Radiotherapy Costing and Tariff Development

Delivering a National Tariff for Radiotherapy

15 March 2011
Background

- High degree of variation within Reference Costs for radiotherapy
- Concerns over impact of moving to a tariff system
- NCAT introduced costing template to allow costs to be compared
- Visited all providers and network leads to understand the local differences that contribute to this variation
Meetings were organised with 49 English radiotherapy providers in May/June 2010, with the purpose of:

- Ensuring a consistent and accurate approach to counting activity
- Promoting a robust costing methodology, in line with national standards
- Gaining an overview of the significant factors that will make Trust reference costs vary compared to their peers
The National Picture

- Meetings followed standard format
- Discussed key issues affecting costing of radiotherapy services and variables that might affect the cost
- What issues make this provider different?
- Discussed 2008/09 Reference Costs and costing template if available
Each provider was benchmarked against peer group and national averages:

- Average unit cost of planning event
- Average unit cost of fraction of treatment
- Fractions per planning event
- Split of costs planning v treatment
- Fractions & cost quantum per Linacs
Reference Costs 2009/10
Average Cost per Planning Event

- Peer Group 1
- Peer Group 2
- Peer Group 3
- Peer Group 4
- Peer Group 5

Avg Cost per Event
National Average
Fractions per Planning Event

- Peer Group 1
- Peer Group 2
- Peer Group 3
- Peer Group 4
- Peer Group 5

- Fractions per Plan
- National Average
Cost Quantum per Linac
Comparison 2009/10 v 2008/09

Planning Events

2008/09

2009/10
Comparison 2008/09 v 2009/10

Treatment Fractions

2008/09

2009/10
### Comparison 2009/10 v 2008/09

#### Planning: marginal improvement

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<th>2008/09</th>
<th>2009/10</th>
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<tbody>
<tr>
<td>Average</td>
<td>£533</td>
<td>£574</td>
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<tr>
<td>Range</td>
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<td>IQ Range</td>
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<td>Std Deviation</td>
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<td>£345</td>
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#### Treatment: noticeable improvement

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<thead>
<tr>
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<tbody>
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<td>Std Deviation</td>
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(2009/10 excludes outlier)
Outcomes from meetings with providers
Historically inconsistent counting and recording across England

Radiotherapy Data Set (RTDS) introduced from 1 April 2009

Evidence & feedback that this has encouraged more systematic approach to counting and recording
Activity – what we found...

- Counting treatment fractions relatively straightforward from systems
- Number of issues with counting planning events – different currencies and inconsistent guidance
- RT data systems often not integrated with mainstream systems such as PAS
- Most HRG grouping done manually
Activity – what we recommended...

* Continue to improve collection of RTDS as this encourages systematic counting
* Agree clear definition of planning “event” and reconcile RTDS guidance with Reference Costs/CfH guidance
* Be aware of national guidance on recording and try to be consistent
Costing Radiotherapy

- Reference Costs collection undertaken annually each June
- Costing process governed by NHS Costing Manual
- Many providers now developing service line reporting and patient-level costing systems
Most providers have well developed costing systems in place

However, radiotherapy can suffer as a relatively small cost pool in the cost base of the Trust

Requires close working required between:

- Service manager/staff
- Management accountants
- Reference Costs lead
Costing – key issues raised...

- **Staff costs:**
  - Apportioning medical time
  - Indirect costs e.g. physics and maintenance

- **Fixed assets:**
  - Up-to-date and accurate asset register
  - Land and buildings used

- Apportioning overheads and income
- Provider to provider charges
Costing – what we recommended...

- Need to ensure sufficient resources are devoted to costing radiotherapy
- Close working between service leads, management accountants and RC leads
- More benchmarking and sharing data would improve understanding of cost drivers
- If block contracts are to be phased out, understanding cost base v income available is critical
What caused cost variations – Linacs/Capital

* **Cost profile:**
  - Purchased v donated v leased
  - PFI/MES contracts
  - Age profile of equipment

* **Utilisation of available Linac capacity:**
  - Service efficiency machines
  - Non-operational machines
  - Hours per day in operation
  - Average delivery time per fraction
What caused cost variations – Other

* Any contribution from external income, e.g. private patients, R&D
* Staff skill mix employed across various tasks – difficult to quantify without lower level benchmarking
* Rapid technological advancements, e.g. IMRT, are more costly
* Current PbR policy assumes providers manage cost variations within fixed tariff, except for clearly defined exceptions
* Radiotherapy perhaps more susceptible to cost variation than other tariff services, because of the level of capital?
* Risk that tariff hinders development of service
* So what issues should any tariff be sensitive to?
Majority of cost drivers are manageable by providers within current PbR rules

But DH should consider:

- Paediatrics and co-morbidities – if evidenced by data
- Tariff exclusions for new treatments not yet included in base year’s Reference Costs – tariff “lags behind”
- Best practice tariffs to ensure quality maintained?
- Consider local flexibility when Linacs replaced with brand new equipment?
Final conclusions...

- Continue the progress around RTDS and more consistent counting
- Continue to improve costing by linking service managers with finance managers
- Promote guidance to increase national consistency
- Benchmarking with similar providers
- Understand differences from the average AND
- Share your findings with commissioners and networks