Medication Safety Handout
Too Many Pills?
Protect Your Health — Review Your Medications Today

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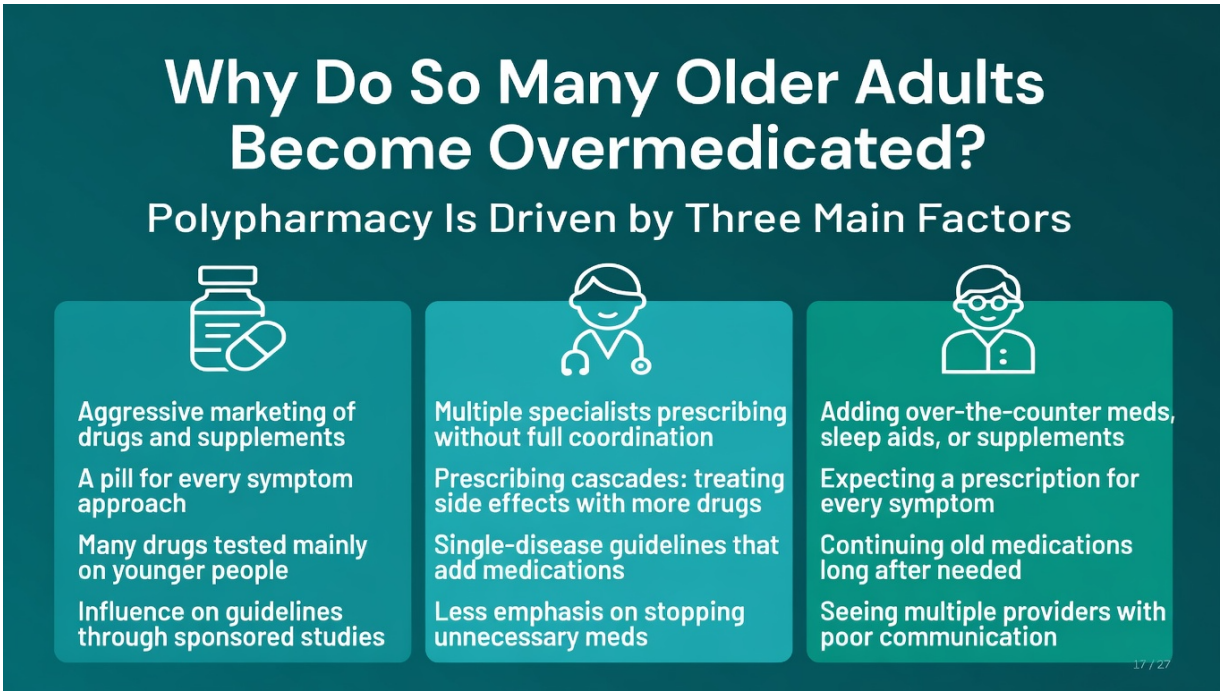
Too Many Medicines? A Common Problem.

Over half of adults aged 65 and older take five or more prescriptions daily. This situation, known as polypharmacy, is one of the leading preventable causes of harm in older adults. Each additional medication raises the risk of side effects by 7–10%. Falls, confusion, and bleeding send approximately 750 seniors to the hospital every day.

Many of these hospitalizations are avoidable. A careful medication review—conducted by a physician, pharmacist, or both—can identify drugs that are no longer needed, duplicated by another prescription, or interacting in harmful ways.



How Aging Changes the Body's Response to Drugs:

- The liver slows down — drugs can accumulate to toxic levels more quickly
- The kidneys weaken — medications linger longer in the body, increasing exposure
- Increased body fat stores sedatives and fat-soluble drugs for days, prolonging their effects
- Reduced total body water concentrates water-soluble drugs, raising their effective dose
- Changes in brain sensitivity make the central nervous system more vulnerable to sedation, confusion, and falls

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Beers Criteria: Drugs Often Risky for Adults 65+

The American Geriatrics Society publishes the Beers Criteria, a widely referenced list of medications that pose elevated risk in older adults. These drugs are not necessarily prohibited, but they warrant a careful conversation between the patient and prescriber about whether the benefits outweigh the risks.

