



# The Teaching Physician

*for those who teach students and residents in family medicine*

Volume 5, Issue 1

January 2006

## POEMs for the Teaching Physician

### Antibiotics With Atypical Bacteria Coverage Unnecessary

**Clinical Question:** In adults admitted for treatment of community-acquired pneumonia, is an antibiotic for atypical organisms more effective than beta-lactam-only treatment?

**Setting:** Inpatient (any location)

**Study Design:** Meta-analysis (randomized controlled trials)

**Synopsis:** The researchers conducting this Cochrane Library meta-analysis sought to determine the benefit of empirical treatment of community-acquired pneumonia with an antibiotic regimen providing coverage of atypical pathogens (that is, *Mycoplasma pneumoniae*, *Chlamydia pneumoniae*, and *Legionella pneumophila*), compared with treatment aimed primarily against *Streptococcus pneumoniae*, the most common pathogen. The authors searched the Cochrane Library, MEDLINE, and EMBASE for studies that directly compared these two types of antibiotic regimens. They also looked for additional studies in reference lists of identified studies. Two reviewers independently extracted the data from the studies. The authors found 24 studies enrolling 5,015 hospitalized adults. They were unable to find any research comparing the combination of macrolide and beta-lactam antibiotics with a beta-lactam antibiotic alone. All but one of the studies compared a quinolone drug or macrolide drug as single therapy with a beta-lactam treatment such as amoxicillin or cef-

triaxone (Rocephin). There was no difference in mortality within 30 days when comparing coverage for atypicals with coverage with a beta-lactam, either overall or for any specific drug. Clinical treatment failures were similarly the same. Study results were homogeneous, and the authors found no evidence of publication bias.

**Bottom Line:** Treating community-acquired pneumonia with antibiotics effective against atypical organisms is no better and no worse than treating with a penicillin or cephalosporin alone. (LOE = 1a)

Source article: Shefet D, Robenshtok E, Paul M, Leibovici L. Empirical atypical coverage for inpatients with community-acquired pneumonia. Systematic review of randomized controlled trials. *Arch Intern Med* 2005;165:1992-2000.

### Digital Mammography More Sensitive for Younger Women

**Clinical Question:** Is digital mammography more accurate than traditional film mammography?

**Setting:** Outpatient (any)

**Study Design:** Diagnostic test evaluation

**Funding:** Government

**Synopsis:** The authors enrolled 49,528 women, of whom 42,760 followed the protocol and had adequate follow-up information. The mean age of participants was 55 years, 84% were white, 28% were premenopausal, and

47% had dense breasts. All underwent both digital and film mammography (in random order), and each mammogram was independently and blindly interpreted by a different radiologist. Breast density was also rated, and patients had biopsy or aspiration of all suspicious-appearing lesions. Patients had a follow-up mammogram after 1 year. The reference standard was a pathologic diagnosis of breast cancer within 455 days of the initial mammogram. Patients were considered to be free of cancer if they had a negative biopsy result or if their 1-year follow-up mammogram was negative. Overall, this was a well-designed diagnostic comparison. A total of 335 cancers were diagnosed, 231 invasive and 103 ductal carcinoma in situ (DCIS). The area under the receiver operating characteristic curve (AUROCC) was used to compare the accuracy of digital and film mammography overall

### January 2006

*Volume 5, Issue 1*

How to Choose Your Newest PDA ..... 4

A Review of Contraception ..... 6

Teaching About Medical Mistakes..... 9

Evidence-based Strategies That Help Office-based Teachers Give Effective Feedback ..... 10

and for different subgroups (a higher AUROCC is better, with 1.0 being a perfect test). There was no significant difference in overall accuracy between digital and film mammography for the entire study population. However, digital mammograms were significantly more accurate than film mammograms for women younger than 50 years (AUROCC=0.84 versus 0.69), for women with heterogeneously dense or extremely dense breasts (AUROCC =0.78 versus 0.68), and for premenopausal or perimenopausal women (AUROCC=0.82 versus 0.67). The difference in accuracy as measured by the AUROCC was primarily due to increased sensitivity: after 1 year, 78% versus 51% for women younger than 50 years, 72% versus 51% for premenopausal and perimenopausal women, and 70% versus 55% for women with dense breasts. (The sensitivities are lower than those usually reported because the authors used a longer follow-up interval than usual, resulting in more false-negative results).

**Bottom Line:** Digital mammography is more sensitive than film mammography for women younger than 50, premenopausal and perimenopausal women, and women with dense breasts. It does not result in more unnecessary biopsies, but is between 1.5 times and four times as costly as film mammography. The survival benefit is almost certainly less impressive than the difference in accuracy. For example, if 10 in 10,000 premenopausal or perimenopausal women have cancer, using digital mammography will detect two additional cancers (72% versus 51% sensitivity). If the digital mammogram costs \$100 more, then we will have spent \$500,000 (10,000 x \$100/2) to detect one additional cancer. A formal cost effectiveness analysis is underway, and widespread adoption of this technology should await its completion. (LOE = 1b)

Source article: Pisano ED, Gatsonis C, Hendrick E, et al, for the Digital Mammographic Imaging Screening Trial (DMIST) Investigators Group. Diagnostic performance of digital versus film mammography for breast cancer screening. *N Engl J Med* 2005;353:1846-7.

