



International Conference on Integrated Medical Imaging in Cardiovascular Diseases (IMIC 2016)
IAEA Headquarters - Vienna, Austria, 10 - 14 October 2016

OVERVIEW

Monday, 10 October 2016

Time	Title	Speaker	Affiliation	Learning objectives
OPENING SESSION				
09:00 - 09:30	Opening remarks	IAEA Coordinator	Diana Paez	
		Gabriele Gil-Feigl, Permanent Mission of Austria to the United Nations (Vienna)		
		Aldo Malavasi, IAEA		
		Dazhu Yang, IAEA		
		May Abdel-Wahab, IAEA		
		Meera Venkatesh, IAEA		
PLENARY SESSION I - SETTING UP THE SCENE				
		IAEA Coordinator	Diana Paez	
		Chairperson	Marcus Hacker, EANM	
09:30 - 10:00	Key note: Sustainable Development Goals - Role of the UN Organizations	Oyere K. Onuma	WHO	<ol style="list-style-type: none"> 1. Discuss the importance of the UN Organizations within the framework of Sustainable Development Goals (SDGs) 2. Recognize the burden of cardiovascular disease and its relation to the SDGs
10:00 - 10:30	What the cardiologists need to know from medical images	Gerald Maurer	MUV, Austria	<ol style="list-style-type: none"> 1. Discuss the complementary roles of information that can be derived from clinical data, biomarkers and imaging 2. Examine the roles of different types imaging techniques and how they impact on patient care and clinical outcome
10:30 - 11:00	COFFEE/TEA BREAK			
PLENARY SESSION II - ISCHEMIC HEART DISEASE				
		IAEA Coordinator	Maurizio Dondi	
		Chairperson	Joao Vitola, ASNC	
11:00 - 11:25	Imaging ischemic heart disease: role of SPECT and PET	Hein Verberne	EANM	<ol style="list-style-type: none"> 1. Discuss the application of appropriate use criteria for SPECT and PET in ischemic heart disease: state of the art 2. Examine new insights in myocardial perfusion imaging: future
11:25 - 11:50	Imaging ischemic heart disease: role of CCTA	Florian Wolf	ESR	<ol style="list-style-type: none"> 1. Examine the role of CCTA in the management of ischemic heart disease 2. Discuss the indications for using CCTA in the management of ischemic heart disease
11:50 - 12:15	Imaging ischemic heart disease: role of cardiac MRI	Chiara Bucciarelli Ducci	EACVI	<ol style="list-style-type: none"> 1. Examine the indications of cardiac MRI in patients with ischemic heart disease 2. Discuss the role of cardiac MRI over and above other imaging modalities
12:15 - 12:40	Imaging ischemic heart disease: role of echocardiography	Danilo Neglia	EACVI	<ol style="list-style-type: none"> 1. Integrate clinical information provided by stress echocardiography for the management of patients with suspected coronary artery disease 2. Discuss the appropriate use of stress echocardiography in the context of multimodality imaging in patients with suspected coronary artery disease
12:40 - 13:00	Synthesis and Q&A			
13:00 - 14:30	WORKING LUNCH SESSION			
READ WITH THE EXPERTS I				
		IAEA Coordinator	Enrique Estrada Lobato	
		Chairperson	Amalia Peix, Cuba	
14:30 - 15:15	Nuclear cardiology in ischemic heart disease	Barry Elison	ANZSNM	Discuss the role of nuclear cardiology in ischemic heart disease using actual case images for further interpretation and discourse
15:15 - 16:00	CCTA and cardiac MRI in ischemic heart disease	Florian Wolf	ESR	Discuss the role of CCTA and cardiac MRI in ischemic heart disease using actual case images for further interpretation and discourse
POSTER REVIEW - SESSION I				
16:00 - 17:00	Meet-the-Authors - Poster Review	IAEA Coordinator	Thomas Pascual	<ol style="list-style-type: none"> 1. Discuss the different application of cardiac imaging and its usefulness in clinical management of patients with CVDs 2. Propose novel methodologies in medical imaging that would impact patient management
17:00 - 19:00	Welcome reception			
Tuesday, 11 October 2016				
Time	Title	Speaker	Affiliation	Learning objectives
08:30 - 09:00	BASICS I: HOW TO READ AN ECG AND PERFORM A STRESS TEST	Nathan Better	ANZSNM	<ol style="list-style-type: none"> 1. Discuss how to read an ECG and recognize significant abnormalities 2. Discuss how to perform different types of stress tests, including essential things to have in the room 3. Examine significant problems and "red lights" in the stress lab 4. Discuss how to incorporate the ECG and stress data into a nuclear medicine report - is it important?
