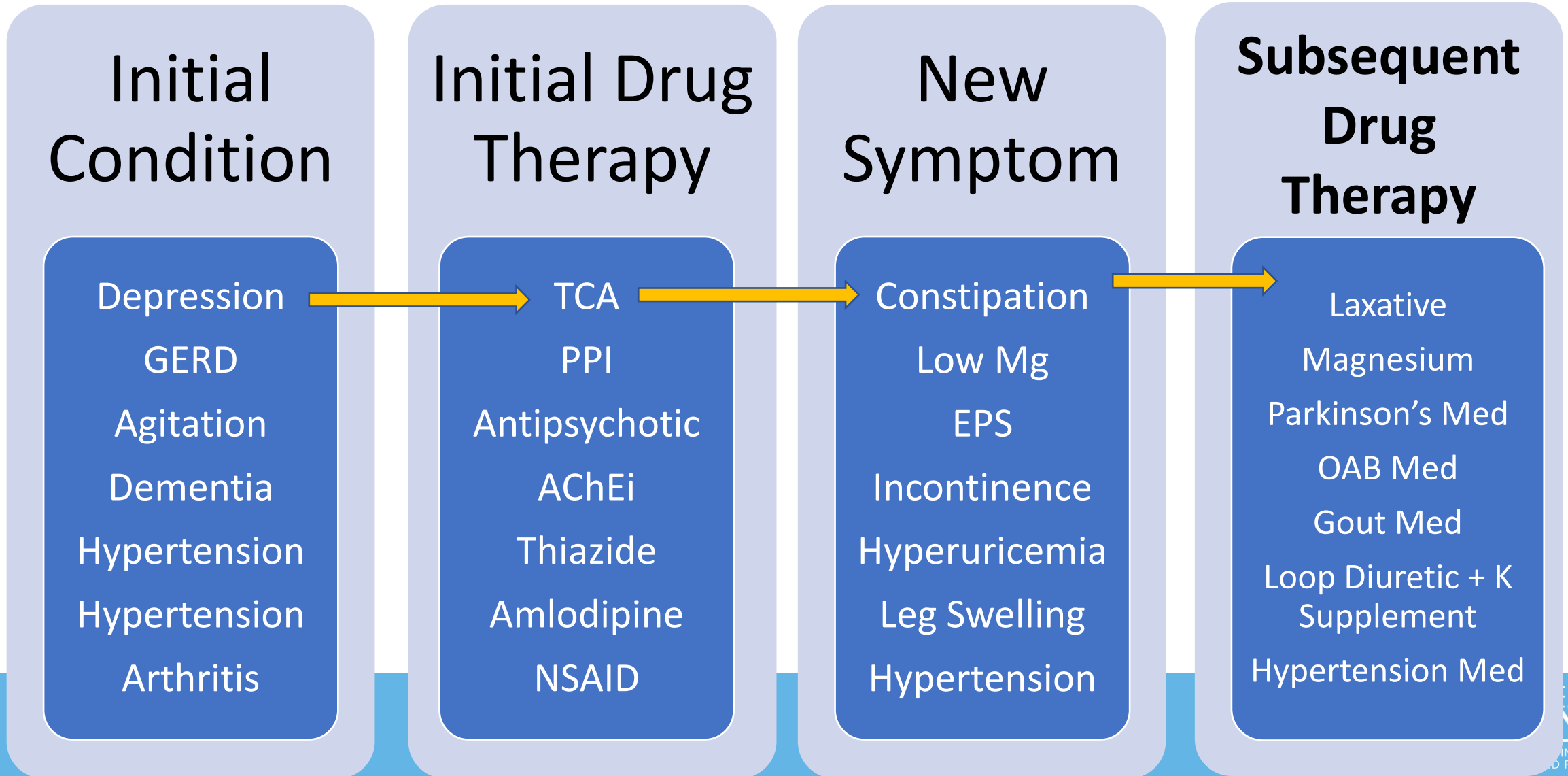
Phase 4: Monitor & Follow-Up

- Report return or worsening of symptoms or condition
- Schedule periodic check-ins or have systems in place for evaluating symptoms
- Document the outcome of deprescribing
- Communicate with resident/family and healthcare team
- **Repeat with potentially inappropriate or problem medications**