### Silver Nitrate Relieves Pain of Aphthous Stomatitis

**Clinical Question:** Is silver nitrate a safe, effective way to relieve the pain of aphthous stomatitis?

**Allocation:** Concealed

**Setting:** Outpatient (specialty)

**Study Design:** Randomized controlled trial (double-blinded)

**Synopsis:** The Iranian researchers conducting this study identified 97 adults with a small oral aphthous ulcer that was painful enough to interfere with eating. Those with multiple ulcers or large ulcers (>1 cm in diameter) were excluded. Patients were randomized (allocation concealed) to receive application by their physician of either silver nitrate or sucrose (placebo). The lesions were swabbed with 2% lidocaine first, then the silver nitrate stick was gently held against the ulcer for a few seconds until a white precipitate

*The Teaching Physician* is published by the Society of Teachers of Family Medicine, 11400 Tomahawk Creek Parkway, Suite 540, Leawood, KS 66211. 800-274-2237, ext. 5420. Fax: 913-906-6096. [tnolte@stfm.org](mailto:tnolte@stfm.org)

*STFM Web site:* [www.stfm.org](http://www.stfm.org)

*Managing Publisher:* Traci S. Nolte  
*Editorial Assistant:* Jan Cartwright  
*Suscriptions Coordinator:* Jean Schuler  
([jschuler@stfm.org](mailto:jschuler@stfm.org))

*The Teaching Physician* is published electronically on a quarterly basis (July, October, January, and April). To submit articles, ideas, or comments regarding *The Teaching Physician*, contact the appropriate editor:

#### POEMs for the Teaching Family Physician

Mark Ebell, MD, MS, editor—[ebell@msu.edu](mailto:ebell@msu.edu)

#### Information Technology and Teaching in the Office

Richard Usatine, MD, editor—[usatine@uthscsa.edu](mailto:usatine@uthscsa.edu)  
Thomas Agresta, MD, coeditor—[Agresta@nso1.uhc.edu](mailto:Agresta@nso1.uhc.edu)

#### Clinical Guidelines That Can Improve Your Care

Caryl Heaton, DO, editor—[heaton@umdnj.edu](mailto:heaton@umdnj.edu)

#### Teaching Points—A 2-minute Mini-lecture

Alec Chessman, MD, editor—[chessmaw@musc.edu](mailto:chessmaw@musc.edu)  
Betty Gatipon, PhD, coeditor—[bgatip@lsuhsc.edu](mailto:bgatip@lsuhsc.edu)

#### For the Office-based Teacher of Family Medicine

William Huang, MD, editor—[williamh@bcm.tmc.edu](mailto:williamh@bcm.tmc.edu)

formed. The patient's mouth was rinsed with water for 5 minutes following the procedure. Patients kept a daily symptom diary and indicated whether they had severe pain that interfered with eating, mild-to-moderate pain that did not interfere with eating, or no pain. A clinician blinded to treatment group also evaluated patients after 1 week. Analysis was by modified intention to treat using all patients with any follow-up data; six patients were lost to follow-up in the placebo group, and five were lost in the silver nitrate group, for an overall follow-up rate of 88%. On each day following treatment, pain was improved to a greater degree in the treatment group. For example, after day 1, 30% still had severe pain

in the silver nitrate group compared with 89% in the placebo group. There was no difference between groups in the duration of lesions (between 5 and 6 days for both groups). Ulcers were completely re-epithelialized after 7 days in 83% of patients treated with silver nitrate, compared with 89% treated with placebo. Because the sucrose stick may not have fooled patients in the control group, blinding may have been compromised.

**Bottom Line:** This study supports the traditional clinical practice of a brief application of silver nitrate to painful, small aphthous ulcers, which relieves pain and does not impede healing. Although long-term cosmetic outcomes

are uncertain, the authors report no problems in their series of 85 adults. (LOE = 1b)

Source article: Alidaee MR, Taheri A, Mansoori P, Ghodsi SZ. Silver nitrate cautery in aphthous stomatitis: a randomized controlled trial. *Br J Dermatol* 2005;153:521-5.

LOE—level of evidence. This is on a scale from 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**

POEMS are provided by  
InfoPOEMS Inc (www.infopoems.com). Copyright 2006.

## STFM Is Now an Amazon.com Associate

**IMPORTANT**  
Be sure to use the  
STFM Portal at

[www.stfm.org/  
bookstore](http://www.stfm.org/bookstore)

for STFM to  
receive credit  
for your purchases.

Thank you for  
your support  
of STFM.



Visit the STFM On-line Bookstore and Amazon Portal  
[www.stfm.org/bookstore](http://www.stfm.org/bookstore)

- **Your Purchases Help STFM**

STFM receives a percentage of the total purchases (books, electronics, or anything that Amazon.com sells) made through STFM's portal at [www.stfm.org/bookstore](http://www.stfm.org/bookstore). These proceeds will help STFM to continue our financial commitments to important activities like the *Annals of Family Medicine* and Future of Family Medicine programs.

- **Great Selection and Service**

At [www.stfm.org/bookstore](http://www.stfm.org/bookstore) you will find the same great selection previously offered through STFM but with the added bonus of everything Amazon.com has to offer—books, electronics, apparel, housewares, and more. You will benefit from the advanced technology that Amazon.com uses to expedite and track shipments and recommend related books and other items.

