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Expanding the NP role in the cervical cancer prevention triad: Screening, diagnosis, and treatment

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Advanced practice nurses have established themselves as available, affordable, and effective healthcare providers for reducing the burden of cervical cancer in the United States. At present, preparation for skills in colposcopy, cryotherapy, and LEEP exists only in continuing educational venues that require prior experience in practice. Perhaps it is time to consider these skills integral to basic women's health APN practice and to incorporate them into standard graduate education.

"We continue to look forward to the day when the elimination of cervical cancer is a reality."¹

Great strides have been made in reducing the incidence of invasive cervical cancer in the United States. As of 2010, 24 states had achieved the *Healthy People 2020* goal of reducing the incidence of this disease to 7.1 per 100,000 women.² In 2010, 83% of U.S. women underwent the recommended cervical cancer screening.²

Although these achievements merit celebration, new strategies are needed to reach women who remain at risk. Approximately half of cervical cancers occur in women who have never been screened.¹ Many of these women are poor, reside in rural areas, and lack access to primary care providers.³ Since 1991, the National Breast and Cervical Cancer Early Detection Program (NBCCEDP) has provided free services to more than 4.5 million women, diagnosing more than 3,400 invasive cervical cancers.⁴ Women eligible for this program—about 10% of U.S. women—live at or below 250% of the federal poverty level. However, the NBCCEDP reaches only 8.2% of eligible women, and certain populations of women still suffer from a higher incidence of cervical cancer despite these efforts.

Barriers to cervical cancer screening and treatment are complex, and comprise psychosocial, socioeconomic, and cultural factors.^{5,6} Healthcare providers (HCPs) must understand the circumstances contributing to patients' health beliefs and behaviors, and try to foster a constructive therapeutic partnership emphasizing empowerment, agency, and informed decision-making. These principles guide advanced practice nurses (APNs) as they provide screening, diagnostic services (colposcopy and cervical biopsy), and treatment (cryotherapy and the loop electrosurgical excision procedure [LEEP]) for precancerous cervical lesions.

Increased APN involvement may be a reasonable approach for reducing the incidence of cervical cancer in the United States. Although nurse practitioners (NPs) have gained acceptance as providers of cervical cancer screening, these HCPs are capable of playing a more prominent role by participating in the entire cervical cancer prevention triad: screening, diagnosis, and treatment. Now is the time to re-examine the NP role in this regard.

Frontline primary care providers

Nurse practitioners are ideal clinicians to provide full cervical cancer prevention services. With 89% of NPs prepared in primary care and 75% actively providing primary care nationwide, NPs are the most rapidly growing population of the primary care workforce.⁷ By contrast, according to Naylor and Kurtzman,⁸ primary care medical residency programs decreased by 3% from 1995 through 2006 (over this same period, primary care programs for NPs increased by 61%). In addition, compared with primary care physicians, NPs are more likely to work in rural areas and with underserved populations.⁹

Evidence indicates that NPs provide quality care at a lower cost than their physician colleagues.¹⁰ An extensive literature review showed that NPs provide equal or better quality care at a lower cost compared with other practitioners providing the same services.¹⁰ NPs are consistently cost efficient across diverse practice settings, including managed care organizations, nurse-managed centers, health management organizations, on-site NP practices, and acute care settings.¹¹

Competency and current state of nursing practice

Screening—NPs are the main providers of primary care in family planning clinics and they perform the majority of primary care services, including cervical cancer screening, in these clinics.¹² Cervical cancer screening is a well-accepted aspect of NP scope of practice.¹³

Diagnosis—Less well established is the NP role in providing follow-up care to women with abnormal Pap test findings, even though NPs are in a pivotal position to do so. Research indicates that they can perform colposcopy and diagnostic procedures as competently as their physician colleagues. A 2012 study conducted by Kilic et al¹⁴ to compare physician and NP accuracy in recognizing cervical dysplasia during colposcopy showed that these two groups of HCPs were similarly capable. Studies conducted in the United Kingdom and New Zealand reached similar conclusions.¹⁵⁻¹⁷

In the United States, APNs who complete training courses and demonstrate competency in colposcopy through programs such as the American Society for Colposcopy and Cervical Pathology (ASCCP) Comprehensive Colposcopy Education

and Mentorship Program may perform colposcopy in their clinical practice, pending permission of the state and medical facility. At the time of this article's publication, nearly 500 individuals will have completed the ASCCP Mentorship since its inception, and almost 90% of enrollees are advanced practice clinicians (nurse-midwives, NPs, or physician assistants).¹⁸

Treatment for precancerous lesions—Since the 1980s, NPs have been performing cryotherapy as part of cervical cancer prevention programs.¹⁹ The ASCCP also provides training in LEEP to NPs who can incorporate this skill into their practice, depending on institutional policies.²⁰ No state regulations prevent NPs from performing treatment of precancerous cervical lesions, although states may require extra documentation and education demonstrating competency.¹⁸ Further research is necessary to ascertain NP efficacy at cryotherapy and LEEP when compared with physicians.