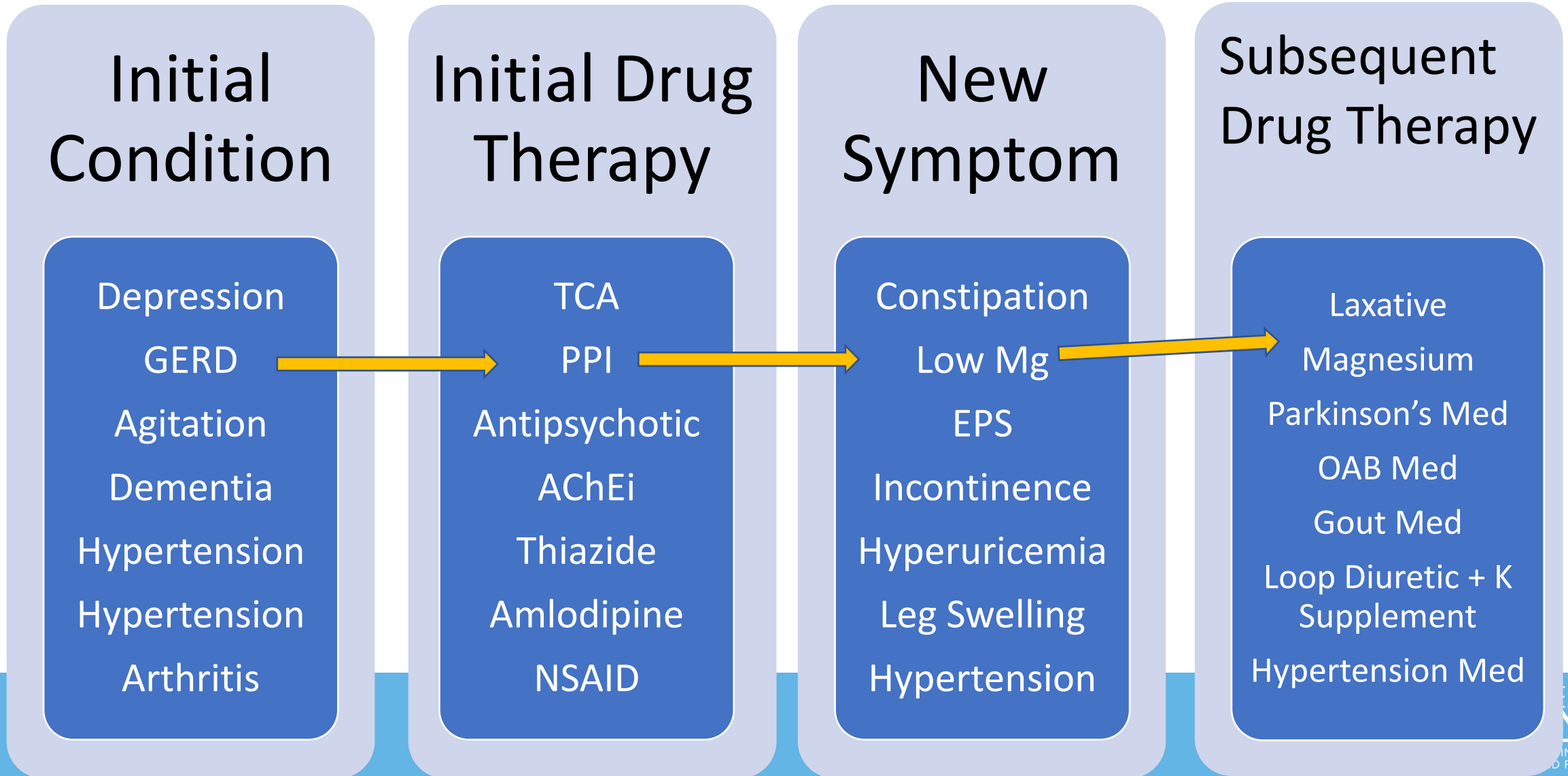


Source: www.goneintorapture.com

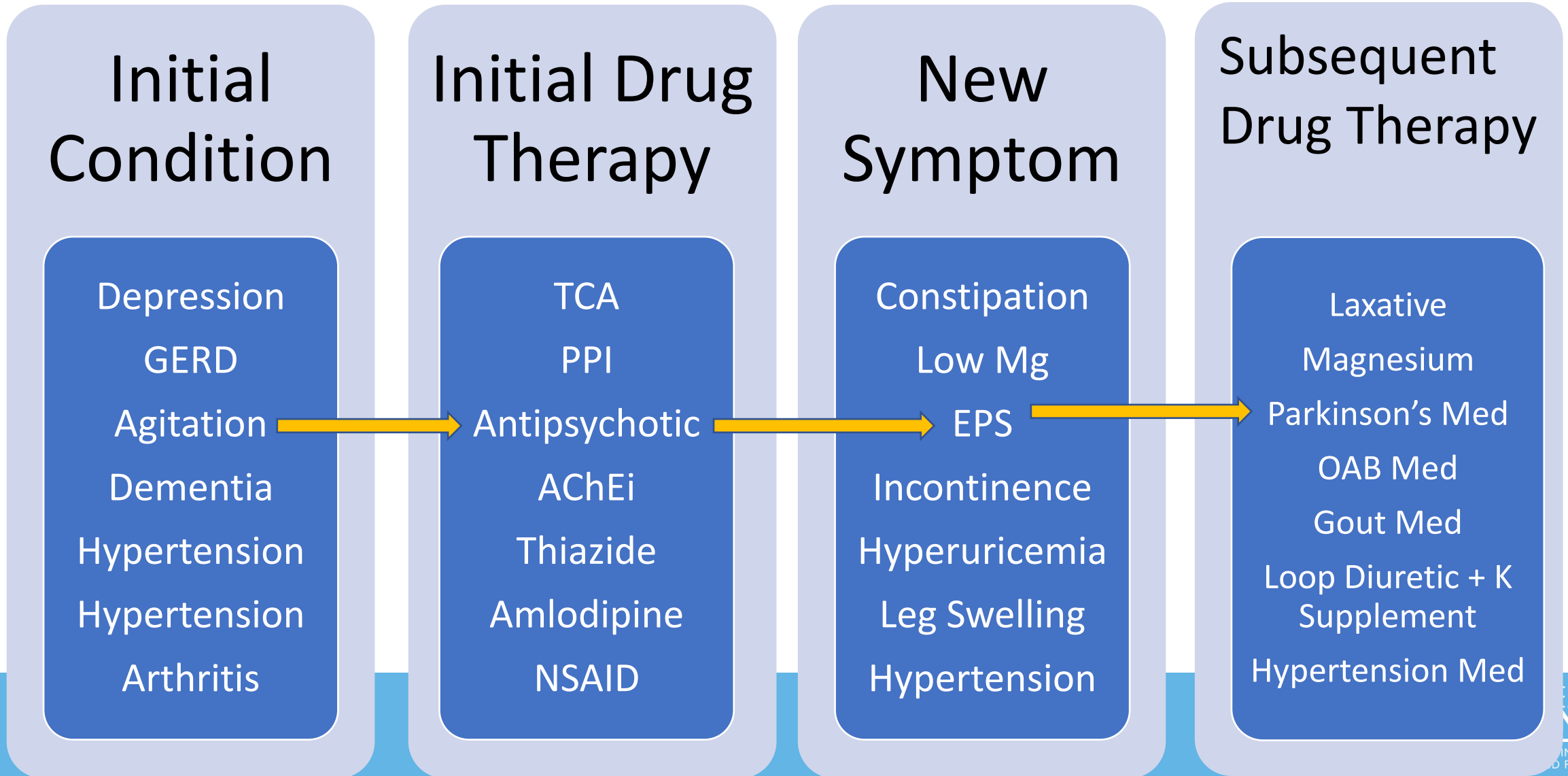
Communication Gaps – Prescribing Cascade



