



IAEA

International Atomic Energy Agency



RCA



RAS6076

Progress Report of 2014

(Republic of Korea)



Ministry of Science, ICT and
Future Planning



**KOREA INSTITUTE OF
RADIOLOGICAL & MEDICAL SCIENCES**

Project overview



- **Title** : Improving Cancer Management through Strengthening CT Cancer Staging Process
- **Project Number** : RAS6076
- **Duration** : 2014~2016 (3 years)
- **Objectives** : To optimize cancer management through the improvement of professional knowledge in CT scanning and staging.
- **Lead Country** : Republic of Korea
- **LCC** : Dr. Kie-Hwan KIM,
Korea Institute of Radiological & Medical Sciences (KIRAMS)
- **IAEA PMO** : Mr. Ho-Seung LEE
- **IAEA TO** : Mr. Ravi Kashyap

Participating Countries



17 MSs : Australia
Bangladesh
Cambodia
China
India
Indonesia
Korea, Republic of
Malaysia
Mongolia
Myanmar
Nepal
Pakistan
Philippines
Singapore
Sri Lanka
Thailand
Vietnam



Technology overview



[Radiation Medicine at clinical institute]

● **Radiology (Diagnostic Imaging)** : diagnosis by interpreting images

- X-ray
- **CT** : 3D image by a computer using 2D X-ray images from different angles

● **Nuclear Medicine** : diagnosis & treatment using radioisotope

- PET, PET/CT, PET/MRI, SPECT, Gamma Camera : cancer, cardiovascular, etc
- Radioisotope treatment : thyroid cancer, etc

● **Radiotherapy (Radiation Oncology + Medical Physics)** : radiation treatment

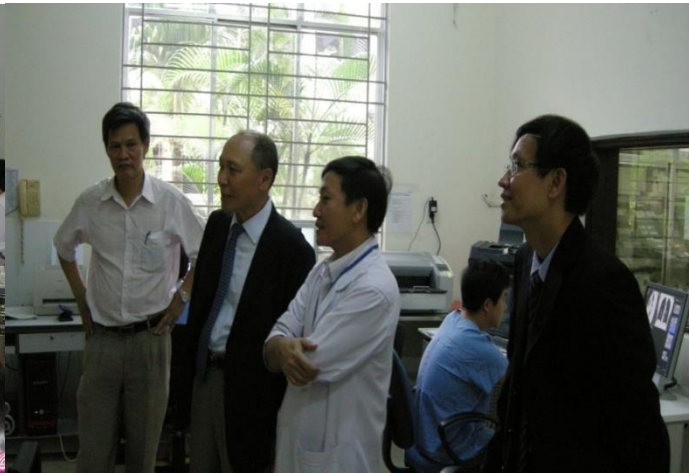
- Cobalt 60
- Linear Accelerator (LINAC)
- Advanced : CyberKnife, Tomotherapy, Vero, Particle(Proton, Carbon)
- LDR, HDR

※ Based on technology : 2D, 3D, IMRT, IGRT, SBRT, etc

Background



- **Korea's project to support HRD in radiation medicine in Vietnam (USD 200,000)**
 - After radiology lecture at Danang Hospital



- A surgeon approached the radiologist(Mr.KIM) with a CT film
 - “Hmm...Can you look at this film? What is the stage of cancer?”
 - “It’s T2. No invasion to bone”
 - “Oh, I see. Cam on, Cam on”

Background (cont.)



