



**International Atomic Energy Agency
Department of Technical Cooperation
and
Department of Nuclear Sciences and Applications,
Division of Human Health, Section of Nuclear Medicine and Diagnostic Imaging
in cooperation with
Kanazawa University**

TC Project RAS6091

**Enhancing the Management of Non-Communicable and Communicable Diseases
through Capacity Building
End-of-mission Report**

**Regional Workshop on Paediatric Nuclear Medicine with Focus on
Paediatric Oncology
02 to 06 December - 2019
Kanazawa, Japan**

**Course Director
Seigo Kinuya
Department of Nuclear Medicine – Kanazawa University**

IAEA Scientific Secretary

Dr Diana PAEZ
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Participants

Soley VAROEUN, Cambodia

Ke YANG, China

Norafida BAHARI, Malaysia

THAN THAN HTAY AUNG, Myanmar

Naima TAG, Oman

Imran HADI, Pakistan

Mohammed ALHARBI, Saudi Arabia

Tariq MUNSHY, Saudi Arabia

Rafat AL-MAQTARI, Yemen

Zinat AL-RIASHY, Yemen

Suman Shrestha, Nepal



Program

	DAY ONE - Monday, 02 December 2019	
09:00 – 9:30	Registration	
09:30-10:00 (30 min)	Official Welcome and Opening remarks	Dr Seigo Kinuya
10:00-10:20 (20 min)	(1) Nuclear Medicine: A Global Perspective Learning Objectives (LO): <ol style="list-style-type: none"> 1. Review the status of nuclear medicine worldwide. 2. Present the role of the IAEA in supporting the establishment of nuclear medicine. 	Dr Pilar Orellana (IAEA)
10:20-10:40	Pre-course evaluation	Dr Pilar Orellana Dr Seigo Kinuya
10:40- 11:00	Coffee / Tea Break	
11:00- 11:30 (30. min)	(2) Paediatric Nuclear Medicine – Overview	Dr Mayuki Uchiyama (Jikei Univ)
11:30- 12:00 (30 min)	(3) Paediatric Nuclear Medicine – from paediatricians' point of view	Dr Yasuhiro Ikawa (Kanazawa Univ)
12.00 – 12:30 (30 min)	(4) General overview of Paediatric Nuclear Medicine: Approach to Paediatric Patients LO <ol style="list-style-type: none"> 1. Discuss the specific aspects of paediatric nuclear medicine 2. To review basic concepts in radiation protection in paediatric nuclear medicine 	Dr Isabel Roca
12:30 – 13:30	LUNCH	
13:30- 14:10 (40 min)	(5) Nephro-urology: Urinary Tract Infection (UTI) LO <ol style="list-style-type: none"> 1. Review the actual role of renal scan in the management of children with UTI 	Dr Masayuki Kitamura (National Center for Child Health and Development)

14:10-14:50 (40 min)	(6) Nephro-urology: Antenatally diagnosed hydroureteronephrosis (ADH) LO 1. Review the common causes of ADH. 2. Review specific technical aspect of diuretic renography in paediatric population 3. Current role of diuretic renography in the management of ADH	Dr Lorenzo Biassoni
14:50-15:20	Tea break	
15:20 -15:50 (30 min)	(7) Nephro-urology: Vesicoureteral reflux (VUR) LO 1. Review the role of nuclear medicine procedures in the management of VUR	Dr Lorenzo Biassoni
15:50-17:00 (70 min)	Interactive case analysis in Nuclear medicine in Nephro-urology Participants will have the opportunity to bring cases and review with the experts LO 1. Improve learning experiences through hands-on exercises. 2. Apply the concepts learnt during the workshop. 3. Processing and reporting clinical cases	Dr Lorenzo Biassoni Dr Pilar Orellana Dr Isabel Roca
17:00	Adjourn day 1	
18:00-20:00	Official Dinner Place: No.115 APA Hotel Kanazawa-Ekimae Address: 1-9-28, Hirooka, Kanazawa-shi, 920-0031 TEL: +81-76-231-8111	