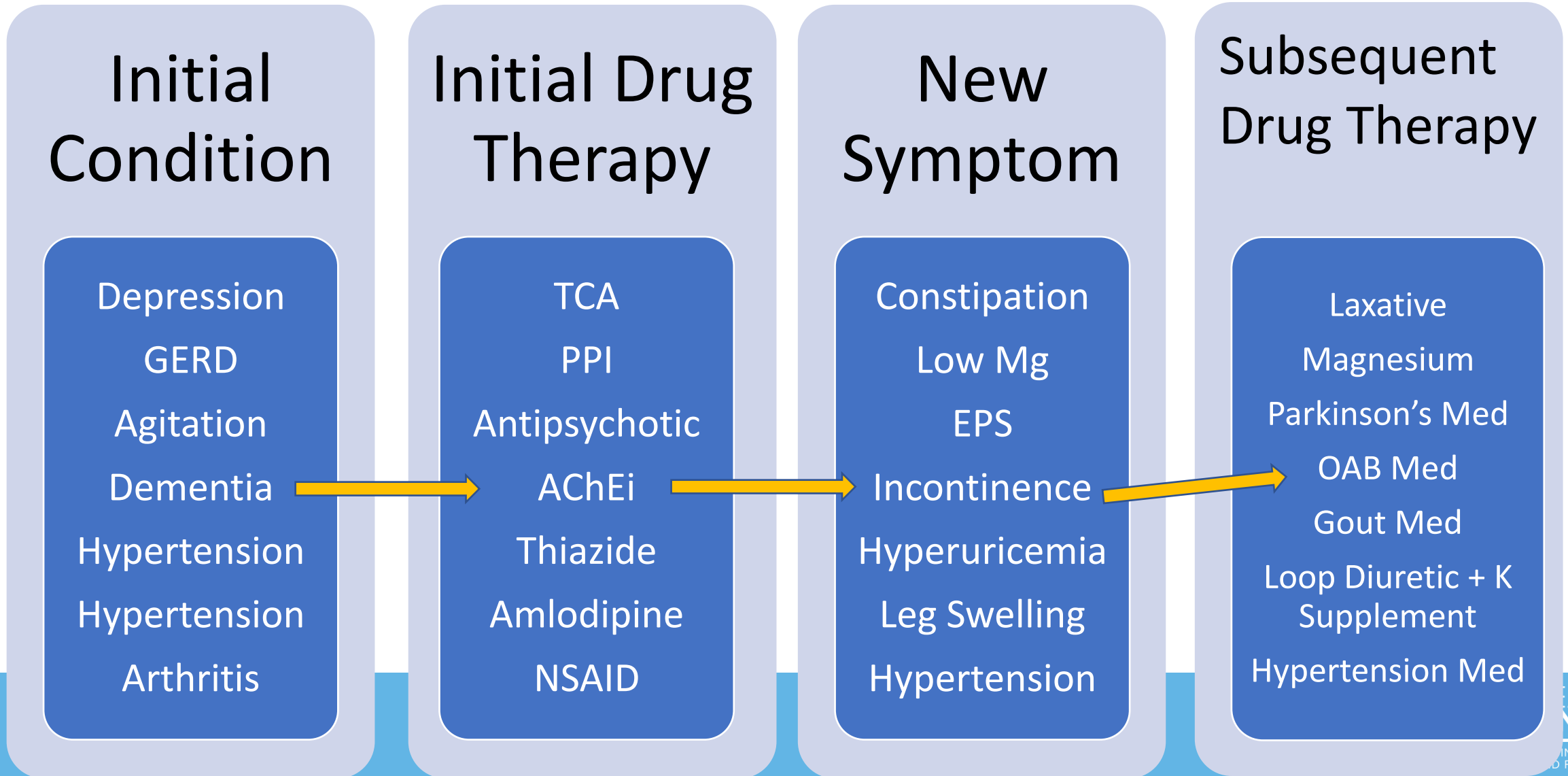
Communication Gaps – Prescribing Cascade



