

Medications That Scare Me: Urology's Turn

A recent on-line post from Medscape caught my attention. The article was by internist Dr. Douglas Paauw and titled "Medications That Scare Me".¹ It was not only the attention grabbing title, but some of the content caused me to take notice as a urologist. Dr. Paauw presented a case of syncope presenting to the ER in an 85-year-old woman. He discussed several medications and concluded that the cause of syncope was likely a medication combination causing bradycardia resulting in syncope. He went on to mention another medication that scares him as a "well-seasoned internist" and now me as a similarly "well-seasoned urologist", trimethoprim-sulfamethoxazole, one of our main antibiotics for UTI.

The article cites a reference that identified hospitalizations for hyperkalemia in older patients. This condition is more common in elderly patients on ACEIs (angiotensin-converting-enzyme inhibitors) and ARBs (angiotensin receptor blockers), who are prescribed trimethoprim-sulfamethoxazole compared with other antibiotics.² Trimethoprim reduces renal potassium excretion in patients with chronic renal disease and when taking other hyperkalemia inducing medications such as ACEIs, or ARB, the potential for hyperkalemia and arrhythmias is significant. Another concern is the interaction of trimethoprim-sulfamethoxazole with warfarin and its potential to increase INR and bleeding risk. This raises the question if there are any other common medications used by urologists with the potential for serious or potentially fatal adverse events?

Side effects of medications to treat erectile dysfunction are widely publicized. Commonly used PDE-5 inhibitors have important interactions to consider particularly in elderly patients on multiple medications. Men who take nitrate-containing products for cardiac-related problems must avoid using PDE-5 inhibitors. Failure to do so can result in severe hypotension, potentially leading to fainting, heart attack, or stroke.

A study of men who were prescribed PDE-5 inhibitors were almost twice as likely as patients not prescribed the drugs to develop ischemic optic neuropathy, retinal vascular occlusion, or serous retinal detachment.³ This is not the transient "blue haze" that has been associated with these medications but more significant ocular conditions that can cause serious visual impairment.

Starting older men with symptomatic lower urinary tract symptoms on alpha antagonists such as tamsulosin can result in hypotension. These low blood pressure episodes can increase the risk of being admitted to a hospital because of a fall, fracture, or head injury, serious events particularly in the elderly.⁴ Alpha-blockers may also have also effect on the QT interval, predisposing to life-threatening ventricular arrhythmias. Some strategies to reduce the risk of hypotension include taking the alpha antagonists at bedtime, and avoiding driving when starting therapy. There has been a startling increase in fatal falls among seniors over the last 20 years as reported in JAMA.⁵ Although the article did not specifically cite urology drugs, it requires our consideration on how our urology drugs might be contributing.

A common theme of adverse events in these urology medications is patient age. According to the Merck manual, almost 90% of older adults regularly take at least 1 prescription drug, almost 80% regularly take at least 2 prescription drugs, and 36% regularly take at least 5 different prescription drugs.⁶ The WHO has recognized medication related harm as a global health issue. With improved life expectancy combined with multiple co-morbidities and

polypharmacy, there is an increasing risk of medication related harms. The WHO has proposed the need for greater emphasis in the geriatric population and that these medication related events should be considered a “geriatric syndrome”.⁷

The focus of this discussion is “scary urology drugs”. These highlighted oral agents have the potential for significant life threatening events such as blindness, falls, hypotension, and conditions such as hyperkalemia and arrhythmias that can be fatal. It is not an all-inclusive review of adverse event and side effects of our urology medication portfolio but focuses on a few high profile agents that are particularly concerning in the elderly population often served by urologists.

Today many of our electronic medical records and e-prescribe systems will often warn about potential adverse drug interactions at the time they are ordered. These are useful but may not take into account all of the potential interactions, unique patient characteristics and may not capture all medications the patient is taking. The goal should be to maximize the benefits and reduce the risks of taking drugs that could be classified as “scary” in the practice of urology.

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References

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