POEMs®
PATIENT ORIENTED EVIDENCE THAT MATTERS®
Practice Recommendations from Key Studies

Many unnecessary Pap smears are performed after hysterectomy

Sirovich BE, Welch HG. Cervical cancer screening among women without a cervix. JAMA 2004; 291:2990–2993.

CLINICAL QUESTION

How often are women undergoing Pap smear screening even though they are not at risk of cervical cancer?

BOTTOM LINE

Many American women who have had a hysterectomy with removal of the cervix for benign disease continue to undergo routine Papanicolaou (Pap) testing despite a lack of supporting evidence and a clear recommendation from the United States Preventive Services Task Force against it.

Conversely, the vast majority of American women who die from cervical cancer were either underscreened or never screened for cervical disease, most likely as a result of real or perceived cost barriers. The money saved by not inappropriately performing Pap tests on low-risk women would pay for the cost of screening the 17 million women in the United States who are currently underscreened for cervical cancer (*J Womens Health Gender Based Med* 2002; 11:103–109). (Level of evidence [LOE]=**2b**)

STUDY DESIGN

Cross-sectional

SETTING

Population-based

SYNOPSIS

Since 1996, the United States Preventive Services Task Force has suggested that routine Pap tests are unnecessary for women who have undergone hysterectomy with removal of the cervix for benign disease, placing them no longer at risk of cervical cancer. Many clinicians still perform Pap tests on these women, purportedly to screen for vaginal cancer. Since the risk of vaginal cancer is so low, however, women currently screened for cervical cancer with an intact cervix are not routinely screened for vaginal cancer.

To determine the frequency of inappropriate screening, the authors used data from a survey conducted by the Centers for Disease Control and Prevention from 1992 to 2002, reporting the proportion of women with a

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What is a POEM?

Each month, the POEMs (Patient-Oriented Evidence that Matters) editorial team reviews 105 research journals in many specialties, and selects and evaluates studies that investigate important primary care problems, measure meaningful outcomes, and have the potential to change the way medicine is practiced. Each POEM offers a Bottom Line observation and summarizes the study's objective, patient population, study design and validity, and results. InfoPOEMs, Info-Retriever and POEMS for Primary Care are registered trademarks of InfoPOEM, Inc. POEMS and Patient-Oriented Evidence that Matters are trademarks of InfoPOEM, Inc. These POEMs are copyrighted by, and published with the express permission of InfoPOEM, Inc. and may not be copied or otherwise reproduced without the prior written consent of InfoPOEM, Inc.

hysterectomy who had a subsequent Pap test within 3 years.

During this 10-year period, 22 million women in the US aged 18 years and older underwent hysterectomy, representing 21% of the population. The proportion of these women reporting a subsequent Pap test within 3 years before (68.5%) and 3 years after (69.1%) the USPSTF recommendations in 1996 did not change. The authors estimate that half these women had hysterectomies that spared the cervix or were performed for cervical neoplasia, resulting in almost 10 million women being screened unnecessarily.

Nonsurgical treatment is effective for carpal tunnel syndrome

Goodyear-Smith F, Arroll B. What can family physicians offer patients with carpal tunnel syndrome other than surgery? A systematic review of nonsurgical management. Ann Fam Med 2004; 2:267–273.

CLINICAL QUESTION

Are nonsurgical approaches to carpal tunnel syndrome effective?

BOTTOM LINE

In this systematic review, nonsurgical treatments of carpal tunnel syndrome using injected or oral steroids provided temporary relief. Spontaneous resolution is more common than you may think: nearly 50% of patients receiving placebos improved.

Long-term data on most treatments are lacking. In the few studies with long-term follow up, as many as 50% of patients had surgery during the first year after enrollment. (LOE=**1a–**)

STUDY DESIGN

Systematic review

Local steroid injection significantly improved symptoms, but half the patients had surgery within 1 year

SETTING

Various (meta-analysis)

SYNOPSIS

These authors systematically reviewed English-language randomized controlled trials of nonsurgical treatments of carpal tunnel syndrome. They did an exhaustive search of the literature, including Medline, EMBASE, the Cochrane Library, and the registry of controlled trials. They also hand-searched references from previously retrieved articles, and communicated with authors to obtain unpublished material.

Each author assessed the quality of the studies using the PEDro (Physiotherapy Evidence Database) scale, which gives a total score out of 10 possible points. Any disagreements were resolved by consensus. Studies had to have a score of at least 3 for inclusion.

The authors ended up with 2 systematic reviews, 16 randomized controlled trials, and 1 quasi-experimental study that met their requirements. They found a fairly high rate of spontaneous resolution—nearly 50% of patients treated with placebo improved. Local steroid injection significantly improved symptoms, but 50% of the patients had surgery within 1 year. Oral steroids provide short-term improvement, but there are no long-term data.