	DAY TWO - Tuesday, 3 December 2019	
09:00 – 9:45 (45min)	(8) Gastrointestinal: Gastroesophageal Reflux, gastric emptying LO 1. Review the role of nuclear medicine procedures in the management of the upper digestive tract disorders in children	Dr Lorenzo Biassoni
09:45-10:30 (45min)	(9) Gastrointestinal: Gastrointestinal Bleeding (Meckel's Diverticulum), small bowel and colonic transit assessment with radionuclides. LO 1. Review the role of nuclear medicine procedures in the management of the lower digestive tract disorders in children	Dr Lorenzo Biassoni
10:30- 11:00	Coffee / Tea Break	
11:00- 11:20 (20. min)	(10) Gastrointestinal: Hepatobiliary scintigraphy LO 1. Review the role of hepatobiliary scintigraphy in the diagnosis of neonatal jaundice	Dr Roca
11:20- 12:20 (60 min)	Interactive case analysis in Gastrointestinal procedures in Paediatric Nuclear Medicine Participants will have the opportunity to bring cases and review with the experts LO 1. Improve learning experiences through hands-on exercises. 2. Apply the concepts learnt during the workshop. 3. Processing and reporting clinical cases	Dr Lorenzo Biassoni Dr Pilar Orellana Dr Isabel Roca
12:20 – 13:30	LUNCH	
13:30- 14::30 (60 min)	(11) Musculo-skeletal: From planar bone scan to SPECT/CT and PET/CT LO 1. Review the specific aspect of bone scintigraphy in paediatric population 2. Review specific indication of hybrid imaging in bone disorders in children 3. Review the current role of nuclear medicine in the management of benign bone disorders in children (Perthes,	Dr Isabel Roca

	infections, trauma, eg.)	
14:30-15:15 (45 min)	<p>Interactive case analysis in Musculo-skeletal Nuclear Medicine in Paediatric Nuclear Medicine</p> <p>Participants will have the opportunity to bring cases and review with the experts</p> <p>LO</p> <ol style="list-style-type: none"> 1. Improve learning experiences through hands-on exercises. 2. Apply the concepts learnt during the workshop. 3. Processing and reporting clinical cases 	Dr Lorenzo Biassoni Dr Pilar Orellana Dr Isabel Roca
15:15-15:45	Coffee / Tea Break	
15:45 -16:30 (45 min)	<p>(12) Endocrinology</p> <p>Diagnostic and therapeutic nuclear medicine in paediatric endocrinology: hypothyroidism, hyperthyroidism, thyroid cancer, congenital hyperinsulinism, hyperparathyroidism</p> <p>LO</p> <ol style="list-style-type: none"> 1. Review specific indication of nuclear medicine techniques in paediatric endocrinology disorders 2. Review the current role of radioiodine in the treatment of differentiated thyroid cancer in children 	Dr Seigo Kinuya (Kanazawa University)
16:30-17:20 (50 min)	<p>Interactive case analysis in Nuclear Medicine in Endocrinology</p> <p>Participants will have the opportunity to bring cases and review with the experts</p> <p>LO</p> <ol style="list-style-type: none"> 1. Improve learning experiences through hands-on exercises. 2. Apply the concepts learnt during the workshop. 3. Processing and reporting clinical cases 	Dr Lorenzo Biassoni Dr Pilar Orellana Dr Isabel Roca
17:20	Adjourn day 2	

	DAY THREE - Wednesday, 4 December 2019	
09:00-09:45 (45 min)	(13) Radiation protection in paediatric population LO 1. Review the parameters involved in radiation protection in paediatric nuclear medicine 2. Estimation of radiation dose from radiopharmaceuticals 3. Specific aspects of Radiation protection in Hybrid Imaging	Dr Pilar Orellana
9:45-10:30 (45 min)	(15) Oncology PET/CT in paediatric oncology: normal paediatric variations and pitfalls. LO 1. Review the normal variants 2. Review different imaging protocols	Dr Pilar Orellana
10:30-11:00	Coffee / Tea Break	
11:00-12:00 (60 min)	(16) Oncology: Role of PET/CT in Lymphomas LO 1. Review the current status for the assessment of paediatric patients with lymphoma. 2. Analyse the role of medical imaging management of patients with lymphoma.	Dr Isabel Roca
12:00-12:45 (45 min)	(14) Beyond FDG in oncology	Dr Ichiei Kuji (Saitama Medical University)
12:45– 13:45	LUNCH	
13:45- 14:30 (45 min)	(15) Oncology: Role of PET/CT in Bone Tumours and Sarcomas LO 1. Review the current status for the assessment of paediatric patients with bone tumours and sarcomas. 2. Analyse the role of medical imaging management of patients with bone tumours and sarcomas.	Dr Isabel Roca
14:30- 15:00	Coffee / Tea Break	
15:00-15:45 (45 min)	(16) Oncology: Nuclear Medicine in Thyroid Cancer LO	Dr Isabel Roca

