Teaching Points—A 2-minute Mini-lecture

Aspirin Use

By Laura Lee Smith, MD, and Katherine Seawright, MD, Trident/MUSC Family Medicine Residency Program, North Charleston, SC

Editor’s note: The process of the 2-minute mini-lecture is to get a commitment, probe for supporting evidence, reinforce what was right, correct any mistakes, and teach general rules. Laura Lee Smith, MD, and Katherine Seawright, MD, who are graduating residents of the Trident/MUSC Family Medicine Residency Program in North Charleston, SC, coauthored this scenario. In this scenario, Dr Smith (Dr S) works with a third-year student (M3) in considering when to prescribe aspirin for cardiovascular risk reduction.

M3: Dr Smith, while we’re waiting for the next patient to come in, I wonder if I could ask you about the last two patients? I’m confused about aspirin.


M3: Both had diabetes and hypertension. Neither one has had a stroke.

Dr S: You are paying attention and trying to draw rules out of what we’re doing. That’s great. There won’t be just one study that we can rely upon. We’ll have to use an organization’s guidelines to help with this kind of a decision that pulls together all the research and makes a judgement call. Which organization’s recommendations do you like the best? Which guideline should we use?

M3: Well, on family medicine, I think most of my teachers like the United States Preventive Services Task Force (USPSTF). But, for diabetes, I hear most people refer to the American Diabetes Association (ADA).

Dr S: Right. Women less than 60 and men less than 50 with less than 10% risk of a cardiovascular event within 10 years should not be on aspirin.

M3: They said recently that patients under a certain age should NOT be on low dose aspirin.

Dr S: OK. But they don’t agree completely, do they? What does the ADA say?

M3: Yes! Show me.

Dr S: Ha. Caught you. There are a number of calculators, and the ADA does not recommend a specific one to use to calculate risk, not even its own calculator.

2. The UKPDS Risk Engine (http://www.dtu.ox.ac.uk/riskengine/)
3. The Diabetes PHD (Personal Health Decisions) from the ADA (http://www.diabetes.org/living-with-diabetes/complications/diabetes-phd/)
4. Heart to Heart (http://www.meddecisions.com/H2HV2/)

I had these calculators bookmarked because Dr Seawright and I presented a comparison of them recently at the STFM Annual Spring Conference. What do you think?

M3: The PHD one requires more than one screen of data entry, and you have to enter in medications. That process seems cumbersome.

Dr S: I agree. Why do you think different calculators ask for different information?

continued on page 2
Methacillin Resistant Staph Aureus: MRSA. We’re seeing it more and more in the outpatient setting in both adults and children. Also, in the inpatient setting, we’re seeing it from failure of outpatient treatment for cellulitis and abscesses. In February 2011, the Infectious Disease Society of America released an updated guideline on the treatment of MRSA infections.

The guideline discusses management of skin and soft tissue infections, endocarditis, pneumonia, bone and joint infections, and central nervous system infections. Persistent MRSA bacteremia and decolonization are also addressed. Please refer to the full guideline for topics beyond the skin and soft tissue infections that we commonly see in the outpatient setting.

In adults and children, uncomplicated abscesses should be preferentially treated with incision and drainage. Ultrasound-guided needle drainages of abscesses are not sufficient for cure. If drainage is adequate, antibiotics should not be necessary for MRSA (or methacillin sensitive staph). Antibiotics are recommended when there is associated surrounding cellulitis, rapid progression of infection, systemic symptoms such as fever, extremes of age, inability or difficulty in draining, and failure of incision and drainage alone. In adults, oral trimethoprim-sulfamethoxazole (TMP-SMX), a tetracycline, or clindamycin should be used. Linezolid is also an option but is far more expensive than the other alternatives, and resistance to TMP-SMX and tetracyclines is uncommon in community-acquired samples.

If coverage for beta-hemolytic strep is also desired, you should use clindamycin alone, TMP-SMX or a tetracycline with a beta-lactam (such as amoxicillin), or linezolid alone. Rifampin should never be used as a single agent and is not recommended as an adjuvant in uncomplicated infections. It is recommended that all patients with abscesses and purulent cellulitis that are treated with antibiotics are also cultured to determine the resistance pattern of the bacteria.
Helping You Teach Better—
The STFM Resource Library

Strategies and Tools to Teach Patient Centered Interactions: Blending Efficiency and Quality

This presentation uses (1) the rationale for teaching communication skills, (2) a model of communication, relationship, and efficiency, (3) some studies showing the value of direct observation in training, (4) the use of the Patient Centered Observation Form (PCOF), and (5) url for online training to use the PCOF.