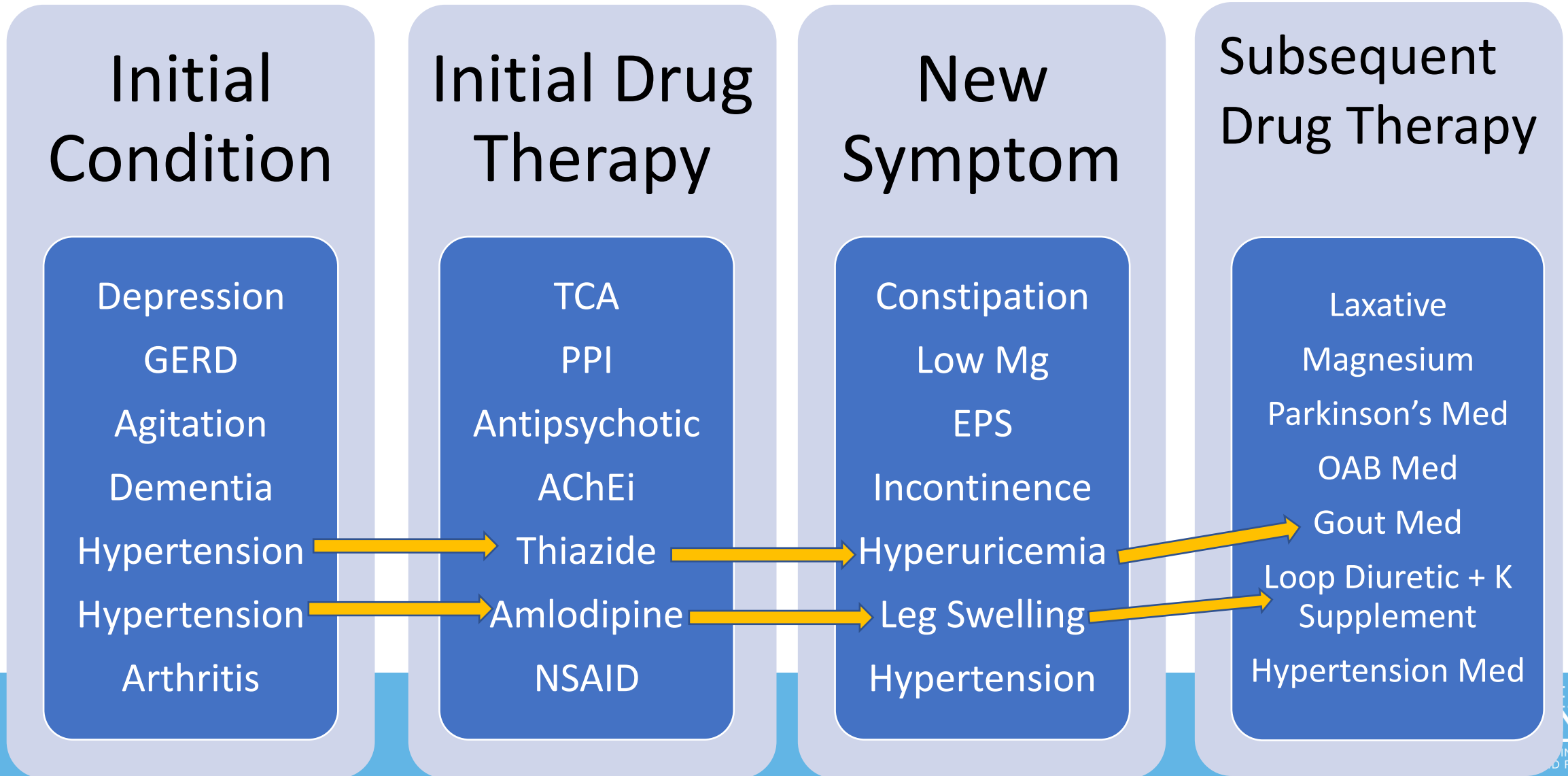
Communication Gaps – Prescribing Cascade



