



A retrospective chart review validates indicator results and provides insight into reasons for non-concordance with evidence-based guidelines

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INTRODUCTION

As part of the system performance initiative of the Canadian Partnership Against Cancer, indicators measuring treatment practice patterns across the country relative to evidence-based guidelines were first published in 2010¹ and are updated annually. Among the treatment indicators examined is the percentage of resected stage II and III rectal cancer patients receiving neoadjuvant (preoperative) radiation therapy (RT), the treatment approach recommended for locally advanced rectal cancer². Using administrative data from the provincial cancer registries, data from 2008 showed that an average of 45% of patients diagnosed with stage II and III rectal cancer received RT before surgical resection, ranging from 36% to 48% across provinces³. To validate those findings, and to better understand factors that may influence acceptance of and concordance with evidence-based practices, a retrospective medical chart review study was undertaken.

THE RETROSPECTIVE CHART REVIEW STUDY

The objectives of the retrospective chart review were twofold. The first objective was to validate the guideline concordance indicator results for the percentage of stage II and III rectal cancer patients receiving preoperative RT obtained using administrative data by comparing those results with results from the chart review. The second objective was to identify, for patients diagnosed with stage II or III rectal cancer and not treated with preoperative RT, reasons for that nontreatment—including, for example, reasons for non-referral to an oncologist by a surgeon—and to use that information in the setting of performance targets and to inform practice improvement strategies where appropriate.

Five provinces—Alberta, Saskatchewan, Manitoba, Prince Edward Island, and Newfoundland and Labrador—participated in the retrospective chart review. A sample of 383 randomly-selected patients

who were diagnosed with stage II or III rectal cancer in 2008 and who underwent a surgical resection of their primary tumour within 1 year of diagnosis was selected from the administrative data of those provinces. Information from clinical records was entered into a standard data abstraction tool by 2 trained abstractors and was reviewed by a radiation oncologist within each province.

RESULTS

Findings from the Chart Review Validate Indicator Results Obtained from Administrative Data

Information on the percentage of patients receiving preoperative RT was available from both the administrative data and the medical chart review for Alberta, Manitoba, and Newfoundland and Labrador. The percentage of patients receiving preoperative RT was not available for 2008 from the administrative data for Saskatchewan and Prince Edward Island. Data from Alberta and Manitoba showed consistency between the two data sources in the percentage of patients treated with preoperative RT (Figure 1). The results suggest that provincial administrative datasets can be used to calculate reliable indicators of treatment practice patterns. Future work will investigate the reasons for the varying results between the administrative data and the chart review for Newfoundland and Labrador.

Reasons for Non-Referral to an Oncologist and Nontreatment Among Patients Not Treated with RT

In the sample of 383 patients, 3 patients were excluded from the analysis, because those patients were found to have been diagnosed with a cancer stage or site other than stage II or III rectal cancer. Patients were classified into categories that describe the rationale for non-referral or nontreatment based on a review of the documentation in their charts, and a hierarchical algorithm was applied when multiple reasons were documented.

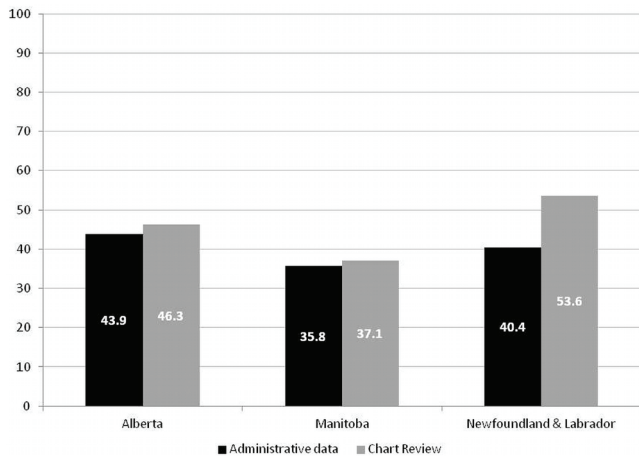


FIGURE 1 Percentage of patients diagnosed with stage II or III rectal cancer receiving preoperative radiation therapy within 1 year of diagnosis, 2008: comparison of chart review results and administrative data.

Data from the five participating provinces showed that 88% of patients diagnosed with stage II or III rectal cancer were referred to a medical or radiation oncologist by a surgeon; the remaining 12% were not referred. Data on reasons for non-referral to an oncologist were available for 34 of the 45 non-referred cases. (The analysis excluded the 11 patients because their medical charts were not reviewed by the study radiation oncologist and had no data available.) The most common reason for non-referral documented in the medical chart was comorbidities (41%). Another 12% of patients were found not to be candidates for referral, 12% were not referred because of patient age, and in 6% of patients, the reason for non-referral documented in the chart was patient choice (Figure 2). In 26% of non-referred cases, no clear reason for the decision not to refer was documented in the chart.

