International Advances in Radiotherapy – Industry Summit

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THE APPG FOR RADIOTHERAPY (APPG RT)

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On 14th June 2023, the APPG for Radiotherapy (APPG-RT) heard from representatives of the global radiotherapy industry to better understand how advances in Radiotherapy are being implemented in other countries, and how similar approaches could fundamentally improve outcomes for cancer patients in the UK.

Radiotherapy is required in 40% of cancer cures and is needed by half of all cancer patients. It is the second most effective cancer cure, surpassed only by surgery. However due to chronic lack of investment in staff and infrastructure the service is struggling, meaning cancer treatments are struggling.

As nearly 1 in 2 cancer patients wait longer than the 62 day target for cancer treatment, urgent investment in radiotherapy is needed to treat these patients and convert early diagnosis into patient survival. This is crucial because every 4 weeks delay in treatment can increase the risk of death by 10%.

With recent rapid technological advancements in other countries, radiotherapy has already been proven to significantly transform cancer waiting times and improve outcomes through investments in newer machines, software, AI, and technology. Additionally, it is the most cost-effective among all cancer treatments, with the ability to cure patients at a cost of approximately £4,000 to £7,000.

KEY FINDINGS

Short-term solutions: Where a small investment in radiotherapy technology and up to date equipment would ensure faster treatment times and significantly improved workforce efficiency.

- **£200 million could update and replace the estimated 76 radiotherapy treatment machines (LINACS) that will be out of date by 2024 with modern world-class machines and supporting technology. This would reduce waiting times, save staff time and accelerate the speed of the service on those machines by as much as 30%. This would benefit over 50,000 cancer patients per year (Other countries have already done this; for example, Italy invested in 80 new treatment machines partly using COVID recovery funds)**

- **Approximately £4 million investment (£15-40 per patient) in AI software would immediately enhance workforce capacity and reduce waiting times. This is already routine in other parts of the world and costs about £15-£40 per patient, saving 80% of time planning. For a clinician, this is an efficiency saving of 2 hours per patient. This time could be used to better assist other patients and reduce waiting times**

- **An investment of £45 million in Surface Guided Radiotherapy (SGRT), which allows staff to treat patients more accurately and quickly, is a British innovation that could reduce waiting times for radiotherapy by as much as 1.8 weeks nationwide. The Industry can install this in a radiotherapy centre over a weekend.**

- **Regular meetings with Advamed/Radiotherapy Industry task force and the Government could help deliver a world-class radiotherapy service, identifying the next generation of technology solutions and educating the workforce and NHS.**

Medium-term Solutions: The UK needs an increase in radiotherapy treatment capacity to address the long-term increase in cancer cases (500,000 by 2040 according to CRUK), treat an increasing number of early diagnosis patients requiring early-stage treatment like radiotherapy, and provide access to radiotherapy for ground breaking innovations in immunotherapy that work better with radiotherapy.

- A long-term vision for radiotherapy technology and capacity within the upcoming multiple conditions strategy, this may include developing, in parallel to the Community Diagnostic Centres, Community Cancer Treatment centres.

- An increase in patient access to radiotherapy from the current rate of 27% to align with international standards of 53-60% of cancer patients receiving radiotherapy.

- Reduction of patient travel times in rural communities to address the 3.5 million people who lack access to radiotherapy within 45-minutes travel time of their home and lead to patients not accessing the treatment.

- An increase in the overall number of radiotherapy machines per million from 4.8 machines per million in England to international standards. For example, there are 8.5 per million in France and 6.9 per million in Italy. England would need a further 125 LINACs in 2023 to meet this international standard per million.

- Implementation of a rolling program of radiotherapy machine replacements to ensure technology in the NHS keeps pace with the rapid advances in radiotherapy.

- Radically improve IT technology for remote treatment planning and networking throughout the UK to allow standards to improve across the country and ensuring every patient has access to world class radiotherapy

CONCLUSION

World-class radiotherapy looks like

- Better access for cancer patients
- High quality and hi-tech treatment delivering innovative advances that patients in other countries are benefiting from
- Value-based care focusing on delivering effective treatments that cure cancer patients and improve their quality of life

This approach will save more lives, at less cost. Instead of falling further behind other countries, where advanced radiotherapy technologies are readily available, the Radiotherapy industry are ready to support the Government in delivering on this life-saving treatment, which is low cost, low risk and high return.

Appendix 1

Information Submitted by

Accuray
Advamed
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