Bosch et al had ample numbers of editorial policies drawn up by biomedical journals to include in a cross-sectional study is a testament to the widespread adoption of these policies and their importance to publishers of medical and scientific research.

At *JAMA Internal Medicine*, our Instructions for Authors (www.jamainternalmed.com/public/forauthors.aspx) include a detailed outline of our stated editorial policies on authorship and the roles of sponsors and funders. The full intention of this careful outline is to enable authors to respond fully, transparently, and accurately to the requirements for submission and consideration for publication by the journal. Once a group of authors enters a publishing agreement with us—which begins at the time of manuscript submission and consideration of the work by the journal—we require verification of the roles and responsibilities of the authors and those supporting their work. Authors may—and should—refer to the Authorship Criteria section of the Instructions to fulfill this requirement for submission:

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Catherine M. Nancarrow, BA

RESEARCH LETTERS

LESS IS MORE

Cervical Cancer Screening Intervals, 2006 to 2009: Moving Beyond Annual Testing

Clinical guidelines recommend that women 30 years and older with a negative test result for oncogenic human papillomavirus (HPV) and with a concurrent normal Papanicolaou test result (co-testing) not be tested again for at least 3 years.[1] Previous studies, however, indicate that primary care providers continue to perform annual testing regardless of prior test results.[2,3] Our objective was to examine clinicians' reported behaviors regarding cervical cancer screening intervals over a 4-year period after the endorsement of co-testing.

Methods. We used nationally representative sample of primary care providers from the 2006, 2007, 2008, and 2009 Cervical Cancer Screening Supplement (CCSS) to the National Ambulatory Medical Care Survey (NAMCS) and National Hospital Ambulatory Medical Care Survey (NHAMCS).[4] The overall response rates for the NAMCS and NHAMCS surveys were 61.1% and 84.7% in 2006; 33.6% and 73.0% in 2007; 61.8% and 73.3% in 2008; and 60.5% and 50.4% in 2009, respectively.

We combined NAMCS and NHAMCS providers to assess their recommendations for the next Papanicolaou test for women aged 30 to 60 years using 5 clinical vignettes. Primary care providers were asked "When would your practice recommend that a woman between 30 and 60 years of age return for her next Pap test?" Possible answers included the following: no follow-up needed, less than 6 months, 6 to less than 12 months, 1 year, 2 years, 3 years or more, or have no experience with this type of patient or test. Each vignette included Papanicolaou test results in the prior 5 years and current HPV and Papanicolaou test results. Using the screening recommendations applicable at the time of the surveys,[1] we defined responses for timing of the next Papanicolaou test as consistent with guidelines; sooner than recommended; and later than recommended (**Table 1** and **Table 2**).

See Invited Commentary on page 856

The analysis included 2087 primary care providers after excluding practitioners who were not aware of the HPV DNA test in their practice, unknown, or missing (n = 84). Potential differences in guideline-consistent recommendations between years were compared with *t* test statistic. Data were analyzed with SUDAAN 10.1 (RTI International) to account for the sampling design and nonresponse.

Results. During the study period, 26% of NAMCS and NHAMCS providers were obstetrician-gynecologists and the remainder practiced general medicine. Nearly 60% of NAMCS providers were male, 64% were 45 years and older, 84% worked in metropolitan areas, and 69% worked in practices with fewer than 6 practitioners. Guideline adherence was low overall, especially in vignettes portraying women with normal test results (vignettes 1, 2, and 3). After normal co-testing results (vignettes 2 and 3), most respondents (67.1% to 93.8%) recommended Papanicolaou tests sooner than recommended by guidelines. Adherence was particularly low for a woman without prior Papanicolaou tests and normal co-testing results (vignette 3), with more than 86% recommending the next Papanicolaou test sooner than recommended by guidelines. Adherence improved when the recommendation was to repeat screening in 1 year because of abnormal results (vignettes 4 and 5). In vignette 4, percentages increased from 36.7% in 2006 to 48.5% in 2008 ($P < .05$), but decreased slightly in 2009 (43.8%). However, without a known Papanicolaou test history (vi-

