

Policy barriers to increasing access to radioligand therapy for neuroendocrine cancers

Current cancer care often does not meet the needs of people with rare, resistant or metastasised forms of cancer.

New strategies are needed to improve not just survival, but quality of life.¹ One such emerging treatment modality is called radioligand therapy, which has been shown to improve progression-free survival and quality of life for many.^{1,3}

Radioligands are an innovation driven by our increasing understanding of the molecular biology of cancer. Radioligand therapy takes advantage of the overexpression of specific receptors on cancerous cells in order to deliver radiation with precision.⁴ These radiopharmaceuticals combine a receptor-specific ligand, usually a peptide, and a radioisotope appropriate for short-range cytotoxicity.⁵ This specificity means that the treatment is generally well tolerated with self-limiting side effects.⁶⁻⁹

Recent decades have seen increasing uptake of radioligand therapy and official integration into care pathways and guidelines for neuroendocrine cancers.⁷ Because this therapy uses radioactivity, there are particular barriers to its greater integration into cancer care. As neuroendocrine cancers are rare, it is all the more urgent that these barriers be understood and overcome so that this treatment modality can become available to all patients who may benefit.

RESULTS

The research identified six major barriers to integration of radioligand therapy in cancer care (Figure 1).

FIGURE 1. Policy barriers to greater integration of radioligand therapy in cancer care



Many oncologists, radiation oncologists and even some nuclear medicine specialists may not be fully aware of the various applications of radioligands,¹⁰⁻¹² while patients may have preconceived negative perceptions around the use of radioactive substances.¹⁰⁻¹⁵ There are very few healthcare professionals trained in radioligand therapy,^{11,13} or in neuroendocrine cancers more generally,¹⁶⁻¹⁹ which may limit their ability to participate in all relevant multidisciplinary care teams and tumour boards.^{11,12,17,19}

The regulatory frameworks for radioligands must also evolve to suit this emerging treatment modality. This may affect who provides treatment, and how.¹⁴

Furthermore, the limited availability of representative clinical and economic data on radioligand therapy poses challenges.^{10,15-18,20} Guidelines for radioligand therapy exist but, as experience and evidence grow, these will need to be updated and consensus-driven standardised therapeutic protocols developed.^{3,13,21,22} More evidence is needed to verify the impact of radioligand therapy through prospective randomised controlled trials.²³ As neuroendocrine cancers are rare, there will be additional barriers to collecting such data and new models of research may need to be considered.

AIMS

To identify existing structural, institutional and policy barriers to delivering radioligand therapy and use these findings to make recommendations on how key decision-makers can improve its integration into cancer care.

MATERIAL AND METHODS

Desk research and semi-structured interviews with nine experts from five European countries.

Pan-European collaboration is essential to address the challenges of agreeing and establishing consensus frameworks for multidisciplinary working, funding, care pathways and training standards.

CONCLUSIONS

Radioligand therapy may contribute to ongoing efforts to provide personalised and targeted treatments to cancer patients, especially those with limited therapeutic options. Particularly for neuroendocrine cancers, efforts to strengthen integration and expand the use of radioligand therapy will require concerted action. While this therapy may be best delivered by centres of excellence and highly trained teams, health system planning must ensure that such centres are reasonably distributed in order to minimise geographical inequities in care. European-level efforts may also help mitigate some of the existing challenges for radioligand therapy in neuroendocrine cancers, particularly in terms of investing in research, clarifying regulatory issues and setting frameworks and guidelines for multidisciplinary working, care pathways and training standards.

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Greater integration of radioligand therapy into clinical practice will require a number of factors to align.

Policymakers and decision-makers must:

- Increase awareness of radioligand therapy and the role of nuclear medicine among decision-makers, people with cancer and the clinical cancer community.
- Harmonise education and training standards across Europe for nuclear medicine specialists and all members of the multidisciplinary cancer team.
- Ensure that nuclear medicine specialists have adequate capacity to participate in multidisciplinary cancer care processes.
- Develop clear processes and patient pathways for care in each national context.
- Ensure adequate hospital capacity and resources for delivery of radioligand therapy to meet current and future demand.
- Incorporate radioligand therapy into national, regional and local cancer plans.
- Establish clear, consistent regulatory frameworks for the use of radioisotopes spanning approval, funding and reimbursement.
- Ensure continued supply and appropriate disposal policies.
- Invest in real-world data on radioligand therapy to better understand patient outcomes and cost-effectiveness.
- Identify and share best practices to optimise and standardise care.

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