U.S. Preventive Services Task Force

Screening for Gynecologic Conditions with Pelvic Examination: Recommendation Statement

▶ **See related Putting Prevention into Practice on page 253.**

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This summary is one in a series excerpted from the Recommendation Statements released by the USPSTF. These statements address preventive health services for use in primary care clinical settings, including screening tests, counseling, and preventive medications.

The complete version of this statement, including supporting scientific evidence, evidence tables, grading system, members of the USPSTF at the time this recommendation was finalized, and references, is available on the USPSTF website at http://www.uspreventiveservicestaskforce.org/.

This series is coordinated by Sumi Sexton, MD, Associate Deputy Editor.

A collection of USPSTF recommendation statements published in *AFP* is available at http://www.aafp.org/afp/uspstf.

Summary of Recommendation and Evidence

The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of performing screening pelvic examinations in asymptomatic, nonpregnant adult women *(Table 1)*. **I statement.**

This statement does not apply to specific disorders for which the USPSTF already recommends screening (i.e., screening for cervical cancer with a Papanicolaou [Pap] smear, screening for gonorrhea and chlamydia). See *Table 2* for more information.

Rationale

IMPORTANCE

Many conditions that can affect women's health are often evaluated through pelvic examination. These conditions include but are not limited to malignant diseases, such as ovarian, uterine, vaginal, and cervical cancer; infectious diseases, such as bacterial vaginosis, candidiasis, genital warts, genital herpes, trichomoniasis, and pelvic inflammatory disease; and other benign conditions, such as cervical polyps, endometriosis, ovarian cysts, dysfunction of the pelvic wall and floor, and uterine fibroids. Pelvic examination is a common part of the physical examination; 44.2 million pelvic examinations were performed in the United States in 2012.[1] Although it is a common part of the physical examination, it is unclear whether performing screening pelvic examinations in asymptomatic women has a significant effect on disease morbidity and mortality.

Table 1. Screening for Gynecologic Conditions with Pelvic Examination: Clinical Summary of the USPSTF Recommendation

Population	Asymptomatic, nonpregnant adult women who are not at increased risk for any specific gynecologic condition
Recommendation	No recommendation. Grade: I (insufficient evidence) NOTE: This statement does not apply to specific disorders for which the USPSTF already recommends screening (i.e., screening for cervical cancer with a Papanicolaou smear, screening for gonorrhea and chlamydia).
Screening tests	The pelvic examination may include any of the following components, alone or in combination: assessment of the external genitalia, internal speculum examination, bimanual palpation, and rectovaginal examination.
Balance of benefits and harms	The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of performing screening pelvic examinations in asymptomatic women for the early detection and treatment of a range of gynecologic conditions.
Other relevant USPSTF recommendations	The USPSTF has made recommendations on screening for cervical cancer, ovarian cancer, gonorrhea, and chlamydia, as well as counseling to prevent sexually transmitted infections. These recommendations are available on the USPSTF website (https://www.uspreventiveservicestaskforce.org).

NOTE: *For a summary of the evidence systematically reviewed in making this recommendation, the full recommendation statement, and supporting documents, go to http://www.uspreventiveservicestaskforce.org/.*

USPSTF = U.S. Preventive Services Task Force.

Table 2. Related USPSTF Recommendations

Screening for gynecologic conditions with pelvic examination	*Screening for cervical cancer*	*Screening for chlamydia*	*Screening for gonorrhea*
I Statement	**A Grade**	**B Grade**	**B Grade**
The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of performing screening pelvic examinations in asymptomatic, nonpregnant adult women. (Does not apply to screening for cervical cancer, gonorrhea, and chlamydia)	The USPSTF recommends screening in women aged 21 to 65 years with cytology (Papanicolaou smear) every 3 years or, for women aged 30 to 65 years who want to lengthen the screening interval, screening with a combination of cytology and human papillomavirus testing every 5 years.	The USPSTF recommends screening in sexually active women 24 years and younger and in older women who are at increased risk for infection.	The USPSTF recommends screening in sexually active women 24 years and younger and in older women who are at increased risk for infection.

