

Ep #143: Reduce Medication Risks in Older Adults with the Beers Criteria



Full Episode Transcript

With Your Hosts

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Welcome to the *Real Deal Nurse Practitioner Club*, the podcast for nurses who are ready to pass their boards and thrive in their careers as real deal nurse practitioners. I'm Anna and I'm the Director of Nursing Content at Blueprint Test Prep. Whether you're deep in exam prep or stepping into practice, I've got you. It is time to become the confident, knowledgeable NP that you're meant to be. Let's dive in.

Hey, hey everyone. Welcome back to the *Real Deal Nurse Practitioner Club* podcast. Over the last few months, we've done some clinical content type episodes, and they have been very very well received. So today, I'm going to dive into some important clinical content related to the care of older adults. Have you heard of the Beers Criteria? We will get more in-depth in a few minutes, but I'm going to talk about how to use the Beers Criteria to help guide your clinical practice.

Also, older adults tend to have multiple chronic conditions that require multiple medications. That means a lot of older adults are dealing with polypharmacy. The more medications that a patient takes means more opportunities for side effects and adverse reactions, administration errors, as well as increased cost to the patient. So, I'm also going to go over some main principles of attempting to de-prescribe and reduce polypharmacy in older adults.

Okay, so first things first. What is the Beers Criteria? Essentially, it is a list of potentially inappropriate medications for older adults, meaning adults 65 years and older. The list is compiled by the American Geriatric Society, or AGS, and it's used by tons of professionals in healthcare, including clinicians like us, pharmacists, and researchers.

The most recent update occurred in 2023, and it provides guidance on certain medications to avoid or limit use in older adults, including in patients with certain conditions. And if you are caring for older adults in pretty much any setting other than hospice or palliative care, you should make yourself very familiar with this resource.

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The Beers Criteria breaks down the medications into five main categories, including medications considered as potentially inappropriate, medications that are potentially inappropriate in certain diseases or conditions, medications that should be used with caution, potentially inappropriate drug-to-drug interactions, and lastly, medications that should have doses adjusted based on kidney function.

So, I know that was a lot. Let's go step-by-step. Let's just start with the first group of medications that are potentially inappropriate.

The first category of medications here are first-generation antihistamines like diphenhydramine or Benadryl. Do you know why? Well, that's because these medications have strong anticholinergic effects, and it takes older adults longer to clear them, potentially leading to more side effects.

Another big group of medications there are medications that work on the central nervous system. So, think of meds like antidepressants, antipsychotics, benzodiazepines, hypnotics, and even certain anti-Parkinson medications. In older adults, these medications can cause more severe side effects and lead to confusion, orthostatic hypotension, and falls.

Now, what medications used to treat diabetes should be used with caution in older adults? Do you remember? Well, specifically, the Beers Criteria lists insulin and sulfonylureas in this category due to the higher risks of hypoglycemic events. And what group of over-the-counter and prescription pain medications should be used with caution due to the risk of adverse effects on kidney function? Yes, those NSAIDs. You got it. And this is certainly not an all-inclusive list, but I just wanted to go over some of the main highlights.

Now, let's move on to our next category. So, that next category is medications that are potentially inappropriate in certain diseases or conditions. So, I'll just pick out a few common diseases that affect older

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adults. Let's start with heart failure. What medications may exacerbate this condition, especially in adults older than 65 years old?

Well, we already mentioned NSAIDs and their effect on kidney function. And then let's also talk about certain antihypertensives. What group of antihypertensives may worsen heart failure? Calcium channel blockers. Particularly those non-DHP calcium channel blockers like diltiazem and verapamil.

Another condition that can affect older adults is dementia, whether Alzheimer's, frontotemporal, or another kind. So, let's think back to the previous section when I mentioned medications that cause confusion or increased side effects in older adults. If a patient already has cognitive impairment, we don't want to make it worse. So, in general, we would want to avoid medications like antipsychotics, antihistamines, and benzodiazepines to prevent any additional effects on the central nervous system.