The following treatment modalities had limited data on their effectiveness (small studies, poor design, mixed or conflicting results): laser-acupuncture, exercises, ultrasound, splinting, and yoga. The authors were unable to find support for the use of nonsteroidal anti-inflammatory drugs, chiropractic manipulation, pyridoxine, diuretics, or magnets.

THE JOURNAL OF
FAMILY
PRACTICE

Evidence-based medicine ratings

THE JOURNAL OF FAMILY PRACTICE uses a simplified rating system system called the Strength of Recommendation Taxonomy (SORT). More detailed information can be found in the February 2003 issue, "Simplifying the language of patient care," pages 111–120.

Strength of Recommendation (SOR) ratings are given for key recommendations for readers. SORs should be based on the highest-quality evidence available.

- **A** Recommendation based on consistent and good-quality patient–oriented evidence.
- **B** Recommendation based on inconsistent or limited-quality patient-oriented evidence.
- **C** Recommendation based on consensus, usual practice, opinion, disease-oriented evidence, or case series for studies of diagnosis, treatment, prevention, or screening

Levels of evidence determine whether a study measuring patient-oriented outcomes is of good or limited quality, and whether the results are consistent or inconsistent between studies.

STUDY QUALITY

1—Good-quality, patient-oriented evidence (eg, validated clinical decision rules, systematic reviews and meta-analyses of randomized controlled trials [RCTs] with consistent results, high-quality RCTs, or diagnostic cohort studies)

2—Lower-quality patient-oriented evidence (eg, unvalidated clinical decision rules, lower-quality clinical trials, retrospective cohort studies, case control studies, case series)

3—Other evidence (eg, consensus guidelines, usual practice, opinion, case series for studies of diagnosis, treatment, prevention, or screening)

Consistency across studies

Consistent—Most studies found similar or at least coherent conclusions (coherence means that differences are explainable); *or* If high-quality and up-to-date systematic reviews or meta-analyses exist, they support the recommendation

Inconsistent—Considerable variation among study findings and lack of coherence; *or* If high-quality and up-to-date systematic reviews or meta-analyses exist, they do not find consistent evidence in favor of the recommendation

PATIENT ORIENTED EVIDENCE THAT MATTERS

D-dimer useful for excluding deep vein thrombosis and pulmonary embolism

Stein PD, Hull RD, Patel KC, et al. D-dimer for the exclusion of acute venous thrombosis and pulmonary embolism. A systematic review. Ann Intern Med 2004; 140:589–602.

CLINICAL QUESTION

Can the D-dimer test be used to rule out suspected thromboembolism?

BOTTOM LINE

Although diagnostic tests often are good for both identifying and excluding disease, sometimes tests do one better than the other. A normal D-dimer test result can be relied upon to rule out suspected pulmonary embolism or deep vein thrombosis. It is not particularly helpful, by itself, to rule in the diagnosis. The results of this meta-analysis confirm an earlier meta-analysis (*Ann Emerg Med* 2002; 40:133–144). (LOE=**1a**)

STUDY DESIGN

Meta-analysis (other)

SETTING

Various (meta-analysis)

SYNOPSIS

To answer the question about the role of D-dimer testing in patients with suspected deep vein thrombosis (DVT) or pulmonary embolism (PE), the authors of this meta-analysis identified 78 high-quality studies by searching Medline and EMBASE for evaluative studies in all languages. They also performed a secondary analysis using 30 more studies with weaker study designs. As is now standard in meta-analyses, 2 authors determined what studies would be included and 2 authors independently extracted the data and then compared their results.

Of the various methods of measuring D-dimer, enzyme-linked immunosorbent assay (ELISA) and

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D-dimer testing effectively rules out DVT and PE, but is not very useful for ruling in the diagnosis

quantitative rapid ELISA have the best test characteristics. For ruling out DVT, those tests have a sensitivity of 96% and a negative likelihood ratio of 0.09–0.12.

Characteristics for ruling out PE are similar, with a sensitivity of 95% and a likelihood ratio of 0.12. In other words, this method of D-dimer testing accurately rules out DVT and PE. The test is not very useful, by itself, for identifying patients with DVT or PE, although it is helpful when combined with decision analysis or other testing (*Arch Intern Med* 2002; 162;907–911).

Favorable response to proton pump inhibitors doesn't necessarily diagnose GERD

Numans ME, Lau J, de Wit NJ, Bonis PA. Short-term treatment with proton-pump inhibitors as a test for gastroesophageal reflux disease. A meta-analysis of diagnostic test characteristics. Ann Intern Med 2004; 140:518–527.

CLINICAL QUESTION

If patients respond to treatment with proton pump inhibitors, does that mean that they have gastroesophageal reflux disease?