Electronic Knowledge Resources at the Point of Precepting

This presentation focuses on the application of electronic knowledge resources to precepting residents in an ambulatory family medicine setting.

Medical Resources for your iPhone/iPod Touch

This is a handy list of software applications for iOS devices, namely the iPhone, iPod Touch, and iPad, which provide information and decision support in medical care.

References


Caryl Heaton, DO, UMDNJ-New Jersey Medical School, Editor

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Antibiotic Warning: Children < 8 years of age and pregnant women should not use tetracyclines. Pregnant women in the second or third trimester should not be given TMP-SMX or in infants < 2 months of age.

In patients with recurrent skin and soft tissue infections, proper attention to local wound care and hygiene should be stressed. They should not share towels, razors, linens. Also, high-touch areas (door knobs, counters, toilet seats) should be cleaned with a commercially available cleaner daily. Decolonization should only be considered if there is ongoing infection despite good personal and environmental hygiene or there is transmission to close contacts despite these measures.

Decolonization may be attempted in addition to maintaining the personal and environmental hygiene procedures through the use of nasal mupirocin twice daily for 5–10 days or nasal mupirocin plus topical chlorhexidine washes daily for 5–15 days or a diluted bleach bath for 15 minutes twice weekly for 3 months. Oral antibiotics may be added to the decolonization process only if the above methods have failed. In cases of failure of decolonization, oral rifampin may be added to the TMP-SMX, tetracycline, or clindamycin used for decolonization.

MRSA skin and soft tissue infections are increasingly common in the outpatient setting. Know how to appropriately manage them to avoid complications and hospitalizations.

MRSA Infections

continued from page 2


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References

Information Technology and Teaching in the Office
Effective Use of the Web-based and Mobile
American Family Physician by Topic

By Thomas Agresta, MD, MBI, University of Connecticut

The American Family Physician has been a source of educational articles and advice for generations of family physicians. It has grown with the discipline in its presentation of health care topics that are as far ranging in nature from hypertension to more obscure rheumatologic diseases. The authors have increasingly tackled their subjects in an evidence-based yet patient-centered fashion. This material is now available free of charge in a newly organized, more easily accessible format in both Web-based and mobile application versions (Iphone iOS and Android OS). All materials over 12 months old are free, with members of the American Academy of Family Physicians (AAFP) being able to view the current year as well.

The AFP by Topics is organized into 48 distinct and easily identifiable subject headings such as “Asthma, Genetics, Musculoskeletal Care, and Prenatal Care” that are presented in alphabetical order and lead to a standardized submenu of choices. These submenus are easy to rapidly navigate and help the user get to one of the approximately 20–40 articles per topic relatively quickly. Most have sections on general overview, causes or etiologies, specific populations, screening and diagnosis, treatment, and patient education. Some topics include subjects such as “Practice Improvement or Other AAFP Content” with links to other journals such as Family Practice Management. The Web-based and mobile applications have a common look and feel, which makes switching between them easy to tackle in a busy setting.

So, how can we use this in a busy clinical setting for teaching? I found that some of our own residents and students had downloaded the Iphone and Android mobile applications soon after they were available a few months ago. They would take the time to rapidly look up a particular patient care situation while rounding on patients in the hospital or in the office setting. The AAFP journal was familiar to them, with its predictable layout and format, and it engendered a sense of trust in the information provided. In discussions with some, they were using the content to do a quick read on a current patient situation but then to go back and read in more detail the additional material and associated articles. In other words, it was helping in filling in both the “Point of Care” and long-term knowledge needs of our learners. Since the learners were aware that many of the potential board test questions were taken from these subjects, they had an added incentive to use the resource as their learning tool.

To formalize this as part of a teaching process, one can demonstrate the software and Web sites to a learner while in the midst of trying to answer a clinical question of our own (demonstration of value is always one of the most powerful tools in education), then ask the learner to look up a particular subject or question they might have about a patient on rounds or in the office while in the midst of care. Use of the familiar tables such as “Key Recommendations for Practice,” evidence tables, or diagnostic algorithms can often be a starting point for quick point of care search. Then have learners return later to the topic and the other related articles to do additional reading that helps cement their understanding of a particular subject.

