



Priority Updates from the Research Literature from the Family Physicians Inquiries Network

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Easing the discomfort of a speculum exam

Applying a small amount of gel to the blades of a speculum before insertion won't alter test results—but will reduce the patient's discomfort.

PRACTICE CHANGER

Put lubricating gel, not water, on the speculum every time you do a pelvic exam.¹

STRENGTH OF RECOMMENDATION

B: Based on one good-quality, randomized controlled trial (RCT).

Hill DA, Lamvu G. Effect of lubricating gel on patient comfort during vaginal speculum examination. *Obstet Gynecol.* 2012;119(2 pt 1):227-231.

ILLUSTRATIVE CASE

A 24-year-old woman comes in for an annual exam, including Pap smear and testing for sexually transmitted diseases (STD). She tells you how painful her previous speculum exam was and how worried she is about having another. Should you apply lubricating gel or water to the speculum before vaginal insertion to ease her discomfort?

Physiology teaches us that vaginal entry requires lubrication. But traditional teaching has held that lubricating gel on a speculum can interfere with the results of a Pap smear and chlamydia testing.² Pelvic exams performed without lubricating gel on the speculum can cause significant discomfort—possibly bad enough to prevent some women from undergoing the recommended screening tests.³

Until now, we've only evaluated gel's impact on test results

Studies comparing lubricating gel and water

have conclusively shown that a small amount of gel, used on the outside of the speculum blades, does not interfere with either Pap testing or detection of *Chlamydia trachomatis*.^{4,5} One liquid-based cytology manufacturer, however, discourages the use of lubricants with “carbomers” or “carbopol polymers,” but states that water-based lubricants have not been shown to interfere with Pap smear results.⁶ No studies have evaluated lubricants from a patient perspective—until now.

STUDY SUMMARY

Lubricating gel eases discomfort

The study by Hill and Lamvu was a 6-month, single-blind, randomized trial of women ages 18 to 50 years who sought care at an Orlando, Florida obstetrics and gynecology department for conditions requiring vaginal speculum examination.¹ The study excluded women who might have an altered perception of pain during speculum insertion—those who were menopausal, pregnant, or within 6 weeks' postpartum; had dyspareunia, vaginitis, vulvar pain, or vulvar lesions; were undergoing a procedure; or had never had vaginal intercourse. Women who were not fluent in English were excluded, as well.

The study included 120 women who underwent computer-generated randomization into 2 groups with no marked differences in demographics. A single examiner did all the speculum exams, using a standard protocol with a medium-size Graves speculum. The

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➤ One in 3 patients in the gel group marked 0 on the pain scale, indicating that they had no pain, vs only one in 10 in the water group.

examiner applied 0.3 mL water-based lubricating gel to the speculum before insertion for the women in one group, and used 3 mL water for the other.

Immediately after the speculum was inserted and opened—before the examiner attempted to visualize the cervix—patients were given a visual analog scale and told to indicate the level of pain with insertion, using a scale of 0 (no pain) to 10 (the worst pain imaginable). The gel group had lower pain scores for speculum insertion compared with the water group (1.41±1.55 vs 2.15±1.93; $P<.01$), a statistically significant difference of 0.74. Twenty of the 59 patients in the gel group (33.9%) rated their pain as 0, compared with 6 of 60 (10%) in the water group ($P=.002$). Although pain, rather than sampling quality, was the primary outcome of the study, the authors also reported that all of the women who underwent Pap screening (73) had adequate cytology.

WHAT'S NEW?

It's time for lubrication to become standard practice

This trial is the first to study speculum lubrication from this patient-oriented outcome, and to show that women experience less pain when lubricating gel is applied to the speculum, rather than water. This knowledge, combined with previous studies showing that a small amount of water-based lubricating gel does not interfere with liquid-based cytology or chlamydia test results, should make the use of lubricating gel standard practice when performing speculum examinations.

CAVEATS

We see no downside

The exclusion criteria of this study were meant to eliminate women who had an al-

tered pain perception that could skew study results. Yet those who met the exclusion criteria may also benefit from a pelvic exam with gel lubrication. We see no harm in trying a small amount of lubricant when examining them, as well.

In addition, the study did not compare various types and sizes of specula. However, we see no reason why the benefit of a gel lubricant would be limited to the type of speculum used by the examiner.

Studies in emergency departments that have used visual analog scales to measure interventions that decrease pain have used a 0.9 mean difference as “clinically meaningful.”^{7,8} By that criteria, the 0.74 difference observed in this study does not rise to the level of clinical meaningfulness. However, one in 3 patients in the gel group marked 0 on the pain scale, indicating that they had no pain, vs only one in 10 in the water group. We believe that the higher proportion of women experiencing no pain and the mean difference of 0.74 on the pain scale (both statistically significant), combined with the lack of risk associated with the use of a water-based lubricant, makes this a clinically useful practice changer.

CHALLENGES TO IMPLEMENTATION

There aren't any

Other than clinical inertia, we see no challenges to the implementation of this recommendation. **JFP**

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