Patient satisfaction with wait-times for prostate and lung cancer treatment in Newfoundland and Labrador

Dana Ryan, MA; Maria Mathews, PhD

Division of Community Health & Humanities, Faculty of Medicine, Memorial University
Acknowledgements

- Co-Is: Donna Bulman, Kathy Fowler, Veeresh Gadag, Marshall Godwin, Matthew Piercey, Bill Pollett, Sharon Smith
- RAs and students: Nurun Chowdhury, Jennifer LeMessurier, Shelley May Neufeld
Research question

• What influences prostate and lung cancer patients’ satisfaction with wait-times for radiation or chemotherapy?

• Hypothesis: for interval from first visit with an oncologist to start of radiation or chemotherapy, shorter wait times will be associated with higher satisfaction
Background

- Improving radiation wait times a Health Accord priority
- Few studies have examined relationship between wait times and wait-related satisfaction
  - NS study found poor correlation between satisfaction and waits for treatment
- Understanding satisfaction important to improving patient experiences and health system confidence
Methods - Recruitment

• Patients recruited at cancer clinics across NL, cancer lodge and through mailed invitations using Cancer Registry

• Eligibility (project)
  – 19+, English proficient, NL resident
  – First breast, lung, prostate or colorectal cancer diagnosis
  – Diagnosed between January 1, 2009 and June 30, 2011
  – Seen in cancer clinic (and started treatment)

• Eligibility (this study)
  – Lung or prostate cancer
  – Primary treatment = radiation or chemotherapy
  – Consent to review cancer clinic chart
Methods – Data Collection

• In-person survey of cancer patients
  – Conducted by trained research staff, with scripted prompts and visual aids
  – dates in care seeking process, satisfaction with interval specific wait times, clinical and screening history, socio-demographic characteristics

• Cancer clinic chart
  – demographic characteristics, stage, availability of and completeness of needed clinical data, treatment (types, priority rating) dates in treatment process
Wait times

• Time from first visit with an oncologist to start of treatment based on chart data:
  – First visit with a radiation/medical oncologist
  – Start of radiation/chemotherapy treatment

• Grouped into
  – Short wait (\(\leq\) median specific to cancer type and treatment)
  – Long waits (\(>\) median specific to cancer type and treatment)
Wait time related-satisfaction

• Satisfaction based on:
  – Using a scale where 1 is ‘Very Dissatisfied’ and 5 is ‘Very Satisfied’, in general, how satisfied are you with time from your first visit with an oncologist (cancer doctor) to starting treatment at the Cancer Clinic?

• Grouped into
  – Unsatisfied (1-3)
  – Satisfied (4-5)
Results

- 335 of 652 (51.4%) willing patients were eligible and completed survey
  - 90 prostate cancer patients
  - 54 lung cancer patients

- Excluded
  - 12: did not consent to chart review
  - 2: missing dates in charts
  - 33: primary treatment neither radiation nor chemotherapy

- Study sample
  - 59 prostate cancer patients
  - 38 lung cancer patients
Wait times: first visit to start of treatment

• Prostate: radiation n=59
  – median: 67.0 days
  – range: 5 - 541 days
  – 90th percentile: 127.0 days

• Lung: radiation n=25
  – median: 20.0 days
  – range: 0 - 55 days
  – 90th percentile: 50.6 days

• Lung: chemotherapy n=13
  – median: 16.0 days
  – range: 0 - 365 days
  – 90th percentile: 239.4 days
Wait times: % patients with long waits community of residence*

<table>
<thead>
<tr>
<th>Community of Residence</th>
<th>% Patients with Long Waits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>35.4</td>
</tr>
<tr>
<td>Rural</td>
<td>57.1</td>
</tr>
</tbody>
</table>

n= 48 49

Median= 36.00 63.00
Wait times: % patients with long waits level of education*

- Completed High School or Less: 56.1%
  - Median: 44.00
  - n= 57

- More than High School: 32.5%
  - Median: 52.50
  - n= 40
Satisfaction with wait times: first visit to oncologist to start of treatment

% satisfied

<table>
<thead>
<tr>
<th>Treatment</th>
<th>% Satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>88.3%</td>
</tr>
<tr>
<td>Prostate radiation</td>
<td>83.9%</td>
</tr>
<tr>
<td>Lung radiation</td>
<td>92%</td>
</tr>
<tr>
<td>Lung chemo</td>
<td>100%</td>
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</tbody>
</table>

n= 83 47 23 13
Satisfaction oncologist to treatment: % satisfied
Wait time oncologist to treatment

<table>
<thead>
<tr>
<th></th>
<th>Short Wait</th>
<th>Long Wait</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median</td>
<td>35.00</td>
<td>79.00</td>
</tr>
<tr>
<td>n</td>
<td>51</td>
<td>43</td>
</tr>
</tbody>
</table>
Satisfaction oncologist to treatment: % satisfied
Wait time for diagnosis*

<table>
<thead>
<tr>
<th></th>
<th>Short Wait</th>
<th>Long Wait</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfaction</td>
<td>97.8</td>
<td>81.4</td>
</tr>
</tbody>
</table>

n= 45 43
Satisfaction oncologist to treatment: % satisfied
Satisfaction with wait time for diagnosis*

<table>
<thead>
<tr>
<th>Satisfied</th>
<th>93.9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unsatisfied</td>
<td>74.1</td>
</tr>
</tbody>
</table>

n= 27 66
Diagnosis versus treatment related waits

- Wait for diagnosis perceived as most stressful wait
- Influence of diagnosis-wait times consistent with other results in project
  - Waits for breast cancer surgery
  - Overall wait time (first visit HCP to treatment)
  - Qualitative interviews
Satisfaction with diagnosis related wait times

- Short wait ≠ higher satisfaction
  - Patient experiences with screening influences satisfaction
  - Patients who participated in regular screening but had symptomatic cancer had longest waits and lowest satisfaction
Wait & wait related satisfaction

• Interval specific satisfaction not related to interval specific wait
  – Decreasing interval specific wait may not improve patients perceptions
Limitations

• Retrospective design
  – Hindsight may improve perceived satisfaction
  – Patient recall of dates

• Small sample size
  – Insufficient power to detect differences or do multivariate analyses

• NL only, 2 cancers
  – Other provinces and cancers may vary
Conclusion

• Treatment related satisfaction unrelated to treatment related wait times
  – Or to traits related with those with long waits
  – related to length and perception of wait time for diagnosis
• For patients, diagnosis experience influences perception of other treatment related waits
  – Highlights importance of timely diagnosis
• Further research is needed to test these findings
Wait times: % patients with long waits:
Wait time for diagnosis

- Short wait: 43.5%
- Long wait: 53.3%

n= 46 45
Median= 49.50 48.00
Wait times: % patients with long waits:
Satisfaction with wait time for diagnosis

<table>
<thead>
<tr>
<th></th>
<th>Unsatisfied</th>
<th>Satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>28</td>
<td>68</td>
</tr>
<tr>
<td>Median</td>
<td>48.50</td>
<td>49.50</td>
</tr>
</tbody>
</table>

- Unsatisfied: 42.9%
- Satisfied: 48.5%