- **Enhanced Marketing**

STFM will maintain its book review process that allows members to add new books to its recommended offerings listed at [www.stfm.org/bookstore](http://www.stfm.org/bookstore). STFM will also continue to market its members' books at its conferences and on the STFM Web site.

For more information, contact Traci Nolte, 800-274-2237, ext. 5420, [tnolte@stfm.org](mailto:tnolte@stfm.org).

# Information Technology and Teaching in the Office

## How to Choose Your Newest PDA

By Richard Usatine, MD, University of Texas Health Science Center at San Antonio

Whether you are buying your first PDA or upgrading to a new one, the following pointers will help you decide how to spend your money wisely. There is nothing like a fast, sleek PDA full of up-to-date software to help you practice and teach 21st century medicine. Don't let the students and residents outdo you in the PDA department. While they may teach you some tricks to get the most from your PDA, there is no reason that you have to carry around an outdated PDR or PDA in your clinical setting.

### First, Choose Between Palm OS and Pocket PC

Start out by deciding which operating system (OS) is best for you. While there are other OSs for handheld devices, Palm OS and Pocket PC account for the vast majority of the PDA market. Devices using the Palm OS are the most popular in the medical field. As the Pocket PC devices have become more affordable, their use has risen. However, some free medical software is written for the Palm OS only. A number of physicians have produced their own applications and offer them free to others to be downloaded over the Internet. One explanation for this is that it is easier to write programs for Palm OS than for Pocket PC. Most of the large, commercially available medical programs are now available in both formats.

New software (StyleTap™) is now available to run Palm OS programs on the Pocket PC. This makes the Pocket PC more appealing as a medical assistant because the Pocket PC user can now take advantage of free Palm OS programs such as Eponyms, MedCalc, MedRules and MentSTAT.

StyleTap™ Platform runs most applications for the Palm OS platform on Microsoft Windows Mobile™ Pocket PC handhelds. It supports most of the thousands of application programs written for the Palm OS 5.2 platform and earlier versions. Applications written for Palm OS platform show up as native Windows Mobile-based Pocket PC programs and operate in the same way. On the latest Windows Mobile-based Pocket PC devices, StyleTap Platform takes full advantage of high-density VGA screens for maximum readability. Price: \$29.95 (US), size: 1.3 MB, OS: Windows Mobile™ 5 for Pocket PC, 2003 (including Second Edition and full VGA support), Pocket PC 2002 or Pocket PC 2000.

Palm OS devices had the advantage of having a longer battery life, but this is changing. One has to regularly charge both types of devices, because it is possible to lose all your files and information if the battery runs out completely. Newer PDAs have backup systems or batteries that prevent this from happening.

Both types of devices come with slots to add memory. Memory cards come in a number of forms, but they all work in a similar fashion to allow more data and program storage on your PDA. These cards are needed to store and run some of the best programs.

### Decide on Some Hardware Features—Cameras and Phones

The built-in digital cameras are a fun addition to some of the new PDAs. You can use these cameras to document medical findings in your electronic medical record (EMR), store the photo electronically, or print the photo

for your paper charts. These cameras usually shoot photos at a resolution of 640 x 480 pixels. They don't replace better-quality digital cameras but can be handy when it is the only camera you have.

If you want to combine your PDA with a phone, consider the Treo.™ The Treo 650 smartphone combines a cell phone with a PDA. The wireless technology allows for e-mail and Web access. There's also Bluetooth® technology, an MP3 player, and a digital camera that can capture video. The color screen has a 320 x 320 resolution, but it is smaller than the typical PDA screen. The advantage is that you have many devices in one instrument. The disadvantages are that the internal memory for the PDA (23 MB) is less than the higher-end PDAs (64 MB), and the screen is smaller. Many physicians, students, and residents are choosing this option and loving their new PDA/phone.

### Wireless

Wireless networks are not needed in the medical school/hospitals/clinics to make PDAs valuable tools. Most software is installed by downloading it from the Internet and using a synchronization cradle that is plugged into the USB port of the computer. This software does not depend on wireless access to run.

Wi-Fi=wireless using the standard 802.11 technology that allows your laptop or PDA to connect to the Internet. Most new PDAs contain an integrated wireless card for Wi-Fi that must be within range of a wired access point for Internet connectivity. These PDAs can be prompted to search for a wireless network and connect to it automatically. This could be a wireless network in your hospital, office, home, or "public" hotspot (public wireless network access point). Once you are connected, you can surf the Internet. Special PDA-friendly Internet sites send the PDA smaller, more readable pages. Some Web sites have special pages that detect when you are connecting with a PDA and will transmit

news, weather, and entertainment information in a readable format for the small screen.

Bluetooth technology is a second wireless option. Bluetooth is used to transmit signals from one electronic device to another within the same room. A number of Palm OS and Pocket PC models contain Bluetooth technology. These models can communicate with Bluetooth-enabled cellular telephones or printers. Bluetooth has been used to send faculty didactic lecture notes from a single handheld device to an entire intern class with just a few key strokes and in a couple of seconds.

**PDA Products**

Web sites can help you review the prices and features when you are choosing the exact product to buy.

