ACTIVE LEARNING TEMPLATE: Medication

STUDENT NAME BICH BUI

MEDICATION doxazosin (Cardura) REVIEW MODULE CHAPTER 35

CATEGORY CLASS Alpha$_1$ - Adrenergic Blockers, Antihypertensives

PURPOSE OF MEDICATION

Expected Pharmacological Action

Dilates both arteries and veins by blocking postsynaptic alpha$_1$-adrenergic receptors.

Therapeutic Use

- Hypertension (alone or with other agents) (immediate-release only)
- Symptomatic benign prostatic hyperplasia (BPH)

Complications

CNS: dizziness, headache, depression, drowsiness, fatigue, nervousness, weakness. EENT: abnormal vision, blurred vision, conjunctivitis, epistaxis, intraoperative floppy iris syndrome. Resp: dyspea. CV: first-dose orthostastic hypotension, arrhythmias, chest pain, edema, palpitation. GI: abdominal discomfort, constipation, diarrhea, dry mouth, flatulence, nausea, vomiting. GU: ↓ libido, priapism, sexual dysfunction Derm: flushing, rash, urticaria. MS: arthralgia, arthritis, gout, myalgia

Contraindications/Precautions

- Contraindicated in: Hypersensitivity.
- Use cautiously in: Hepatic dysfunction; Gastrointestinal narrowing (XL only); Geri: Appears on Beer list. Geriatric patients are at ↑ risk for hypotension; OB, Laction, Pedi: Safety not established; Patients undergoing cataract surgery (↑ risk of intraoperative floppy iris syndrome)

Interactions

- Drug-Drug: ↑ risk of hypotension with sildenafil, tadalafil, other antihypertensive, nitrates, or acute ingestion of alcohol. NSAIDs, symathomimetics, or estrogens may ↓ effects of antihypertensive therapy

Evaluation of Medication Effectiveness

- Lowering of BP without apperance of side effects
- Increased urine flow and decreased symptoms of BPH

Medication Administration

- Hypertension: PO (Adults): 1mg once daily, may be gradually ↑ at 2 wk intervals to 2-16 mg/day; incidence of postural hypotension greatly ↑ at doses > 4mg/day
- Benign Prostatic Hyperplasia: PO (Adults): Immediate release - 1mg once daily, maybe ↑ every 1-2 wk up to 8mg/day; Extended release - 4mg once daily (with breakfast), may be ↑ in 3-4 wk to 8mg/da

Nursing Interventions

- Monitor BP and pulse 2-6 hr after first dose, with each increase in dose, and periodically during therapy. Report significant changes.
- Assess for first-dose orthostatic hypotension and syncope. Incidence may be dose related. Observe patient closely during this period and take precautio to prevent injury.
- Monitor intake and output ratios and daily weight, and assess for edema daily, especically at begin of the therapy. Report weight gain or edema
- BPH: Assess patient for symtoms of prostatic hyperp (urinary hesitation, feeling of incomplete bladder emtying, interruption of urinary stream, impairmen of size and force of urinary stream

Client Education

- Emphasize the importance of continuing to take this medication, even if feeling well
- Instruct patient to take medication at the same time each day. Take missed doses as soon as remembered unless almost time for next dose. Do not double dos
- May cause drowsiness or dizziness, advise patient to avoid driving or other activities requiring alertnes until response to medication is known.
- Change positions slowly to ↓ orthostatic hypotension
- Notify health care professional if priapism or erecti of longer than 4 hr occurs: may lead to permanent impotence if not treated
- Hypertension: proper technique for BP monitoring. Check BP at least weekly and report significant

ACTIVE LEARNING TEMPLATE:

System Disorder

STUDENT NAME Bich Bui

DISORDER/DISEASE PROCESS Benign Prostatic Hypertrophy (BPH) REVIEW MODULE CHAPTER 35

Alterations in Health (Diagnosis)

Benign Prostatic Hyperplasia (BPH)

Pathophysiology Related to Client Problem

- BPH is a common disorder in older men, estimated 50% of men over 65 years experiencing from mild to severe. Although called hypertrophy, is actually hyperplasia of prostatic tissue with formation of nodules surrounding the urethra. Leads to compression of urethra and variable degrees of urinary obstruction → imbalance between estrogen and testoterone → hormonal changes at aging
- Retal examination reveal enlarged gland: Incomplete emptying of the bladder. Continued obstruction: dilated ureter, hydronephrosis, possible renal damage

Health Promotion and Disease Prevention

- ↓ fat and red meat intakes
- ↑ protein and vegetables intakes
- Regular alcohol consumption ↓ symptomatic (but interpreted cautiously, given the untoward effects of excessive alcohol consumption)

ASSESSMENT

Risk Factors

- Age 40 or older
- Family history of BPH (father or brother)
- Ethnic background - BPH is less common in Asian men than in White and African American men; African American are more likely to develope BPH at younger ages than white men
- History of chronic health problems (e.g. obesity, type 2 diabetes, heart disease
- Lack of exercise
- Erectile dysfunction

Expected Findings

The initial signs indicate obstruction of urinary flow. Hesitancy, dribbling, ↓ force of urinary stream are direct results of the narrowed urethra. Incomplete bladder emptying leads to frequency, nocturia, and recurrent urinary tract infection

Laboratory Tests

- Prostate specific antigen (PSA)
- Urinalysis (hematuria ?, infection ?)
- Urine culture
- BUN/Cr/GFR/electrolytes (Na, K) (renal dysfunction)

Diagnostic Procedures

- Digital rectal exam (DRE)
- Transrectal ultrasound
- Cystoscopy
- Urine flow/pressure studies
- Postvoid residual urine (PVR) studies
- Prostate biopsy

SAFETY CONSIDERATIONS

- Drug - Alcohol interactions
- Drug - Drug interaction
- Drug - Food interaction

PATIENT-CENTERED CARE

Nursing Care

- Monitor vital signs closly. Observe for hypertension, peripheral and dependent edema, changes in mentation. Weigh daily. Maintain accurate I&O
- Encourge patient to void every 2-4 hr and when urge is noted

Medications

- Alpha1-Adrenergic Blockers such as doxzoxin (Cardura)
- tamsulosin (Flomax)
- finasteride (Proscar)
- terazolin (Hytrin)
- alfuzosin (Uroxatral)
- silodosin (Rapaflo)
- DHT- and testosterone-blocking medications.
- Herbals like saw palmetto

Client Education

- Report difficulty passing urine to health-care provider
- Teach side effects: ↓ BP, feminization (DHT blockers)
- Fluid intake up to 3000 mL/day
- Have patient document time and amount of each voiding. Note diminished urinary output. Measure specific gravity as indicated

Therapeutic Procedures

- Watchful waiting
- phytotherapy
- Pharmacologic
- Minimally invasive surgeries
- Surgeries

Interprofessional Care

- Provide patient-centered BPH education
- Nutritional services

Complications

- Hydronephrosis, Hydroureter
- Bladder calculi
- Bladder diverticulum
- Renal insufficiency or failure
- Urinary retention
- Destrusor hypertrophy (urinary incontinence worsening symtoms)