● Designed RCA project

- **Radiology (1), Nuclear Medicine (4), Radiotherapy & Medical Physics (6)**

No.	Code	Project Title	Duration
1	RAS6053	Improving Image Based Radiation Therapy for Common Cancers in the RCA Region (RCA)	2009-2014
2	RAS6061	Improving Cancer Management with Hybrid Nuclear Medicine Imaging	2012-2014
3	RAS6062	Supporting 3D Image-Guided Brachytherapy Services	2012-2015
4	RAS6063	Strengthening the Application of Nuclear Medicine in the Management of Cardiovascular Diseases	2012-2014
5	RAS6064	Building Capacity with Distance Assisted Training for Nuclear Medicine Professionals	2012-2014
6	RAS6065	Strengthening the Application of Stereotactic Body Radiation Therapy to Improve Cancer Treatment	2012-2015
7	RAS6066	Reducing the Shortage of Oncology Professionals through an Applied Sciences of Oncology Course (ASOC)	2012-2014
8	RAS6071	Strengthening Radionuclide Therapy for High Impact Cancer Treatment Strategy in Member States of the Regional Cooperative Agreement (RCA)	2015-2017
9	RAS6072	Strengthening Intensity Modulated Radiation Therapy Capability in the Region (RCA)	2015-2017
10	RAS6076	Improving Cancer Management Through Strengthening the Computed Tomography Cancer Staging Process (RCA)	2014-2016
11	RAS6077	Strengthening the Effectiveness and Extent of Medical Physics Education and Training (RCA)	2014-2017

Work Plan



Year	Regional Activity
2014	Workshop on curriculum and resources (INS) 1 st RTC (ROK)
2015	Mid-term Review meeting (NEP) 2 nd RTC (CPR) Expert Missions (8 countries)
2016	3 rd RTC (MAL) Expert Missions (3 countries) Final Review meeting (THA)

- Expert Missions should be combined with national training events

Regional Activities in 2014



[Regional Workshop on resource and training materials for Trainers of CT imaging]

- **Dates** : April 28~May 2, 2014
- **Venue** : Indonesia
- **Organizer** : National Cancer Center, Dharmais Hospital
- **Participants** : 23 participants from 14 Member States
(AUL, BGD, CPR, IND, INS, MAL, MYA, PAK, PHI, ROK, SIN, SRL, THA, VIE)



Regional Workshop (cont.)



- **Current status shared**

- Summary of the current status of participating MSs

- **Regional events agreed**

- Agreement on details for regional events

- **Curriculum designed**

- Completion of curriculum of the Regional Training Courses designed

- **Teaching materials collected**

- Collection of teaching materials from NPCs for further review

- **Lecturer pool identified**

- Identification of potential lecturers according to their sub-speciality

- **IAEA documents drafted**

- Drafting of RTC prospectus and MTG information sheet

Regional Activities in 2014



[IAEA/RCA Regional Training Course on CT Cancer Staging : Abdominal & Urogenital System]

- **Dates** : Oct 6~10, 2014
- **Venue** : Korea Institute of Radiological & Medical Sciences (KIRAMS), ROK
- **Participants** : 25 participants from 14 Member States
(Radiologists & Nuclear Medicine Physician)
- **Program** : Lectures, Exchange at the annual conference of KSR



Regional Training Course (cont.)



● **Evaluation** : Successfully completed, Expert network being established



National Activities in 2014



[Overview]

● Dissemination of knowledge

- National training event, educational site visit, conference/seminar

※ Regional Workshop (INS) : Apr 28 ~ May 2, 2014

Finalization of curriculum & preparation of teaching materials

Regional Training Course (ROK) : Oct 6 ~ Oct 10, 2014

=> **More activities expected in 2015**

National Activities in 2014



● Dissemination of knowledge

- **CPR** : National Training Course on Quality Control of Cancer Staging by CT and PET/CT
- **IND** : Conference on Oncologic Imaging-A Multidisciplinary Perspective