Palm and Sony make Palm OS devices. Hewlett-Packard, Toshiba, and Dell make excellent Pocket PC devices. Dell currently has the best prices for the Pocket PC. You can use Froogle to compare prices.

Minimum suggested features for a PDA (without phone):

- Color screen 320 x 320, backlit display
- Minimum internal memory (built-in storage) 32 MB
- Minimum processor speed 126 MHz
- With 128 MB expansion card for large programs

**Palm choices: prices as of December 22, 2005:**

- Palm Tungsten E2 \$199—meets minimum requirements and at a low price

- Palm TX \$299 Palm—320 x 480 screen with 128 MB internal memory

- Tungsten C \$399—has great little keyboard and is very fast and reliable

- Palm Tungsten T5 \$399—320 x 480 screen with 160 MB flash drive

- Palm Lifestride \$499—large capacity 4 GB built-in storage, Bluetooth and Wi-Fi, 320 x 480 screen

[www.palmone.com/us/products/compare/](http://www.palmone.com/us/products/compare/)

**Pocket PCs: prices as of December 22, 2005:**

- Dell Axim X51v Handheld 624 MHz \$399—highest resolution 480 x 640 VGA display, Wi-Fi and Bluetooth

- Dell Axim X51 Handheld 520MHz \$319—320 x 480 display with Wi-Fi and Bluetooth

- Dell Axim X51 Handheld 416MHz 320 x 480 display with Bluetooth only

<http://www1.us.dell.com/content/products/compare.aspx/pda?c=us&cs=19&l=en&s=dhs>.

Whichever model you choose, make sure you get the best software to meet your needs as a physician and teacher of medicine. One good Web site to help you choose your software is maintained by our medical school library: <http://www.library.uthscsa.edu/internet/pda.cfm>.

**Richard Usatine, MD, University of Texas Health Science Center at San Antonio, Editor**

**Thomas Agresta, MD, University of Connecticut, Coeditor**

---



---

Comparison of Palm OS and Pocket PC Devices

Features	Palm OS Devices	Pocket PC Devices
Price	Less-expensive choices	More-expensive choices
Size and weight	Often thinner and lighter	May be thicker and larger
Internal memory	Up to 64 MB with Palm Tungsten series	64 128 MB
Processor speed	Slower on average	Faster but programs may take more time to load
Medical programs	More available, especially free-ware	Less available, and often programs are not free
Expandable memory slots	Yes	Yes
Battery life	Longer	Some devices have shorter battery life
Wireless transmission	Most devices	Most devices

Adapted from PDA section written by Richard Usatine, MD, in Chapter 4 of the *Guidebook for Clerkship Directors, Third Edition*. Published at <http://www.allianceforclinicaleducation.org/>.

---



---

# Clinical Guidelines That Can Improve Your Care

## *A Review of Contraception*

By Caryl Heaton, DO; UMDNJ-New Jersey Medical School

*Contraception and Family Planning, A Guide to Counseling and Management* is truly more of a guide than a guideline and is a quick refresher on the state of contraception in the United States today.<sup>1</sup> Compiled by the authors for the Mary Horrigan Connors Center for Women's Health at Brigham and Women's Hospital, the guideline is 16 pages long, primarily in table form, and can be quickly scanned for what you need ([www.brighamandwomens.org/medical/handbookarticles/ContraceptionGuide.pdf](http://www.brighamandwomens.org/medical/handbookarticles/ContraceptionGuide.pdf)).

As a sample, we've included a couple of the tables from the guideline. The first is the frequently asked questions about hormonal contraceptives (Table 1). It's a one pager intended for physicians but could be given to patients as the basis for a fairly comprehensive discussion. It includes references to "same-day start" and to the "continuous" method of taking oral contraceptive pills (OCPs)—both hot topics for patients. *Contraception and Family Planning* also has a quick reference for generics of OCPs, risks and benefits of hormonal contraception, updated tables for barrier or surgical

contraception, and a short but complete description of pregnancy termination options, should you or your patient need and desire them.

The guide includes a section on emergency contraception (Table 2) that contains a reference to mifepristone but explains that the usual emergency contraceptive dose is not available in this country. The dose of estrogen in a combined oral contraceptive must be at least 100 ug per dose. Levonorgestrel (Plan B<sup>®</sup>) can be used for up to 5 days after unprotected intercourse.

Printing and reviewing the entire document would be an efficient and reasonable way to comprehensively cover contraception as a teaching topic with a student or a resident. If you do a great deal of women's health, this may not have any really new information or surprises. It's just a good review of the subject. However, if you feel that you might not be up to date on the latest versions of the vaginal ring contraceptive or the Mirena<sup>®</sup> IUD, or might not be able to tell your patients how much these things cost, it's worth the time to download.

