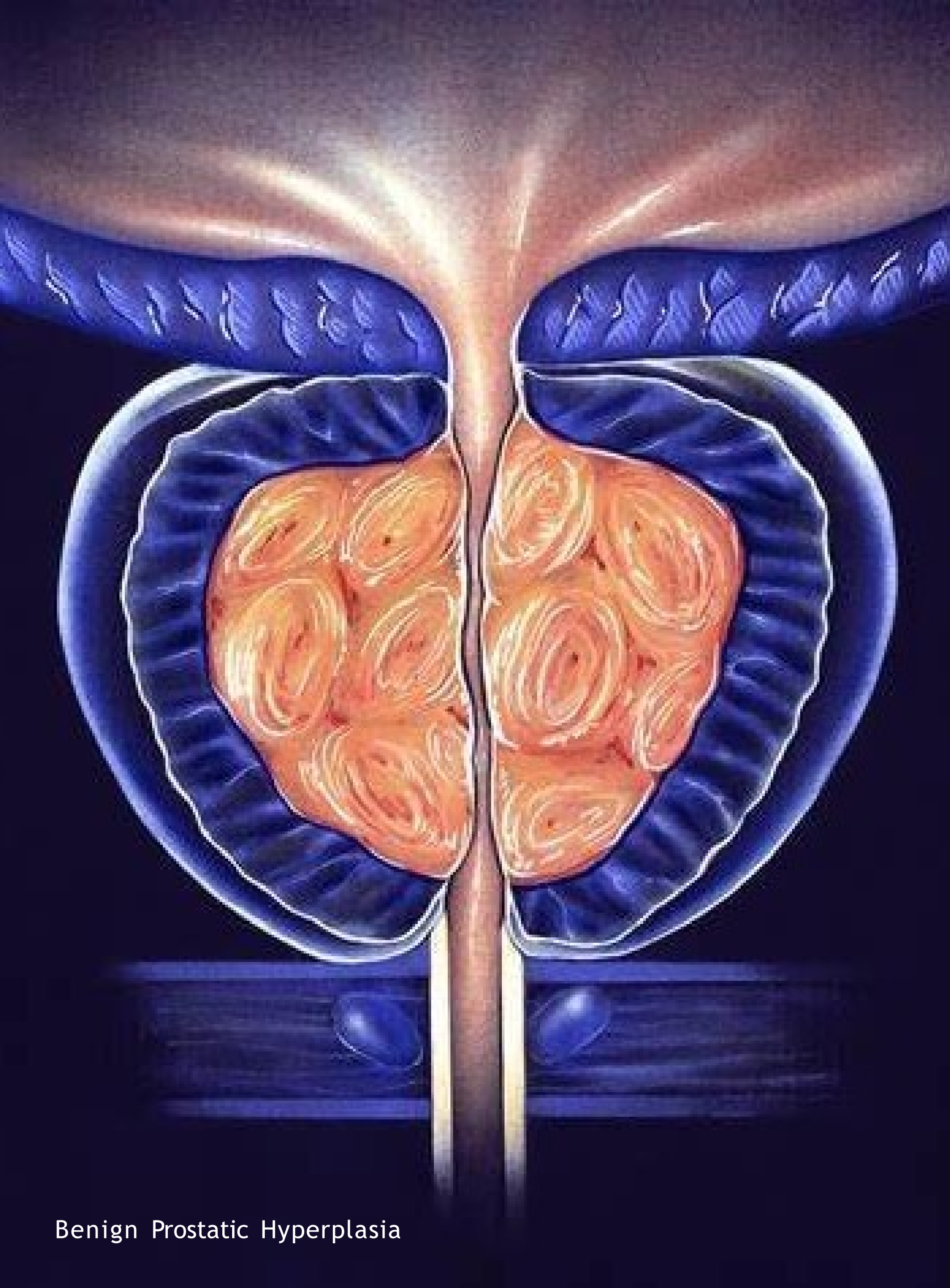
Clinical Practice Guidelines: Benign Prostatic Hyperplasia

- Chamberlain University: Adult Geriatric Primary Care Nurse Practitioner Program
- NR 576 Differential Diagnosis in Adult-Gerontology Primary Care
- Dr. Cid
- Due Date