PLENARY SESSION III - APPROPRIATE USE CRITERIA				
		IAEA Coordinator	Rodolfo Nuñez Miller	
		Chairperson	Barry Elison, ANZSNM	

09:00 - 09:25	Evidence-based medicine in cardiac imaging	Paolo Raggi	Canada	1. Examine the need for evidence-based medicine in cardiac imaging 2. Recognize the limitations of evidence-based cardiac imaging
09:25 - 09:50	Cardiovascular Diseases in the female population	Leslee Shaw	SCCT	1. Discuss the cardiovascular disease profile within the female population 2. Examine the appropriate diagnostic / imaging tests for this population
09:50 - 10:10	COFFEE/TEA BREAK			
PLENARY SESSION IV - CONGESTIVE HEART FAILURE		IAEA Coordinator	Maurizio Dondi	
		Chairperson	Fernando Mut, ALASBIMN	
10:10 - 10:35	Imaging congestive heart failure: role of SPECT and PET	Marcus Hacker	EANM	1. Examine the role of SPECT and PET in the management of congestive heart failure 2. Discuss the indications for using SPECT and PET in the management of congestive heart failure
10:35 - 11:00	Imaging congestive heart failure: role of CCTA	Gianluca Pontone	SCCT	1. Examine the role of CCTA in the management of congestive heart failure 2. Discuss the indications for using CCTA in the management of congestive heart failure
11:00 - 11:25	Imaging congestive heart failure: role of cardiac MRI	Chiara Bucciarelli Ducci	EACVI	1. Examine the indications of cardiac MRI in patients with heart failure 2. Discuss the principles of cardiac MRI image interpretation
11:25 - 11:50	Imaging congestive heart failure: role of echocardiography	Bogdan Popescu	EACVI	1. Examine the role of echocardiography in the management of congestive heart failure 2. Discuss the indications for using echocardiography in the management of congestive heart failure
11:50 - 12:10	Synthesis and Q&A			
12:10 - 13:30	WORKING LUNCH SESSION			
FUNDAMENTALS I: CCTA		IAEA Coordinator	Thomas Pascual	
		Chairperson	Leslee Shaw, SCCT	
13:30 - 14:15	Current status of CCTA in Cardiology	Michelle Williams	SCCT	1. Discuss current research into the application of CT coronary angiography for patients with suspected coronary artery disease including stable chest pain and in the emergency department 2. Understand the advantages and limitations of CT coronary angiography in the diagnosis of suspected coronary artery disease 3. Examine the current status of CCTA in the management of CVDs 4. Discuss different CCTA protocols available for appropriate patients
READ WITH THE EXPERTS II		IAEA Coordinator	Enrique Estrada Lobato	
		Chairperson	Victor Kalff, WFNMB	
14:15 - 15:00	Challenging Cases: CCTA and Cardiac MRI	Gianluca Pontone	SCCT	Discuss the role of CCTA and cardiac MRI using actual case images for further interpretation and discourse
15:00 - 15:15	COFFEE/TEA BREAK			
15:15 - 16:00	Pitfalls and artefacts in nuclear cardiology	Brian G. Abbott	ASNC	1. Examine the common attenuation and reconstruction artifacts in SPECT and PET myocardial perfusion imaging 2. Discuss how image processing can improve image quality
POSTER REVIEW - SESSION II				
16:00 - 17:00	Meet-the-Authors - Poster Review	IAEA Coordinator	Thomas Pascual	1. Discuss the different application of cardiac imaging and its usefulness in clinical management of patients with CVDs 2. Propose novel methodologies in medical imaging that would impact patient management
Wednesday, 12 October 2016				
Time	Title	Speaker	Affiliation	Learning objectives
08:30 - 09:00	BASICS II: GETTING FAMILIAR WITH INTERVENTIONAL CARDIOLOGY	Ganesan Karthikeyan	India	1. Review the basics and indications of using interventional cardiology in the management of patients with CVDs 2. Recognize common imaging findings seen in interventional cardiology studies
FUNDAMENTALS II: CARDIAC MRI		IAEA Coordinator	Ravi Kashyap	
		Chairperson	Marcus Hacker, EANM	
09:00 - 09:45	Current status of MRI in cardiology	Matthias Gutberlet	ESR	1. Examine the current status of MRI in the management of CVDs 2. Discuss different MRI protocols available for appropriate patients
