



International Conference on Advances in Radiation Oncology (ICARO-2)

Organized by the
International Atomic Energy Agency
IAEA Headquarters
Vienna, Austria
20–23 June 2017

Announcement and Call for Papers

Introduction

The International Atomic Energy Agency (IAEA) is organizing the second International Conference on Advances in Radiation Oncology (ICARO-2), following the success of the first conference (ICARO-1), which was held in 2009. The advances in radiotherapy in the last years have been striking, although numerous challenges are still to be faced, including achieving access to high standard cancer care in many countries. New radiotherapy techniques have been implemented in the past decade, including three-dimensional conformal therapy, stereotactic radiotherapy, intensity modulated radiation therapy, image guided radiation therapy, tomotherapy, new brachytherapy and unsealed-source techniques, and proton and heavy ion therapy. The increased use of these complex techniques, coupled with the need to treat more patients in less time, will continue to drive a reliance on high-end technologies and impose a financial burden on health care programmes. In addition, the development and implementation of a quality assurance programme for these new techniques is a major challenge in Member States.

The conference will give health care professionals an opportunity to review the current developments in clinical applications in the fields of radiation oncology, radiation biology and medical physics, with a view to addressing the challenge of cancer management in Member States.

It will also critically examine the pivotal role of emerging radiotherapy techniques in tackling the health challenges common to many Member States.

An appropriate number of accredited continuing medical education (CME) credits will be awarded to participants.

Objectives

The conference is aimed at defining the current role and future potential of technological, medical physics and molecular/biological innovations for their incorporation into routine clinical practice in radiation oncology. It will also provide a forum where advances in technology, best practices and quality assurance methodologies can be disseminated and scientific knowledge exchanged. The conference will have the following specific objectives:

- To review the current role and future potential of technological, medical physics and molecular/biological innovations for clinical use in radiation oncology
- To explore the applications of improved imaging tools in treatment planning
- To review the current status of evidence based recommendations for the treatment of common cancers
- To review the latest developments in medical dosimetry and dose auditing procedures for new radiotherapy techniques
- To review the current status of comprehensive audits in radiotherapy
- To review resource sparing approaches in clinical radiotherapy practice
- To exchange information on the current advances and implementation challenges in the field among leading experts

- To define future challenges and directions in the clinical use of radiotherapy

Format and Topics

The conference programme will include plenary and parallel sessions, poster sessions, round-table discussions, lunch forums and teaching lectures.

The **plenary sessions** will include topics of interest to all participants such as personalized medicine, recent technological, physical and clinical developments, quality assurance, challenges and solutions, and health care economics.

Parallel sessions will cover detailed developments and recent findings related to clinical and physical aspects of radiotherapy.

Poster sessions will be dedicated to discussion and interaction with colleagues.

Round-table discussions will address specific issues from different perspectives and **lunch forums** will review potential solutions to these issues such as telemedicine and transitioning to paperless radiotherapy departments.

The IAEA invites participants to provide high quality contributions on all aspects of radiotherapy. The topics to be addressed during the conference will be centred on technological as well as biological, medical physics and clinical advances, and should take into account real clinical settings in all Member States. Both academic and practice-based papers under the umbrella of the following topics will be considered:

Technological advances and challenges, Roadmap for setting up modern radiation oncology facilities, New treatment and imaging techniques and clinical evidence, Health economics in radiotherapy, Developments in treatment planning, Small field dosimetry, Auditing procedures, Personalized medicine, Advances in the treatment of recurrent patients, National cancer control strategies, Developments in quality assurance and new approaches to quality management, Safety in radiation therapy, Intensity modulated radiotherapy, including arc-based approaches, Telemedicine, Radiobiology, Combined therapies, Paediatric radiotherapy, Clinical research, Applied brachytherapy, Education and training of professionals

Target Audience

This conference will offer an opportunity to review the latest technological, clinical and biological developments that are relevant to radiotherapy, and the main target audience therefore comprises:

- Radiation oncologists
- Radiobiologists
- Medical physicists
- Technologists

The conference would also be of interest to scientists, researchers and biomedical engineers working in the field of radiotherapy.

Key Deadlines

Electronic submission of extended synopsis, including submission of

Forms A and B through official channels:

31 October 2016

Submission of Grant Application Form (Form C) and Participation Form (Form A) through official channels:

31 October 2016

Notification of acceptance of paper:

15 January 2017

Registration only (no paper submission, no grant request)
open until conference

Conference Secretariat

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