Drug Type	Examples	Why Avoid / Discuss
Anxiety / Sleep	Xanax, Valium, Ativan	Falls, memory loss, fractures, dependence
Allergy Aids	Benadryl, Tylenol PM	Confusion, urinary retention, dementia risk
Long-Term Acid Blockers (Over 8 Weeks)	Nexium, Prilosec, Protonix	Bone fractures, kidney disease, infections
Muscle Relaxants	Flexeril, Soma	Extreme drowsiness, falls, anticholinergic effects
Older Antidepressants	Amitriptyline (Elavil)	Sedation, cardiac effects, highest adverse event risk

Beers List: Use with Caution After 65

These drugs are not banned outright, but the Beers panel indicates the risks may outweigh the benefits. The prescriber should monitor closely or consider alternatives.

Drug Class	Why Caution Is Needed	Risk Level
SSRIs / SNRIs (antidepressants)	Hyponatremia (low sodium), falls, bleeding	HIGH
Diuretics (water pills)	Low sodium, dehydration, kidney injury	HIGH
Tramadol (pain)	Falls, seizures, confusion, addiction	HIGH

HIGH = strong evidence of harm; monitor closely.

Common Medication Risks in Older Adults

Even widely prescribed medications carry risks that increase with age. The table below highlights frequently used drug classes and the specific dangers to be aware of.

Medicine Type	Common Examples	Key Dangers in Seniors
Blood Pressure	Metoprolol, Lisinopril	Dizziness, falls (1 in 33 serious), orthostatic hypotension
Antidepressants	Zoloft, Effexor, Remeron	Often no better than placebo in mild cases; fall risk, low sodium
Statins	Lipitor, Crestor	Muscle pain (up to 29%), new-onset diabetes, cognitive complaints
Pain Relievers	Ibuprofen, Tramadol	GI (gastrointestinal) bleeding, kidney harm, dependence, cardiovascular risk
Water Pills (Diuretics)	HCTZ, Furosemide	Low sodium, dehydration, electrolyte imbalance, falls
Stomach Acid Medications (PPIs)	Omeprazole, Pantoprazole, Lansoprazole	Long-term use linked to bone fractures, kidney disease, low magnesium, C. difficile infection, B12 deficiency

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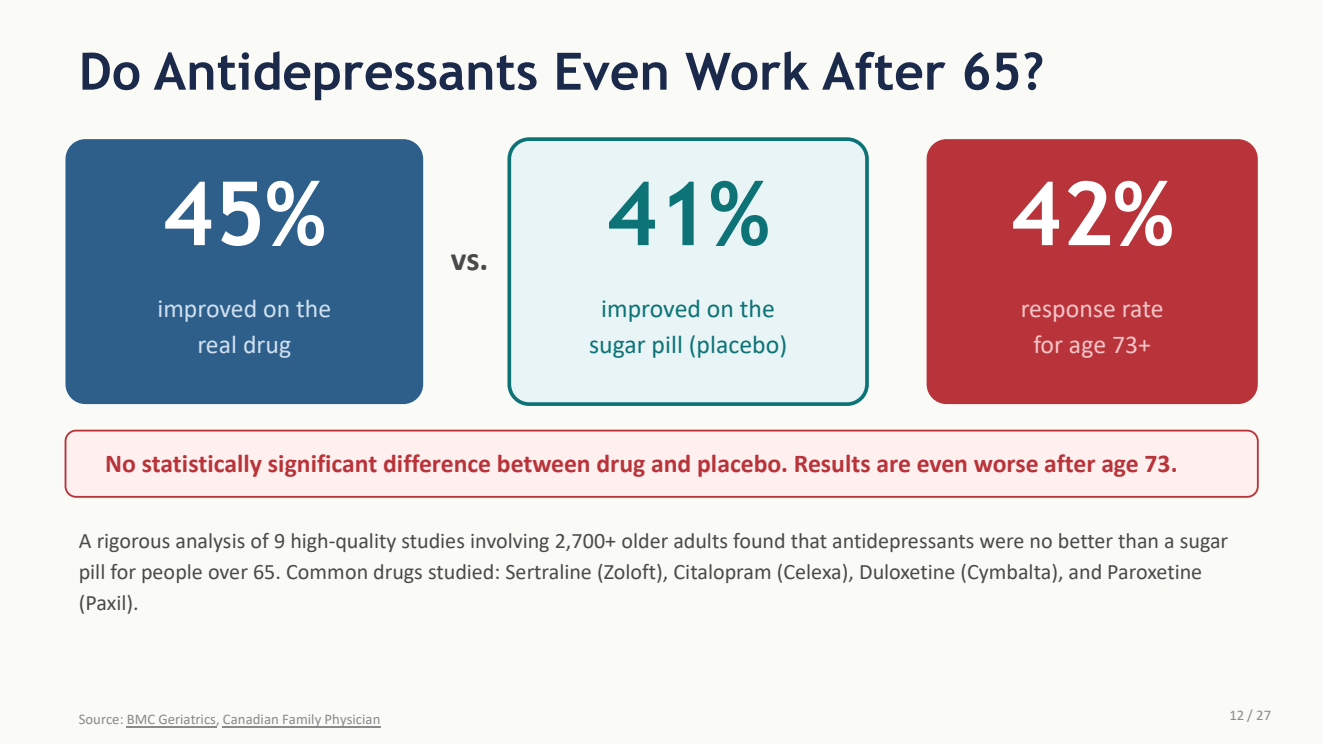
A Closer Look: Common Psychiatric & Sleep Medications

