



Evidence-based Series 2-11 Version 4 REQUIRES UPDATING

**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 December 2021 indicated that Evidence-Based Series 2-11 Version 4 REQUIRES UPDATING. It is still appropriate for this document to be available while this updating process unfolds. 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:

<https://www.cancercareontario.ca/en/guidelines-advice/types-of-cancer/631>

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

For information about this document, the PEBC and/or the most current version of all reports, please visit the CCO Web site at <http://www.cancercare.on.ca/> or contact the PEBC office at:

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cancer. Wong RKS, Poon R, reviewers. Toronto (ON): Cancer Care Ontario; 2008 May 21 [Requires Updating 2021 Dec]. Program in Evidence-based Care Evidence-based Series No.: 2-11 Version 4 REQUIRES UPDATING.

Journal Citations (Vancouver Style): Malthaner R, Wong RKS, Spithoff K; on behalf of the Gastrointestinal Cancer Disease Site Group of Cancer Care Ontario's Program in Evidence-based Care. Preoperative or postoperative therapy for resectable oesophageal cancer: an updated practice guideline. Clin Oncol. 2010 May;22(4):250-6.

Malthaner RA, Wong RKS, Rumble RB, Zuraw L; Members of the Gastrointestinal Cancer Disease Site Group of Cancer Care Ontario's Program in Evidence-based Care. Neoadjuvant or adjuvant therapy for resectable esophageal cancer: a clinical practice guideline. BMC Cancer. 2004 Sep;4:67.

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IN REVIEW

Guideline Report History

GUIDELINE VERSION	SYSTEMATIC REVIEW		PUBLICATIONS	NOTES AND KEY CHANGES
	Search Dates	Data		
Original version April 2002	1966 - December 2001	Full Report	Web publication	NA
April 13, 2005	1966 - January 2005	Full Report	Web publication	NA
May 21, 2008	1966 – April 2007	Full Report	Web publication	NA
Reviewed December 2012	2007- December 2012	New data found in Appendix I	Updated Web publication	2008 recommendations are ENDORSED
Current Version 4 June 2016	2012 – March 2016	New data found in section 4: Document Review Tool	Updated Web publication	2008 recommendations are ENDORSED

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

Preoperative or Postoperative Therapy for Resectable Esophageal Cancer: Guideline Recommendations

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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

- PEBC Practice Guideline Report #2-12: *Combined Modality Radiotherapy and Chemotherapy in the Non-surgical Management of Localized Carcinoma of the Esophagus.*

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Contact Information

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REFERENCES

1. Gebski V, Burmeister B, Smithers BM, Foo K, Zalberg J, Simes J, et al. Survival benefits from neoadjuvant chemoradiotherapy or chemotherapy in oesophageal carcinoma: a meta-analysis. *Lancet Oncol.* 2007;8:226-34.
2. Thirion PG, Michiels S, Le Maître A, Tierney J. Individual patient data-based meta-analysis assessing pre-operative chemotherapy in resectable oesophageal carcinoma. *J Clin Oncol.* 2007;25 Suppl 18:4512.

IN REVIEW