09:45 - 10:25	Cardiac MRI: Case review	Matthias Gutberlet	ESR	Discuss the role of cardiac MRI using actual case images for further interpretation and discourse
10:25 - 10:40	COFFEE/TEA BREAK			
PLENARY SESSION V: WHAT'S NEW?		IAEA Coordinators	Gian Luca Poli, Harry Delis	
		Chairperson	Manuel Arreola, USA	
10:40 - 11:10	Software and hardware advances in nuclear cardiology	Roger Fulton	Australia	Discuss current software and hardware advances in nuclear cardiology and its advantages over current technology
11:10 - 11:40	Software and hardware for CCTA	Isabel Castellano	UK	1. Integrate an overview of the CT technical developments that underpin coronary CT angiography 2. Discuss the impact of these developments on image quality and radiation dose to the patient
11:40 - 12:10	PET/CT or PET/MR: Who should PET partner with?	Thomas Beyer	MUV, Austria	1. Discuss the quantitative nature of PET imaging in either modality 2. Examine key applications and advantages/disadvantages of each modality 3. Discuss protocol standardization and key elements of high quality clinical imaging protocols 4. Integrate the principles of PET/CT and PET/MRI into clinical practice
12:10 - 13:30	LUNCH BREAK			
PLENARY SESSION VI: RADIOPHARMACY UPDATE		IAEA Coordinator	Joao Osso	
		Chairperson	Sally Schwarz, SNMMI	
13:30 - 13:50	OECD and the supply of medical radioisotopes	Kevin Charlton	OECD-NEA	1. Discuss the current market demand and projected production capacity of 99Mo supply 2. Discuss gaining awareness about the 99Mo supply challenge in 2016 and beyond 3. Examine the range of measures available for mitigating future supply risk and the challenges of implementing them, including the NRU reactor 99Mo contingency capacity

13:50 - 14:10	Good manufacturing practice in the US applied to the production of radiopharmaceuticals	Sally Schwarz	SNMMI	<ol style="list-style-type: none"> 1. Discuss what constitutes good manufacturing practice 2. Examine the US FDA regulatory requirements for the production of FDA Approved PET and SPECT radiopharmaceuticals 3. Discuss the production of clinical research PET and SPECT radiopharmaceuticals under an Investigational New Drug Application (IND)
14:10- 14:30	Overview of SPECT and PET tracers for cardiology	Adriano Duatti	Italy	<ol style="list-style-type: none"> 1. Discuss conventional and novel SPECT tracers for MPI 2. Examine available PET tracers for MPI 3. Discuss available SPECT and PET tracers for studying cardiac neurotransmission 4. Examine advantages and pitfalls of current imaging agents 5. Discuss the cost-effectiveness and competition with other imaging modalities 6. Examine future perspectives in the development of tracers for nuclear cardiology
POSTER REVIEW - SESSION III				
14:30 - 15:30	Meet-the-Authors - Poster Review	IAEA Coordinator	Thomas Pascual	<ol style="list-style-type: none"> 1. Discuss the different application of cardiac imaging and its usefulness in clinical management of patients with CVD 2. Propose novel methodologies in medical imaging that would impact patient management
Thursday, 13 October 2016				
Time	Title	Speaker	Affiliation	Learning objectives
08:30 - 09:00	BASICS III: GETTING FAMILIAR WITH CT CORONARY ANGIOGRAPHY	Michelle Williams	SCCT	<ol style="list-style-type: none"> 1.Understand the basics of how CT coronary angiography images are acquired including methods to optimize image quality and reduce radiation 2.Discuss how to assess CT coronary angiography images and communicate results 3.Review the basics and indications of using CT coronary angiography in the management of patients with CVD 4.Recognize common imaging findings seen in CT coronary angiography studies
PLENARY SESSION VII: OTHER INDICATIONS FOR CARDIAC IMAGING		IAEA Coordinator	Rodolfo Nuñez Miller	
		Chairperson	Sharmila Dorbala, SNMMI	
09:00 - 09:25	Nuclear cardiology in evaluation of coronary flow reserve and implantable device infections	Denis Agostini	EANM	<ol style="list-style-type: none"> 1. Discuss how to use cardiac MIBG scintigraphy in heart failure to obtain a prognostic index 2. Discuss how to use cardiac 99mTc-DPD scintigraphy to stratify cardiac amyloidosis