Antidepressants — **SSRIs** (Zoloft, Lexapro, Prozac, Paxil): Often viewed as safe, but in seniors they can cause low sodium, dizziness, falls, stomach bleeding (especially with aspirin or blood thinners), sleep problems, and emotional numbness. For most older adults, studies show antidepressants work no better than a placebo (sugar pill).



SNRIs (Effexor, Cymbalta): Share the above risks, plus raised blood pressure, heavy sweating, and (with Cymbalta) possible liver harm. Stopping suddenly can cause severe withdrawal — dizziness, nausea, and "brain zaps."

Older tricyclics (Amitriptyline, Nortriptyline, Doxepin): On the **Beers Criteria "avoid" list**. They commonly cause dry mouth, constipation, urinary retention, blurred vision, confusion, and dangerous drops in blood pressure when standing. Can trigger heart rhythm problems; overdose can be fatal.

Mirtazapine (Remeron): Frequently used for sleep and appetite, but causes weight gain, heavy sedation, high cholesterol, and falls. Often continued long-term with limited ongoing benefit.

Anti-Anxiety Medications — **Benzodiazepines** (Xanax, Valium, Ativan, Klonopin): Among the most dangerous for seniors. They increase the risk of falls and hip fractures by 40–60%, cloud memory, slow thinking, and dull reflexes. Long-acting types (like Valium) build up in the body. Regular use leads to dependence, and sudden stopping can cause seizures, severe anxiety, or delirium. Long-term use is linked to higher rates of dementia, car accidents, and death.

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Buspirone (BuSpar): A non-addictive alternative that does not cause heavy sedation or raise fall risk. Takes 2–4 weeks to work fully. Side effects may include dizziness, headache, or nausea, but it is generally much safer for long-term use in older adults.

Sleeping Pills — **Z-drugs** (Ambien, Lunesta): Marketed as safer, but still cause next-day grogginess, poor balance, falls, sleepwalking, sleep-driving, memory gaps, and dependence. They add only about 8–20 extra minutes of sleep while significantly raising fall and fracture risk.

Trazodone: Often used at low doses for sleep. It avoids some risks of stronger sedatives but can still cause blood pressure drops when standing (leading to falls), morning grogginess, and dry mouth. Sleep benefit often fades over time.

OTC antihistamines (Benadryl, Tylenol PM, ZzzQuil, Unisom): Especially risky for seniors. Can cause confusion, delirium, dry mouth, constipation, urinary problems, blurred vision, and fast heartbeat. Long-term use is linked to higher dementia risk; next-day drowsiness increases falls.