While the current versions of this Web site and application are not perfect (they would benefit from a search engine), they may have the added benefit of encouraging students and residents to join the AAFP to get the more current content, which requires a username and password. Go ahead and try out this resource: its free, easy to use, and may be an adaptable aid to your clinical care and teaching.

AAFP Website Version: http://aafp.org/afp/topics

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Capsaicin Gel and SAMe Improve Pain in Patients With Degenerative Joint Disease

Clinical Question: Are any complementary and alternative medicines effective in treating patients with degenerative joint disease?

Study Design: Systematic review

Funding: Government

Setting: Various (meta-analysis)

Synopsis: The authors searched multiple databases for English-language publications reporting randomized trials of complementary and alternative medicine (CAM) in treating patients with degenerative joint disease. They excluded studies of glucosamine or chondroitin sulfate since those have already been studied to death and widely reported. Two authors independently determined study inclusion. One reviewer extracted data from the studies, and a second reviewer double-checked the work. Ultimately, they included 56 studies. They found at least one study for 25 separate substances! The authors don’t try to pool data and only qualitatively summarize the various treatments. Overall, the quality of studies for most substances is limited, and there is substantial potential for publication bias. The authors report that the data on topical capsaicin and S-adenosyl methionine (SAMe) to be more robust. The authors identified five randomized controlled trials of capsaicin gel (with between 14 and 200 patients). In all the trials, capsaicin (range of concentration from 0.015% to 0.075%) was better than placebo in relieving pain. Six trials have evaluated SAMe (with between 36 and 493 patients), all using 1,200 mg per day. Only one trial included placebo; the rest used traditional pharmaceuticals for comparison. SAMe was equally effective as active treatments and more effective than placebo for pain and function. SAMe was better tolerated than active treatment and than placebo. Although most compounds studied were free of major adverse effects, willow bark and du huo ji sheng wan were associated with increased blood pressure and dizziness.

Bottom Line: The available data for most CAM in treating patients with degenerative joint disease is limited. Topical capsaicin and SAMe appear to be effective in treating pain, but even these data are limited and potentially subject to bias in favor of publishing positive results. (LOE = 1a-)


LOE—level of evidence. This is on a scale of 1a (best) to 5 (worst). 1b for an article about treatment is a well-designed randomized controlled trial with a narrow confidence interval.

Mark Ebell, MD, MS, Michigan State University, Editor

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**From the “Evidence-Based Practice” HelpDesk Answers Published by Family Physicians Inquiries Network (FPIN)**

**Are Adults With Nocturia More Likely to Have Obstructive Sleep Apnea Than Adults Without Nocturia?**

By Shyama Gandhi, MD; Vikas Jain, MD; Toney L. Welborn, MD, MS; Cheryl B. Aspy, PhD; Family Medicine Residency Program, University of Oklahoma Health Sciences Center

Evidence-based Answer

There appears to be an association between frequency of nocturia and the severity of sleep apnea in both older men and women. (SOR: B, based on two cohort studies.) It is unclear under what conditions a complaint of nocturia should prompt an evaluation for sleep apnea.

In a prospective cohort study, 58 independent older adults (median age 77.7 years, 76% female) with severe sleep-disordered breathing were asked to keep a voiding diary for 72 hours and then undergo a sleep study. The subjects were grouped according to their apnea-hypopnea index (AHI), defined by the number of apneas and hypopneas that occurred during each hour of sleep. Overall, 45% of subjects had an AHI <10, 36% had an AHI 10 to 24, and 19% had an AHI >25. The mean number of nocturia episodes was significantly greater in the group with an AHI >25 (2.6 episodes) than the other two groups (1.6–1.7 episodes; \( P = .028 \)).

In a prospective longitudinal cohort study,100 perimenopausal women were identified with nocturia and compared with 200 women without nocturia. The women were asked to complete a questionnaire that included obstructive sleep apnea symptoms, measured using the multivariable apnea risk assessment (MAP) index.3

Scores on the MAP range from 0 to 1, and a mean score of 0.50 has an 80% positive predictive value for diagnosing obstructive sleep apnea. In the women with nocturia, the mean MAP index score was 0.9, compared with 0.34 in the women without nocturia (OR 2.18; 95% CI, 1.58–3.02).2

**References**


SOR—strength of recommendation

LOE—level of evidence

Jon O. Neher, MD, University of Washington, Editor

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