09:25 - 09:50	Nuclear cardiology in evaluation of sympathetic innervation	Victor Kalff	WFNMB	<ol style="list-style-type: none"> 1. Define current need for assessment of cardiac sympathetic innervation. 2. Outline how current conventional planar & SPECT/CT tracers as well as PET/CT radiotracer studies are performed. 3. Define how these radiotracers are being used/ evaluated in disorders of cardiac innervation. 4.Discuss current status of the clinical role of nuclear cardiology in assessing cardiac sympathetic innervation 5.Discuss current status of the research role of nuclear cardiology in assessing cardiac sympathetic innervation
09:50 - 10:15	Other indications for cardiac MRI	Matthias Gutberlet	ESR	Review other indications for cardiac MRI and its relevance in clinical practice
10:15 -10:35	COFFEE/TEA BREAK			
PLENARY SESSION VIII - ETHICS, LEADERSHIP, EDUCATION AND CHALLENGES IN NUCLEAR CARDIOLOGY PRACTICE		IAEA Coordinator	Thomas Pascual	
		Chairperson	Jun Hatazawa, ARCCNM	
10:35 - 10:55	Ethical issues faced in nuclear cardiology: Principles and case discussion	Andrew Ross	CANM, Canada	<ol style="list-style-type: none"> 1. Examine ethics as it relates to nuclear cardiology practice 2. Discuss specific issues which may be faced in the day to day practice 3. Discuss how a nuclear medicine physician can ensure a high level of ethical practice is maintained
10:55 - 11:15	Leadership: Case in point	Sobhan Vinjamuri	BNMS	<ol style="list-style-type: none"> 1. Discuss leadership themes for imaging 2. Examine motivations for decision making as a leader
11:15 - 11:35	Education: Case in point	Henry Bom	AOFNMB	<ol style="list-style-type: none"> 1. Examine the challenging issues of education in nuclear cardiology 2. Discuss the case-based approach for education of nuclear cardiology 3. Discuss how to collaborate with referrers
11:35 - 11:55	New challenges in nuclear cardiology practice	Brian G. Abbott	ASNC	<ol style="list-style-type: none"> 1. Examine the challenges in terms of training and education with respect to emerging technologies in nuclear cardiology 2. Discuss trends in utilization, appropriate use, and reimbursement for nuclear cardiology procedures
11:55-12:15	Research from a question to a paper	Naima Al-Bulushi	ARSNM	<ol style="list-style-type: none"> 1. Discuss the importance of research in today's evidence based clinical practice 2. Examine the different types of studies that can be done and their main components 3. Discuss the importance of copy writes and plagiarism 4. Examine the structure and components of a good research verse a weak one
12:15 - 12:30	Round Table Discussion			
12:30 - 14:00	WORKING LUNCH SESSION			
FUNDAMENTALS III: SAFETY AND QUALITY		IAEA Coordinator	Ravi Kashyap	
		Chairperson	Naima Al-Bulushi, ARSNM	
14:00 - 14:20	Radiation burden in cardiac imaging	David Sutton	UK	<ol style="list-style-type: none"> 1. Discuss levels of radiation doses given to patients in cardiac imaging examinations 2. Discuss the radiation burden of cardiac imaging vis a vis overall radiological exposures to patients 3. Examine safety implications for individual patient radiation burden

14:20 - 14:40	Appropriate use criteria	Sharmila Dorbala	SNMMI	1. Discuss multimodality appropriate use criteria in the evaluation and management of individuals with stable ischemic heart disease 2. Examine the various tools available for the evaluation of appropriate use criteria of radionuclide myocardial perfusion imaging
14:40 - 15:00	8 best practices as recommended by INCAPS	Joao Vitola	ASNC	1. Examine opportunities for optimization of nuclear cardiology protocols and improving practice 2. Discuss patient safety and compliance with ALARA principle
15:00 - 15:20	Quality management and clinical audits in nuclear medicine	Maurizio Dondi	IAEA	1. Identify the principles of Quality Management (QM) systems and Clinical Audits (CA) 2. Recognize the added value of implementing QM and CA to improve the quality of clinical practice
