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:

Module	Webinar	Topic	Speaker	Duration (minutes)
1	1	Definitions	Lisbeth Cordero	20
	2	How radiotherapy (RT) works: physics	Jake Van Dyk	20
	3	How RT works: radiobiology	Jan Wondergem	20
2	4	Common indications	Kirsten Hopkins	20

	5	Combination and interactions with other treatment modalities	Surbhi Grover	20
	6	Cervical cancer as a model	Supriya Chopra	20
3	7	From cancer incidence to RT needs: RT utilisation rate	Mei Ling Yap	20
	8	Benefit LC-survival	Timothy Hanna	20
	9	RT availability and access	Alfredo Polo	20
4	10	RT process, RT team, and QA	Yavuz Anacak	20
	11	Design of a RT department	Kamal Akbarov	20
5	12	Resources and costs	Eduardo Zubizarreta	20
	13	Return of investment in radiotherapy	Danielle Rodin	20
	14	Education and research	Ben Prajogi	20

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

Name: Kamal Akbarov
Organisation: ARBR-IAEA, Austria

Name: Yavuz Anacak
Organisation: EGE University, Turkey.

Name: Supriya Chopra
Organisation: Tata Memorial Centre, India

Name: Lisbeth Cordero
Organisation: ARBR-IAEA, Austria

Name: Jake Van Dyk
Organisation: Western University, Canada

Name: Surbhi Grover
Organisation: University of Pennsylvania Perelman School of Medicine, USA

Name: Timothy Hanna
Organisation: Cancer Research Institute at Queen’s University, Canada

Name: Kirsten Hopkins
Organisation: ARBR-IAEA, Austria

Name: Alfredo Polo
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Name: Ben Prajogi
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Name: Danielle Rodin
Organisation: Princess Margaret Cancer Centre, Canada

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.