

# Radiation Shielding in Medical Installations

Shielding Methods for Diagnostic Imaging, PET and Radiation Therapy Facilities

Ericeira, Portugal, 19-21 July 2009

## Programme

<i>Time</i>	<i>Sunday, July 19</i>	<i>Speaker(s)</i>
10:00-10:30	Coffee	
10:30-11:00	Welcome and Introduction	Vaz, Dixon, others
<b>Session I - The Philosophy of Radiation Protection of the Public as is applies to Radiation Shielding Design</b>		
11:00-11:30	How do ALARA, and/or ICRP "source constraints" apply in practical shielding design? NCRP Dose Limits & Rationale	Dixon
11:30-12:00	The European Philosophy - Dose Limits & Rationale	Sutton, Malone
12:00-12:15	Discussion	
12:15-14:00	Lunch break	
<b>Session II - General Concepts - Shielding Design Dose Limits - Overview of Shielding Guidance Reports and Software</b>		
14:00-14:30	Practical Shielding Design Philosophy	Dixon
14:30-15:00	NCRP Report #147 (Diagnostic)	Simpkin
15:00-15:30	Report of the BIR Working Group for Diagnostic Shielding	Sutton, Williams
15:30-16:00	Coffee break	
16:00-16:30	The "Blue Book" - Shielding Code of Practice in Ireland	Malone "Blue Book"
16:30-17:00	NCRP Report #151	Biggs
17:00-18:00	<b>Round Table + Panel discussion</b>	
18:30-21:00	Reception	

<i>Time</i>	<i>Monday, July 20</i>	<i>Speaker(s)</i>
<b>Session III - Diagnostic X-ray Shielding Design</b>		
08:30-09:00	General Methodology for Diagnostic X-Ray Shielding - NCRP #147	Dixon
09:00-09:30	Description of the NCRP #147 Shielding Model Using XRAYBARR Software	Simpkin
09:30-10:00	The BIR Model Description and Differences From NCRP #147	Williams
10:00-10:30	Coffee break	
<b>Diagnostic Shielding Examples - Radiographic and Fluoroscopic Room Design</b>		
10:30-11:00	NCRP #147 Examples	Simpkin
11:00-11:30	BIR Report Examples - Comparison of results with NCRP #147	Sutton
<b>CT Scanner Shielding Design</b>		
11:30-12:00	NCRP #147 CT Approach With Updated Data	Dixon
12:00-12:30	BIR Approach to CT shielding – Determination of Workload	Williams
12:30-14:00	Lunch break	
14:00:15:00	Panel Discussion of Diagnostic Shielding Design Questions and Answers	
15:00-15:30	Coffee break	
<b>Session IV - Shielding Design for Nuclear Medicine</b>		
15:30-15:45	Overview of Shielding Required for a Typical Nuclear Medicine Department	Malone
<b>PET/CT Shielding</b>		
15:45-16:00	Basic Considerations - Using Geometry rather than lead	Dixon
16:00-16:30	The AAPM PET/CT Task Group Recommendations and Data	Simpkin
16:30-17:00	The "Blue Book" PET Recommendations and Methods	Malone
17:30-18:00	PET/CT Design Examples and Problems	Simpkin, Malone, Sutton
17:30-18:00	Panel Discussion of PET/CT Shielding Questions and Answers	
20:00-22:00	Course Diner	

<i>Time</i>	<i>Tuesday, July 21</i>	<i>Speakers</i>
<b>Session V - Radiation Therapy Shielding Design</b>		
08:30-09:30	Basic Design Principles and Latest Recommended Data, Neutrons, Structural & Safety Concerns	Biggs
9:30-11:00	Neutron Door Shielding: Thinking Outside the Box - Innovative Vault Design and Practical Shielding Tips	Barish
11:00-11:15	Coffee break	
<b>NCRP#151 Therapy Shielding Methodology Continued and Some Recent Modifications</b>		
11:15-11:45	Special Problems in Radiation Therapy Design: Tomotherapy, Gamma Knife, Cyberknife	Barish
11:45-12:45	Current Problems in Radiation Shielding: Is there Life After NCRP #151	Biggs
12:45-13:15	Panel Discussion of Radiation Therapy Shielding Questions and Answers	
13:15-14:00	Lunch break	
<b>Session VI - Workshops and Tutorials</b>		
14:00-15:00	Examples of diagnostic shielding design	Simpkin, Williams
15:00-16:00	PET/CT Shielding workshop	Simpkin, Sutton
16:00-16:30	Coffee break	
16:30-17:30	Radiation Therapy shielding workshop	Biggs, Barish