Table 1. Vignette Descriptions and Guideline Definitions for Timing of Next Papanicolaou Test for Women Aged 30 to 60 Years

Vignette No.	Papanicolaou Test Results in the Prior 5 y, Excluding Current Results	Current HPV DNA Test Result	Current Papanicolaou Test Result	Timing of Next Papanicolaou Test		
				Guideline Consistent, y	Sooner Than Recommended, y	Later Than Recommended
1	2 Consecutive normal Papanicolaou test results	Not done	Normal	2-3	<2	No follow-up needed
2	2 Consecutive normal Papanicolaou test results	Negative	Normal	3	<3	No follow-up needed
3	Has not had Papanicolaou test	Negative	Normal	3	<3	No follow-up needed
4	2 Consecutive normal Papanicolaou test results	Positive	Normal	1	<1	No follow-up needed; >1 y
5	Has not had Papanicolaou test	Positive	Normal	1	<1	No follow-up needed; >1 y

Abbreviation: HPV, human papillomavirus.

Table 2. Timing of Next Papanicolaou Test Reported by Primary Care Providers Compared With Guidelines, by Vignette and Survey Year

Vignette No./Survey Year	No.[a]	Guideline Consistent[b]	Sooner Than Recommended[b]
1			
2006	548	19.8 (15.4-25.1)[c,g]	77.7 (72.0-82.5)
2007	375	22.3 (16.2-29.8)	70.4 (60.6-78.6)
2008	557	21.2 (16.7-26.4)[d,g]	77.7 (72.4-82.2)
2009	526	31.2 (25.6-37.5)	64.8 (58.8-70.3)
2006-2009	2006	23.7 (21.1-26.4)	72.6 (69.6-75.5)
2			
2006	547	12.4 (8.9-16.9)[c,g]	84.2 (79.0-88.3)
2007	375	20.3 (13.5-29.3)	69.8 (59.4-78.5)
2008	562	14.8 (11.0-19.6)[d,g]	83.3 (78.5-87.2)
2009	524	26.6 (21.5-32.3)	67.1 (61.1-72.6)
2006-2009	2008	18.5 (15.8-21.6)	76.2 (72.6-79.4)
3			
2006	548	. . .[e]	92.6 (88.9-95.2)
2007	373	. . .[e]	88.6 (79.3-94.1)
2008	559	. . .[e]	93.8 (90.2-96.2)
2009	522	7.0 (4.3-11.1)	86.4 (81.4-90.2)
2006-2009	2002	3.1 (2.1-4.5)	90.4 (87.7-92.5)
4			
2006	546	36.7 (30.6-43.3)[f,g]	53.2 (46.2-60.0)
2007	372	47.6 (38.0-57.4)	38.3 (28.5-49.2)
2008	557	48.5 (42.8-54.2)	45.4 (39.8-51.2)
2009	520	43.8 (38.1-49.7)	43.8 (38.0-49.8)
2006-2009	1995	44.2 (40.5-48.0)	45.2 (41.3-49.1)
5			
2006	537	21.1 (15.9-27.5)[c,f,g]	62.1 (55.3-68.4)
2007	367	31.6 (22.5-42.5)	51.0 (41.2-60.7)
2008	557	30.6 (25.4-36.5)	61.0 (54.7-66.9)
2009	521	32.7 (27.4-38.5)	56.2 (50.0-62.3)
2006-2009	1982	29.1 (25.6-32.9)	57.6 (53.6-61.5)

[a] Number of respondents (unweighted). Unknown and missing responses were excluded from the analysis. The percentages of primary care providers who reported having no experience with that type of patient or test was highest in vignette 5 and varied by year (16% in 2006, 15.1% in 2007, 7.7% in 2008, and 10.3% in 2009, data not shown).

