

GENERAL GYNECOLOGY

Compliance with cervical cancer screening and human papillomavirus testing guidelines among insured young women

Jacqueline M. Hirth, MPH, PhD; Alai Tan, MD, PhD; Gregg S. Wilkinson, PhD, MA; Abbey B. Berenson, MD, PhD

OBJECTIVE: In December 2009, the American Congress of Obstetricians and Gynecologists (ACOG) recommended that women under 21 years old should not receive cervical cancer screening (Papanicolaou tests) or human papillomavirus (HPV) tests. This study examined whether clinicians stopped administering Papanicolaou and HPV tests among women younger than 21 years of age after new ACOG guidelines were issued.

STUDY DESIGN: This study was a retrospective secondary data analysis of administrative claims data that included insurance enrollees from across the United States that examined the frequency of Papanicolaou tests and HPV tests among 178,898 nonimmunocompromised females 12-20 years old who had a paid claim for a well-woman visit in 2008, 2009, or 2010. Young women with well-woman examinations in each observed year were examined longitudinally to determine whether past diagnoses of cervical cell abnormalities accounted for Papanicolaou testing in 2010.

RESULTS: The proportion of women younger than 21 years old that received a Papanicolaou test as part of her well-woman exam dropped from 77% in 2008 and 2009 to 57% by December of 2010, whereas HPV testing remained stable across time. A diagnosis of cervical cell abnormalities in 2009 was associated with Papanicolaou testing in 2010. However, a previous Papanicolaou test was more strongly associated with a Papanicolaou test in 2010.

CONCLUSION: These data show that some physicians are adjusting their practices among young women according to ACOG guidelines, but Papanicolaou and HPV testing among insured women younger than 21 years of age still remains unnecessarily high.

Key words: guidelines compliance, human papillomavirus, human papillomavirus test, Papanicolaou test

Cite this article as: Hirth JM, Tan A, Wilkinson GS, et al. Compliance with cervical cancer screening and human papillomavirus testing guidelines among insured young women. *Am J Obstet Gynecol* 2013;209:200.e1-7.

In 2009, the American Congress of Obstetricians and Gynecologists (ACOG) recommended that Papanicolaou and human papillomavirus (HPV) testing not be performed in young women before they reach 21 years of age.¹ Previous guidelines recommended that young women should receive a Papanicolaou test 3 years after sexual

initiation or at age 21 years, whichever came first.²

New recommendations in 2009 were made because precancerous cervical cells have been found to regress more often among adolescents compared with adult women with low-grade squamous intraepithelial lesions (LSILs), cervical intraepithelial neoplasia (CIN) I, and

CIN II regressing among young women in most cases within 6 months to 3 years.³⁻⁵ Thus, the use of Papanicolaou tests in this population may lead to unnecessary treatment of conditions that would spontaneously resolve if left untreated. Furthermore, there is evidence that some procedures used to treat precancerous lesions may lead to long-term

From the Department of Obstetrics and Gynecology, Center for Interdisciplinary Research in Women's Health (Drs Hirth and Berenson), the Department of Preventive Medicine and Community Health (Drs Tan and Wilkinson), and the Sealy Center on Aging (Dr Tan), University of Texas Medical Branch, Galveston, TX.

Received Jan. 31, 2013; revised May 1, 2013; accepted May 28, 2013.

The views expressed herein are solely those of the authors and do not necessarily represent the official views of the Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD) or the National Institutes of Health.

Federal support for this study was provided by the NICHD as follows: Dr Hirth is currently supported by the Office of Research on Women's Health (NICHD grant K12HD052023; principal investigator: A.B.B.) and was supported at the time of initial submission by the NICHD through an institutional training grant (National Research Service Award T32HD055163; principal investigator: A.B.B.). Dr Berenson was supported by a midcareer investigator award in patient-oriented research (grant K24HD043659; principal investigator: A.B.B.). This study also was supported by the Institute for Translational Sciences at the University of Texas Medical Branch, which is partially funded by a Clinical and Translational Science Award (UL1RR029876) from the National Center for Research Resources, National Institutes of Health.

The authors report no conflict of interest.

Presented at the 140th annual meeting of the American Public Health Association, San Francisco, CA, Oct. 27-31, 2012.

Reprints not available from the authors.

0002-9378/\$36.00 • © 2013 Mosby, Inc. All rights reserved. • <http://dx.doi.org/10.1016/j.ajog.2013.05.058>

problems such as low birthweight infants, preterm premature rupture of the membranes, and difficulties with carrying a pregnancy fully to term.⁶⁻¹² The diagnosis of a precancerous lesion or sexually transmitted infection, such as HPV, may also cause unnecessary psychological distress and increased concern among teenage patients.¹³⁻¹⁶

