Enhancing research capacity towards studying colorectal cancer services

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Team ACCESS

- Five years
- Multi-disciplinary team
  - Researchers, decision-makers, trainees
- Access, quality, & equity across continuum of colorectal cancer (CRC) care
- Nine areas of study
  - Including two potential vulnerable populations

Focus

- Examine care at the points when patients move across health care sectors
- Transition points have been associated with problems of access and quality

Why CRC?

- High incidence and prevalence
- Affects males and females in ~ equal proportions
- Strong evidence of improved outcomes from access to timely and appropriate health services along the disease trajectory

Overall Objectives

1. Develop tools to measure and improve timely and equitable access to CRC services
2. Develop tools to measure and improve quality of CRC services
3. Explore methods to integrate access and quality relevant to CRC services, and measure the impact on outcomes

Measuring Access

- Timeliness
  - Wait times
  - Impact of how access at one point in the continuum affects access/outcomes later
Measuring Quality

- Quality indicators (QIs)
  - 12+ lymph nodes examined
- Adherence to clinical practice guidelines (CPGs)
  - Where CPG adherence is low, reasons for non-adherence will be explored

Measuring Equity

- Equality: all get equal access to care and do not account for need
- Equity: patients with same need get equal access; patients with higher need get greater access
- Concentration Index

Data holdings

Data Linkage
CRC cases in NS from 01JAN2001 to 31DEC2005
N=3949 (ICD-O3: C18, C19 and C20)
Exclude age <20 years
Exclude patients diagnosed by death certificate only
Exclude patients diagnosed by autopsy
Exclude lymphoma cases
Exclude cases with Collaborative Stage = 0
Exclude non-invasive CRC cancer cases
Exclude cases diagnosed later for multiple same stage invasive CRC cases (keep rectal case if multiple same stage cases were synchronously diagnosed)
Exclude cases diagnosed later for metachronous invasive CRC cases diagnosed >1 year apart
Exclude cases of lower stage CRC for multiple stage cases synchronously or metachronously diagnosed within one year
Exclude cases diagnosed with appendix cancer
Number of patients in study
N=3501
(each patient counted once)

Description of cohort

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Median (range)</th>
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<tbody>
<tr>
<td>Age at diagnosis</td>
<td>71 (21-101) yr</td>
</tr>
<tr>
<td>n (%)</td>
<td></td>
</tr>
<tr>
<td>Disease site</td>
<td>Color</td>
</tr>
<tr>
<td>2385 (68.1)</td>
<td></td>
</tr>
<tr>
<td>1116 (31.9)</td>
<td></td>
</tr>
<tr>
<td>Sex</td>
<td>Male</td>
</tr>
<tr>
<td>1867 (53.3)</td>
<td></td>
</tr>
<tr>
<td>1634 (46.7)</td>
<td></td>
</tr>
<tr>
<td>Area of residence</td>
<td>Rural</td>
</tr>
<tr>
<td>1424 (40.7)</td>
<td></td>
</tr>
<tr>
<td>2077 (59.3)</td>
<td></td>
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<tr>
<td>Comorbidity</td>
<td>0</td>
</tr>
<tr>
<td>2031 (58.0)</td>
<td>701 (20.0)</td>
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Distribution of Collaborative Stage (N=3501)

<table>
<thead>
<tr>
<th>Stage</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
<th>Unknown</th>
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<tbody>
<tr>
<td>%</td>
<td>19.6</td>
<td>30.5</td>
<td>19.2</td>
<td>10.9</td>
<td>4.6</td>
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</table>

Surgery Within Stage (N=3501)

<table>
<thead>
<tr>
<th>Stage</th>
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<th>II</th>
<th>III</th>
<th>IV</th>
<th>Unknown</th>
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</thead>
<tbody>
<tr>
<td>%</td>
<td>77.5</td>
<td>65.4</td>
<td>87.8</td>
<td>96.5</td>
<td>31.3</td>
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</tbody>
</table>

Ongoing work

- Measurement of access, quality, and inequity
- Examining variations in access, quality, and outcomes over time and between subpopulations (e.g., age, sex, geography, SES, and vulnerable populations)
- Chart reviews to validate administrative data, specifically chemotherapy data
- Evaluation of specific KT strategies to improve CRC care

Challenges

- Limitations of data (chemotherapy, lab data (e.g. CEA (blood test), FOBT))
- Developing reasonable algorithms for presentation, recurrence, clinical diagnosis
- One of DHAs, patients travelled to NB for treatment
Funding partners

Reference


Reference

- Urquhart R, Bu J, Porter G, Dewar R, Moineddin R, Grunfeld E. Relationship between survival and lymph node assessment from a population-based study of colorectal cancer patients. ASCO Annual Meeting, Chicago, IL, June 4-8, 2010