

## Innovations in Family Medicine Education

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Feature Editor

*Editor's Note:* Send submissions to freemanj@uthscsa.edu. Articles should be between 500–1,000 words and clearly and concisely present the goal of the program, the design of the intervention and evaluation plan, the description of the program as implemented, results of evaluation, and conclusion. Each submission should be accompanied by a 100-word abstract. You can also contact me at Department of Family and Community Medicine, University of Texas HSC, San Antonio, 7703 Floyd Curl Drive, San Antonio, TX 78229-3900. 210-567-4553. Fax: 210-567-4579.

# Colposcopy 101: A Didactic Curriculum to Complement the Clinical Experience

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*The family medicine faculty who perform colposcopy at the University of Missouri-Columbia have developed an innovative didactic curriculum that is used as an adjunct to the clinical experience in teaching family practice residents about colposcopy. The curriculum is taught weekly during a colposcopy conference that is held in the family practice center and includes core topic lectures, pathology-correlate lectures, and a journal club. The core lecture series has 26 topics that range from basic to advanced colposcopy. Pathology-correlate lectures combine pathologic evaluation with the clinical colposcopic examination. The journal club systematically reviews and evaluates the colposcopy literature.*

(Fam Med 2001;33(9):658-60.)

Colposcopy is a common clinical procedure. It is offered by 32% of family physicians to their patients,<sup>1,2</sup> and 93% of family medicine programs offer training in colposcopy to their residents.<sup>3,4</sup>

Previous attempts to construct clinical curricula for colposcopy training are found in the literature.<sup>5-7</sup> These previously published

works focus on performance of the procedure. We are not aware of any published curricula for family practice residency training programs that focus on the intellectual portion of colposcopy. The curriculum described is presented at a weekly conference to supplement the learning that takes place in the clinical setting.

### Description of the Didactic Curriculum

The University of Missouri-Columbia family practice colposcopy curriculum consists of four compo-

nents: the colposcopy clinic, core topic lectures, the pathology-correlate series, and journal club. Residents taking our longitudinal colposcopy elective staff the colposcopy clinic for 8 weeks. The innovative part of the curriculum is a weekly 1-hour colposcopy conference that includes the core topic lectures, the pathology-correlate series, and the journal club. The colposcopy conference is held on Friday over the lunch hour and is open to all residents; it is required for residents on the gynecology rotation and those taking the colpos-

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copy longitudinal elective. Four faculty members lead the conferences and rotate responsibility for presenting the lectures. Two weeks per month, the conference is a core topic lecture, one week is the pathology correlate series, and one week is journal club.

**Core Topic Lectures**

Learning objective: *Develop a knowledge base of common and uncommon colposcopic problems and become comfortable with the management and treatment of cervical dysplasia.*

Each core topic lecture is presented by a faculty member and is confined to a specific topic (Table 1) with a defined learning objective and a clinical pearl. The topics were developed using guidelines set forth by the American Society for Colposcopy and Cervical Pathology (ASCCP)<sup>8</sup> and represent minimum standards of information needed to perform colposcopy. The topics are repeated twice a year. The lectures cover management issues and are frequently revised to remain current. Each lecture is 45 minutes long, with 15 minutes for questions and discussion.

**Pathology-Correlate Lectures**

Learning objective: *Learn to identify the major cytologic and histologic abnormalities seen during colposcopy.*

Once a month the pathology-correlate lecture portion of the colposcopy conference is held, with a staff pathologist to review patients' cytologic and histologic results as seen by the Pap smear, biopsy, and/or the pathology specimen from the Loop Endosurgical Excision Procedure (LEEP) or conization. The time is spent reviewing pathology terminology and learning to identify microscopic histologic features.