*Contraception and Family Planning* makes no recommendations of what to use or what to prescribe, and the information is not rated for level of evidence. It's a consensus-based guideline, which generally means some "experts" got together and wrote it up. Consensus-based guidelines are not the ideal—far from it. However, this one is easy to use, and it's recommendations are consistent with more-hierarchical evidence-based guidelines. Those true seekers of the evidence can turn to the Faculty of Family Planning and Reproductive Health Care, which has developed the guidelines *Contraception Choices for Young People*<sup>2</sup> and *Contraception for Women Aged Over 40 Years*.<sup>3</sup>

### REFERENCES

1. Brigham and Women's Hospital. Contraception and family planning. A guide to counseling and management. Boston: Brigham and Women's Hospital, 2005.
2. Contraceptive choices for young people. *J Fam Plann Reprod Health Care* 2004;30(4):237-50; quiz 251. [www.guideline.gov/summary/summary.aspx?view\\_id=1&doc\\_id=7096](http://www.guideline.gov/summary/summary.aspx?view_id=1&doc_id=7096).
3. Contraception for women aged over 40 years. Faculty of Family Planning and Reproductive Health Care-Professional Association, 2005. [www.guideline.gov/summary/summary.aspx?ss=15&doc\\_id=7095&nbr=4268](http://www.guideline.gov/summary/summary.aspx?ss=15&doc_id=7095&nbr=4268).

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

Table 1

## Frequently Asked Questions about Oral Contraception Pills

Question	Answer
How do I start a patient on OCPs?	<p>Three ways:</p> <ol style="list-style-type: none"> <li>1. Same day start (need back-up method for one week)</li> <li>2. First day start: start on first day of period</li> <li>3. Sunday start: start on first Sunday after period begins (need back-up method for one week)</li> </ol> <p>Notes:</p> <ul style="list-style-type: none"> <li>• Make sure patient is not pregnant before starting OCPs. In a regularly cycling woman who is a reliable historian, starting after the next period is usually sufficient. In women who have a history of irregular bleeding, or who are not good historians, a urine or serum HCG should be checked before starting the OCP.</li> <li>• Recommend that the patient take OCP at the same time each day.</li> <li>• OCPs are slightly less effective in women who are obese, though pregnancy rate is still lower than for barrier method. To further reduce pregnancy risk, OCP containing ethinyl estradiol 35 ug po qd.</li> </ul>
What type of OCP should I prescribe?	<p>Two considerations:</p> <ol style="list-style-type: none"> <li>1. Dose: Low-dose is most commonly used for contraception (20-35 mcg estrogen—usually ethinyl estradiol). Different types of progestin: Much is written about androgenicity of different types of progestin, but clinically, these differences are not significant. Older preparations contain 50 mcg estrogen, but these are not used as a first choice for contraceptive (though they have other clinical uses).</li> <li>2. Regimen: Monophasic pills contain the same amount of estrogen and progestin per pill. Phasic pills contain changing amounts of the estrogen or progestin component. There is no clear clinical advantage to the phasic pill. Progestin only pills are useful for lactating women.</li> </ol>
Is the “continuous” method of taking OCPs safe?	OCPs can be taken continuously, with three active weeks of pills followed immediately by a new packet of pills (without the week of inert pills, and withdrawal bleed, in between). Women taking OCPs in this manner will not have a period. Since each pill contains both estrogen and a progestin, there is no risk of endometrial hyperplasia. Useful in women with menorrhagia, anemia, hyperandrogenism (e.g., polycystic ovarian disease), endometriosis, severe dysmenorrhea, menstrual migraines, and for patient convenience.
How should I monitor a patient on OCPs?	Need to check follow-up blood pressure before and after starting the pill. Annual visits are necessary to monitor blood pressure, and to determine if any new contraindications to taking the pill.
What should I do if a patient complains of mid-cycle bleeding?	<ol style="list-style-type: none"> <li>1. Wait 3 cycles to see if persists.</li> <li>2. Consider work-up for other causes if bleeding is heavy or post-coital.</li> <li>3. If persists, consider addition of estrogen midcycle—estradiol (e.g., estrace® mg po qd for second 2 weeks of the cycle) or consider a different pill (e.g., one containing 30-35 ug of ethinyl estradiol).</li> </ol>
Who should NOT take OCPs?	<ul style="list-style-type: none"> <li>• Patients with previous history of Venous Thromboembolism</li> <li>• Patients with known Factor V Leiden mutation (risk of clot increased 30-fold) or other thrombophilia condition (e.g., prothrombin mutatin, Protein C or S deficiency).</li> <li>• Smokers 35 years of age or older</li> <li>• History of breast cancer</li> <li>• Uncontrolled hypertension</li> <li>• History of stroke</li> <li>• History of migraine with neurologic symptoms. (There is some controversy to this recommendation. This is a relative contraindication.)</li> <li>• Undiagnosed uterine bleeding</li> <li>• Liver disease</li> </ul>
Is it acceptable to give a lactating woman OCPs?	Progesterone only pill is the preferable OCP in this group of patients. These pills have a slightly lower efficacy compared with estrogen-progestin pills. Of note, lactating women have lower fertility rate. Consequently, the progesterone only pill is usually adequate to prevent pregnancy. Combined oral contraceptive pills, or COC (estrogen-progestin containing) decrease the milk supply but are not harmful to the infant. Progestin only pills (POPs) do not decrease the milk supply and are not harmful, but are a little less effective than COC. In cases when an infant is being solely breast fed, POPs are preferred. However for women more than 6 weeks postpartum who are lactating infrequently, prescribing COCs or switching from POPs to COCs may be appropriate. In these women, whose infants have other sources of nutrition, the adequacy of the milk supply is less important, and prevention of pregnancy more important, since the risk of ovulation with infrequent lactation is higher.
Is it safe to give a perimenopausal woman OCPs?	The risk of DVT/VTE increases with increasing age, but if a woman is a non-smoker, the absolute risk is still low, and acceptable. Often, OCPs are prescribed in this age group to control dysfunctional uterine bleeding and hot flashes. OCPs can be stopped at age 50 and symptoms reassessed.
What advice should I give women who want to become pregnant?	Women should use a barrier method for 2 cycles, so they can re-establish their menstrual periods and then accurately determine the gestational age of their pregnancy when they conceive.