BOTTOM LINE

Response to treatment with a proton pump inhibitor does not identify patients as having gastroesophageal reflux disease. As a result, an initial response should not consign the patient to long-term therapy. These results agree with other research showing that patients can use short-term treatment (2 weeks), stop treatment, and then begin treatment again if symptoms recur, which won't happen in approximately half of them (*BMJ* 1999; 318:502–507). (LOE=**1a**)

STUDY DESIGN

Meta-analysis (randomized controlled trials)

SETTING

Various (meta-analysis)

SYNOPSIS

Several guidelines on the treatment of gastroesophageal reflux disease (GERD) suggest lifestyle changes and treatment with acid-suppressive therapy as the first-line approach. A favorable response to therapy with a proton pump inhibitor (PPI) often is used as confirmation of the diagnosis (the PPI test).

The investigators conducting this meta-analysis sought to determine the accuracy of this type of testing by performing a meta-analysis of all studies that compared treatment of symptomatic patients with a PPI test who also had additional testing for GERD. They searched for English-language studies by using Medline and the Cochrane Controlled Trials Register. They winnowed 136 studies to a final 15 that provided enough data for comparison. All these studies compared the clinical response to short-term treatment with a PPI (1–4 weeks) with either 24-hour pH monitoring, upper endoscopy, or symptom questionnaires. Two authors independently extracted data and determined which studies to exclude.

Patients in the studies (N=2793) represented the full range of potential GERD, from "reflux-like symptoms to erosive esophagitis. The outcome used for making the diagnosis was "complete relief of heartburn" following PPI treatment. Results compared with various structured questionnaires varied widely and were not combined.

As compared with 24-hour pH monitoring, the sensitivity of response to therapy was 78% and the specificity was 54%. Using esophagitis as the standard, both sensitivity (71%) and specificity (41%) dropped. Likelihood ratios for symptom response ranged between 1 and 2, which gives little diagnostic information.

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PATIENT ORIENTED EVIDENCE THAT MATTERS

Liposuction does not improve cardiovascular risk factors

Klein S, Fontana L, Young VL, et al. Absence of an effect of liposuction on insulin action and risk factors for coronary heart disease. N Engl J Med 2004; 350:2549–2557.

CLINICAL QUESTION

Does liposuction improve cardiovascular risk-factor profiles for obese women?

BOTTOM LINE

Liposuction of an average of 7 kg of abdominal fat does not result in an improvement in cardiovascular risk factors, including measures of inflammation and insulin resistance. Diet and exercise are better ideas. (LOE=**4**)

STUDY DESIGN

Other

SETTING

Outpatient (specialty)

SYNOPSIS

The researchers identified 15 obese women, 8 with normal glucose tolerance (mean body mass index [BMI]=35.1 kg/m^2) and 7 with abnormal glucose tolerance or type 2 diabetes mellitus (mean BMI=39.9 kg/m^2). Each had a series of metabolic parameters measured at baseline, and again after large-volume liposuction. This was not a little nip and tuck—the average patient had 7.05 kg (15.5 lbs) removed during the procedure.

There was no significant improvement in the cardiovascular risk factors (blood pressure, lipid levels, plasma glucose, plasma insulin) or on measures of inflammation after the liposuction. Though the study was small, it was appropriately powered to find a statistically significant change in the outcomes reported.

Editorial

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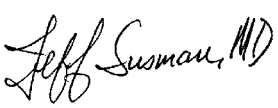
to the author or speaker directly or indirectly by a pharmaceutical company, and how much? Who prepared ancillary materials? Products without commercial support could get a label analogous to EB-CME designation, indicating independent creation of educational materials.

Second, we could create a National Trust for Continuing Medical Education. Any corporation selling medical products in the US would be required to contribute to the Trust. ACCME reports that in 2003, $1.7 million was spent on certified CME programs, almost $1 billion coming from industry. Instead of millions of dollars going primarily to support therapeutic categories in which the supporting company has an interest, resources contributed to the Trust could support primary care research, dissemination of best evidence, and development of innovative educational programs. A national committee on CME could plan educational interventions in a coordinated way, emphasizing matters of widespread importance to a healthy population, and not the latest lifestyle enhancement, like erectile dysfunction, or "me-too" medication. Though product-related education might still exist, why shouldn't we also have a totally unbiased source of funding with no connection to proprietary businesses?

Of course, I know these suggestions are akin to Don Quixote tilting at windmills. Who in the educational medical establishment will want to jeopardize cozy relationships, our gravy train of dollars? Why would our Academy want to turn down explicit funding received for commercial products? What corporation would risk making the first contribution to this Trust?

A number of you have given thought to these issues. What are your suggestions?



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