Communication Gaps – Prescribing Cascade

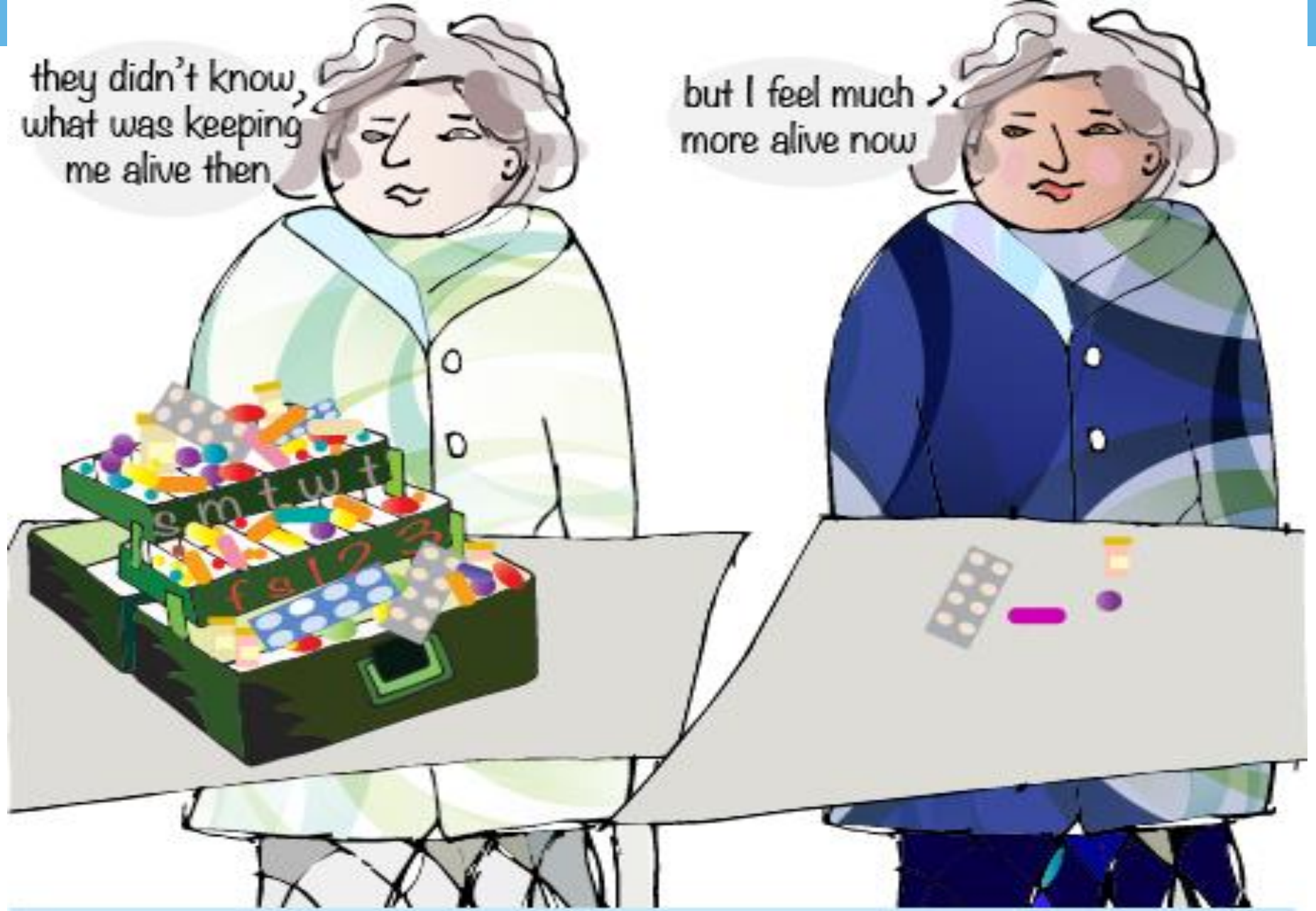


Communication Gaps – Prescribing Cascade



Communication Gaps – Prescribing Cascade

Initial Condition	Initial Drug Therapy	New Symptom	Subsequent Drug Therapy
Depression	TCA	Constipation	Laxative
GERD	PPI	Low Mg	Magnesium
Agitation	Antipsychotic	EPS	Parkinson's Med
Dementia	AChEi	Incontinence	OAB Med
Hypertension	Thiazide	Hyperuricemia	Gout Med
Hypertension	Amlodipine	Leg Swelling	Loop Diuretic + K Supplement
Arthritis	NSAID	Hypertension	Hypertension Med


they didn't know,
what was keeping
me alive then
but I feel much
more alive now

Case Study 1

- 72-year-old female diagnosed with overactive bladder
- Oxybutynin prescribed
- Decreased urinary output…..
- So Lasix was added on…
- Member presented with increased confusion and weakness and..
- **Transferred to ER**
- Diagnosed with acute urinary retention with foley catheter inserted

Case Study 1 – Prescribing Cascade

Initial Condition	Initial Drug Therapy	New Symptom	Subsequent Drug Therapy
OAB	Oxybutynin	Urinary Retention	Furosemide

Case Study 2

- 62-year-old female presents to the ER with confusion, agitation, restlessness. Head CT and UA are both negative.

- Home medications: Gabapentin 600 mg tid nerve pain, Clonazepam 1 mg tid prn anxiety, Aripiprazole 15 mg qam, Amitriptyline 50 mg qhs, Quetiapine 25 mg qhs, Solifenacin 10 mg qd for OAB, Hydroxyzine 50 mg 1 bid and 1 qhs prn for anxiety, Lansoprazole 30 mg 1 qd for heart burn, Chlorpheniramine 4 mg 1 q 4-6 h prn allergies, Docusate 100mg 1 qd constipation, Bisacodyl “follows the directions on the box” prn constipation

- Symptoms resolved once medications held

Case Study 2 – Drug Therapy Concerns

- Antipsychotic therapy: Lacks diagnosis for use, duplicate therapy, does of one is not maximally titrated, Seroquel 25 mg qhs
- Anticholinergic burden: Amitriptyline, Solifenacin, Quetiapine, Chlorpheniramine, Hydroxyzine, Lansoprazole, Bisacodyl
- Gabapentin – Bioavailability is inversely proportional to the dose due to saturable absorption, 34 -47% of the 1800 mg/day is absorbed
- Disease state: Amitriptyline – nerve pain, anxiety/depression?

- Anything else?