Among patients referred by their surgeon to an oncologist, 42% were treated with preoperative RT, 30% were treated with postoperative RT, and 28% received no RT. The most common documented reason for nontreatment (30%) was that the patient was not seen by a radiation oncologist (they were seen only by a medical oncologist). In 23% of patients, the reason for non-treatment with RT documented in the chart was patient choice; in 15% of patients, the decision not to treat was not clearly documented in the medical chart (Figure 3).

FUTURE DIRECTIONS

Information gained from the retrospective chart review is being used to inform initiatives with national oncology associations to develop quality improvement strategies, some of which will focus on providing education and information to patients to assist them in making informed decisions on treatment options.

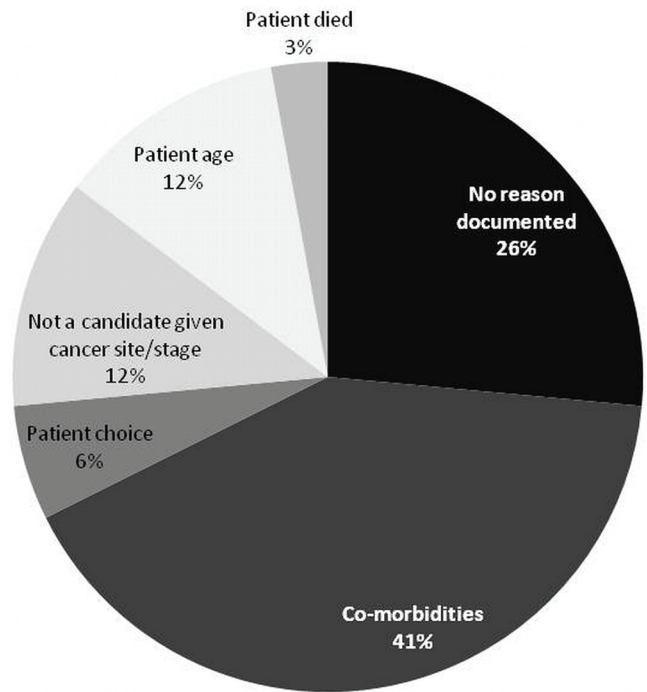


FIGURE 2 Reasons for non-referral to an oncologist among patients diagnosed with stage II or III rectal cancer in 2008 and resected within 1 year of diagnosis (n = 34).

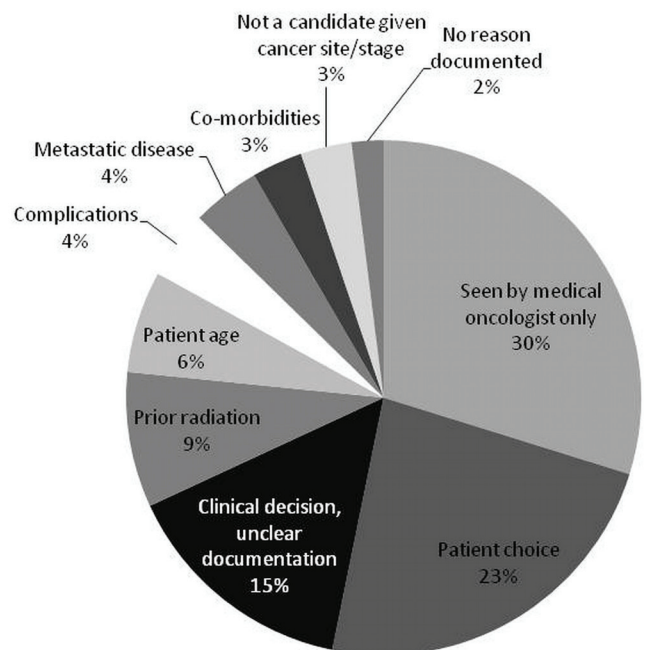


FIGURE 3 Reasons for nontreatment among patients diagnosed with stage II or III rectal cancer in 2008 and referred by a surgeon to an oncologist for radiation therapy (n = 94).

The results of the chart review will also help to inform the development of meaningful national targets for treatment rates by identifying the level of concordance

with evidence-based guidelines that is “feasible” or appropriate, taking into account factors that are beyond the clinician’s control.

THE CANCER SYSTEM PERFORMANCE COLLABORATION

The *Cancer System Performance Report* is published by the Canadian Partnership Against Cancer and made possible through the dedicated efforts of the Steering Committee and Technical Working Group for System Performance, comprising representatives from all ten provinces. The authors thank Drs. Winson Cheung and Gail Darling for their advisory role in the chart review and the project teams in Alberta, Saskatchewan, Manitoba, Prince Edward Island, and Newfoundland and Labrador.

The *Cancer System Performance Report* can be viewed at <http://www.cancerview.ca/systemperformancereport>.

Public-use slides of the figures in this communication and the *Cancer System Performance Report* can be downloaded at <http://www.cancerview.ca/publicuseslides>.

CONFLICT OF INTEREST DISCLOSURES

The authors have no financial conflicts of interest to declare.

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