This guideline is copyrighted by Brigham and Women’s Hospital. Reprinted with permission.

Table 2

## Emergency Contraception

In the past few years, a number of new methods of contraception have been developed that can be used after an episode of unprotected sex to prevent fertilization and/or implantation. Although these methods can be used up to 5 days after an episode of unprotected sex, efficacy rates are higher when used as soon as possible after intercourse.

Method	How to prescribe	Efficacy	Comments
<b>Combined OCPs</b>	Any OCP will work as long as estrogen component adds up to 100 ug per dose. Take first dose within 72 hours of intercourse, and second dose 12 hours later. Recently, a formulation has been marketed expressly for this purpose (Preven™), which contains ethinyl estradiol and levonorgestrel. Should be prescribed with an anti-emetic.	<b>75%</b>	The most common side effects are: <ul style="list-style-type: none"> <li>• Nausea</li> <li>• Vomiting</li> <li>• Menstrual irregularities</li> <li>• Breast tenderness</li> <li>• Headache</li> <li>• Abdominal pain/cramps</li> <li>• Dizziness</li> </ul>
<b>Levonorgestrel (LNG) (Plan B®)</b>	Usual practice is to prescribe 0.75 mg within 5 days of intercourse, and again 12 hours later. Can also be given as a single dose (1.5 mg, or two tablets of Plan B) with the same efficacy.	<b>75%</b>	Side effects: <ul style="list-style-type: none"> <li>• Abdominal pain</li> <li>• Nausea (less than with the combined OCP regimen)</li> <li>• Menstrual irregularities</li> <li>• Has slightly higher efficacy than combined oral contraceptives</li> </ul>
<b>Copper T IUD</b>	Should be inserted within 5 days after intercourse	<b>99%</b>	This method should be used when efficacy is the most important factor to the woman and the woman plans to continue IUD use.
<b>Mifepristone</b>	600 mg single dose. Should be given within 72 hours of unprotected intercourse. (This is actually medical abortion dose...not EC dose.) (For EC: 10 mg of mifepristone given within 5 days of intercourse, but this dose not available in US.)	<b>Similar efficacy to levonorgestrel</b>	Reference: Von Hertzen et al. Lancet 2002; 360: 1803-10. Low dose mife and 2 regimens of lng for EC: a WHO multicentre trial.

This guideline is copyrighted by Brigham and Women's Hospital. Reprinted with permission.

## Teaching Points—A 2-minute Mini-lecture

### Teaching About Medical Mistakes

By Bruce Gebhardt, MD; Sarah Pritts, MD; Nancy Elder, MD; University of Cincinnati

*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. In this scenario, Dr Pritts (Dr P) works with a third-year student (MS3) who has seen a young woman and discovers a medical mistake.*

**MS3:** I just saw Ms Adams, who is here to get started on birth control pills. She is a 25-year-old woman who you've seen since birth! She says you take care of her entire family, and they just love you. Anyway, she is otherwise healthy and was on birth control pills in the past without problems.

**Dr P:** OK, before you start someone on oral contraceptives, what past medical and family history would you ask about?

**MS3:** Well, I would certainly ask about breast cancer and blood clots.

**Dr P:** Very good. I would also ask about heart disease, migraine headache, and other gynecologic cancers. Do you know what the evidence says about the risk of breast cancer, blood clots, or heart attack is in birth control pill users?

**MS3:** I know the risk is increased, but I can't tell you by how much.

**Dr P:** That might be a good homework assignment for you today. You check it out, and we'll discuss it tomorrow. I'd like to know where you find the answers as well. But, now, what other information would you like about this patient, and what exam would you do?

**MS3:** Well, I'd want to know what pill she used last time. She said it worked fine; she only stopped because her relationship ended. Now, she has a new boyfriend, but I'd make sure she knows the pill doesn't prevent infection.

**Dr P:** All good points. What about the exam?

**MS3:** I'd check her blood pressure, do a pelvic and Pap, and maybe do a pregnancy test.

**Dr P:** Correct. Check the chart to see when her last Pap was.

**MS3:** Let's see. Her last Pap was 9 months ago and showed ASCUS [atypical squamous cells of undetermined significance].

**Dr P:** She had ASCUS? Was any follow-up done after that, like a colposcopy, repeat Pap, or HPV [human papilloma virus] typing?

**MS3:** No, I don't see anything.

**Dr P:** Well, let me check the chart, please. Hmm, you are right. Unfortunately it looks like this was mistakenly filed without my signing off on the Pap. Dang, this makes my heart sink; it is every physician's nightmare. OK, we have to handle this now. How would you go about this?

