

**Guideline:** Screening for Ovarian Cancer: U.S. Preventive Services Task Force Reaffirmation Recommendation Statement [2013]

**Developer:** U.S. Preventive Services Task Force

**Summary:** This is a high-quality guideline that can be used to guide preventive care in Canada. The guideline may need to be updated when the United Kingdom Collaborative Trial on Ovarian Cancer Screening publishes updated results (expected in 2015).

**OVERVIEW** This guideline<sup>1</sup> focuses on screening for ovarian cancer in asymptomatic women. It reaffirms the 2004 statement of the U.S. Preventive Services Task Force (USPSTF)<sup>2</sup>, which recommended against screening with transvaginal ultrasonography or single-threshold serum CA-125 testing. At that time, the rationale for the recommendation was that while there was evidence that screening can detect ovarian cancer at an early stage, no trials were found that examined the effect of screening on mortality. Further, the harms of screening were high, thus outweighing any small potential mortality benefit. Since the 2004 recommendation, new evidence from a randomized controlled trial (RCT) has demonstrated that screening does not reduce mortality due to ovarian cancer.

Ovarian cancer represents only 2.9% of annual new cancer diagnoses (excluding skin cancer) among Canadian women but is associated with poor 5-year survival (42%)<sup>3</sup>. Because ovarian cancer is rare in the general population, tests aimed at early detection (using transvaginal ultrasonography and CA-125 testing alone or in combination) are associated with a high false-positive rate: for every 100 women with a positive screening result, only 1 has ovarian cancer<sup>4</sup>. False-positive test results may lead to unnecessary surgery and surgical complications. Although some practitioners perform regular bimanual pelvic examination to screen for ovarian cancer, the USPSTF did not identify any RCTs that evaluated the effectiveness of this intervention on screening.

This guideline was developed in the United States by a broad range of experts and is targeted toward clinicians.

**RELEVANCE TO CTFPHC MANDATE** All sections of this guideline are applicable to the CTFPHC mandate of prevention in primary care.

**POPULATION** The target population for this recommendation is asymptomatic women without known genetic mutations that would increase the risk for ovarian cancer.

**EVIDENCE REVIEW METHODS** The USPSTF last reviewed the evidence in 2008, at which point there was no new evidence addressing the benefit of screening. Therefore, the current search<sup>4</sup> included literature published between October 15, 2007, and July 26, 2011, to identify “substantial evidence” (i.e., RCTs) on screening for ovarian cancer in asymptomatic women that became available since the USPSTF’s previously unpublished 2008 review. The following databases were searched: PubMed, MEDLINE and the Cochrane Central Register of Controlled Trials. Titles and abstracts of 848 articles were reviewed, the full text of 30 articles was reviewed, and the final recommendation was based on evidence from 4 articles arising from 3 RCTs.

**GRADING SYSTEM** The USPSTF assigns 1 of 5 letter grades to each recommendation: A, B, C, D, or I<sup>5</sup>. These grades are based largely on the level of certainty and magnitude of the net benefit associated with providing the service. For more information on the grading scheme, see Table 1 and Table 2.

**COMMENTARY** Overall, the objective, health questions and target population of this guideline are well defined and clearly presented. The recommendation statement is logical and clinically sensible, and it appears to be supported by the available evidence (although the strengths and weaknesses of the 3 included RCTs could have been better described). Despite this relatively minor concern, the guideline was rated highly by the CTFPHC through the AGREE II process and will be useful to practitioners. The guideline

may need to be updated when the United Kingdom Collaborative Trial on Ovarian Cancer Screening publishes updated results (expected in 2015).

#### CTFPHC APPRAISAL COLOUR LEGEND

 **GREEN**

This is a high-quality guideline that can be used to guide preventive care in Canada.

 **YELLOW**

This is a high-quality guideline, but the CTFPHC has identified some concerns that may limit its applicability.

 **RED**

This is a high-quality guideline, but the CTFPHC does not recommend its use in Canada.

**Recommendation: U.S. Preventive Services Task Force**

The full guideline can be found at:  
<http://www.uspreventiveservicestaskforce.org/uspstf12/ovarian/ovarcancers.htm>

Do not screen for ovarian cancer  
[Grade D].

**TABLE 1 (see right):** Summary of the U.S. Preventive Services Task Force grade definitions<sup>5</sup>.

**TABLE 2 (see below):** Summary of the U.S. Preventive Services Task Force levels of certainty regarding net benefit<sup>5</sup>.

**HIGH CERTAINTY:** The available evidence usually includes consistent results from well-designed, well-conducted studies in representative primary care populations. These studies assess the effects of the preventive service on health outcomes. This conclusion is therefore unlikely to be strongly affected by the results of future studies.

**MODERATE CERTAINTY:** The available evidence is sufficient to determine the effects of the preventive service on health outcomes, but confidence in the estimate is constrained by such factors as:

- The number, size, or quality of individual studies.
- Inconsistency of findings across individual studies.
- Limited generalizability of findings to routine primary care practice.
- Lack of coherence in the chain of evidence.

As more information becomes available, the magnitude or direction of the observed effect could change, and this change may be large enough to alter the conclusion.

**LOW CERTAINTY:** The available evidence is insufficient to assess effects on health outcomes. Evidence is insufficient because of:

- The limited number or size of studies.
- Important flaws in study design or methods.

Grade	Definition	Suggestions for Practice
<b>A</b>	The USPSTF recommends the service. There is high certainty that the net benefit is substantial.	Offer or provide this service.
<b>B</b>	The USPSTF recommends the service. There is high certainty that the net benefit is moderate or there is moderate certainty that the net benefit is moderate to substantial.	Offer or provide this service.
<b>C</b>	The USPSTF recommends selectively offering or providing this service to individual patients based on professional judgment and patient preferences. There is at least moderate certainty that the net benefit is small.	Offer or provide this service for selected patients depending on individual circumstances.
<b>D</b>	The USPSTF recommends against the service. There is moderate or high certainty that the service has no net benefit or that the harms outweigh the benefits.	Discourage the use of this service.
<b>I Statement</b>	The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of the service. Evidence is lacking, or poor quality, or conflicting, and the balance of benefits and harms cannot be determined.	Read the clinical considerations section of USPSTF Recommendation Statement. If the service is offered, patients should understand the uncertainty about the balance of benefits and harms.

- Inconsistency of findings across individual studies.
- Gaps in the chain of evidence.
- Findings not generalizable to routine primary care practice.
- Lack of information on important health outcomes.

More information may allow estimation of effects on health outcomes.

REFERENCES

1. Moyer VA; 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.
2. U.S. Preventive Services Task Force. Screening for ovarian cancer: recommendation statement. *Ann Fam Med.* 2004;2(3):260-262.
3. Canadian Cancer Society's Advisory Committee on Cancer Statistics. *Canadian cancer statistics* 2013. Toronto, ON: Canadian Cancer Society; 2013.
4. Barton MB, Lin K. Screening for ovarian cancer: evidence update for the U.S. Preventive Services Task Force reaffirmation recommendation statement. AHRQ Publ. No. 12-05165-EF3. Rockville, MD: Agency for Healthcare Research and Quality; 2012.
5. Grade definitions: grade definitions after July 2012. Rockville, MD: U.S. Preventive Services Task Force; 2012. Available at: <http://www.uspreventiveservicestaskforce.org/uspstf/grades.htm>. Accessed 2013 Nov 13.