[b] Data are given as percentage (95% CI). Percentages are weighted to account for the survey design.

[c] Significant increase from 2006 to 2009 ($P < .05$).

[d] Significant increase from 2008 to 2009 ($P < .05$).

[e] As per National Center for Health Statistics recommendation, unreliable estimates are not shown. An estimate was considered unreliable if it was based on less than 30 responses or if its relative standard error was more than 30% (Ambulatory Health Care Data. Reliability of Estimates. http://www.cdc.gov/nchs/ahcd/ahcd_estimation_reliability.htm). Screening later than recommended was uncommon in all vignettes (<5%). These percentages had small numbers and therefore are not shown.

[f] Significant increase from 2006 to 2008 ($P < .05$).

[g] *t* Tests were performed using the categories "guideline consistent" vs "not guideline consistent."

gnette 5), guideline adherence was low, ranging from 21.1% in 2006 to 32.7% in 2009 ($P < .05$).

Comment. From 2006 to 2009, primary care providers consistently reported that they would recommend Pa-

panicolaou testing sooner than recommended by guidelines, especially after normal co-testing results. A novel benefit of co-testing is the ability to extend screening intervals immediately among women who have no prior screening or whose screening history is unavailable if both test results are normal, yet the lowest adherence to guidelines was for the vignette of a woman with unknown Papanicolaou test history and negative co-test results (3.1%, all years combined). The finding of exceedingly low adherence in this scenario is troubling because reports from a large US cohort[5] demonstrate that more than 90% of women will have normal co-testing results. The highest adherence to guidelines occurred when the recommended interval was less than 3 years, suggesting that clinicians are willing to adhere to guidelines if more vigilant testing is recommended. The ability to obtain prior screening results and the use of electronic medical records or systems changes, such as office reminders or reimbursement packages, may help achieve adherence to recommended intervals.

The low response rate in 2007 (NAMCS) was a limitation of our study. However, estimates were weighted to physician population and accounted for survey nonresponse. Uncertain concordance of practitioner response to hypothetical vignette with actual practice might also be of concern. Vignettes, however, have been shown to be inexpensive and useful tools for measuring quality of care by physicians.[6] Important strengths are the inclusion of the latest NAMCS and NHAMCS data available and the consistent methodology, which make the survey a useful tool to gauge changes in clinicians' recommendations over time. Future analyses will monitor adherence to newer guidelines that recommend extending screening intervals to 5 years among women with normal co-testing results, a strategy designed to achieve a reasonable balance between benefits and harms.[7-9]

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Cerebral Toxoplasmosis After Rituximab Therapy

Rituximab is a chimeric monoclonal antibody that targets CD20 antigens on B cells. It has been approved by the US Food and Drug Administration for the treatment of B-cell non-Hodgkin lymphoma and rheumatoid arthritis that is refractory to treatment with anti–tumor necrosis factor.[1] Rituximab induces B-cell depletion and influences T-cell immunity, which could consequently predispose patients to serious infectious complications.[2] Herein we describe the reactivation of cerebral toxoplasmosis after rituximab therapy in a patient with cutaneous vasculitis associated with type I cryoglobulinemia.

See Invited Commentary at end of letter

Report of a Case. A 71-year-old woman presented with cutaneous ulcerations on her legs. The patient was not taking any medications and had no history of infections. A biopsy of the skin lesions revealed small-vessel neutrophilic vasculitis, and direct immunofluorescence revealed vascular IgM deposits. Serum protein electrophoresis revealed IgM κ monoclonal gammopathy (480 mg/dL; to convert to milligrams per liter, multiply by 10) and type I cryoglobulinemia (cryocrit concentration, 50%). The serum IgG level was normal (834 mg/dL [reference range, 700-1600 mg/dL]; to convert to grams per liter, multiply by 0.01). An exhaustive diagnostic workup re-