Safer Alternatives for Sleep: Cognitive behavioral therapy for insomnia (**CBT-I**) is the first-choice treatment. Simple habits — consistent bedtime, less caffeine and screen time, regular exercise — work well and carry no medication risks.

A Closer Look: Stomach Medications

(Prilosec, Nexium, Prevacid, Protonix, Aciphex)

PPIs powerfully reduce stomach acid and are often prescribed for heartburn and reflux. Guidelines recommend using them for **no more than 8 weeks** in most cases.

Risks in older adults with long-term use:

- Higher chance of infections (pneumonia, C. diff)
- Nutrient deficiencies (B12, magnesium, calcium)
- Weaker bones and higher fracture risk
- Kidney problems
- Possible increased dementia risk
- Rebound acid worse than before when stopping

Common prescribing cascade: Starts for mild heartburn, then low magnesium or fatigue develops, then more meds are added instead of stopping the PPI.

Safer approach: Try lifestyle changes first (smaller meals, avoid triggers, elevate bed head). Use the lowest dose for the shortest time. After 8 weeks, most people should taper off or switch to milder options like Pepcid (famotidine). Many can stop completely with simple diet adjustments.

Bottom line: PPIs are helpful short-term but risky when continued long-term in seniors. Regular reviews can safely reduce or eliminate them.

A Closer Look: Blood Pressure Medications

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Blood pressure drugs are among the most commonly prescribed for older adults. While helpful for preventing strokes and heart issues, they often cause problems in seniors due to overly low pressure, dizziness, and falls.

Common blood pressure drug types and their risks:

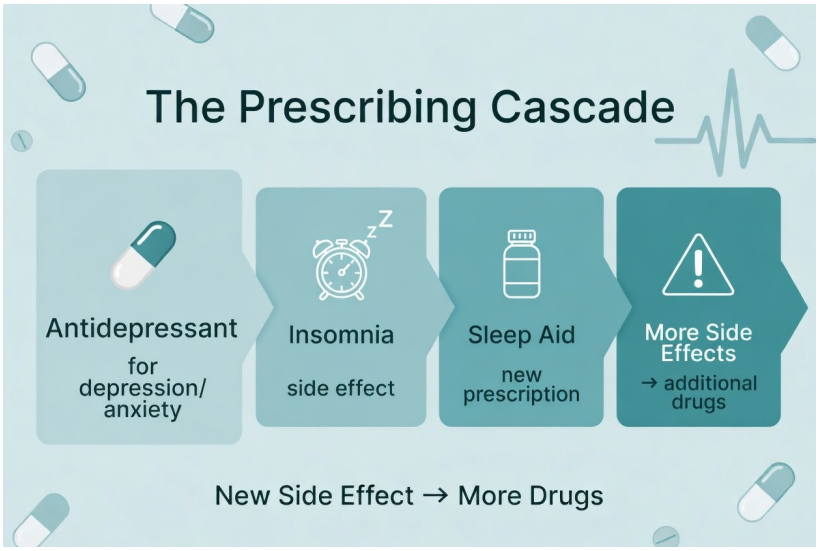
- **ACE Inhibitors & ARBs** (lisinopril, losartan): Can cause cough, high potassium, dizziness, and kidney strain.
- **Diuretics** ("water pills" – hydrochlorothiazide, furosemide): Lead to dehydration, low sodium/potassium, dizziness, and falls.
- **Beta Blockers** (metoprolol, atenolol): Cause fatigue, slow heart rate, and trouble exercising.
- **Calcium Channel Blockers** (amlodipine): Often cause ankle swelling, which can trigger more diuretics and a prescribing cascade.
- **Alpha Blockers** (doxazosin): On the Beers "avoid" list — high risk of dizziness and falls when standing.

Common prescribing cascade: Amlodipine causes swollen ankles, then a diuretic is added, leading to dehydration, more dizziness, and even higher fall risk.