NOTE: *Besides this I statement on screening with pelvic examination, the USPSTF has several related but separate screening recommendations for women. These recommendations remain unchanged by this I statement on screening for gynecologic conditions with pelvic examination.*

USPSTF = U.S. Preventive Services Task Force.

The USPSTF has made separate recommendations on screening for cervical cancer,[2] gonorrhea,[3] and chlamydia[3] using tests that are often performed during a pelvic examination (e.g., Pap smear, human papillomavirus test, and nucleic acid amplification tests); in this recommendation statement, the USPSTF seeks to understand the utility of performing screening pelvic examinations for other gynecologic conditions. Although the USPSTF sought evidence on the effectiveness of using pelvic examination to screen for all asymptomatic gynecologic conditions other than cervical cancer, chlamydia, and gonorrhea, it was only able to identify limited evidence on its accuracy to detect ovarian cancer, bacterial vaginosis, genital herpes, and trichomoniasis.

DETECTION

The pelvic examination may include any of the following components, alone or in combination: assessment of the external genitalia, internal speculum examination, bimanual palpation, and rectovaginal examination. The USPSTF found inadequate evidence on the accuracy of pelvic examination to detect a range of gynecologic conditions. Limited evidence from studies evaluating the use of screening pelvic examination alone for ovarian cancer detection generally reported low positive predictive values (0% to 3.6%).[4] Very few studies on screening for other gynecologic conditions with pelvic examination alone have been conducted,[4,5] and the USPSTF found that these studies have limited generalizability to the current population of asymptomatic women seen in primary care settings in the United States.

BENEFITS OF SCREENING

The USPSTF found inadequate evidence on the benefits of screening for a range of gynecologic conditions with pelvic examination. No studies were identified that evaluated the benefit of screening with pelvic examination on all-cause mortality, disease-specific morbidity or mortality, or quality of life.[4]

HARMS OF SCREENING

The USPSTF found inadequate evidence on the harms of screening for a range of gynecologic conditions with pelvic examination. A few studies reported on false-positive rates for ovarian cancer, ranging from 1.2% to 8.6%, and false-negative rates, ranging from 0% to 100%. Among women who had abnormal findings on pelvic examination, 5% to 36% went on to have surgery.[4] Very few studies reported false-positive and false-negative rates for other gynecologic conditions.[4] No studies quantified the amount of anxiety associated with screening pelvic examinations.[4]

USPSTF ASSESSMENT

The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of performing screening pelvic examinations in asymptomatic women for the early detection and treatment of a range of gynecologic conditions. Evidence is lacking and of poor quality, and the balance of benefits and harms cannot be determined.

Clinical Considerations

PATIENT POPULATION UNDER CONSIDERATION

This recommendation applies to asymptomatic women 18 years and older who are not at increased risk for any specific gynecologic conditions, such as ovarian or cervical cancer. It does not apply to pregnant women or adolescents.

SUGGESTIONS FOR PRACTICE REGARDING THE I STATEMENT

Potential Preventable Burden. Numerous gynecologic conditions may be detected during a screening pelvic

examination. These include malignant diseases, such as ovarian, uterine, vaginal, and cervical cancer; infectious diseases, such as bacterial vaginosis, candidiasis, genital warts, genital herpes, trichomoniasis, and pelvic inflammatory disease; and other benign conditions, such as cervical polyps, endometriosis, ovarian cysts, dysfunction of the pelvic wall and floor, and uterine fibroids.

