Expanding the availability of radioligand therapy to meet the treatment needs of people with neuroendocrine neoplasms

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SUMMARY

Neuroendocrine neoplasms (NENs) are a diverse group of rare cancers with a growing prevalence across Europe.[1] Radioligand therapy has been used for decades in some countries to treat a small number of NENs.[2] Despite evidence of benefit and needs of people with NENs,[3] access to radioligand therapy across Europe remains highly variable.

Ten policy actions were identified to expand the availability of radioligand therapy. NENs, and rare cancers more generally, require coordinated policy action and system change in order to ensure that promising treatments are available to all those who could benefit from them.

Improved understanding of the molecular biology of cancer has allowed for the development of highly specific cancer therapies such as radioligand therapy. A radioligand molecule is composed of two parts (*Figure 1*), and its tumour-agnostic mechanism means it could be applied to a multitude of cancers or diseases where a suitable receptor has been identified.[4]

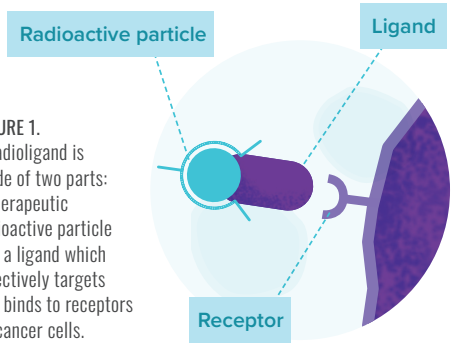
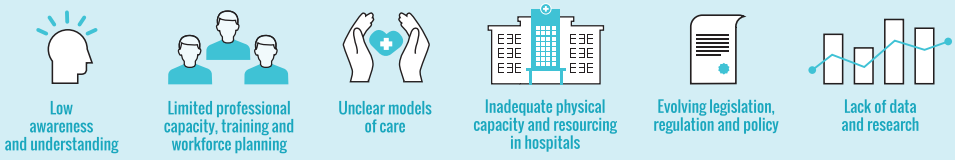


FIGURE 1.
A radioligand is made of two parts: a therapeutic radioactive particle and a ligand which selectively targets and binds to receptors on cancer cells.

This approach is currently used for a small number of cancers including NENs, a group of rare cancers that develop from neuroendocrine cells in different organs. These cells release bioactive compounds such as hormones into the bloodstream. The prevalence of NENs is growing and the majority of people are diagnosed with locally advanced or metastatic cancer, which has a five-year survival rate of less than 50%.[5] Radioligand therapy is one of a limited number of therapeutic options for NENs. It has been shown to enhance progression-free survival and improve quality of life, while side effects are limited and treatment seems to be better tolerated than conventional options like chemotherapy or targeted drugs.[3,4] Overall survival is favourable with radioligand therapy but despite this, availability is highly variable across Europe. This research examined the policy barriers limiting appropriate use of radioligand therapy and proposed solutions to overcome these challenges.

The research identified six major barriers to integration of radioligand therapy in cancer care (*Figure 2*).

FIGURE 2. Policy barriers to greater integration of radioligand therapy in cancer care



CONCLUSION

Radioligand therapy can improve progression-free survival and quality of life for people living with NENs. Despite the limited therapeutic options available to people with these cancers, policy barriers limit access to this valuable treatment in many parts of Europe. Better policies to improve appropriate use of innovative therapies will benefit people with NENs, the wider rare diseases and rare cancer community, and health systems more generally.

To overcome these barriers and expand the availability of radioligand therapy for people with NENs, 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 capacity and resources in healthcare facilities 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 both routine care and care during pandemics.

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