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# Joint ICTP-IAEA Workshop on Computed Tomography: Quality Control, Dosimetry and Optimization | (smr 2853)

## Monday 02 May 2016

### Day 1 - LB (Euler Lecture Hall) (09:00-17:00)

time	title	presenter
09:00	Welcome/Introduction of the Participants/Pre-course test	
10:00	IAEA Activities in Medical Radiation Physics	DELIS, Harry
11:00	Introduction to CT Physics	KORTESNIEMI, Mika
12:00	CT Technology (overview)	MAHESH, Mahadevappa
13:00	Lunch Break	
14:00	DICOM Information in CT	PADOVANI, Renato
15:00	QA/QC Program for CT	KORTESNIEMI, Mika
16:00	Quality Management in CT (procedures/documentation/audits)	DELIS, Harry

## Tuesday 03 May 2016

### Day 2 - LB (Euler Lecture Hall) (09:00-18:00)

time	title	presenter
09:00	Image Quality in CT (indices/parameters/artefacts)	MAHESH, Mahadevappa
11:00	Dosimetry in CT (quantities/units/methods)	KORTESNIEMI, Mika
13:00	Lunch Break	
14:00	Hospital Practicals: QC and Dosimetry in CT & Parallel Sessions "Patient dose estimation exercise" at ICTP	MAHESH, Mahadevappa

## Wednesday 04 May 2016

### Day 3 - LB (Euler Lecture Hall) (09:00-18:00)

time	title	presenter
09:00	Reconstruction Algorithms and Iterative Methods	KORTESNIEMI, Mika
10:00	Reconstruction algorithms/effect of filtering	KORTESNIEMI, Mika
12:00	Equipment specifications/purchase	MAHESH, Mahadevappa
13:00	Lunch Break	
14:00	Hospital Practicals: QC and Dosimetry in CT & Parallel Sessions "Patient dose estimation exercise" at ICTP	MAHESH, Mahadevappa

## Thursday 05 May 2016

### **Day 4 - LB (Euler Lecture Hall) (09:00-17:00)**

time	title	presenter
09:00	Foetal Dosimetry	DAMILAKIS, John
10:00	Cardiac CT Physics	MAHESH, Mahadevappa
11:00	Physics of Dual Energy CT and CT Perfusion	MAHESH, Mahadevappa
12:00	Shielding for CT	DELIS, Harry
13:00	Lunch Break	
14:00	Analysis of CT-QC and dosimetry measurements	ALL

## Friday 06 May 2016

### Day 5 - LB (Euler Lecture Hall) (09:00-15:00)

time	title	presenter
09:00	Advanced Dosimetry - individualized dosimetry	DAMILAKIS, John
10:00	Embryo/fetal dosimetry - dose calculation software	DAMILAKIS, John
12:00	Cone Beam CT	BREGANT, Paola
13:00	Lunch Break	
14:00	CT Simulator	CORA, Stefania

# Monday 09 May 2016

## Day 6 - LB (Euler Lecture Hall) (09:00-17:00)

time	title	presenter
09:00	Introduction: participants and lecturers; organization of the work in the second week	
09:30	International BSS and IAEA work on implementation	VASSILEVA, Jenia
10:00	Justification for CT: Why it is important and who is responsible	KALRA, Mannudeep
10:30	Optimization strategy: what, who and how?	CASTELLANO, Isabel
11:00	Break	
11:30	Designing indication based clinical CT protocols	KALRA, Mannudeep
12:00	CT radiation dose tracking in CT department	CASTELLANO, Isabel
12:30	Diagnostic reference levels (DRLs) - the concept and use	VASSILEVA, Jenia
13:00	Lunch Break	
14:00	DRLs in CT for adults and children	CASTELLANO, Isabel
14:30	Italian experience in CT dose tracking	BREGANT, Paola
15:00	Interactive session: dose tracking and DRLs for CT	ALL PARTICIPANTS
15:30	Break	
16:00	Interactive session: the role of medical physicists and other team members in CT justification and optimization	ALL PARTICIPANTS



## Tuesday 10 May 2016

### Day 7 - LB (Euler Lecture Hall) (09:00-18:00)

time	title	presenter
09:00	Overview of CT scan parameters	CASTELLANO, Isabel
10:00	Tube current modulation and dose reduction	KALRA, Mannudeep
11:00	Break	
11:30	Measures of clinical image quality and confidence	CASTELLANO, Isabel
12:30	Automatic tube voltage selection	KALRA, Mannudeep
13:00	Lunch Break	
14:00	Practical work in groups: G1 and G2 in Trieste Hospital; rotation for tasks A) and B)	

## Wednesday 11 May 2016

### Day 8 - LB (Euler Lecture Hall) (09:00-18:00)

time	title	presenter
09:00	Chest CT	KALRA, Mannudeep
10:00	Cardiac CT	CASTELLANO, Isabel
11:00	Break	
11:30	Dual energy CT: applications	KALRA, Mannudeep
12:30	Patient protection in CT	CASTELLANO, Isabel
13:00	Lunch Break	
14:00	Practical work in groups: G3 and G4 in the hospital; rotation for tasks A) and B)	

## Thursday 12 May 2016

### Day 9 - LB (Euler Lecture Hall) (09:00-17:00)

time	title	presenter
09:00	Abdomen CT	KALRA, Mannudeep
10:00	Paediatric CT	CASTELLANO, Isabel
11:00	Break	
11:30	Conclusions from the IAEA survey on paediatric CT	VASSILEVA, Jenia
12:00	Head CT	KALRA, Mannudeep
13:00	Lunch Break	
14:00	Classroom practical in groups: review of CT protocols	KALRA & CASTELLANO

## Friday 13 May 2016

### **Day 10 - LB (Euler Lecture Hall) (09:00-17:00)**

time	title	presenter
09:00	Clinical aspects of CT in pregnancy	KALRA, Mannudeep
09:30	CT and obesity	KALRA, Mannudeep
10:00	CT in Radiotherapy	CASTELLANO, Isabel
11:00	Break	
11:30	Classroom practical: review of dose data	CASTELLANO, Isabel
13:00	Lunch Break	
14:00	Classroom Practical: review of dose data	CASTELLANO, Isabel
15:30	Post-Course Test	
16:30	What I shall do next? Interactive discussion and individual workplan	