Benefits of nursing practice and the cervical cancer prevention triad

More innovative and thoughtful approaches incorporating an in-depth understanding of women's cultures and communities are needed to decrease the incidence of cervical cancer in the United States. This understanding, in and of itself, is an essential aspect of nursing practice. Furthermore, health education, cultural competency, and collaboration of care are key areas of competency for NPs.²¹ Collaboration of care emphasizes therapeutic partnerships that empower women with the information and agency to make informed decisions regarding their health.²¹

Considering the intimate nature of pelvic examinations, HCPs must provide psychosocial support and ample consultation time to establish a rapport with each patient and maximize her comfort level. In a 2010 study of cervical cancer screening practices of women in Appalachian West Virginia, Grube²² found the patient-HCP relationship to be

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integral to a woman's decision to pursue screening. Time dedicated to building a bond with a patient helps HCPs understand each woman's unique circumstances and determine a realistic follow-up plan. Research indicates that patients who see an NP not only have longer consultations, but also benefit from the NP's distinctly applicable skill set to provide respectful, patient-centered care.⁸

Changing nursing practice: Formalize and normalize the APN role in cervical cancer prevention

Enabling more NPs to provide the full triad of cervical cancer prevention services may not only be cost effective and ensure greater access to care for women everywhere but may also address barriers to reaching unscreened and under-screened women and those lost to follow-up. To achieve

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this goal, the APN role in diagnosis and treatment of cervical cancer needs to be formalized through inclusion of relevant skills in the standard APN curriculum.

In the current state of colposcopy education, an APN is advised to wait for 2 years after graduation

before entering a short-study colposcopy program, which lacks both a standardized clinical component and a mechanism for determining safe practice upon completion. No data were found supporting the need for 2 years of clinical practice before undertaking colposcopy training, and positioning this education after graduation from a formal APN program might decrease the likelihood of enrollment. Placing colposcopy skill training on a continuing education (CE) level suggests that this service or skill is not fundamental to practice. Of note, though, courses on intrauterine contraception and endometrial biopsy that were initially offered as CE sessions have now become solidly integrated into basic graduate curricula, resulting in more widespread student comfort in clinical skills.

In a similar type of evolution, creation of a semester-long course in colposcopy and management modalities could ensure that APNs receive detailed

classroom instruction, participate in simulation labs, and complete a clinical preceptorship that would enable them to integrate didactic knowledge and develop their skills. If colposcopy education were part of a standard curriculum, students might be more likely to acquire education loans and expert clinicians might be more likely to link with university programs and serve as clinical preceptors. Examinations and clinical evaluations would serve as a means to assess successful completion of such a program.

Support from professional organizations is needed to normalize these skills as part of the NP scope of practice and facilitate acceptance of NPs providing these services, especially in low-resource settings. Elimination of cervical cancer is an ambitious goal, but one that can be realized. A key way to make progress toward reaching this goal is by capacitating NPs in the cervical cancer prevention triad to help ensure that women nationwide have access to comprehensive, high-quality, and compassionate care. ●

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References

1. The Oncology Policy Resource Center. Women in Government. 2010 State Report on Cervical Cancer Prevention. 2010. www.womeningovernment.org/oncology/hpv/state_report/2010
2. Henley SJ, Singh S, King J, et al. Invasive cancer incidence—United States, 2010. *MMWR Morb Mortal Wkly Rep*. 2014;63(12):253-259. www.cdc.gov/mmwr/preview/mmwrhtml/mm6312a1.htm
3. Schulz M, Cukr P, Ludwick R. Developing a community based screening program: commitment to the underserved. *J Am Acad Nurse Pract*. 1999;11(6):249-252.
4. Centers for Disease Control and Prevention. National Breast and Cervical Cancer Early Detection Program (NBCCEDP). Updated March 7, 2014. www.cdc.gov/cancer/nbccedp/about.htm
5. Hatcher J, Studts CR, Dignan MB, et al. Predictors of cervical cancer screening for rarely or never screened rural Appalachian women. *J Health Care Poor Underserved*. 2011;22(1):176-193.
6. Ackerson K, Gretebeck K. Factors influencing cancer screening practices of underserved women. *J Am Acad*

Nurse Pract. 2007;19(11):591-601.