Evidence-Based Polypharmacy Drug Class Review

Benzodiazepines & Hypnotics

Deprescribe:

- Per STOPP: in acute/chronic resp. failure; w/fall in past 3 months; if used for > 4 weeks
- Per BEERs: in dementia/CI/delirium; hx of falls/fractures; w/ 2 or more CNS agents
- Clinically: when used chronically with opioids or gabapentinoids d/t risk of respiratory depression; when safer alternatives have not been tried & failed

Taper: 25% reduction every 2 weeks

Watch for: ↑ insomnia, anxiety, irritability, or GI distress

Alternatives:

- Anxiety: buspirone; SSRI/SNRIs
- Insomnia: melatonin; trazodone

Sleep Tips to Help Your Seniors Rest Better. Senior Care Etobicoke (homeinstead.ca)

Anticholinergics

Deprescribe:

- Per STOPP: in narrow angle glaucoma, bladder outflow obstruction, or dementia/delirium; if treating EPS
- Per BEERs: in BPH/outflow obstruction or dementia/delirium/cognitive impairment
- Clinically: if any hallmark side effect becomes significant; when total ACB is > 3

Taper: Varies based on drug class/medication

Watch for: Varies based on drug class/medication

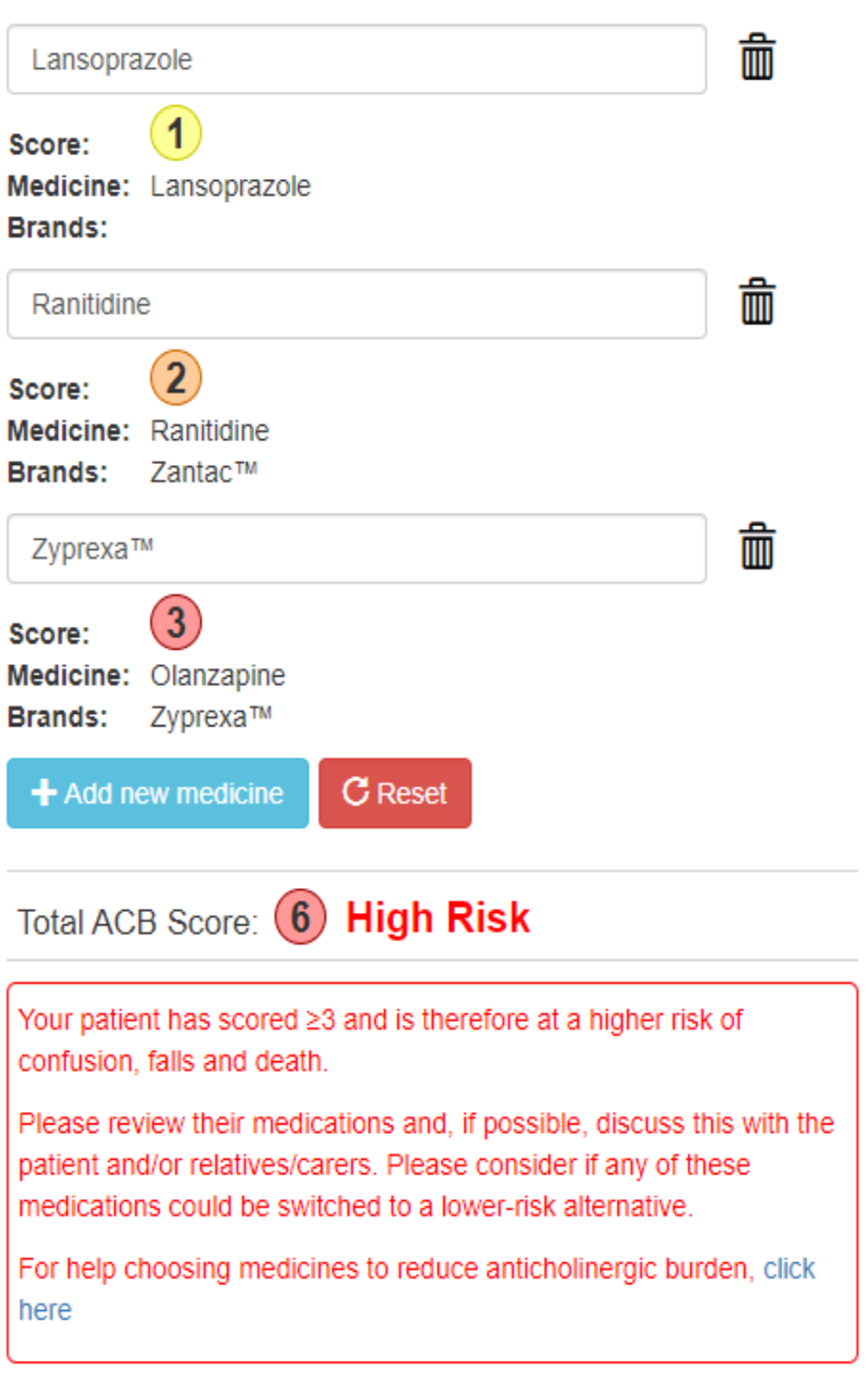
Alternatives: Varies based on drug class/medication

Agitation
Blurred Vision
Constipation/Confusion
Dry Mouth
Stasis of Urine/Sweating

ACB Calculator

- Important because risk of dementia has shown a linear, dose-dependent relationship with anticholinergic use

