Body System: Reproductive-Male

Session Topic: Benign Prostatic Hyperplasia (BPH)

Educational Format		Faculty Expertise Required
REQUIRED	Interactive Lecture	Expertise in the field of study. Experience teaching in the field of study is desired. Preferred experience with audience response systems (ARS). Utilizing polling questions and engaging the learners in Q&A during the final 15 minutes of the session are required.
OPTIONAL	Problem-Based Learning (PBL)	Expertise teaching highly interactive, small group learning environments. Case-based, with experience developing and teaching case scenarios for simulation labs preferred. Other workshop-oriented designs may be accommodated. A typical PBL room is set for 50-100 participants, with 7-8 each per round table. Please describe your interest and plan for teaching a PBL on your proposal form.

Professional Practice Gap	Learning Objective(s) that will close the gap and meet the need	Outcome Being Measured
• New pharmacotherapies and technologies continue to evolve, impacting treatment algorithms in AUA guidelines on the management of BPH. • Physicians have knowledge gaps with regard to BPH screening, clinical history, and examination findings for diagnosis. • Differential diagnosis among prostate diseases is complicated. • Physicians have knowledge gaps with regard to BPH pharmacologic treatment. • Physicians have knowledge gaps with regard to BPH coordination of care with other health care providers. • Patients often have poor adherence to BPH pharmacotherapy. • There are differences between BPH clinical practice guidelines.	1. Perform a differential diagnosis to distinguish between prostatitis, BPH, and other urologic conditions in male patients. 2. Coordinate referral and follow-up care with other specialists (e.g. urologist, surgical) when red flags identified during diagnosis and evaluation indicate necessity. 3. Use current evidence-based recommendations to determine appropriate pharmacologic, surgical, CAM, or watchful waiting treatment strategy. 4. Develop collaborative care plans with patients, emphasizing adherence to prescribed pharmacotherapies.	Learners will submit written commitment to change statements on the session evaluation, indicating how they plan to implement presented practice recommendations.

ACGME Core Competencies Addressed (select all that apply)

 Last modified 6-10-15

X	Medical Knowledge		Patient Care
X	Interpersonal and Communication Skills		Practice-Based Learning and Improvement
	Professionalism		Systems-Based Practice

Faculty Instructional Goals

Faculty play a vital role in assisting the AAFP to achieve its mission by providing high-quality, innovative education for physicians, residents and medical students that will encompass the art, science, evidence and socio-economics of family medicine and to support the pursuit of lifelong learning. By achieving the instructional goals provided, faculty will facilitate the application of new knowledge and skills gained by learners to practice, so that they may optimize care provided to their patients.

- Provide up to 3 evidence-based recommended practice changes that can be immediately implemented, at the conclusion of the session; including SORT taxonomy & reference citations
- Facilitate learner engagement during the session
- Address related practice barriers to foster optimal patient management
- Provide recommended journal resources and tools, during the session, from the American Family Physician (AFP), Family Practice Management (FPM), and Familydoctor.org patient resources; those listed in the References section below are a good place to start
    - Visit http://www.aafp.org/journals for additional resources
    - Visit http://familydoctor.org for patient education and resources
- Provide tools, resources, and strategies to foster the implementation of evidence-based prostatitis and BPH guidelines into practice
- Provide specific strategies and resources to coordinate referral and follow-up care with other specialists (e.g. urologist, surgical) when red flags identified during diagnosis and evaluation indicate necessity
- Provide case-based examples illustrating appropriate treatment and management of BPH
- Provide recommendations for incorporating key updates to current clinical practice guidelines.
- Provide strategies and resources for developing collaborative care plans, emphasizing adherence to prescribed pharmacotherapies.