The accuracy of detecting and the benefit of treating some of these conditions early, while women are asymptomatic, is unknown. No studies evaluated the effectiveness of early diagnosis and treatment of screen-detected, asymptomatic gynecologic conditions compared with the diagnosis and treatment of symptomatic gynecologic conditions.[4] It is also unknown whether performing screening pelvic examinations more frequently than every 3 to 5 years (the recommended screening interval for cervical cancer) is beneficial. Although it is common practice to perform a pelvic examination as part of an annual physical examination, the benefit of performing screening pelvic examinations at this interval is unclear. The benefit of using pelvic examination alone to screen for gynecologic conditions other than cervical cancer, gonorrhea, and chlamydia is also unknown.

Potential Harms. The USPSTF found limited evidence on the harms of screening with pelvic examination. Harms reported in studies included false-positive and false-negative results. Available evidence reports false-positive rates for ovarian cancer of 1.2% to 8.6% and false-negative rates of 0% to 100%.[4] Pelvic examination screening also could result in unnecessary diagnostic workup and treatment. In particular, there is a concern for potential invasive diagnostic procedures and treatment of ovarian cancer (such as surgery) that could result from evaluating abnormal findings on pelvic examination. In the reviewed studies, approximately 5% to 36% of women who had abnormal pelvic examination findings went on to have surgery.[4] The potential association between urinary tract infections and pelvic examinations was explored in a single study with inconclusive results.[6] Additional theoretical harms of pelvic examination include psychological harms (anxiety), pain and discomfort from the examination, and the potential for these harms to serve as a barrier for women to receive medical care.

In the absence of clear evidence on the balance of benefits and harms of using pelvic examination to screen for asymptomatic gynecologic conditions, clinicians are encouraged to consider the patient's risk factors for various gynecologic conditions and the patient's values and preferences, and engage in shared decision making with the patient to determine whether to perform a pelvic examination.

Current Practice. According to the National Ambulatory Medical Care Survey, 44.2 million pelvic examinations were performed in 2012.[1] In a 2010-2011 nationally representative survey of obstetricians and gynecologists, almost all surveyed clinicians indicated that they would perform a bimanual examination on asymptomatic patients during routine visits.[7] According to a 2009 survey, 78% of surveyed clinicians (including obstetricians/gynecologists, family or general practitioners, and internists) believed that pelvic examination is useful for screening for gynecologic cancer in asymptomatic women; approximately 50% to 60% reported believing that pelvic examination is useful for cervical cancer screening, 49% to 70% for ovarian cancer (70% of obstetrician/gynecologists vs. 49% to 50% of internists and family practitioners), 39% to 45% for uterine cancer, 57% to 62% for vaginal cancer, and 53% to 62% for vulvar cancer (estimates are based on graphic display of data, exact numbers were not provided).[8] Nearly all surveyed clinicians (97%) believed that the pelvic examination included bimanual examination, while most (69%) believed that the pelvic examination included rectovaginal examination.[8]

RESEARCH NEEDS AND GAPS

The USPSTF recognizes that research on the effectiveness of the screening pelvic examination is difficult, given that multiple conditions could potentially be detected with this single preventive service. However, in reviewing the currently available evidence on the benefits and harms of performing screening pelvic examinations in asymptomatic adult women, the USPSTF identified the following critical evidence gaps. Studies evaluating the accuracy and effectiveness of screening pelvic examination to detect conditions other than ovarian cancer, bacterial vaginosis, genital herpes, and trichomoniasis are lacking. Studies reporting on the harms of screening with pelvic examination (including quantified psychological harms) in asymptomatic women in primary care are also lacking.

Studies reporting the effects of performing routine screening pelvic examinations on health outcomes such as all-cause mortality, disease-specific morbidity and mortality, quality of life, and psychological benefits and harms could help fill the gaps in the existing evidence and inform future USPSTF recommendations. Studies evaluating and quantifying harms are needed, as well as studies evaluating the potential effectiveness of risk assessment tools to determine which women might benefit from a pelvic examination. Research is needed to clarify which indications primary care clinicians are currently using the screening pelvic examination for in asymptomatic patients and which components of the pelvic examination are performed most frequently.

