

**(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.