7. American Association of Nurse Practitioners. Nurse Practitioners in Primary Care. Updated 2013. www.aanp.org/images/documents/publications/primarycare.pdf

8. Naylor MD, Kurtzman ET. The role of nurse practitioners in reinventing primary care. *Health Aff.* 2010;(29)5:893-899.

9. Hooker, RS, Berlin, LE. Trends in the supply of physician assistants and nurse practitioners in the United States. *Health Aff.* 2002;21(5):174-181.

10. Bauer JC. Nurse practitioners as an underutilized resource for health reform: evidence-based demonstrations of cost-effectiveness. *J Am Acad Nurse Pract.* 2010;22(4):228-231.

11. American Association of Nurse Practitioners. Nurse Practitioner Cost Effectiveness. 2013. www.aanp.org/images/documents/publications/costeffectiveness.pdf

12. Wysocki S. Nurse Practitioners and Women's Health Care. January 7, 2009. www.npwh.org/files/public/Transition%20Team.pdf

13. Brown S, Grimes, D. A meta-analysis of nurse practitioners and nurse midwives in primary care. *Nurs Res.* 1995;44(6):332-339.

14. Kilic G, England J, Borahay M, et al. Accuracy of physician and nurse practitioner colposcopy to effect improved surveillance of cervical cancer. *Eur J Gynaecol Oncol.* 2012;33(2):183-186.

15. Hartz L. Quality of care by nurse practitioners delivering colposcopy services. *J Am Acad Nurse Pract.* 1995; 7(1):23-27.

16. McPherson G, Horsburgh M, Tracy C. A clinical audit of a nurse colposcopist. Colposcopy: cytology: histology correlation. *Nurs Pract N Z.* 2005;21(3):13-23.

17. Jolley S. Quality in colposcopy. *Nurs Stand.* 2004; 18(23):39-44.

18. Huff, B. Can advanced practice clinicians perform loop electrosurgical excision procedures and cryotherapy? *J Low Genit Tract Disease.* 2005;9(3):143-144.

19. Blumenthal PD. Treatment with cryotherapy by mid-level clinicians in low-resource settings. *Int J Gynecol Obstet.* 2003;83(3 suppl):3. Abstract.

20. American Society for Colposcopy and Cervical Pathology. Loop Electrosurgical Excision Procedure. Updated 2014. <http://www.asccp.org/Education/Meetings-and-Courses/Loop-Electrosurgical-Excision-Procedure-LEEP>

21. National Organization of Nurse Practitioner Faculties. Nurse Practitioner Primary Care Competencies in Specialty Areas: Adult, Family, Gerontological, Pediatric, and Women's Health. April 2002. www.aacn.nche.edu/education-resources/npcompetencies.pdf

22. Grube W. Talk and backtalk: negotiating cervical cancer screening among Appalachian women in West Virginia [dissertation]. Philadelphia, PA: University of Pennsylvania; 2010.

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With continued emphasis on OAB in academic programs and national conferences, NPs can educate themselves to face this challenge. Nearly all NPs in the NPWH survey (99.3%) responded affirmatively when asked if they wanted to receive more information on OAB. To get more information, including templates for use in OAB management, and to access educational resources and training seminars, readers can contact the **Health & Continence Institute website**. ●

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References

1. Haylen BT, de Ridder D, Freeman RM, et al. An Inter-

national Urogynecological Association (IUGA)/International Continence Society (ICS) joint report on the terminology for female pelvic floor dysfunction. *Neurourol Urodyn.* 2010;29(1):4-20.

2. Andersson KE, Arner A. Urinary bladder contraction and relaxation: physiology and pathophysiology. *Physiol Rev.* 2004;84(3):935-986.

3. Newman DK. Talking to patients about bladder control problems. *Nurse Pract.* 2009;34(12):33-45.

4. Sexton CC, Coyne KS, Thompson C, et al. Prevalence and effect on health-related quality of life of overactive bladder in older Americans: results from the epidemiology of lower urinary tract symptoms study. *J Am Geriatr Soc.* 2011;59(8):1465-1470.

5. Kaya S, Akbayrak T, Beksaç S. Comparison of different treatment protocols in the treatment of idiopathic detrusor overactivity: a randomized controlled trial. *Clin Rehabil.* 2011;25(4):327-338.

6. Sampsel CM. Teaching women to use a voiding diary. *Am J Nurs.* 2003;103(11):62-64.

7. Bradley CS, Smith KE, Kreder KJ. Urodynamic evaluation of the bladder and pelvic floor. *Gastroenterol Clin North Am.* 2008;37(3):539-552.

8. Wang AC, Wang YY, Chen MC. Single-blind, randomized trial of pelvic floor muscle training, biofeedback-assisted pelvic floor muscle training, and electrical stimulation in the management of overactive bladder. *Urology.* 2004;63(1):61-66.