National Activities in 2014

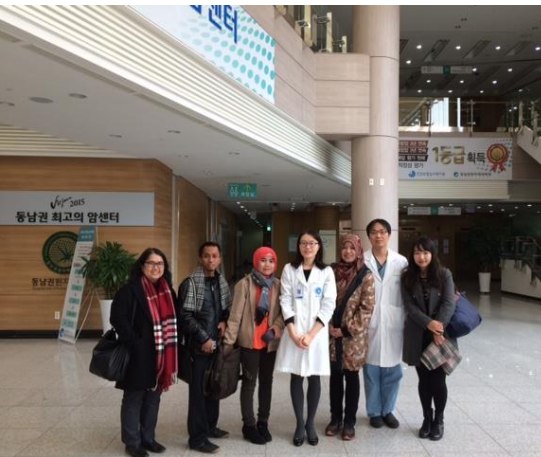


● Dissemination of knowledge

- **INS** : TC Fellowship to ROK (One month)

Dharmais Hospital's Scientific Visit to ROK

- **PAK** : Conference of Radiological Society of Pakistan, International Conference of Pakistan Society of Nuclear Medicine

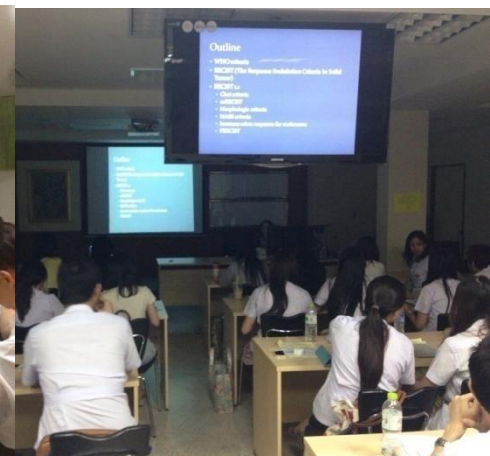
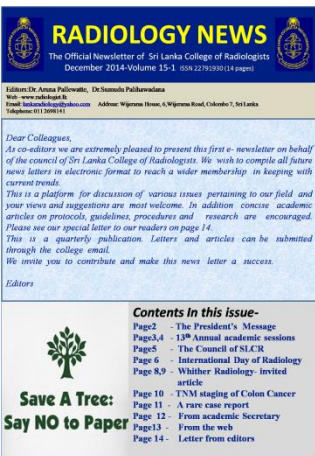
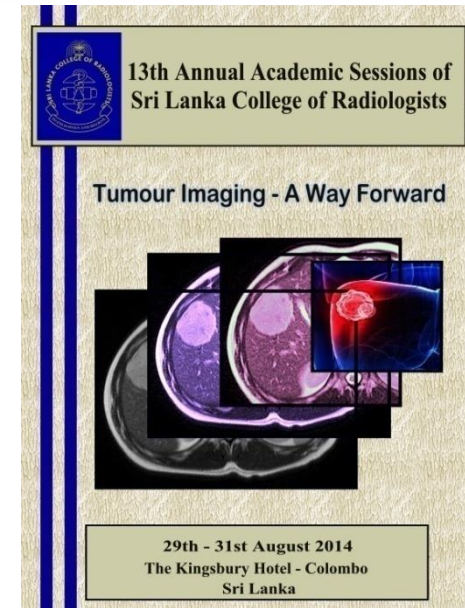


National Activities in 2014



● Dissemination of knowledge

- **SRL** : Seminar for Radiology Post Graduate Trainees at the National Hospital, Annual Academic sessions of Sri Lanka College of Radiologists
- **THA** : Lecture on Interventional radiologists regarding IAEA/RCA training experience at Ramathibodi, On-site consultation at Nan Hos., Lectures at Chulalongkorn



Work Plan of 2015



● Mid-term Review Meeting

- Dates : May 26~29, 2015
- Venue : Nepal
- Discussion : Review activities & work plan, evaluate achievements, SWOT analysis

● The 2nd Regional Training Course

- Dates : September 7~11, 2015
- Venue : Beijing, China
- Target : Radiologist, Nuclear Medicine Physician

● Expert Missions

- 8 Countries : SRL, VIE, MYA, INS, BGD, THA, IND, PAK
- Expert Missions should be held in conjunction with national training events

Special Acknowledgement

- Contribution of USD 10,000 for successful event by the Korean gov't