Studies exploring women's attitudes toward pelvic examinations, the outcomes women value from these examinations, and how pelvic examinations affect women's decisions to seek and obtain care are also needed to clarify the potential benefits and harms of providing this preventive service.

SCREENING TESTS

For the purposes of this recommendation, the term "pelvic examination" includes any of the following components, alone or in combination: assessment of the external genitalia, internal speculum examination, bimanual palpation, and rectovaginal examination.

USEFUL RESOURCES

Screening for cervical cancer, gonorrhea, and chlamydia is not included in this recommendation statement on screening pelvic examinations because these conditions are already addressed in separate USPSTF recommendations.[2,3] Screening for ovarian cancer with preventive services other than pelvic examination is addressed in the USPSTF's recommendation on screening for ovarian cancer[9]; the USPSTF also has recommendations on counseling to prevent sexually transmitted infections.[10] The Women's Preventive Services Guidelines, supported by the Health Resources & Services Administration, is another resource.[11]

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The "Discussion" and "Recommendations of Others" sections of this recommendation statement are available at https://www.uspreventiveservicestaskforce.org/Page/Document/UpdateSummaryFinal/gynecological-conditions-screening-with-the-pelvic-examination.

REFERENCES

1. National Center for Health Statistics, Centers for Disease Control and Prevention. National Ambulatory Medical Care Survey: 2012 state and national summary tables. http://www.cdc.gov/nchs/data/ahcd/namcs_summary/2012_namcs_web_tables.pdf. Accessed January 17, 2017.
2. U.S. Preventive Services Task Force. Screening for cervical cancer: U.S. Preventive Services Task Force recommendation statement [published correction appears in *Ann Intern Med*. 2013;158(11):852]. *Ann Intern Med*. 2012;156(12):880-891.
3. U.S. Preventive Services Task Force. Screening for chlamydia and gonorrhea: U.S. Preventive Services Task Force recommendation statement. *Ann Intern Med*. 2014;161(12):902-910.
4. Guirguis-Blake JM, Henderson JT, Perdue LA, Whitlock EP. *Screening for Gynecologic Conditions With Pelvic Examination: A Systematic Review for the U.S. Preventive Services Task Force*. Evidence synthesis no. 147. AHRQ publication no. 15-05220-EF-1. Rockville, Md.: Agency for Healthcare Research and Quality; 2017.
5. Guirguis-Blake JM, Henderson JT, Perdue LA. Periodic screening pelvic examination: evidence report and systematic review for the U.S. Preventive Services Task Force. *JAMA*. 2017;317(9):954-966.
6. Tiemstra JD, Pela E. Urinary symptoms after a routine pelvic exam. *J Am Board Fam Med*. 2011;24(3):290-295.
7. Henderson JT, Harper CC, Gutin S, Saraiya M, Chapman J, Sawaya GF. Routine bimanual pelvic examinations: practices and beliefs of US obstetrician-gynecologists. *Am J Obstet Gynecol*. 2013;208(2):109.e1-7.
8. Stormo AR, Cooper CP, Hawkins NA, Saraiya M. Physician characteristics and beliefs associated with use of pelvic examinations in asymptomatic women. *Prev Med*. 2012;54(6):415-421.
9. U.S. Preventive Services Task Force. Screening for ovarian cancer: U.S. Preventive Services Task Force reaffirmation recommendation statement. *Ann Intern Med*. 2012;157(12):900-904.
10. U.S. Preventive Services Task Force. Behavioral counseling interventions to prevent sexually transmitted infections: U.S. Preventive Services Task Force recommendation statement. *Ann Intern Med*. 2014;161(12):894-901.
11. Health Resources & Services Administration. Women's preventive services guidelines. https://www.hrsa.gov/womensguidelines2016/index.html. Accessed January 17, 2017. ■