Disease and Background

Benign Prostatic Hyperplasia

- Management of Benign Prostatic Hyperplasia/Lower Urinary Tract Symptoms (2021)
- Benign prostatic hyperplasia (BPH) is characterized by proliferation of glandular epithelial tissue in the prostatic transition zone
- Lower Urinary Tract Symptoms (LUTS)
- Hyperplasia – increase in the number of cells (Lerner et al., 2021)

Incidence and Prevalence

Begins to enlarge at 40-45 years

60% at age 60

80% at age 80 (Lerner et al., 2021)

Pathophysiology

- 2 mains sections
  - inner section
  - outer section
- Hyperplasia
  - 5-alpha reductase
  - Dihydrotestosterone (Lerner et al., 2021)

Clinical Presentation

Subjective

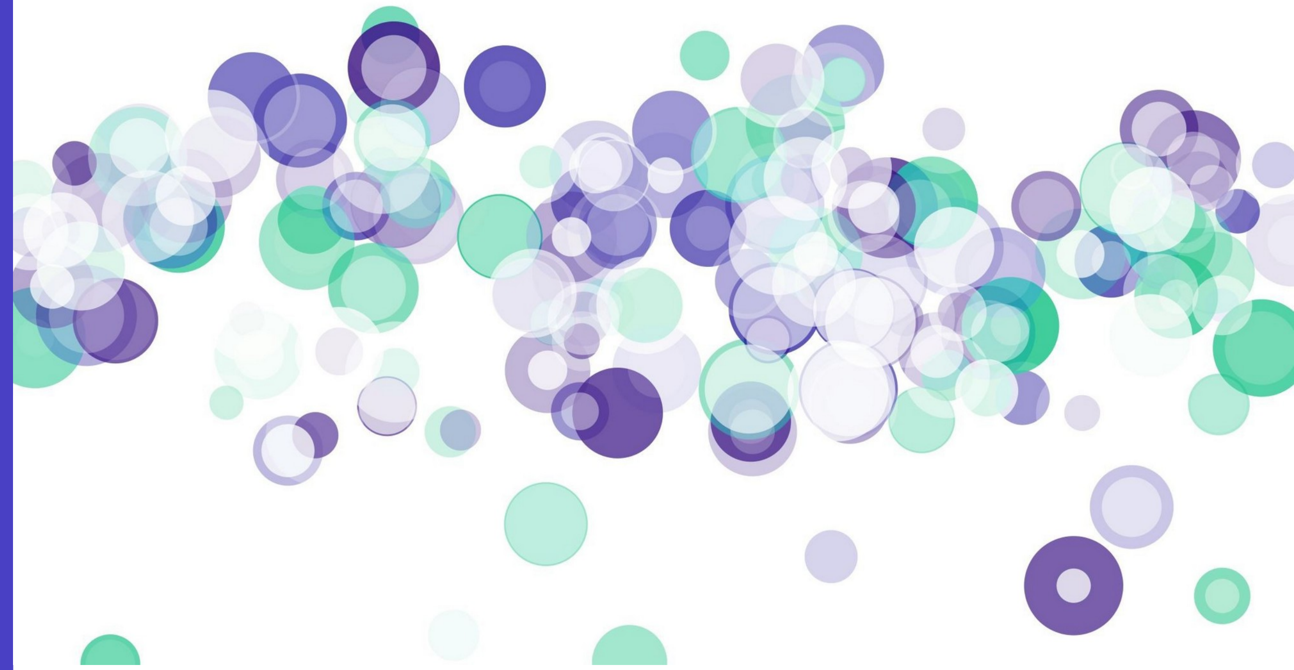
- Decreased force of stream
- Hesitancy
- Post-void dribbling
- Sensation of incomplete emptying
- Overflow or Urge incontinence
- Inability to voluntarily stop stream of urine
- Urinary retention
- Straining
- Nocturia
- Frequency
- Urgency
- Dysuria

Clinical Presentation

Objective

- Distended Bladder
- Gross Hematuria
- Perform Digital

Applicability in Primary Care



- Lerner, et al.
- American Urological Association
- 2021 in The Journal of Urology
- No revisions to current guidelines

Applicability in Primary Care

Symptoms discovered when collecting medical history and physical exam.