Bottom line for seniors: Many blood pressure meds lower pressure too much, raising fall risk. Goals may need to be less aggressive in older or frail adults.

Hidden Traps

Prescribing Cascade: A medication causes a side effect that is mistaken for a new illness, leading to additional prescriptions. For example, excess thyroid medication may cause anxiety, which is then treated with a sleeping pill—which in turn causes daytime drowsiness, prompting a stimulant. Recognizing this pattern early can prevent unnecessary and potentially harmful drug accumulation.



The Chain Reaction

This is a very common trap:

- A doctor prescribes an **antidepressant** for depression or anxiety
- The antidepressant causes **insomnia** as a side effect.
- Another doctor (or the same one) then prescribes a **sleep aid**.
- The sleep aid causes new problems (like confusion, daytime drowsiness, or falls).
- This leads to even more medications.

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Low Sodium (Hyponatremia): Hyponatremia is a dangerous drop in blood sodium that can cause falls, confusion, seizures, and even death. Hospital mortality for severe cases reaches 17%. Multiple common medications can contribute to this condition:

- **Antidepressants —** Selective serotonin reuptake inhibitors (e.g., Zoloft, Lexapro, Prozac) increase the risk of hyponatremia.
- **Diuretics —** Thiazides (e.g., HCTZ) and loop diuretics (e.g., Furosemide) deplete sodium directly through increased urinary excretion.
- **Anticonvulsants —** Carbamazepine, oxcarbazepine, and valproate are well-known causes of low sodium, especially in older adults.
- **Other Medications —** Opioid analgesics and certain antipsychotics can stimulate inappropriate antidiuretic hormone release, lowering sodium.

The risk increases substantially when two or more of these drug classes are taken together. Regular sodium monitoring is advisable for patients on multiple offending agents, particularly those over 65.

Your Action Plan

> **Fewer Pills = Safer, Steadier Days**

1. **Brown Bag Review —** Gather every prescription medication, over-the-counter drug, vitamin, and supplement into a bag. Bring them to the next doctor or pharmacist visit for a comprehensive review. This simple step catches duplications, outdated prescriptions, and harmful combinations.
2. **Keep One Master List —** Create and maintain a single, up-to-date list of every drug, dose, frequency, and the reason it was prescribed. Bring this list to every medical appointment, urgent care visit, and emergency room encounter. A current list prevents prescribing errors, especially when multiple providers are involved.
3. **Post-Hospital Medication Check —** After any hospitalization, schedule a medication reconciliation visit within two weeks. Hospital discharges frequently add new medications or change doses, and these changes must be reviewed against pre-existing prescriptions.
4. **Safe Tapering —** Never stop a medication abruptly without medical guidance. Many drugs—including beta-blockers, benzodiazepines, antidepressants, and corticosteroids—require gradual dose reduction to prevent withdrawal symptoms or rebound effects.

When to Seek Immediate Help

Contact a physician, pharmacist, or emergency services promptly if any of the following occur after starting, stopping, or changing a medication:

- Unexplained dizziness, fainting, or repeated falls.
- New or worsening confusion, memory lapses, or personality changes.
- Unusual bleeding or bruising (gums, urine, stool).

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- Severe muscle pain, weakness, or dark-colored urine.
- Persistent nausea, vomiting, or inability to eat.
- Swelling of the face, tongue, or throat (possible allergic reaction).
- Rapid or irregular heartbeat, chest pain, or shortness of breath.

Three Questions for Every Doctor Visit

Before leaving any medical appointment, consider asking the following:

1. Why am I taking this medication? Is it still needed?
2. Could any side effects be causing my current symptoms?
3. Can we safely stop or switch any of these medications?

Writing these questions down before the visit—and bringing a current medication list—makes the conversation more productive and ensures nothing is overlooked.

A Final Note

Medication safety is a shared responsibility among patients, caregivers, physicians, and pharmacists. No question about a medication is too small. A proactive approach—reviewing every prescription regularly, maintaining an accurate medication list, and communicating openly with the healthcare team—can significantly reduce the risk of preventable harm.

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