ACOG also recommends that if a Papanicolaou test has previously been done and low-grade abnormalities have been detected, conservative observational management should be the course of action among young women, with annual Papanicolaou tests to monitor possible progression.¹⁷ For adolescents with high-grade squamous intraepithelial lesions (HSILs), colposcopic evaluation with endocervical assessment is recommended every 6 months if they have not been diagnosed with CIN II or III by biopsy.^{1,17} An excisional diagnostic procedure should be performed only for HSIL that persists for at least 24 months.¹⁷ In addition, guidelines state that HPV tests should not be administered in women younger than 21 years old. However, if HPV tests are inadvertently performed in this group, the results should not affect management because HPV infections are common in young women and may not cause the development of HSIL.¹

Although the recommendations regarding the initiation of Papanicolaou testing were published almost 3 years ago, it is unknown to what extent physicians are adhering to these new guidelines. The purpose of this study was to determine whether physicians adopted ACOG Papanicolaou testing and HPV testing guidelines in females younger than 21 years of age. We also examined whether inappropriate Papanicolaou testing in 2010 resulted from previous diagnoses of cervical cell abnormalities among females (younger than 21 years in 2010) who had well-woman examinations during each of the 3 years of the study.

MATERIALS AND METHODS

For this study, we used administrative claims records from a private health insurance provider with plans available across the United States. The dataset

that was used represents more than 45 million individuals who were enrolled between 2000 and 2010 and who had at least 1 medical claim. Records were obtained from a claims dataset called Clinformatics for DataMart affiliated with OptumInsight (Eden Prairie, MN). Demographic and socioeconomic information were not available for individual enrollees in this dataset.¹⁸

These records were examined for females that had well-woman examinations between 2008 and 2010. A total of 179,684 individual cases who had a well-woman examination using the *International Classification of Diseases, ninth edition* (ICD-9) code V72.31 and who were between 12 and 20 years old during the year their examination occurred were identified. Of these females, 786 had an ICD-9 code indicating they were immunocompromised or had conditions that are associated with a compromised immune system, including the following: HIV positive, immune deficiencies, leukocytopenia, hemophagocytic syndrome, and neutropenia (ICD-9 codes 042, 043, 044, V08, 795.71, 279.3, 279.0, 279.1, 279.2, 288.50, 288.4, 288.00, 288.5, and 288.09).

Immunocompromised cases were excluded from further analyses because ACOG recommends that these individuals should be screened for cervical cancer at a younger age because of their increased risk of developing malignancies. The remaining 178,898 females had a total of 221,580 well-woman encounters between 2008 and 2010. The University of Texas Institutional Review Board exempted this study from full review.

ICD-9, Healthcare Common Procedure Coding System, and Current Procedural Terminology (CPT) codes for Papanicolaou smears (V72.32, V76.2, V76.47, P3000, G0123, G0124, G0141, G0143, G0144, G0145, 88141-88143, 88147, 88148, 88155, 88164, 88165, and 88174) indicated the receipt of a Papanicolaou smear among females who had a record of a well-woman examination. HPV testing was identified using an ICD-9 code (V73.81) and CPT codes (87620-87622). Colposcopies (CPT codes 56820, 56821, 57420, 57421, 57452, 47454, 57455, 57456, 57460, and 57461) and conizations (CPT code

57520) or loop electrosurgical excision procedures (LEEP; CPT codes 57460, 57522, and 57461) were also examined.

To determine the occurrence of cervical dysplasia and other related conditions among the subjects in this study, ICD-9 codes indicating that they had the following conditions were examined: high-grade HPV DNA (795.05), atypical glandular cells (795.00), cervical dysplasia (633.10), atypical squamous cells of undetermined significance (ASCUS; 795.01), and atypical squamous cells of undetermined significance cannot exclude high-grade (ASCH; 795.02), LSIL (795.03), HSIL (795.04), CIN I-III (622.11, 622.12, and 233.1), and malignant neoplasm of the cervix (180.1 and 180.8).

Statistical analyses

The proportion of young females who received a Papanicolaou smear, HPV DNA test, colposcopy, or conization/LEEP as part of their well-woman examination was examined for 2008, 2009, and 2010. Fisher exact tests were used for 1-way comparisons of reductions in Papanicolaou tests, HPV tests, colposcopy procedures, conizations/LEEPS, and diagnoses of cervical cell abnormalities between 2008 and 2009 as well as between 2009 and 2010. These tests were used to determine whether proportions in subsequent years were significantly lower than in the previous year.

The proportion of females who had an ICD-9 diagnosis for the following conditions as part of their well-woman examination and as a result of a Papanicolaou test during the respective year was also determined: high-risk HPV DNA, those with any diagnosis of abnormal cervical cells, atypical glandular cells, cervical dysplasia, ASCUS, ASCH, LSIL, HSIL, CIN I-CIN III, and malignant neoplasm of the cervix. The proportion of females who received a Papanicolaou smear as part of their well-woman examination was plotted across time by month.

The proportion of young women who received an HPV test, an HPV test and a Papanicolaou test, and an HPV test without a Papanicolaou test were plotted by month for the 3 years included in the

Download English Version:

<https://daneshyari.com/en/article/6146075>

Download Persian Version:

<https://daneshyari.com/article/6146075>

[Daneshyari.com](https://daneshyari.com)