Needs Assessment

As men age, their risk of prostate diseases increases. This group of diseases comprises prostatitis (inflammation of the prostate), benign prostatic hyperplasia (BPH, or enlarged prostate) and prostate cancer.[1] More than half of all men in their 60s, and the majority of those in their 70s and 80s, experience symptoms of BPH,[1] and it is suggested that about 25 million American men at any time have BPH.[2] Estimates of the incidence and prevalence of prostatitis vary widely, in part because of the use of different definitions and in part because of interpatient variations in symptoms. Between 10% and 12% of men, however, are thought to experience prostatitis-like lower urinary tract symptoms (LUTS).[3]

Data from a recent American Academy of Family Physicians (AAFP) CME Needs Assessment survey indicate that family physicians have significant gaps in the medical knowledge necessary to optimally manage BPH.[4] More specifically, CME outcomes data from 2012-2014 AAFP Assembly: *Benign Prostatic Hyperplasia* sessions suggest that physicians need continuing

medical education with regard to BPH screening, including appropriate use of AUA symptom index; evidence-based recommendations for pharmacologic treatment; and coordination of care with other healthcare providers involved in the management of patients with BPH.[5,6]

Physicians may improve their care of patients with BPH, LUTS, and prostatitis by engaging in continuing medical education that provides practical integration of current evidence-based guidelines and recommendations into their standards of care, including, but not limited to the following:[7,8]

- Physicians should obtain a history and perform a physical examination, including digital rectal examination and assessment for bladder distention and neurologic impairment, to rule out causes of lower urinary tract symptoms independent of BPH.
- Recommended tests for men with symptoms of BPH include serum prostate-specific antigen and urinalysis.
- Alpha blockers are effective first-line treatments for patients with bothersome, moderate to severe BPH symptoms.
- The addition of a 5-alpha reductase inhibitor is effective in men with bothersome, moderate to severe BPH symptoms and a documented enlarged prostate when alpha-blocker monotherapy is not effective.
- Complementary and alternative treatments (e.g., saw palmetto) are not recommended for the management of BPH.
- Men with suspected BPH can be evaluated with a validated questionnaire to quantify symptom severity.
- In men with symptoms of BPH, a digital rectal examination and urinalysis should be performed to screen for other urologic disorders.
- Watchful waiting with annual follow-up is appropriate for men with mild BPH.
- Alpha blockers provide symptomatic relief of moderate to severe BPH symptoms.
- In men with a prostate volume greater than 40 mL, 5-alpha reductase inhibitors should be considered for the treatment of BPH.
- Refer patients for a surgical consultation if medical therapy fails; the patient develops refractory urinary retention, persistent hematuria, or bladder stones; or the patient chooses primary surgical therapy.

A differential diagnosis among prostate diseases is complicated by the fact that this “disease” itself actually comprises several different conditions.[9] Not only is the differential diagnosis complicated by the subclasses of prostatitis; it is also difficult because of the various non-prostate-related conditions that must be ruled out. These include acute cystitis, benign prostatic hyperplasia, urinary tract stones, bladder cancer, prostatic abscess, enterovesical fistula, and foreign body within the urinary tract, and diseases that can cause LUTS, such as diabetes and Parkinson’s disease.[9-11] Another factor affecting differential diagnosis is that the three prostate conditions share several common symptoms, including trouble passing urine and/or a weak stream or small amount of passed urine despite strong and frequent urges to urinate.

Additionally, prostatitis and prostate cancer can both cause painful urination and/or painful ejaculation.[1] Moreover, although the three prostate conditions have not been proven to be mutually causative, an association was observed in the California Men’s Health Study between prolonged prostatitis symptoms and an increased risk of prostate cancer.[12] Some studies suggest

that primary care physicians are not familiar with the National Institutes of Health (NIH) classification scheme for chronic prostatitis/chronic pelvic pain syndrome (CP/CPPS).[13] Family physicians should follow evidence-based recommendations and guidelines for the diagnosis and treatment of prostatitis.

BPH is a common condition affecting older men, and typically presents with symptoms such as urinary hesitancy, weak stream, nocturia, incontinence, and recurrent urinary tract infections.[8] Family physicians should be knowledgeable of the American Urological Association Symptom Index for the objective assessment of symptom severity. There are a number of surgical and pharmacologic treatment options, and some limited evidence that some complementary and alternative (CAM) therapies may also relieve some symptoms.[8] Family physicians should follow evidence-based recommendations and guidelines for the diagnosis and management of BPH. As watchful waiting is recommended in men who have mild symptoms, physicians should be prepared to monitor these patients annually for symptom progression.[8]

