

Joint ICTP-IAEA School on Quality Assurance and Dose Management in Hybrid Imaging (SPECT/CT and PET/CT)



17 - 28 September 2018
Trieste, Italy

Further information:
<http://indico.ictp.it/event/8336/>
smr3240@ictp.it

The purpose of the training is to provide advanced knowledge on the best use of hybrid imaging equipment (SPECT/CT and PET/CT). Physics and technological innovations, quality assurance programme, procedures for quality control and dosimetry, and the optimization strategies, aiming to achieve diagnostic image quality at lower radiation dose, will be extensively discussed. Both the nuclear medicine component (SPECT and PET) and CT will be addressed, and practical advice will be provided on how to optimize clinical protocols for adults and children. The discussion will also include patient dose assessment and establishment and use of diagnostic reference levels for optimization of patient protection. Radiation protection of pregnant and breastfeeding patients, including dose estimation from internal and external radiation exposure will be discussed, as well as how to reduce the fetal absorbed dose in case where the procedure is justified during pregnancy. The programme will also include discussion on setting radiation protection programme for hybrid imaging, including facility planning, shielding calculations, and different aspects related to radiation protection of patients, staff and members of the public.

Description:

Because of the rapid technological development in hybrid imaging and the shortage of human resources in developing countries, keeping up to date knowledge of clinical specialists is a challenging task.

This training would seek to target experienced clinical medical physicists working in hybrid imaging, researchers involved in developing dose reduction techniques and dose audit methods, and teachers involved in medical physics education and postgraduate training.

Topics:

- Physics and technology of SPECT/CT and PET/CT;
- Quality assurance, performance measurements and quality controls;
- Artefacts interpretation;
- Factors influencing patient doses in hybrid imaging;
- Radiation effects and risks;
- Patient dose assessment and diagnostic reference levels;
- Optimization of clinical protocols for SPECT/CT and PET/CT;
- Size-specific and paediatric protocols;
- Dose assessment and dose management for breast-feeding and pregnant patients;
- Radiation protection of staff and public;
- Shielding calculations.

How to apply:

Online application:
<http://indico.ictp.it/event/8336/>

Women are particularly encouraged to apply.

Grants:

A limited number of grants are available to support the attendance of selected participants, with priority given to participants from developing countries. There is no registration fee.

Co-Sponsors:

AAPM
EFOMP

Directors:

G.L. Poli, IAEA
J. Vassileva, IAEA

Local Organizer:

L. Bertocchi, ICTP

Workshop Speakers:

O. Mawlawi, USA (AAPM)
R. Matheoud, Italy (EFOMP)
S. Leide Svegborn, Sweden
M. Marengo, Italy
R. Padovani, ICTP
M. De Denaro (Trieste Hospital)
P. Bregant (Trieste Hospital)

Deadline:

15 June 2018

