Radiotherapy Waiting List Management: The New Zealand Experience

Rob Hallinan
Clinical Resource Radiation Therapist
Waikato Hospital
Hamilton
New Zealand

Introduction
- Welcome to New Zealand
- Causes of waiting lists
- The New Zealand approach to waiting list recording and management
- Colonel Roger Fray

Ethnicity
- European
- Maori
- Asian
- Pacific Islanders
- Others
Key Stats

- 18000 new cancer registrations per year
- 8000 deaths/year
- 7200 patients treated with radiotherapy/year

Waiting Lists: The New Zealand Experience

Oncological Sites where delay in Radiotherapy has resulted in increased local recurrence rates

- Head and Neck
- High Grade Gliomas
- Breast
- Cervix
- NSCLC
- Soft Tissue Sarcomas
- Oesophagus
Waiting List Causes

- Demand
- Supply
  - Resource
  - Human
  - Equipment
  - Process
  - Clinical

Resource Factors

The Multidisciplinary Team

- Radiation Oncologists
- Medical Physicists
- Radiation Therapists
- Engineers

Equipment

- Treatment Capacity
- Networking
- Immobilisation
Process Factors
- Small team
- Reduction in handovers

Value Time/Real Time Ratio
- Value Time
  - The time spent working on a product
- Real Time
  - The total time of the product in the system

Clinical Factors
- Fractionation
- Breast
- Bony metastases
- Prostate HDR
- Complexity

Radiotherapy Booking Criteria (from decision to treat)

Pitfalls
- Joint reporting of adjuvant and palliative patients
- Inconsistency of application
- Too simplistic?
- Needs revision?

Wait List Reporting Criteria 2002
- Referral to FSA
- FSA to Start of Rx
- Referral to Start of Rx

Source: NZRO&C Report 1999
Recommended Guidelines

<table>
<thead>
<tr>
<th>Category</th>
<th>Ref-FSA</th>
<th>FSA-Rx</th>
<th>Ref-Rx</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urgent</td>
<td>&lt;24 hrs</td>
<td>&lt;24 hrs</td>
<td>&lt;48 hrs</td>
</tr>
<tr>
<td>Curative</td>
<td>&lt;2 weeks</td>
<td>&lt;2 weeks</td>
<td>&lt;4 weeks</td>
</tr>
<tr>
<td>Palliative</td>
<td>&lt;2 weeks</td>
<td>&lt;2 weeks</td>
<td>&lt;4 weeks</td>
</tr>
<tr>
<td>Adjuvant</td>
<td>&lt;4 weeks</td>
<td>&lt;4 weeks</td>
<td>&lt;8 weeks</td>
</tr>
<tr>
<td>Protocol</td>
<td>&lt; 2 weeks according to protocol</td>
<td>N/A</td>
<td></td>
</tr>
</tbody>
</table>

Urgent <24 hrs
Curative <2 weeks
Palliative <2 weeks
Adjuvant <4 weeks
Protocol < 2 weeks according to protocol

National Summary

A. Numbers waiting for first specialist assessment

<table>
<thead>
<tr>
<th>Priority</th>
<th>Total</th>
<th>Priority A (Urgent)</th>
<th>Priority B (Curative)</th>
<th>Priority C (Palliative and other radical)</th>
<th>Priority D (Combined chemotherapy and radiation treatment)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Waited &gt;12 weeks</td>
<td>42</td>
<td>16</td>
<td>25</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Waited 8-12 weeks</td>
<td>500</td>
<td>165</td>
<td>252</td>
<td>84</td>
<td>8</td>
</tr>
<tr>
<td>Waited 4-8 weeks</td>
<td>528</td>
<td>250</td>
<td>178</td>
<td>74</td>
<td>17</td>
</tr>
<tr>
<td>Waited &lt; 4 weeks</td>
<td>692</td>
<td>290</td>
<td>209</td>
<td>135</td>
<td>42</td>
</tr>
</tbody>
</table>

National Summary

B. Time between the first specialist assessment and the start of radiation treatment

<table>
<thead>
<tr>
<th>Priority</th>
<th>Total</th>
<th>Priority A (Urgent)</th>
<th>Priority B (Curative)</th>
<th>Priority C (Palliative and other radical)</th>
<th>Priority D (Combined chemotherapy and radiation treatment)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average wait from receipt to treatment (weeks)</td>
<td>2.5</td>
<td>1.6</td>
<td>1.4</td>
<td>0.02</td>
<td></td>
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<tr>
<td>Total waited &gt;12 weeks</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total waited 8-12 weeks</td>
<td>14</td>
<td>12</td>
<td>10</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Total waited 4-8 weeks</td>
<td>46</td>
<td>14</td>
<td>22</td>
<td>13</td>
<td>8</td>
</tr>
<tr>
<td>Total waited &lt; 4 weeks</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
</tbody>
</table>

Ministry of Health Monthly Report

Categorisation!

A matter of perspective
- Patient
- Funder
- Clinician
- Service Manager
- Ministry of Health

Controversy
- What dates are significant?
  - Diagnosis
  - Surgery
  - Referral
  - PSA
  - Decision to treat
  - Ready to start treatment
- What factors should be discounted?
  - Patient morbidities
  - Factors outside oncology department control
  - Factors outside radiation oncology control

Future Changes
- Separation of adjuvant and palliative patients
- Ethnicity Reporting
Colonel Roger Fray

Oncology Referral Database

- Data Entry
  - Initial Referral
  - Decision to Treat
  - Start of Treatment

- Patient Data
  - Name, NHI Number, DHB, Ethnicity

- Referral Information
  - Referrer
  - Referral Date
  - Categorisation
  - FSA Date

- Radiotherapy Information
  - Modality
  - Categorisation
  - Radiation Oncologist
  - Ready to Treat Date
  - Simulation Date
  - Planning Date
  - Start Date
  - Delay Reasons

Take Home Messages

- Waiting lists are not just a function of staff and equipment shortages
- A national categorisation and reporting system is good but there needs to be consistency of application
- An independent database is valuable, not only for reporting but also for analysing practice

References

- Improving Non-Surgical Cancer Treatment Services in New Zealand, New Zealand Ministry of Health, July 2007
- Management of waiting lists for Radiation Therapy, The Royal Australian and New Zealand College of Radiologists, Faculty of Radiation Oncology, April 2004
- Waiting for Radiotherapy, Geoffroy, D. & McKenna, A., British Medical Journal, 14 January 2006
- Killing time: The consequences of delays in radiotherapy, Mackillop, W., Radiotherapy and Oncology 84 (2007) 1-4
They shall not grow old, as we that are left grow old.
Age shall not weary them, nor the years condemn.
At the going down of the sun and in the morning
We will remember them.