Experts in urology believe that family physicians should be able to diagnose and treat simple cases of BPH. In addition, family physicians should know when it is appropriate to refer patients to urologists or oncologists.[14] There exist differences, however, in the way urologists and primary care physicians approach the evaluation and management of LUTS due to BPH, which is not reflected in Canadian Urological Association (CUA) and AUA guidelines; therefore, a "shared care" approach involving urologists and primary care physicians represents a reasonable and viable model for the care of men suffering from LUTS.[10,11] Primary care physicians need to be aware of all possibilities when a patient presents with LUTS, utilize the appropriate diagnostic tools and assess their results accurately. Men with hematuria should be evaluated for bladder cancer, and men with a palpable nodule or induration of the prostate requires referral for assessment to rule out prostate cancer.[8] While non-modifiable risk factors (e.g. age, genetics, geography) play important roles in the etiology of PBH, recent data have revealed modifiable risk factors that present new opportunities for treatment and prevention, including sex steroid hormones, the metabolic syndrome and cardiovascular disease, obesity, diabetes, diet, physical activity and inflammation.[15] Additionally, new pharmacotherapies and technologies continue to evolve, impacting treatment algorithms in American Urological Association (AUA) guidelines on the management of BPH.[16] The AUA guidelines highlight the importance of medical therapy to prevent disease progression, as well as symptom relief; however, there is often poor adherence to chronic pharmacotherapy for BPH.[17,18] Physicians can improve patient adherence by utilizing collaborative care plans and health coaching, establish systems to monitor and measure adherence, establish protocols to coordinate care with other health care providers, and take steps to improve physician-patient communication.[19-26] Physicians need continuing medical education to implement guideline updates into practice.

Resources: Evidence-Based Practice Recommendations/Guidelines/Performance Measures

- Common questions about the diagnosis and management of benign prostatic hyperplasia[7]
- Diagnosis and Management of Benign Prostatic Hyperplasia[8]
- Prostatitis: Diagnosis and Treatment[9]
- Update on AUA guideline on the management of benign prostatic hyperplasia[16]
- (CUA) Diagnosis and management of benign prostatic hyperplasia in primary care[10,11]

- Prostatitis and chronic pelvic pain syndrome. In: Guidelines on urological infections[27]
- Lower urinary tract symptoms. The management of lower urinary tract symptoms in men[28]
- Medication adherence: we didn't ask and they didn't tell[22]
- Engaging Patients in Collaborative Care Plans[23]
- Health Coaching: Teaching Patients to Fish [24]
- Simple tools to increase patient satisfaction with the referral process[25]
- The benefits of using care coordinators in primary care: a case study [26]
- FamilyDoctor.org. Benign Prostatic Hyperplasia | Overview (patient resource)[29]

References

1. National Cancer Institute. Understanding Prostate Changes: A Health Guide for Men. 2009; http://www.cancer.gov/cancertopics/screening/understanding-prostate-changes/page1. Accessed May, 2013.

2. Rosenberg MT, Staskin DR, Kaplan SA, MacDiarmid SA, Newman DK, Ohl DA. A practical guide to the evaluation and treatment of male lower urinary tract symptoms in the primary care setting. *International journal of clinical practice.* Sep 2007;61(9):1535-1546.

3. National Institute of Diabetes and Digestive and Kidney Diseases. Prostatitis: disorders of the prostate. U.S. Department of Health and Human Services. NIH Publication no. 08-4553. 2008; http://kidney.niddk.nih.gov/kudiseases/pubs/prostatitis/. Accessed May, 2013.

4. AAFP. 2012 CME Needs Assessment: Clinical Topics. American Academy of Family Physicians; 2012.

5. American Academy of Family Physicians (AAFP). 2012 AAFP Scientific Assembly: CME Outcomes Report. Leawood KS: AAFP; 2012.

6. American Academy of Family Physicians (AAFP). 2013 AAFP Scientific Assembly: CME Outcomes Report. Leawood KS: AAFP; 2013.

7. Pearson R, Williams PM. Common questions about the diagnosis and management of benign prostatic hyperplasia. *American family physician.* Dec 1 2014;90(11):769-774.

8. Edwards JL. Diagnosis and management of benign prostatic hyperplasia. *American family physician.* May 15 2008;77(10):1403-1410.

9. Sharp VJ, Takacs EB, Powell CR. Prostatitis: diagnosis and treatment. *American family physician.* Aug 15 2010;82(4):397-406.