Table 1

Colposcopy Core Topic Lecture Series

- Basics
  - Basic terminology
  - The Bethesda System
  - Reid's Colposcopic Index
  - Pap smear technique
  - The colposcopic examination
- Anatomy
  - Transformation zone
  - Lower genital tract anatomy
- Etiology and epidemiology
  - Risk assessment
  - Cervical Intraepithelial Neoplasia (CIN)
  - Human Papilloma Virus (HPV)
  - Adjunctive testing
- CIN
  - ASCUS—Atypical squamous cells of undetermined significance
  - HGSIL—High-grade squamous intraepithelial lesions
  - LEEP—loop endosurgical excision procedure
  - CIS—carcinoma in-situ
  - LGSIL—low-grade squamous intraepithelial lesions
  - Cryotherapy
  - Surgical management
- Other
  - Vaginal lesions
  - Glandular abnormalities
  - Pregnancy
  - Geriatric assessment
  - Vulvar neoplasia
  - DES exposure
  - Psychosocial issues
  - Androscopy

Based on the American Society for Colposcopy and Cervical Pathology curricular guidelines<sup>8</sup>

**Journal Club**

Learning objective: *Systematically review the current literature for articles that will impact the practice of colposcopy.*

One week per month, journal club is held during colposcopy conference to review the colposcopy literature. A table of contents search is done using the journals most likely to contain evidence pertaining to colposcopy (Table 2). During journal club, the residents are asked to identify potentially prac-

tice-changing articles for critical review. This format is used to encourage residents to quickly scan journals and search for important articles and is based on work by Stevermer et al.<sup>9</sup>

**Discussion**

This paper describes a curricular innovation that can be used as a basis for the didactic portion of resident colposcopy training. Three interested family medicine faculty members were able to implement the curriculum with the assistance of a pathologist. The curriculum requires a time commitment by the faculty and adds 1 hour per week to the residency curriculum that can be applied to the gynecology requirement.

Prior to this curriculum, the only objective way to evaluate residents' knowledge base pertaining to colposcopy was their performance on the gynecology portion of the In-training Examination. Our faculty are developing pretests and posttests that will be used with each lecture to measure resident knowledge regarding colposcopy and the management of cervical dysplasia.

Table 2

Journals Reviewed for the Journal Club

- *American Journal of Obstetrics and Gynecology*
- *British Journal of Obstetrics and Gynecology*
- *Gynecologic Oncology*
- *Journal of Lower Genital Tract Disease*
- *Journal of the American Medical Association*
- *Journal of Family Practice*
- *New England Journal of Medicine*
- *Obstetrics and Gynecology*

## Conclusions

Colposcopy has become a commonly taught procedure in family practice residency programs. This paper describes a curriculum that can be used as a framework for the didactic portion of resident colposcopy training. The lecture series requires a faculty time commitment but has been useful in teaching colposcopy to family practice residents at the University of Missouri-Columbia.

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For further information regarding this curriculum, please contact Dr Delzell.

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## REFERENCES

1. American Academy of Family Physicians. Facts about family practice, 1999. Table 29. Performance of diagnostic procedures in family physician offices, May 1998. Leawood, Kan: American Academy of Family Physicians, 1999. Last updated 2000. Accessed on 9-5-2000 at: <http://www.aafp.org/facts/table29.html>.
2. Division of STD Prevention. Prevention of genital HPV infection and sequelae: report of an external consultants' meeting. Atlanta: Department of Health and Human Services, Centers for Disease Control and Prevention, 1999.
3. Brotzman GL, Mark DH, Wolkomir MS. Influences on teaching colposcopy and treatment modalities in family practice programs. *Fam Med* 1995;27(5):310-3.
4. Gordon P. Colposcopy training in family practice residency programs. *Fam Med* 1991;23(4):310-2.
5. Homesly HD. Assessment of colposcopic skills. *Colposcopic Gynecologic Laser Surgery* 1987;3(3):135-8.
6. Caruthers BS, Sheets KJ. Development of a curriculum in colposcopy. *J Fam Pract* 1991;32(6):590-7.
7. Kelley J, Whitehouse HH III, Dillard EA, Jr. The colposcopy clinic in a residency training program. Five years' experience with colposcopically directed biopsies followed by conization or hysterectomy. *J Reprod Med* 1983;28(2):127-30.
8. ASCCP Interdisciplinary Task Force. Sedlacek TV, Apgar BS, et al. Comprehensive colposcopy curriculum. Washington, DC: American Society for Colposcopy and Cervical Pathology, 2000.
9. Stevermer JJ, Chambliss ML, Hoekzema GS. Distilling the literature: a randomized, controlled trial testing an intervention to improve selection of medical articles for reading. *Acad Med* 1999;74(1):70-2.