

**National course on radiation protection and optimization in fluoroscopy guided interventional (FGI) procedures  
4-8 December, Sofia, Bulgaria**

Time	Monday, 4 December	Tuesday, 5 December	Wednesday, 6 December	Thursday, 7 December	Friday, 8 December
9:00 - 9:15	Opening and introduction; entry test	Overview of acceptance, commissioning and periodic QC tests - A. Rogers	Quality assurance programme: scope, content and responsibilities - A. Trianni	Typical patient doses in FGI interventional procedures - A. Rogers	Organ (other than skin) dose, including fetal dose and risk assessment J. Vassileva/ A. Trianni, followed by interactive session
9:15 - 9:30					
9:30 - 9:45					
9:45 - 10:00	Overview of cardiac interventional procedures - BG speaker	Advanced QC and image quality evaluation - A. Trianni	QA programme: interactive session	Patient dose audits and diagnostic reference levels (DRLs) for FGI procedures - A. Rogers	
10:00 - 10:15					
10:15 - 10:30					
10:30 - 11:00	<i>Coffee break</i>	<i>Coffee break</i>	<i>Coffee break</i>	<i>Coffee break</i>	<i>Coffee break</i>
11:00 - 11:15	Overview of neurovascular interventions in the head, neck, and spine - BG speaker	QC - interactive session	Radiation-induced and other risks in FGI procedures - J. Vassileva	Patient dose studies and DRLs: Bulgarian experience - D. Kostova-Lefterova Followed by Discussion	QA and optimization in FGI procedures: final discussion
11:15 - 11:30			Typical staff doses in FGI procedures; staff dosimetry - A. Rogers (40')		
11:30 - 11:45				Managing pregnant patient and staff - A. Trianni	
11:45 - 12:00	Overview of vascular and non- vascular radiology interventions - BG speaker		Staff doses: experience from Bulgaria - A. Zagorska (20')		Recap, final test and closing
12:00 - 12:15					
12:15 - 12:30					
12:30 - 13:30	<i>Lunch break</i>	<i>Lunch break</i>	<i>Lunch break</i>	<i>Lunch break</i>	
13:30 - 13:45	State of the art of angiographic Imaging equipment. Automatic dose rate control (ADRC) - A. Rogers	Patient dose quantities and dose index verification - A. Rogers	Selection and proper use of protective devices (A. Rogers/ A. Trianni)	Skin dose mapping, dose alerts and trigger levels. Prevention and management of skin injuries - J. Vassileva	
13:45 - 14:00					
14:00 - 14:15					

14:15 - 14:30	A. Rogers			
14:30 - 14:45	Facility design and shielding calculations - A. Trianni	Skin dose measurement and calculation - A. Trianni	Radiation protection of staff: interactive session	Implementation of follow-up programme: Experience from Bulgaria - D. Kostova-Letterova Interactive session
14:45 - 15:00				
15:00 - 15:45				
15:45 - 16:00	Coffee break			
15:30 - 15:45				
15:45 - 16:00	Facility design and shielding: local requirements - BG speaker	DICOM standard and IHE REM profile - A. Trianni	Optimization of FGI procedures: overview - A. Rogers	Good and bad practice in interventional cardiac procedures: interactive session - BG moderator
16:00 - 16:15	Facility design and shielding calculations: work in groups			
16:15 - 16:30		DICOM objects and RDSR for interventional fluoroscopy: interactive session	Fluoroscopy equipment factors influencing image quality and patient dose: structured interactive session, moderated by A. Trianni	Good and bad practice in interventional radiology, neuroradiology and vascular surgery: interactive session - BG moderator
16:30 - 16:45				
16:45 - 17:00				

Sessions targeting medical physicists/ engineers

Sessions targeting interventionalists/ radiographers