Assessing the Cost and Value of Radiotherapy: Globally, Regionally and in Member States.

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health outcomes
that matter to patients

\[
\text{value} = \frac{\text{costs}}{\text{of delivering these outcomes}}
\]

“The right
to the highest attainable standard of health
includes availability, accessibility, acceptability & quality.”

Porter M. N Engl J Med 2010
UN Committee on Economic, Social, and Cultural Right. General comment 14, 2000
provider resource costs: globally and regionally

Availability & accessibility

Operation

<table>
<thead>
<tr>
<th>Intermediate countries</th>
<th>Upper-middle-income countries</th>
<th>Lower-middle-income countries</th>
<th>Low-income countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating cost per fraction</td>
<td>235</td>
<td>86</td>
<td>65</td>
</tr>
<tr>
<td>Upfront cost per fraction</td>
<td>803</td>
<td>357</td>
<td>349</td>
</tr>
</tbody>
</table>

Atun et al, Lancet Oncology 2015
Zubizaretta et al, Clin Oncol 2016
cost

provider resource costs: at national and department level

department size

Time-Driven Activity-Based Costing

fractionation & complexity

Van Dyk et al, Radiother Oncol 2017
Defourny et al, Radiother Oncol 2019
provider vs. societal costs: effectiveness, efficiency

radiotherapy budget consumes 7.8% of total cancer care costs
0.4% of total health care costs
value

**emerging innovation**
- provisional reimbursement
  - coverage with evidence development

**proven innovation**
- episode-based reimbursement
  - based on resource use & complexity

**standard-of-care**
- capital investment funding
- additional payments

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- **Support of investment or operation**
- **Clinical research**
  - comparative effectiveness
  - cost-accounting, economic & Health Technology Assessment

**Clinical guidelines & pathways**
- quality indicators - structure, process & outcome

**Real-world data collection - clinical, resource use and cost**

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**+ Support for data collection, quality management, ...**

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Borras et al, R&O and EJSO 2021
value = \frac{\text{health outcomes that matter to patients}}{\text{costs of delivering these outcomes}}
thank you for your attention!