Evidence-based Series 2-11 Version 4

A Quality Initiative of the
Program in Evidence-Based Care (PEBC), Cancer Care Ontario (CCO)

Preoperative or Postoperative Therapy for Resectable Esophageal Cancer

Members of the Gastrointestinal Cancer Disease Site Group

An assessment conducted in October 2019 deferred the review of Evidence-Based Series 2-11 Version 4. This means that the document remains current until it is assessed again next year. The PEBC has a formal and standardized process to ensure the currency of each document (PEBC Assessment & Review Protocol).

EBS 2-11v4 is comprised of 4 sections. You can access the summary and full report here:

- Section 1: Clinical Practice Guideline
- Section 2: Systematic Review
- Section 3: EBS Development Methods and External Review Process and Results
- Section 4: Document Review Summary and Tool

June 1, 2016

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Phone: 905-527-4322 ext. 42822 Fax: 905-526-6775 E-mail: ccopgi@mcmaster.ca

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[Endorsed 2016 Jun 1]. Program in Evidence-based Care Evidence-based Series No.: 2-11 Version 4 ENDORSED.


# Guideline Report History

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Evidence-based Series #2-11 Version 4: Section 1

Preoperative or Postoperative Therapy for Resectable Esophageal Cancer: Guideline Recommendations

RA Malthaner, RKS Wong, K Spithoff, RB Rumble, L Zuraw, and the Gastrointestinal Cancer Disease Site Group

A Quality Initiative of the Program in Evidence-based Care (PEBC), Cancer Care Ontario (CCO)

These guideline recommendations have been ENDORSED, which means that the recommendations are current and relevant for decision making. Please see Section 4: Document Review Summary and Review Tool for a summary of the updated evidence published between 2012 and 2016, and for details on how the Clinical Practice Guideline was ENDORSED

Report Date: May 21, 2008

QUESTION
Should patients with resectable esophageal cancer receive preoperative or postoperative therapy along with surgery?

TARGET POPULATION
These recommendations apply to adult patients with resectable, operable, and potentially curable thoracic (lower two thirds of esophagus) esophageal cancer for whom surgery is considered appropriate.

RECOMMENDATIONS
- Preoperative cisplatin-based chemotherapy plus radiotherapy is recommended as the preferred modality for the management of surgically resectable patients with esophageal cancer.
- Preoperative cisplatin-based chemotherapy alone is an alternative choice for the management of surgically resectable patients with esophageal cancer.

QUALIFYING STATEMENTS
- Based upon results from the “CROSS” trial, the Gastrointestinal Cancer Disease Site Group (GI DSG) acknowledges that recommendations indicating use of “preoperative cisplatin
based” chemotherapy should be revised to include the use of “preoperative platinum based” chemotherapy.

- The GI DSG acknowledges there is evidence indicating survival benefits with either preoperative chemotherapy or chemoradiotherapy compared with surgery alone. Based on the majority of the evidence available at this time, the GI DSG believes that preoperative chemoradiotherapy for resectable carcinoma of the esophagus is the preferred approach.
- Clinicians should recognize that the survival advantage of preoperative therapy may be minimal and a discussion with patients regarding potential adverse effects is required. Decisions to administer preoperative therapy should be based on patient preferences, comorbidities, and suitability for trimodality therapy.

**KEY EVIDENCE**

- A literature meta-analysis of 10 randomized trials comparing preoperative chemoradiotherapy followed by surgery to surgery alone showed a 13% absolute benefit in survival at two years for preoperative chemoradiotherapy (hazard ratio [HR], 0.81; 95% confidence interval [CI], 0.70-0.93; p=0.002) (1).
- A published abstract of an individual patient data (IPD)-based meta-analysis of nine randomized trials (2,102 patients) comparing preoperative chemotherapy followed by surgery (CT+S) to surgery alone demonstrated a 4% (from 16 to 20%) absolute overall survival advantage for chemotherapy at five years (HR, 0.87; 95% CI, 0.79-0.95; p=0.003). Based on seven trials (1,849 patients), the HR for disease-free survival (DFS) was 0.82 (95% CI, 0.74-0.91; p=0.001) in favour of chemotherapy plus surgery, representing a five-year absolute DFS benefit of 4% (from 6 to 10%). No difference was seen in postoperative death (6.7%) (2).
- Randomized trials demonstrated no survival benefit for radiotherapy given alone, either preoperatively or postoperatively, compared with surgery alone.
- Randomized trials demonstrated no survival benefit for postoperative chemotherapy given alone compared with surgery alone.

**RELATED GUIDELINES**

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REFERENCES