10. Tanguay S, Awde M, Brock G, et al. Diagnosis and management of benign prostatic hyperplasia in primary care. *Canadian Urological Association journal = Journal de l'Association des urologues du Canada.* Jun 2009;3(3 Suppl 2):S92-S100.

11. Nickel JC, Mendez-Probst CE, Whelan TF, Paterson RF, Razvi H. 2010 Update: Guidelines for the management of benign prostatic hyperplasia. *Canadian Urological Association journal = Journal de l'Association des urologues du Canada.* Oct 2010;4(5):310-316.

12. Rosenberg MT, Miner MM, Riley PA, Staskin DR. STEP: simplified treatment of the enlarged prostate. *International journal of clinical practice.* Mar 2010;64(4):488-496.

13. Calhoun EA, Clemens JQ, Litwin MS, et al. Primary care physician practices in the diagnosis, treatment and management of men with chronic prostatitis/chronic pelvic pain syndrome. *Prostate cancer and prostatic diseases.* 2009;12(3):288-295.

14. Nickel JC. Do more BPH patients mean more urologists or just better management strategies? *Canadian Urological Association journal = Journal de l'Association des urologues du Canada.* Apr 2010;4(2):127-128.

15. Patel ND, Parsons JK. Epidemiology and etiology of benign prostatic hyperplasia and bladder outlet obstruction. *Indian journal of urology : IJU : journal of the Urological Society of India.* Apr 2014;30(2):170-176.

16. McVary KT, Roehrborn CG, Avins AL, et al. Update on AUA guideline on the management of benign prostatic hyperplasia. *The Journal of urology.* May 2011;185(5):1793-1803.

17. Gruschkus S, Poston S, Eaddy M, Chaudhari S. Adherence to 5-alpha reductase inhibitor therapy for benign prostatic hyperplasia: clinical and economic outcomes. *P & T : a peer-reviewed journal for formulary management.* Aug 2012;37(8):464-470.

18. Nichol MB, Knight TK, Wu J, Barron R, Penson DF. Evaluating use patterns of and adherence to medications for benign prostatic hyperplasia. *The Journal of urology.* May 2009;181(5):2214-2221; discussion 2221-2212.

19. National Guideline Clearinghouse. Medicines adherence. Involving patients in decisions about prescribed medicines and supporting adherence. http://www.guideline.gov. Accessed August, 2014.

20. National Guideline C. Best evidence statement (BESt). Electronic reminders to address adherence. http://www.guideline.gov/content.aspx?id=36877&search=patient+adherence. Accessed 8/17/2012.

21. National Guideline Clearinghouse. Guideline recommendations and their rationales for the treatment of adult patients. In: Shared decision-making in the appropriate initiation of and withdrawal from dialysis, 2nd edition. http://www.guideline.gov/content.aspx?id=24176&search=patient+adherence+and+shared+decision+making. Accessed 8/17/2012.

22. Brown M, Sinsky CA. Medication adherence: we didn't ask and they didn't tell. *Family practice management.* Mar-Apr 2013;20(2):25-30.

23. Mauksch L, Safford B. Engaging Patients in Collaborative Care Plans. *Family practice management.* 2013;20(3):35-39.

24. Ghorob A. Health Coaching: Teaching Patients to Fish. *Family practice management.* 2013;20(3):40-42.

25. Jarve RK, Dool DW. Simple tools to increase patient satisfaction with the referral process. *Family practice management.* Nov-Dec 2011;18(6):9-14.

26. Mullins A, Mooney J, Fowler R. The benefits of using care coordinators in primary care: a case study. *Family practice management.* Nov-Dec 2013;20(6):18-21.

27. Grabe M, Bishop MC, Bjerklund-Johansen TE, et al. Prostatitis and chronic pelvic pain syndrome. In: Guidelines on urological infections. 2011; http://www.guideline.gov/content.aspx?id=14811&search=prostatitis. Accessed 5/23/2013.

28. National Clinical Guideline Centre for Acute and Chronic Conditions. Lower urinary tract symptoms. The management of lower urinary tract symptoms in men. 2010;

http://www.guideline.gov/content.aspx?id=23805&search=prostatitis. Accessed 5/23/2013.

29. FamilyDoctor.org. Benign Prostatic Hyperplasia | Overview. 2000; http://familydoctor.org/familydoctor/en/diseases-conditions/benign-prostatic-hyperplasia.html. Accessed August, 2013.