All right, next up was medications that should be used with caution. So, these medications have the potential to cause adverse effects, but with proper monitoring and prescribing, they can still be used in certain situations in older adults. Now, patients, especially older adults, may be on blood thinners for multiple reasons, right? But in particular, caution should be used with Pradaxa over other novel oral anticoagulants, since it carries a higher risk of GI bleeding in older adults specifically.

And we've already mentioned some diabetes medications that should be avoided. And another pharmacological group is going to be those SGLT2 inhibitors. Remember all those ones that end in -flozin? And while these won't cause those hypoglycemic episodes quite like insulin or sulfonylureas, older adults are at an increased risk for urogenital infections and even euglycemic ketoacidosis.

And an antibiotic worth mentioning here is trimethoprim-sulfamethoxazole, also known as Bactrim. That one should be used with caution in older

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adults with decreased kidney function, especially if the patient is concurrently on ACE inhibitors or ARBs. And do you know why? Well, it's because of an increased risk of hyperkalemia.

Okay, moving on to our next group now. As clinicians, we definitely need to be checking for potential drug-drug interactions whenever we are prescribing medications. However, there are certain medications that, when prescribed together in older adults, can cause even greater risk.

So, let's start with opioids. Opioids should always be prescribed with caution, no matter the patient. But with older adults, opioids concurrently used with benzodiazepines can potentially lead to overdose. Opioids plus gabapentin or pregabalin may lead to severe sedation, including respiratory depression or even respiratory arrest.

Also, we talked a little bit about blood thinners, so let's go over one of the most well-known blood thinners: warfarin. In older adults, we've mentioned there's a greater chance of polypharmacy. And warfarin has so many drug-drug interactions.

There are many medications that actually decrease the effectiveness of warfarin, placing the patient at a risk for blood clots. And there are also a lot of medications that increase the effectiveness of warfarin, placing the patient at a risk for bleeding. So, if you have a patient on warfarin, make sure that you are reviewing their medication list regularly and you are routinely monitoring that patient's INR.

Okay. And then our very last category of medications on the Beers list are medications that require dose adjustments based on kidney function. A big group of medications to think about here is antibiotics. In particular, fluoroquinolones like levofloxacin and ciprofloxacin, even Macrobid and Bactrim, need to be adjusted if the creatinine clearance is below 30 mLs a minute.

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And back to blood thinners, Pradaxa and Lovenox should be avoided in patients with a creatinine clearance less than 30 as well. Then that diuretic spironolactone should be avoided in older adults with impaired kidney function due to the potential for what electrolyte imbalance? You've guessed it: hyperkalemia.

Now, what about medications for gout? Colchicine will need a dose reduction based on kidney function to help avoid toxic effects to the GI, skeletal, and neuromuscular systems.

Okay. I know we just went over a ton of different types of medications that should be avoided or used in caution in older adults. So now what? Where do you even start to reduce polypharmacy in your older adult patients and begin to safely de-prescribe medications? Well, we've already talked about one: starting at the Beers Criteria list. Make yourself familiar with it so that you can more quickly identify potentially inappropriate medications.

You can also consult with pharmacists. Remember, healthcare is interprofessional. Pharmacists are a wonderful resource. And many electronic medical record systems have built-in drug interaction checkers. So, make sure you read any and all alerts that come up.

Also, you want to regularly review long-term medications that the patient is on. Sometimes patients are on medications for years and years without any dose adjustments or attempting to wean them off. Be sure to include patients in their plan and work with them to help reduce their pill and their medication burden.

And I know this was just a brief introduction to the Beers Criteria and de-prescribing in older adults. But if you are caring for older adults, you definitely need to be aware of this criteria and how to use it to guide your clinical practice, especially with prescribing.

Older adults are a vulnerable population due to many factors, including chronic diseases and polypharmacy. So, as safe, competent, real-deal

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NPs, we need to make sure that we are regularly reviewing their medications and avoiding prescribing potentially inappropriate medications.

And that wraps up this episode. So, thanks so much for tuning in. I hope you enjoyed this content today. Be sure to follow us wherever you listen to podcasts, and I'll see you next time.

Thanks for listening to another episode of the *Real Deal Nurse Practitioner Club*. If you want more information about the different types of support that we offer to students and new nurse practitioners, you can visit npreviews.com. We'll see you next week.