

(RAS6061/9001/01)

**Improving Cancer Management with Hybrid
Nuclear Medicine Imaging**

2012 -2014

INDIA – lead country

Dr V Rangarajan Tata Memorial centre – Lead country

Countries participating

- Japan
- Australia
- Singapore
- India
- Srilanka
- China
- Pakistan
- Bangladesh
- Vietnam
- Thailand
- Malaysia
- Indonesia
- Korea
- Mongolia

Project objectives

To improve professional knowledge and reporting skills of nuclear medicine practitioners and increase clinical impact of hybrid imaging

Expected Outputs decided in initial project coordination meeting March 19-22, 2012

1. Effective project coordination and implementation through coordination meetings and collect reports from LCC about project coordination meetings
2. Update appropriate criteria for the use of PET/CT in cancer management ; envisage production of a manual or document containing the revised criteria ; Make available the revised criteria document in electronic or print form with the member states and the IAEA website

3. Guidelines on clinical use of SPECT/CT prepared, to be made available and adopted by MSs; document to be prepared by end 2014
4. Reporting templates prepared for organ and site specific studies, to be tested during RTCs and distributed to NM professionals in MSs ; Publication of a manual containing reporting templates for organs and sites by end 2014 ; making available the manual in electronic format/hard copy in the IAEA website and with MS
5. Train professionals on effective use of PET/CT and SPECT/CT scans; at least 3 personnel from each participating MS

- **Regional Training Courses (RTC)**

- Qualification of participants: medically qualified (MD or equivalent) currently practicing nuclear medicine; proficient in English; prior experience in hybrid imaging (required for the advanced courses)
- - Two categories of training courses, one with more basic aspects of hybrid imaging and the other for advanced applications of hybrid imaging
 - **Essentials of Hybrid Nuclear Medicine Imaging** – Singapore (July 2013); Japan/Vietnam (July 2014)
 - **Advanced Hybrid Nuclear Medicine Reporting in Oncology** – Melbourne, Australia (November 2012; March 2014); Mumbai, India (March 2013)

RTC 1

- AUSTRALIA – Nov 2012
- Detailed presentations of PET-CT by faculty
 - Basic PET scan reading, CT anatomy
 - Discussions on PET-CT applications in different cancers, organ system-wise
 - Pitfalls and problems
 - Newer and research applications of PET-CT
- Group discussions of PET-CT with experts
- Individual exercises by participants in PET-CT interpretation
- Special session on SPECT-CT

Activities in 2013 & 2014

- RTC-2 in Singapore – 22-26 July
- Expert meeting for consultants to draft recommendations in SPECT/CT in cancer in Chiang Mai in May 2013
- RTC -3 in Mumbai – October 2013 at Tata memorial hospital – 24 participants
- RTC - 4 on improving Cancer Management with hybrid Nuclear Medicine imaging, Chiba Japan 30th June - 4th July 2014

RTC – 4, Japan



Salient features of RTC-4

- Physics of PET lectures
- Clinical applications of PET lectures
- Utility of hybrid imaging lectures
- Lectures by industry : Thyrogen, Cyclotron & Philips PET-CT
- Visit to Cyclotron centre
- Visit to Cancer Institute in Tokyo
- Visit to National Institute of Radiological Sciences (NIRS)
- MCQ before and after the course

RTC -5

IAEA/RCA Regional Training Course on Advanced
Hybrid Nuclear Medicine Reporting in Oncology,
8-12 September

- Venue - Victoria
- Country – Australia

Salient features of the RTC-5

- Detailed presentations of PET-CT by faculty
 - Basic PET scan reading, CT anatomy
 - Discussions on PET-CT applications in different cancers, organ system-wise
 - Pitfalls and problems
 - Newer and research applications of PET-CT
- Group discussions of PET-CT with experts
- Individual exercises by participants in PET-CT interpretation
- Special session on SPECT-CT



RTC -6

IAEA/RCA Regional Training course on essentials of hybrid
Nuclear Medicine imaging

Date: 8-12 Dec 2014

Venue: Imperial Mae Ping Hotel, 153 Sridonchai Road,
Chang Klan District, Amphur Muang, Night Bazaar, Chiang
Mai 50100, Thailand.

Salient Points

- Training course included detailed lecture series on various oncological and non-oncological indications of PET/CT in a systematic way.
- Various indications of SPECT /CT in oncological and non-oncological were covered.
- There were separate lecture series on CT teaching the relevant findings and anatomical demarcations,
- There were representative case discussions on the relevant topic by the faculties,
- There was visit arranged to the Nuclear Medicine unit of Chiang Mai University to see the PET/CT and Cyclotron facility with detailed explanation about the it.
- There was special lecture on the ideal report format for PET/CT.
- All the lectures were provided to us as teaching material in PDF format.
- The Organizer team and Faculty were warm and helpful to make the learning experience memorable.



Summary of outputs in 2014

- 3 regional RTCs completed
- Final version of spect/ct manual presented to IAEA
- Reporting formats learnt, shared and accepted

Project Summary RAS 6061- 2012-2014

- All objectives achieved
- 6 RTC ; SPECT-CT manual; pet/ct reporting templates; pet/ct update of indications
- All planned activities completed
- Project status : completed

FEEDBACK TO RCA-PLANNERS

- Poor reporting by country coordinators
- Poor reporting on pcmf platform
- Adequate time to be given for sending nominations
- Inadequate time for securing VISAs
- Final selected list being sent only 4 weeks before-needs to be advanced to at least 8 weeks.