

FINANCIAL INCENTIVES FOR RADIATION ONCOLOGY: INTERNATIONAL INSIGHTS FOR REIMBURSEMENT STRATEGIES.

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Background

Access to innovative but also evidence-based radiotherapy treatments is far from optimal,

although one in two European cancer patients will require radiotherapy during their treatments.

Reimbursement systems may be used as incentives,

to facilitate implementation of interventions, but also to improve evidence collection to assess value for patients.

Methods

A scoping review was performed

focusing on reimbursement policies and implementation strategies for radiotherapy.

Appraisal of impact on access to radiotherapy interventions was discussed by a multidisciplinary group and findings were triangulated.

Results

Several international projects were identified, exploring alternative payment methods or strategies for implementation of radiotherapy or medical devices.

- the Health Economics in Radiation Oncology programme of the European Society for Radiotherapy and Oncology (ESTRO-HERO);
- the European Cost and Outcome analysis of Medical technologies (COMED) project;
- the American Radiation Oncology Alternative Payment Model (RO-APM).

	Presented findings of project	Evidence collection
ESTRO-HERO	<ol style="list-style-type: none"> Overview of reimbursement systems in European countries including general features, structure and type of system, scope and level of coverage for RO interventions; Review of literature on reimbursement models with pros and cons, description of best practices. 	<ul style="list-style-type: none"> Literature review; Data collection on reimbursement schemes through survey in 25 European countries; Expert opinion.
COMED	<ol style="list-style-type: none"> Overview of coverage with evidence (CED) schemes; Analysis of CED characteristics using stakeholder input; Connecting current practices in Europe with CED theories and identify aspects to consider in different phases of CED schemes design, implementation and use. 	<ul style="list-style-type: none"> Literature review; Data collection on different CED schemes; Qualitative research involving stakeholders; Expert opinion.
RO-APM	<p>Expert opinions and analysis by stakeholders, voiced concerns about</p> <ol style="list-style-type: none"> RO-APM model reimbursement calculation (e.g. decreased reimbursement rates with disproportionate impact on underserved populations or specific centres; adjustment factors based on historical data will 'reward' historical inefficiencies, ...) Implementation strategy (e.g. lack in transparency on model development, insufficient stakeholder involvement, ...) 	<ul style="list-style-type: none"> Literature review; Prediction of impact based on analysis of historical data; Expert opinions.

Insights for radiotherapy

There is a **diversity** in reimbursement policies as well as in implementation of radiotherapy interventions,

as identified by the ESTRO-HERO and COMED project. No clear cause-and-effect however has been identified. Alternative reimbursement strategies, such as CED, should be explored further.

Tailored strategies are required for evaluation and successful implementation, as demonstrated by the COMED project,

some of the challenges in CED schemes are directly related to characteristics of medical devices and require a specific approach.

Introducing new reimbursement policies requires support from all stakeholders,

as is demonstrated in the RO-APM model project. Even though stakeholders recognize potential benefits of shifting to an episode-based system, the implementation is criticized for its lack in transparency and stakeholder involvement.

CONCLUSIONS

- Evidence is limited and is mostly descriptive in nature, using overviews, theoretical projections or expert opinions.
- Current reimbursement strategies for radiotherapy interventions are diverse, direct correlation with implementation is yet unclear.
- Broad stakeholder involvement is crucial in developing and implementing changes in reimbursement strategies.
- Future research is needed to identify beneficial incentives, by linking reimbursement data to implementation of interventions.