

# Geriatric Optimization

## Selective Alpha-1 Blockers

### Alpha-1 Blockers of Concern

**Doxazosin (Cardura®)**

**Prazosin (Minipress®)**

**Terazosin (Hytrin®)**

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## WHY ARE THESE MEDICATIONS INAPPROPRIATE?

- As noted in the 2019 Beers Criteria, peripheral alpha-1 blocker medications are associated with an increased risk of orthostatic hypotension in older adults and hypotension related events such as syncope, falls, and fractures, particularly in the early use of these medications<sup>1,2</sup>
- **Doxazosin, prazosin, and terazosin** are not recommended for hypertensive management as they carry a higher risk of orthostatic hypotension, especially in older adults<sup>1,2</sup>

## APPROACH TO OPTIMIZATION

- Consider the indications for which these medications are being used. Common uses of alpha-1 blockers include treatment of hypertension, benign prostatic hyperplasia (BPH), kidney stones, or post-traumatic stress disorder (PTSD)
- Assess whether the patient's medication therapy can be optimized with other agents:
  - **Hypertension:** Preferred agents include angiotensin-converting enzyme (ACE) inhibitors/angiotensin II receptor blockers (ARBs), calcium channel blockers, or thiazide diuretics when appropriate<sup>2,3</sup>
  - **BPH:** Consider use of **tamsulosin, alfuzosin, or silodosin**, which carry lower risks of adverse effects such as orthostatic hypotension or syncope in older adults. 5-alpha-reductase inhibitors such as finasteride or dutasteride may also be an option<sup>4</sup>. Consider switching to these medications if appropriate.
  - **Kidney Stones:** Doxazosin and Terazosin may be used off-label to treat ureteral calculi (kidney stones). Consider using tamsulosin or alfuzosin, which have been shown to have similar efficacy<sup>5</sup>
  - **PTSD:** Prazosin may be used off-label to treat sleep disturbances in PTSD. In this case an appropriate alternative may not be available and clinical judgement should be used to determine whether patients should continue<sup>6</sup>



## ADDITIONAL BEST PRACTICES AND CONSIDERATIONS

### Considerations for use in hypertension<sup>2,7</sup>

- Encourage lifestyle modifications such as low sodium diet, regular physical activity as tolerated, smoking cessation, and stress reduction when possible
- If doxazosin, prazosin, or terazosin must be used, use minimum effective dose and consider deprescribing other medications that increase risk of hypotension or syncope if appropriate

### Considerations for use in BPH<sup>4</sup>

- Avoid concomitant use of other BPH agents that can potentiate hypotensive effects such as PDE-5 inhibitors like tadalafil
- It is noted that low-dose PDE-5 inhibitors and alpha blockers together do not offer therapeutic advantages in symptom management over monotherapy

## REFERENCES

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