



Effective Health Care

CA-125 for Detection of Ovarian Cancer Recurrence

Nomination Summary Document

Results of Topic Selection Process & Next Steps

- CA-125 for detection of ovarian cancer recurrence was found to be addressed by a 2011 Cochrane Collaboration review titled *Evaluation of follow-up strategies for patients with epithelial ovarian cancer following completion of primary treatment*. Given that the existing report covers this nomination, no further activity will be undertaken on this topic.
 - Kew F, Galaal K, Bryant A, et al. Evaluation of follow-up strategies for patients with epithelial ovarian cancer following completion of primary treatment. *Cochrane Database Syst Rev* 2011(6):CD006119. PMID: 21678351.
- The topic of monitoring for ovarian cancer recurrence could potentially be considered for new research in comparative effectiveness.

Topic Description

Nominator: Organization

Nomination Summary: The nominators are interested in the comparative effectiveness of monitoring patients for ovarian cancer recurrence using cancer antigen 125 (CA-125) versus clinical monitoring without measurements of CA-125.

Staff-Generated PICO

Population(s): Adult asymptomatic women with ovarian cancer in complete remission after initial treatment; subgroups of interest include women diagnosed with early-stage disease (stage 1) or advanced stage disease (stage II-III)

Intervention(s): Serial measurement of CA-125

Comparator(s): Standard methods of detection of cancer recurrence using clinical symptoms or signs of disease and imaging modalities as indicated (ultrasound, chest/abdominal/pelvic computed tomography, MRI, positron emission tomography) without serial measurement of CA-125

Outcome(s): Earlier detection of disease, risks/side effects associated with earlier therapy based on CA-125 levels, overall survival, quality of life, anxiety and radiation exposure from follow-up imaging (particularly from false positive tests)

Key Questions from Nominator:

1. For patients with ovarian cancer, what is the comparative effectiveness of surveillance using serum cancer antigen 125 (CA-125) versus standard methods (based on clinical symptoms or signs of disease) to detect or predict the likelihood

of disease recurrence for asymptomatic patients in remission after initial treatment and to improve the net health outcome?

Considerations

- The topic meets Effective Health Care (EHC) Program appropriateness and importance criteria. (For more information, see <http://effectivehealthcare.ahrq.gov/index.cfm/submit-a-suggestion-for-research/how-are-research-topics-chosen/>.)
- Topic was found to be addressed by an existing systematic review by the Cochrane Collaboration titled *Evaluation of follow-up strategies for patients with epithelial ovarian cancer following completion of primary treatment*. The objective of this review was to compare the potential benefits of different strategies of follow-up in patients with epithelial ovarian cancer following completion of primary care. This review included all patient follow-up strategies and was not limited to CA-125 testing. A search for literature since the publication of this review did not identify additional literature that would be available for inclusion in a systematic review on this topic.

Importance of New Research

- Following the current standard of care for advanced-stage ovarian cancer, most patients achieve a clinical remission. Because of the high rate of recurrence, clinical surveillance protocols have been developed to follow these patients after they complete their primary therapy in order to diagnose and treat patients with disease recurrence. In general, most guidelines for surveillance of patients in remission incorporate a combination of periodic physical examinations, CA-125 measurements, and radiologic exams. Consensus regarding the timing of the treatment recommended for recurrent ovarian cancer has not yet been reached, and the benefits from early therapy have been difficult to prove in studies and cooperative trials.

Research Gaps

- The Cochrane review identified only one trial that addressed any form of monitoring for ovarian cancer recurrence. This trial concluded that no evidence of a survival benefit was shown for patients treated on the basis of raised CA-125 concentration alone; therefore, the value of routine measurement in follow-up is not proven. The authors of the Cochrane Collaboration review state that further research is needed on the follow-up of ovarian cancer patients directed towards quality of life issues and the psychological impact of testing in addition to survival outcomes and cost effectiveness.
- While it appears that many studies have been conducted that examine the prognostic ability of CA-125 to predict recurrence, only one trial has examined whether making patient treatment decisions based on this measurement improves health outcomes. The findings of the Cochrane review and the prioritization of this topic by a stakeholder panel indicate that this topic may be a good candidate for new research.
- Given the lack of effectiveness found in the one trial on this topic and the lack of ongoing research in this area, it appears that more appropriate areas for future research may include basic bench research on more accurate diagnostic markers for screening and surveillance of ovarian cancer and more effective treatments at each stage of disease.