**MS3:** Well, it's not your fault. Sounds like the staff didn't follow procedure. But, you obviously need to tell her.

**Dr P:** Absolutely, I need to tell her and explain how this error occurred. However, I would not blame the staff. It is ultimately my responsibility. I have found that it is best to say "I'm sorry

this happened, I made a mistake. This is what we do now about the ASCUS, and here is how I propose to change office procedure so that this does not happen again." This is awful, but part of being a doctor, unfortunately. It has taken me awhile to learn how to deal with my emotions and feelings of guilt when I make mistakes. Luckily, I have very understanding partners to hash these things out with. We actually make a point of talking about our mistakes. We also include the staff and encourage them to talk with us. We do not blame but work to learn from and prevent mistakes from occurring again.

**MS3:** If you say you are sorry, won't she sue you?

**Dr P:** Well, medical mistakes and malpractice suits are not always related. You can make a mistake and not get sued, or you can make no mistake and get sued. And there is evidence showing that patients want us to say "I'm sorry." Patients want us to acknowledge responsibility when we do something wrong. They may still want and even deserve monetary compensation for the mistake, but I find it the right thing to do regardless. Hopefully, our longstanding relationship will make her a bit more understanding. OK, waiting will not make this any easier, let's go and explain this to the patient. We will recommend repeating a Pap today with HPV typing. If the Pap shows ASCUS again, and the HPV is high risk, then she will need a colposcopy. If it is ASCUS but a low-risk HPV, we can treat the Pap as normal, but I like to repeat the Pap again in 6 months.

**Alec Chessman, MD, Medical University of South Carolina, Editor**

**Betty Gatipon, PhD, Louisiana State University, Coeditor**

**Excerpted from "For the Office-based Teacher of Family Medicine"**

## **Evidence-based Strategies That Help Office-based Teachers Give Effective Feedback**

*By Alison Dobbie, MD, Department of Family Medicine, University of Kansas; and James W. Tysinger, PhD, Department of Family and Community Medicine, University of Texas Health Science Center at San Antonio (Fam Med 2005;37(9):617-9.)*

Medical students and residents want and need feedback from preceptors to improve their clinical performance, yet both learners' reports and audiotapes of actual preceptor-learner encounters indicate that feedback is not often provided in most ambulatory teaching encounters.<sup>1-4</sup> The feedback that learners do receive during office-based teaching tends to be brief and nonspecific (eg, verbal comments such as "right" or "I agree").<sup>1</sup> Possible reasons why preceptors give minimal or nonspecific feedback may include lack of training in delivering feedback,<sup>2,5</sup> the desire not to offend,<sup>6</sup> and the wish to maintain learners' self-esteem.<sup>7</sup> In this article, we share some recent findings from the literature on the need for feedback and reports of effective strategies and techniques that preceptors can use to enhance the quantity and quality of their feedback during office teaching.

### **Learners' Desire for and Recognition of Feedback**

Evidence indicates that learners greatly desire and value feedback. Schultz and colleagues reported that 95.6% of 1,592 students and residents surveyed believed that feedback was important for learning.<sup>8</sup> In that study, learners ranked "gives constructive feedback" as second in importance and "gives timely feedback" as sixth out of 37 preferred preceptor behaviors.<sup>8</sup>

Students also consider giving feedback as an important aspect of quality teaching. In a study of 82 internal medicine clerkship students, Torre and colleagues reported that "high-quality feedback" and "proposing a plan" were the two learning activities most

strongly associated with learners' perceptions of high-quality teaching.<sup>9</sup>

However, while students value feedback, they may not ask for it, recognize it, or remember having received it. In a study of internal medicine clerkship students, Sostok and colleagues found that when asked to recall the content of scheduled feedback sessions, faculty reported delivering a mean of 3.3 feedback items, but students reported receiving only 2.7 items. Of more concern is that there was only a 34% agreement between faculty and student reports on the content discussed.<sup>10</sup>

### **Gender Differences Concerning Feedback**

Preceptors should consider some important research findings when giving feedback to learners. Schultz and colleagues reported that female and male learners equally value feedback.<sup>8</sup> However, findings from other studies indicate that female and male learners do not receive feedback in equal amounts or with similar content. Carney and colleagues looked at different preceptor-student dyads and reported that female preceptors were more likely to give feedback on clinical skills to male students than to female students. In this study, the dyad incorporating the most giving and receiving of feedback was male preceptors with male students.<sup>4</sup> Similarly, O'Hara and colleagues reported that female preceptors were more likely than male preceptors to comment negatively on female students' clinical skills and more likely to comment on male students' maturity and/or character.<sup>11</sup>

### **Written Versus Oral Feedback**

Evidence indicates that written feedback is as acceptable and effective as oral feedback.<sup>12-14</sup> Schum and colleagues asked preceptors to issue preprinted feedback notes with "well done" or "needs improvement" to medical students. Of feedback notes issued, 69% of notes were "well done," and learners reported identical satisfaction between oral feedback and the written notes. In fact, more than 90% of students considered feedback from the notes more constructive, timely, and concrete than from other forms of feedback.<sup>12</sup>

### **Giving Negative or Constructive Feedback**

Many preceptors are reluctant to give negative or constructive feedback because they fear that it may upset learners and/or adversely affect the teacher-learner relationship. However, evidence from the psychology and management literatures suggests that most individuals value constructive feedback that is designed to improve their performance, provided it is given privately,<sup>15</sup> kindly, and consistently by a supervisor whose expertise they respect and whose motives they trust.<sup>16</sup> However, too soft a delivery, especially when delivered face to face, can dilute the feedback message. Colletti reported that preceptors on her surgical clerkship gave less negative feedback and awarded students higher grades in face-to-face feedback sessions than in written evaluations prepared in private.<sup>17</sup>

### **Recommendations for the Office-based Teacher**

We offer some evidence-based suggestions from the literature that office-based teachers can use to improve their feedback in the ambulatory clinical setting.

