Body System: Reproductive-Male

Session Topic: Evaluation of Scrotal Masses

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
• Knowledge and practice gaps with regard to evidence-based recommendations for PSA screening; counseling patients regarding the risks and benefits of PSA testing; differential diagnosis of scrotal mass, or testicular pain; evidence-based recommendations for ordering diagnostic tests; and management of testicular torsion (e.g. manual detorsion); diagnosis of testicular cancer. • Nearly 1 in 5 family physicians would like additional training in ultrasonography	1. Examine scrotal masses to determine whether they are benign or malignant and suggest the next steps in treatment. 2. Identify testicular torsion based on symptoms and risk factors and treat the condition in a timely manner. 3. Counsel patients on the necessity of self-examination for testicular changes or abnormalities, as well as the importance of receiving timely and appropriate medical attention. 4. Identify possible symptoms of penile and testicular cancer and recommend further testing, such as biopsies and ultrasounds, to ensure an early diagnosis and effective treatment.	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)

X	Medical Knowledge		Patient Care
	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 recommendations for examining and evaluating scrotal masses to determine whether they are benign or malignant and suggest the next steps in treatment.
- Provide strategies for identifying testicular torsion based on symptoms and risk factors and treat the condition in a timely manner.
- Provide recommendations for counseling patients on the necessity of self-examination for testicular changes or abnormalities, as well as the importance of receiving timely and appropriate medical attention.
- Provide recommendations for identifying possible symptoms of penile and testicular cancer and recommend further testing, such as biopsies and ultrasounds, to ensure an early diagnosis and effective treatment.
- Provide recommendations regarding guidelines for Medicare reimbursement.
- Provide recommendations to maximize office efficiency and guideline adherence to the diagnosis and management of scrotal mass issues.
- Provide an overview of newly available treatments, including efficacy, safety, contraindications, and cost/benefit relative to existing treatments.

Needs Assessment

Scrotal masses are a common presentation in primary care, and a painful scrotum accounts for 1% of emergency department visits.[1] Patients may also present with a painless testicular mass, scrotal heaviness, a dull ache, or acute pain. Physicians should understand the risk factors for testicular cancer, and how to diagnose the conditions, as this condition is the most common malignancy in men 20 to 35 years of age and has an annual incidence of four per 100,000.[2] However, scrotal complaints can be challenging to diagnose because of overlapping signs and symptoms among various presentations.[3]

Data from a recent American Academy of Family Physicians (AAFP) CME Needs Assessment survey indicate that family physicians have statistically significant and meaningful gaps in the medical skill necessary to provide optimal management of neoplastic conditions of the male genital tract, testicular disease, testicular torsion, and testicular cancer.[4] More specifically, CME outcomes data from 2013-2012 AAFP Assembly (currently FMX) *Neoplastic Disease of the Male Genital Tract* sessions, suggest that physicians have knowledge and practice gaps with

regard to evidence-based recommendations for PSA screening; counseling patients regarding the risks and benefits of PSA testing; differential diagnosis of scrotal mass, or testicular pain; evidence-based recommendations for ordering diagnostic tests; and management of testicular torsion (e.g. manual detorsion); diagnosis of testicular cancer.[5,6]

Physicians may improve their care of patients presenting with acute scrotal pain or a scrotal mass 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:[2,7-10]

- Epididymitis/orchitis should be suspected in patients with testicular pain and a C-reactive protein level of more than 24 mg per L (228.6 nmol per L).
- Any patient presenting with acute scrotal pain and a mass or swelling should be evaluated for testicular torsion by scrotal ultrasonography or surgical exploration within six hours of symptom onset.
- Testicular torsion should be suspected in patients with rapid onset of acute unilateral scrotal pain and swelling, nausea or vomiting, high position of the testicle, and an abnormal cremasteric reflex.
- Scrotal Doppler ultrasonography is the imaging study of choice to aid in the diagnosis of testicular torsion; however, prompt referral should not be delayed to perform this study.
- Immediate surgery should be performed if testicular torsion is suspected, and should not be delayed by imaging studies if physical examination findings are strongly suggestive.
- Manual detorsion should be attempted if surgery is not an immediate option; however, prompt referral should not be delayed to perform this maneuver.
- The AAFP recommends against screening for testicular cancer in asymptomatic adolescent or adult males
- Routine physician screening and monthly self-examinations to detect testicular cancer are not recommended in asymptomatic patients.
- Scrotal ultrasonography should be the first diagnostic test in patients with a testicular mass.
- An intratesticular mass should be considered testicular cancer until proved otherwise.
- After definitive treatment for testicular cancer, the primary care physician should monitor the patient for recurrence, infertility, second malignancy, and cardiac disease.
- Because of the risk of infertility, patients should be encouraged to bank sperm, if possible, before undergoing treatment for testicular cancer.

These recommendations are provided only as assistance for physicians making clinical decisions regarding the care of their patients. As such, they cannot substitute for the individual judgment brought to each clinical situation by the patient's family physician. As with all clinical reference resources, they reflect the best understanding of the science of medicine at the time of publication, but they should be used with the clear understanding that continued research may result in new knowledge and recommendations. These recommendations are only one element in the complex process of improving the health of America. To be effective, the recommendations must be implemented. As such, physicians require continuing medical education to assist them with making decisions about specific clinical considerations.

While ultrasonography is the imaging study of choice, physicians do have some knowledge gaps regarding the optimal use of this diagnostic tool. In a recent AAFP CME Needs Assessment Survey of Common Medical Procedures, nearly 1 in 5 family physicians would like additional training in ultrasonography.[11]

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

- Testicular torsion: diagnosis, evaluation, and management[8]
- Evaluation of scrotal masses[9]
- Diagnosis and treatment of testicular cancer[2]
- Adding health education specialists to your practice[12]
- Envisioning new roles for medical assistants: strategies from patient-centered medical homes[13]
- The benefits of using care coordinators in primary care: a case study[14]
- Engaging Patients in Collaborative Care Plans[15]
- Encouraging patients to change unhealthy behaviors with motivational interviewing[16]
- Integrating a behavioral health specialist into your practice[17]
- How to Help Your Patients Choose Wisely[18]
- Simple tools to increase patient satisfaction with the referral process[19]
- Testicular Torsion | Overview (patient education)[20]
- Testicular Cancer | Overview (patient education)[21]

References

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2. Shaw J. Diagnosis and treatment of testicular cancer. *American family physician.* Feb 15 2008;77(4):469-474.

3. O'Reilly P, Le J, Sinyavskaya A, Mandel ED. Evaluating scrotal masses. *Journal of the American Academy of Physician Assistants.* 2016;29(2):26-32.

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.

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