	1. Review the current status for the assessment of paediatric patients with thyroid cancer 2. Analyse the role of medical imaging management of patients with thyroid cancer	
15:45-16:15 (45 min)	(17) SPECT/CT in paediatric oncology LO 1. Review the common indication of SPECT/CT in paediatric oncology.	Dr. Lorenzo Biassoni
16:15-17:15 (60 min)	Interactive case presentation participants: Lymphoma, Bone tumours, Sarcomas, Thyroid Cancer, and others malignant neoplasms Participants will have the opportunity to bring cases and review with the experts	Drs. Biassoni, Orellana, Roca
17:20	Adjourn day 3	

	DAY FOUR - Thursday, 5 December 2019	
09:00-09:45 (45 min)	(18) Oncology: Clinical course of neuroblastoma patients	Dr Yasuhiro Ikawa (Kanazawa Univ)
9:45-10:30 (45 min)	(19) Oncology: Neuroblastoma (CT + MRI, IDRF score)	Dr Kumiko Nozawa (Kanagawa Children's Medical Centre)
10:30-10:50	Coffee / Tea Break	
10:50-11:20 (30 min)	(20) Oncology: Molecular Imaging and therapy in Neuroblastoma	Dr Anri Inaki (Kanazawa Univ)
11:20-12:20 (60 min)	Interactive case analysis in Neuroblastoma Participants will have the opportunity to bring cases and review with the experts LO 1. Improve learning experiences through hands-on exercises. 2. Apply the concepts learnt during the workshop. 3. Processing and reporting clinical cases	Dr Lorenzo Biassoni Dr Pilar Orellana Dr Isabel Roca

	LO 1. Improve learning experiences through hands-on exercises. 2. Apply the concepts learnt during the workshop. 3. Processing and reporting clinical cases	
12:20-13:30	Lunch Break	
13:30-14:15 (45min)	(21) Nuclear medicine in paediatric drug resistant epilepsy LO 1. Review the actual role of nuclear medicine in the management of paediatric drug resistant epilepsy	Dr Lorenzo Biassoni
14:15-15:00 (45 min)	(22) Miscellaneous: paediatric nuclear medicine procedures: salivary glands scintigraphy, cardiac studies, lung scintigraphy, etc. LO 1. . Review the common indication of other paediatric nuclear techniques.	Dr Pilar Orellana
15:00- 15:30	Coffee / Tea Break	
15:30-16:15 (45 min)	(23) Perspective Paediatric Nuclear Medicine in the Era of multimodality Imaging LO 1. Discuss the importance of PET and SPECT in the era of multimodality imaging. 3. Analyse the perspectives of PET and SPECT paediatric imaging	Dr Pilar Orellana Dr Isabel Roca
16:15-17:10 (55 min)	(24) Take-home messages LO 1. Discuss challenges for the proper use of nuclear medicine procedure in paediatric population	Dr Lorenzo Biassoni Dr Pilar Orellana Dr Isabel Roca
17:10	Adjourn day 4	

	DAY FIVE - Friday, 6 December 2019	
09:00-09:30 (30 min)	(25) Fukushima concerns	Dr Kazuko Ono (Kyoto Collage of Medical Science)
09:30-10:45 (15 min)	(26) Lessons from Fukushima: Public Health Nurses' Dialogue with Affected People	Dr Kiyomi Asahara (St. Luke's International University)
09:45-10:15 (30 min)	(27) US screening of children in Fukushima	Dr Shinichi Suzuki (Fukushima Medical University)
10:15-11:00 (45 min)	(28) Group Discussion	Dr Kazuko Ono Dr Kiyomi Asahara
11:00-12:00 (60 min)	Post course evaluation – Closing remarks	Dr Pilar Orellana Dr Seigo Kinuya

Pictures



Participants and staffs



Participants and staffs at official dinner



Group discussion



Group discussion

This workshop is accredited by the UEMS- EACCME (European Union of Medical Specialists - European Accreditation Council for Continuing Medical Education) with 21 European CME credits.

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