- Assigns each drug a score of 0 - 3
  - 0 (none); 1 (possible); 2 or 3 (definite)
  - Cumulative score of ≥ 3 indicates higher risk of confusion, falls, & death



Acetylcholine Esterase Inhibitors

Deprescribe:

- Per STOPP: in heart block/bradycardia/syncope; w/BBs, digoxin, diltiazem/verapamil
- Per BEERs: in persistent bradycardia or syncope
- Clinically: used for > 12 months + lack of observed benefit, worsening cognition, in severe/end stage dementia (BIMs ≤ 7), or significant side effects

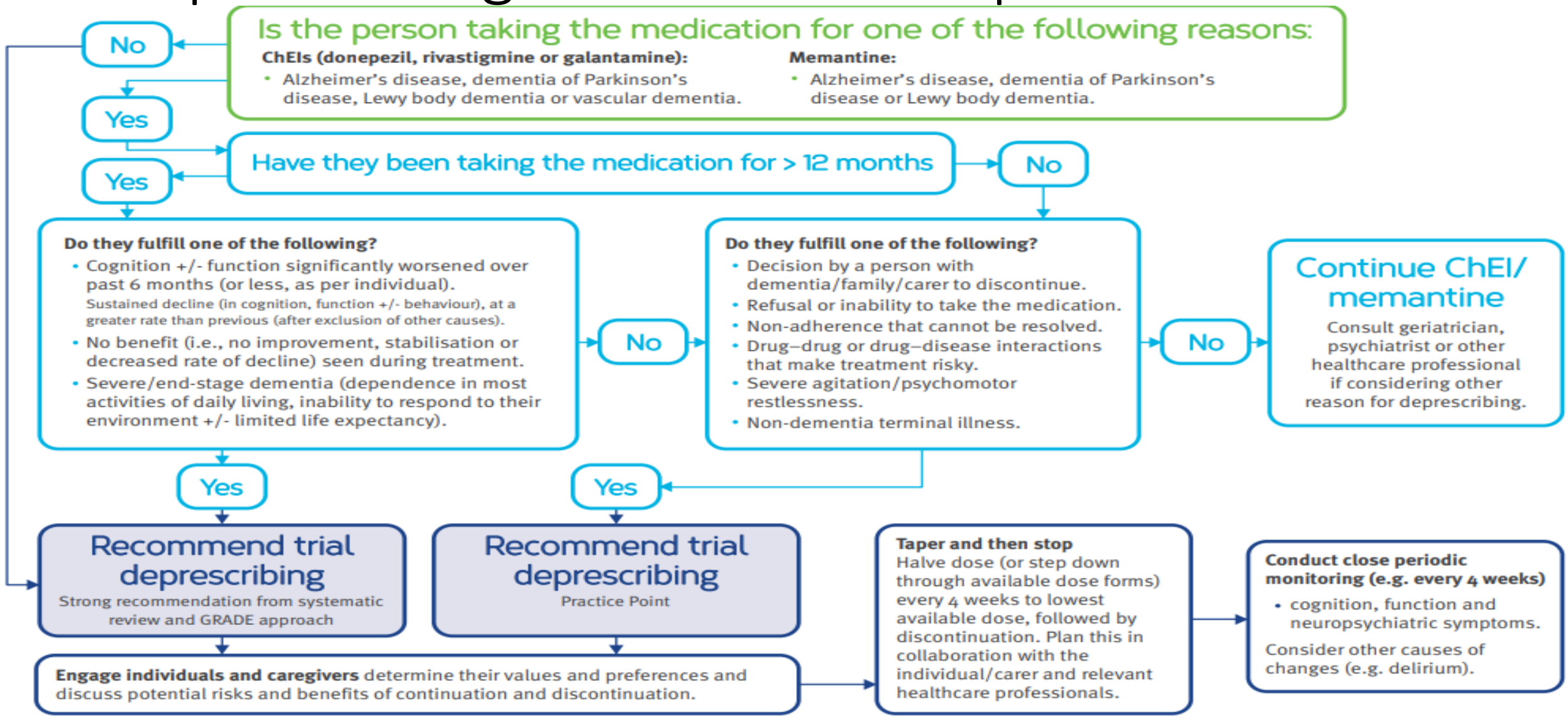
Taper: 50% reduction every 4 weeks

Watch for: Agitation, aggression, hallucinations

Alternative: Memantine

dementia patient financial plan: How to put your money matters in order if dementia strikes - The Economic Times (indiatimes.com)

Deprescribing Guideline Example



Diabetic Medications

Deprescribe:

- Per STOPP:
  - TZDs: in CHF
  - Sulfonylureas: if long half-life agents (glimepiride, glyburide)
  - SSIs: not mentioned
- Per BEERs:
  - TZDs: in CHF d/t risk of worsening fluid retention
  - Sulfonylureas: glimepiride/glyburide d/t risk of severe, prolonged hypoglycemia
  - SSIs: in monotherapy (w/o basal insulin) d/t poor efficacy and hypoglycemia risk

Clinically:

- TZDs: as several safer oral alternatives currently available
- Sulfonylureas: with poor PO intake, advanced age, or other risks for hypoglycemia
- SSIs: when used alone, when A1c already at goal (ie, A1c < 8.5 for most in this setting)