(1) Give students and residents feedback since most learners strongly desire it. If you provide it, they will more likely rate your teaching as high quality.

(2) Be clear about when, where, and how you plan to give feedback, since

learners do not always recognize it. For example, on the learner's first day in your office, tell him/her that you will give routine feedback at the end of each morning and afternoon clinical session.

(3) Acknowledge potential gender differences in giving and receiving feedback. Remember that although all learners value feedback equally, studies demonstrate that female learners often receive a smaller amount of feedback or less helpful feedback.

(4) Give feedback orally and/or in written format, since learners find both formats acceptable. Preprinted "well done" or "needs improvement" notes in different colors can be useful prompts for feedback.

(5) Give negative or constructive feedback when required, ensuring you do it privately, in a spirit of unconditional positive regard, and in a way clearly designed to improve the learner's performance. It may be useful to prepare negative or constructive feedback comments privately before sharing them with the learner, as you are then more likely to deliver the message that will allow the learner to change his or her behavior.

Using these evidence-based recommendations may allow preceptors to increase the amount and quality of their feedback to medical students. Increasing feedback will likely improve student satisfaction with the of-

face teaching process, thus enhancing the educational experience for both parties.

*Corresponding Author:* Address correspondence to Dr Dobbie, University of Kansas, Department of Family Medicine, Mail Stop 4010, 3901 Rainbow Boulevard, Kansas City, KS 66160. 913-588-1927. [adobbie@kumc.edu](mailto:adobbie@kumc.edu).

#### REFERENCES

- Jackson JL, O'Malley PG, Salerno SM, Kroenke K. The teacher and learner interactive assessment system (TeLIAS): a new tool to assess teaching behaviors in the ambulatory setting. *Teach Learn Med* 2002;14(4):249-56.
- Salerno SM, O'Malley PG, Pangaro LN, Wheeler GA, Moores LK, Jackson JL. Faculty development seminars based on the one-minute preceptor improve feedback in the ambulatory setting. *J Gen Intern Med* 2002;17:799-87.
- Kernan WN, Holmboe E, O'Connor PG. Assessing the teaching behaviors of ambulatory care preceptors. *Acad Med* 2004;79:1088-94.
- Carney PA, Dietrich AJ, Eliassen S, Pipas C, Donahue D. Differences in ambulatory teaching and learning by gender match of preceptors and students. *Fam Med* 2000;32(9):618-23.
- Quirk M, Stone S, Chuman A, et al. Using differences between perceptions of importance and competence to identify teaching needs of primary care preceptors. *Teach Learn Med* 2002;14(3):157-63.
- Ende J. Feedback in clinical medical education. *JAMA* 1983;250(8):777-81.
- Ende J, Pomerantz A, Erickson F. Preceptors' strategies for correcting residents in an ambulatory care medicine setting: a qualitative analysis. *Acad Med* 1995;70(3):224-9.
- Schultz KW, Kirby J, Delva D, et al. Medical students' and residents' preferred site characteristics and preceptor behaviours for learning in the ambulatory setting: a cross-sectional survey. *BMC Medical Education* 2004;4:12. [www.biomedcentral.com/1472-6920/4/12](http://www.biomedcentral.com/1472-6920/4/12). Accessed May 19, 2005.
- Torre DM, Sebastian JL, Simpson DE. Learning activities and high-quality teaching: perceptions of third-year IM clerkship students. *Acad Med* 2003;78:812-4.
- Sostok MA, Coberly L, Rouan G. Feedback process between faculty and students. *Acad Med* 2002;77(3):267.
- O'Hara BS, Maple SA, Bogdewic SP, Saywell RM, Zollinger TW, Smith CP. Gender and preceptors' feedback to students. *Acad Med* 2000;75(10):1030.
- Schum TR, Krippendorf RL, Biernat KA. Simple feedback notes enhance specificity of feedback to learners. *Amb Pediatr* 2003;3(1):9-11.
- Paukert JL, Richards ML, Olney C. An encounter card system for increasing feedback to students. *Am J Surg* 2002;183(3):300-4.
- Greenberg LW. Medical students' perceptions of feedback in a busy ambulatory setting: a descriptive study using a clinical encounter card. *South Med J* 2004;97(12):1174-8.
- Levy PE, Albright MD, Cawley BD, Williams JR. Situational and individual determinant of feedback seeking: a closer look at the process. *Organ Behav Hum Decis Process* 1995;62(1):23-37.
- Steelman LA, Levy PE, Snell AF. The Feedback Environment Scale: construct definition, measurement, and validation. *Educational and Psychological Measurement* 2004;64(1):165-84.
- Colletti LM. Difficulty with negative feedback: face-to-face evaluation of junior medical student clinical performance results in grade inflation. *J Surg Res* 2000;90(1):82-7.