Differential diagnosis:

-

Comprehensive physical exam focusing on genitourinary system

-

Labs: Urine sample, PSA testing

Initial treatment and referral to Urologist

Guideline Statement

Initial Evaluation

IPSS questionnaire

Over the past month, how often have you…	Not at all	Less than 1 time in 5	Less than half the time	About half the time	More than half the time	Almost always	YOUR SCORE
1. …had a sensation of not emptying your bladder completely after you finish urinating?	0	1	2	3	4	5	
2. …had to urinate again less than two hours after you finished urinating?	0	1	2	3	4	5	
3. …stopped and started again several times when you urinated?	0	1	2	3	4	5	
4. …found it difficult to postpone urination?	0	1	2	3	4	5	
5. …had a weak urinary stream?	0	1	2	3	4	5	
6. …had to push or strain to begin urination?	0	1	2	3	4	5	
7. Over the past month, how many times did you most typically get up to urinate from the time you went to bed at night until the time you got up in the morning?	None	Once	Twice	3 times	4 times	5 times or more	
						TOTAL	

8. QUALITY OF LIFE DUE TO URINARY SYMPTOMS
If you were to spend the rest of your life with your urinary condition the way it is now, how would you feel about that?

Delighted	Pleased	Mostly satisfied	Mixed – about equally satisfied & dissatisfied	Mostly dissatisfied	Unhappy	Terrible
0	1	2	3	4	5	6

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- Presents with bothersome LUTS
- Conduct physical exam
- Utilize International Prostate Symptom Score (IPSS)
- Urinalysis.
- Present to primary care initially.
- Rule-out others causes of symptoms.
- 1st line treatment is behavioral modification and/or medications
- Counsel on supplements and variable results.

Guideline Statement

Follow-up Evaluation

- Patients should be evaluated by providers 4-12 weeks after initiating treatment.

- For alpha blockers, beta-3 agonists, PDE5's and anticholinergics follow-up should be at 4 weeks.

- Assess patient satisfaction with the improvement of symptoms

Guideline Statement

Alpha Blockers

- When symptoms are bothersome, the clinician should offer an alpha blocker such as:
  - Alfuzosin, doxazosin, silodosin, tamsulosin, or terazosin.
- Decision should be based on patients age, comorbidities, and adverse Effects
- Terazosin and Doxazosin are approved for hypertension and BPH.
- Tamsulosin, Alfuzosin, and Silodosin have lower potential for orthostatic hypotension and syncope

Guideline Statement

5-Alpha Reductase Inhibitor (5-ARI)

- 5-Alpha Reductase Inhibitor monotherapy should be used for symptom improvement
- Example is Finasteride
- With LUTS/BPH with Prostatic enlargement
  - prostate volume of >30 cc on imaging
  - PSA >1.5 ng/dl
  - palpable prostate enlargement on DRE.
- Benefits: growth reduction and shrinking.
- Side effects: decrease in sexual function, gynecomastia, risk for prostate cancer

Phosphodiesterase-5 Inhibitor (PDE5)

- For patients with LUTS/BPH
- Tadalafil 5 mg daily should be discussed as a treatment option for men with erectile dysfunction

Application to Clinical

- 75 year old male seen at office for follow up of hypertension. He also voiced complaints of Nocturia (5/night), urgency, frequency and then only voiding small amounts.
- Urine was tested and was unremarkable. Physical exam was unremarkable. He had been diagnosed with BPH in the past but never required medication, “it wasn’t bad enough.” Now the symptoms are bothersome.

Application to Clinical

What could have been done different/better?

- Review of systems revealed that patient was having nocturia that was affecting his sleep
- Urinalysis was completed to rule-out UTI and hematuria
- A DRE would have been done if the patient had consented
- Should have completed IPSS Questionnaire

Lerner, L., McVary, K., & Barry, M. (2021). Management of lower urinary tract symptoms attributed to benign prostatic hyperplasia: Aua guideline part i, initial work-up and medical management. Journal of Urology, 206(5), 1339-1339. Retrieved June 15, 2023, from https://doi.org/10.1097/ju.0000000000002231

Thank you