Taper: Not indicated

Watch for: Increased thirst, urination, or fatigue (hyperglycemia symptoms)

Alternatives: Long-acting insulins; glipizide if requiring sulfonylurea; Metformin; DPP-4 inhibitors; SGLT2 inhibitors; GLP-1 Agonists

Antipsychotics

Deprescribe

- Per STOPP: if used >1 month as hypnotic; in Parkinson's/Lewy Body Dementia; w/ fall in the past 3 months; w/moderate-severe anticholinergic side effects
- Per BEERS: in dementia, CI, delirium d/t risk of stroke, cognitive decline and death; w/ hx of falls/fractures; or w/2 or more CNS agents d/t risk of falls
- Clinically: in BPSD if ineffective after 4 weeks or after 4 months of use; for non-FDA indications (insomnia); or with significant side effects (EPS, hyperglycemia, hyperlipidemia)

Taper: 25-50% reduction every 1-2 weeks; Use of behavioral/environmental tx

Watch for: psychosis, aggression, hallucinations

Alternatives: In BPSD, non-pharmacological interventions & environmental adjustments

Proton Pump Inhibitors

Deprescribe:
- Per STOPP: if used for > 1-2 months in uncomplicated peptic ulcer disease
- Per BEERs: after scheduled use for > 8 weeks in low-risk disease
- Clinically: after 4-8 weeks for uncomplicated GERD to avoid C. difficile, CAP, bone loss/fractures, hypomagnesemia, and/or B12 deficiency

Taper: 50% reduction every 2-4 weeks; Use antacid if needed while tapering

Watch for: **Verbal: dyspepsia, regurgitation, and epigastric pain**
Nonverbal: appetite/weight loss, agitation

Alternatives: Preferred: Non-pharmacological interventions and occasional PRN antacids
Less Preferred: famotidine (renal dosing; caution in delirium/dementia)

Best Practices – Ongoing Medication Stewardship

Existing Medications

- Ensure ALL meds have a CURRENT indication & and appropriate DURATION of use
- Look for potential prescribing cascades
- Evaluate each medication for any observed benefits or side effects (continuance vs discontinuance)

New Medications

- Choose the best drug with the fewest side effects
- Consider impact on quality of life & residents' goals
- Select the appropriate dose & duration
- Monitor for effectiveness & adverse events

Deprescribing Resources

1. Beers Criteria: https://www.guidelinecentral.com/guideline/340784/
2. STOPP & START CRITERIA: https://www.cgakit.com/m-2-stopp-start
3. Anticholinergic Burden Calculator: http://www.acbcalc.com/
4. FORTA (Fit FOR The Aged): https://www.umm.uniheidelberg.de/fileadmin/medma/Lehrstuehle/Wehling/U.S.-FORTA_list.pdf
5. AMDA Drive to Deprescribe (D2D): https://paltc.org/?q=drive2deprescribe
6. ACOVE (Assessing Care Of Vulnerable Elders) Project: https://www.acpjournals.org/doi/10.7326/0003-4819-135-8_part_2-200110161-00002
7. AAFP Recommendations for Deprescribing BZDs & Antipsychotics: https://www.aafp.org/dam/brand/aafp/pubs/afp/issues/2019/0101/p57.pdf https://www.aafp.org/dam/brand/aafp/pubs/afp/issues/2018/0915/p394.pdf
8. TRIM (Tool to Reduce Inappropriate Medications): https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4919149/
9. MEDSTOPPER: http://medstopper.com/
10. ARMOR tool (Assess, Review, Minimize, Optimize, Reassess): https://www.hmpgloballearningnetwork.com/site/altc/content/armor-a-tool-evaluatepolypharmacy-elderly-persons

Background - KMPI

- Polypharmacy

  -increases side effects, adverse events and subsequent healthcare costs

  -increases med-pass time for facility staff members

  -deprescribing: time-intensive, patient-specific assessments

- *Initiative to understand successes and challenges with deprescribing within Kentucky long-term care facilities*
- *To collaborate and create polypharmacy resources that long-term care facilities would find useful*

Intermittent Qualitative Analysis

-Topics: successes/challenges, risk-benefit for discontinuing and/or restarting therapy, experience with external prescribers, overall satisfaction

-Resources: psychotropic medications

surveyor compliance guidance

Strategies for Collaboration?

- Polypharmacy Champion
- Average number of medications per resident
- Limit duration when prescribing PRN medications
- Discontinue PRN medications not used in a month
- Evaluate residents for need of medications like statins, PPIs, etc
- While prescribing new medications, deprescribe one medication
- Educate CMTs about the importance of polypharmacy
- Involvement families

KMPI current & Future direction

- Quarterly Newsletters

  -Highlighting useful resources for the LTCs with guidance

  -Please tell us what topics you would like to see

  -Deprescribing success that you would like to share?

- KMPI is still recruiting participants. Interested?

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State-Academic Partnership Research Team Acknowledgements

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- Reyna VanGilder PhD, PharmD
  Associate Pharmacy Director
  Cabinet for Health and Family Services

- April Prather, PharmD
  Associate Pharmacy Director
  Cabinet for Health and Family Services

Thank you for your attention!

For this patient, would you prescribe

-Namenda 1 qam

-Aricept 1 qam

-Vyvanse 1 qam

-Adderall instant release 1 qpm

…OR ALL OF THE ABOVE…

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