15:20 - 15:30	Synthesis and Q&A			
15:30 - 15:45	COFFEE/TEA BREAK			
PARALLEL SESSION - READ WITH THE EXPERTS III		IAEA Coordinator	Enrique Estrada Lobato	
		Chairperson	Vikram Lele, AOFNMB	
15:45 - 16:25	Read with the expert: Interesting cases in nuclear cardiology	Jean Luc Urbain	CANM, Canada	Discuss the role of nuclear cardiology using actual case images for further interpretation and discourse
16:25 - 17:00	Read with the expert: Reporting nuclear cardiology studies	Jerry Obaldo	ARCCNM	1. Discuss how to write structured nuclear cardiology scan reports 2. Recognize common pitfalls in nuclear cardiology scan reports
PARALLEL SESSION - MEDICAL PHYSICS		IAEA Coordinators	Gian Luca Poli, Harry Delis	
		Chairperson	Hilde Bosmans, Belgium	
15:45 - 17:00	IAEA Doctoral Coordinated Research Projects on Advances in Medical Imaging Techniques			
PARALLEL SESSION - RADIOPHARMACY		IAEA Coordinator	Joao Osso	
		Chairperson	Adriano Duatti, Italy	
15:45 - 16:10	Cardiac radiopharmaceutical development, including peptides and nanoparticles	Sally Schwarz	SNMMI	1. Discuss new areas of cardiac radiopharmaceutical development including peptides and nanoparticles 2. Examine applications for cardiac radiopharmaceuticals such as myocardial perfusion imaging and atherosclerosis 3. Discuss cardiac imaging agents moving towards commercialization
16:10 - 16:35	⁸² Sr production using high energy cyclotron	Adriano Duatti	Italy	1. Discuss possible nuclear routes to Sr-82 production 2. Discuss current production and separation methods of Sr-82 3. Examine the current global network of high-energy accelerators for the production of Sr-82 4. Discuss the issue of good-manufacturing practice with Sr-82 production (GMP) 5. Examine the role of the US Department of Energy (DOE) and Nordion 6. Discuss potential future technological developments of high-energy, high-power targets
16:35 - 17:00	IAEA assistance in RI production and supply: ^{99m} Mo case	Joao Osso	IAEA	1. Recognize the importance of Mo-99 and the issues related to Mo-99 supply 2. Discuss alternative methods for the production of Mo-99 and/or Tc-99m 3. Examine the role of IAEA in supporting Mo-99 and/or Tc-99m production by Member States
Friday, 14 October 2016				
Time	Title	Speaker	Affiliation	Learning objectives
08:30 - 09:00	BASICS IV: HOW TO MAKE AN EXCELLENT NUCLEAR CARDIOLOGY REPORT	Vikram Lele	AOFNMB	1. Recognize essential elements of a good nuclear cardiology report 2. Discuss all the data which need to be incorporated in an excellent report 3. Examine things that must be included, should be included and may be included 4. Discuss format and sequence of an excellent Nuclear Cardiology report
PLENARY SESSION IX: THE (HE)ART OF IMAGING - TECHNIQUES MATTER		IAEA Coordinator	Diana Paez	
		Chairperson	Leslee Shaw, SCCT	
09:00 - 09:30	Not all that shines is gold	Raffaele Giubbini	Italy	1. Examine how to recognize artefacts and pitfalls in myocardial perfusion imaging 2. Discuss how artefacts and pitfalls interfere with quantification in myocardial perfusion imaging 3. Recognize how artefacts and pitfalls impact on diagnostic process and risk stratification
09:30 - 10:00	It's all in numbers	Nathan Better	ANZSNM	1. Discuss the quantitation of perfusion and function - how and when to do it 2. Discuss a comparison within and between patients 3. Examine how essential is quantitation and what to include in the report
10:00 - 10:30	PET to the future	Sharmila Dorbala	SNMMI	1. Discuss the current PET based molecular imaging research in cardiovascular diseases 2. Examine ongoing molecular imaging studies in cardiovascular diseases
10:30 - 11:00	COFFEE/TEA BREAK			
PLENARY SESSION X - CLOSING CEREMONY		IAEA Coordinator	Thomas Pascual	
11:00 - 11:45	Highlights & Trends	Joao Vitola	ASNC	Synthesize the relevant issues discussed on the role of integrated medical imaging in the management of patients with cardiovascular diseases and highlight key issues that would affect best practices
11:45 - 12:15	Poster Awards	Diana Paez	IAEA	
12:15 - 13:00	Closing remarks	Diana Paez	IAEA	