Practical aspects for the integration of radiotherapy services in national cancer programmes

Course Syllabus

Learning Objectives

At the end of this Master Course, the participants should be able to:

1. Understand the indications for radiotherapy and how it kills cancer cells,
2. The different types of radiotherapy and machines,
3. The most common indications of radiotherapy and the concept of multi-specialty treatment,
4. The benefits of radiotherapy in survival and local control,
5. The setup of radiotherapy services, needed resources and the cost of radiotherapy,
6. Education and research related to radiotherapy.

Target audience

Cancer control professionals with an interest in learning about the need for radiotherapy and its integration into the health system

Online course structure

5 modules including 2-3 webinars.
- Total number of webinars: 14
- Total duration: 4h40min

One week after each module there will be a live session for questions and answers.

Relevant references and links will be made available to the participants.

Online course curriculum:

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<thead>
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<th>Module</th>
<th>Webinar</th>
<th>Topic</th>
<th>Speaker</th>
<th>Duration (minutes)</th>
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<td>Definitions</td>
<td>Lisbeth Cordero</td>
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<td>2</td>
<td>2</td>
<td>How radiotherapy (RT) works: physics</td>
<td>Jake Van Dyk</td>
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<td>3</td>
<td>3</td>
<td>How RT works: radiobiology</td>
<td>Jan Wondergem</td>
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<td>Common indications</td>
<td>Kirsten Hopkins</td>
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<td>Content</td>
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<td>5</td>
<td>Combination and interactions with other treatment modalities</td>
<td>Surbhi Grover</td>
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<td>6</td>
<td>Cervical cancer as a model</td>
<td>Supriya Chopra</td>
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<td>3</td>
<td>From cancer incidence to RT needs: RT utilisation rate</td>
<td>Mei Ling Yap</td>
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<td>Benefit LC-survival</td>
<td>Timothy Hanna</td>
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<td>RT availability and access</td>
<td>Alfredo Polo</td>
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<td>RT process, RT team, and QA</td>
<td>Yavuz Anacak</td>
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<td>Design of a RT department</td>
<td>Kamal Akbarov</td>
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<td>Resources and costs</td>
<td>Eduardo Zubizarreta</td>
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<td>Return of investment in radiotherapy</td>
<td>Danielle Rodin</td>
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<tr>
<td>14</td>
<td>Education and research</td>
<td>Ben Prajogi</td>
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</table>

**Course Leader**

**Eduardo Zubizarreta**

**Title:** Head of Applied Radiation Biology and Radiotherapy Section  
**Organisation:** Division of Human Health - Department of Nuclear Sciences and Applications, IAEA.

**Course Faculty**

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Name: Jan Wondergem
Organisation: Leiden University, The Netherlands

Name: Mei Ling Yap
Organisation: Ingham Institute for Applied Medical Research; Liverpool Cancer Therapy Centre; Macarthur Cancer Centre; University of Sydney; University of New South Wales, Australia.