Radiation Oncology is a dynamic and evolving field. Professionals need to find efficient and effective ways to stay informed of the latest developments, to collaborate and exchange knowledge with others, and to update or acquire new skills and competences.

E-Learning is an excellent way to achieve this. E-Learning is defined as the use of information and communication technologies to enable learning and performance. It has the potential to help radiation oncologists around the world to exchange knowledge with others, and to update or acquire new skills and competences.

This lecture will introduce the concept of e-Learning and its role for professional development in Radiation Oncology. It will present practical examples and strategies for young scientist to stay updated with recent findings and guidelines in the field, to develop their competences, and to find peers and opportunities for collaboration.

Teaching Lecture: e-Learning for Professionals in Radiation Oncology: What, Why and How?

SP-0189

A. Bertanga Flores

E-Learning is an excellent way to achieve this. E-Learning is defined as the use of information and communication technologies to enable learning and performance. It has the potential to help radiation oncologists around the world to develop their competences whenever they want, at any time; allowing them to tailor their learning experiences to their goals, preferences, and needs.

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Teaching Lecture: General introduction to head and neck radiotherapy

SP-0188

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Teaching Lecture: e-Learning for Professionals in Radiation Oncology: What, Why and How?

SP-0190

Has higher accuracy in treatment delivery translated into noticeable improvements in clinical outcomes

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We will define ‘accuracy’ as delivering the desired radiation dose to the target whilst minimising as much dose as possible to the surrounding normal tissues, thus embracing the classical balance which must be achieved with all radiotherapy.

The process begins with identifying the target, and therefore includes improving imaging for target volume delineation. Nevertheless, considerable uncertainties still exist especially in the personalisation of the Clinical Target Volume (CTV). Better conformation of dose to target shape has been a long term objective, beginning even in the ortho-voltage era. The biggest step, a revolutionary change, was the introduction of 3D conformal RT. IMRT represents ‘ultra-conformal’ treatment. Use of proton and carbon ion beams represents further steps along this path.

Improving accuracy also includes ensuring that today’s highly conformal treatment plans are actually delivered to the target, without missing, and not to surrounding normal tissues. This brings us to image guidance, which appears to be vital, especially with steep dose gradient IMRT plans, but which is difficult (perhaps impossible) to test using the conventional trial paradigms.

A further concept is that the planned dose may differ from the accumulated delivered dose (DA), as the result of patient or tumour changes. Computational developments mean that individual patient DA can be estimated in a research setting using daily image guidance scans, so that clinical implementation will need to be addressed.

An additional development is the use of real time imaging during the exposure to monitor patient or organ movement, using X-ray or MRI approaches.

In terms of clinical outcomes, good evidence exists that better imaging improves outcomes. The introduction of 3D CRT, perhaps the most important step of all, has a strong evidence base. IMRT is also supported by strong clinical evidence. There is highly suggestive evidence that charged particle beams have a valuable role. Sadly, there is also good evidence that bad quality in plan preparation and delivery leads to worse local control and survival (TROG). Image guidance is a more challenging component of the radiotherapy chain for which to provide hard trial evidence, although it has a clear rationale.

Overall, there is a definitive evidence base that better accuracy improves outcomes for both tumour control and normal tissue sparing using current technologies. Additional opportunities are also developing, making this a truly exciting time to be working in radiation oncology.

The patient: an active partner in quality and safety process in radiotherapy

S. Cucchiaro

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Beyond the technological advances to improve radiation therapy, the patient can also actively participate in its care process and contribute to ameliorate its management. The patient is a key player in security and improvement care processes. The patient’s needs and expectations can be harvested through satisfaction surveys, adverse event declarations, records of complaints and patient committee.

An important place in our Radiotherapy Department is given to harvesting and processing patient’s opinions to add value for it. In order to know the views of patients on the quality of our services and help us to improve it, we have developed a survey covering 6 themes. Figure 1 shows the surveys’ results of the last three years for the 6 themes, which are close or greater than the institutional goal.