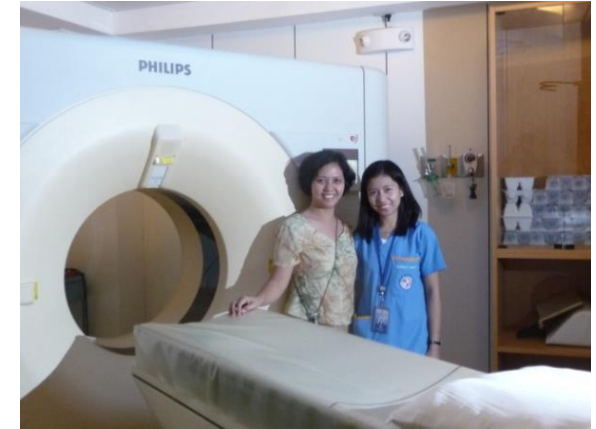


Strengthening the Effectiveness and Extent of Medical Physics Education and Training (RAS/6/077)

- 2014 – 2017
- LCC: Dr Donald McLean,
Canberra Hospital
- 18 participating Member States

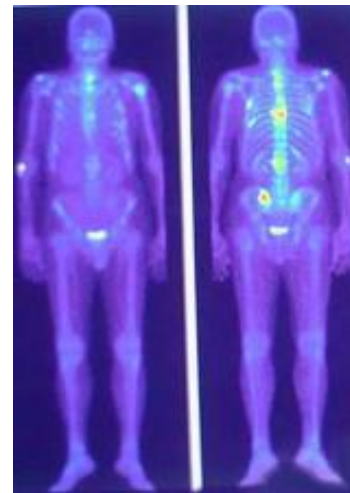
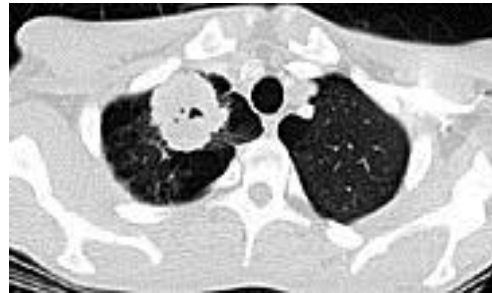


Background

- The need for well-trained clinical physicists is critical for effective and safe applications of radiation medicine
- Rate of growth of radiation medicine in the region is much greater than the number of new MPs available
- Despite success of RAS/6/038, only resulted in an additional 70 to 80 qualified MPs. Deficit >>500!
- Some GPs are either in isolated situations or have a lack of experienced staff to be involved in supervision or both – and need access to MP education and training.
- RAS 6077 - training programs and their needed resources to be distributed electronically.

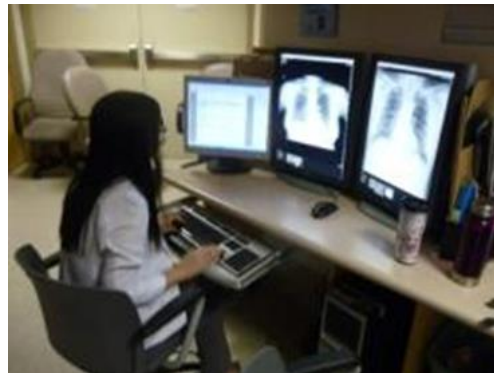
Applications of medical physics

- Radiation Oncology
- Medical Imaging
- Nuclear Medicine
- Others (e.g. Pathology, Haematology)



Project Objective

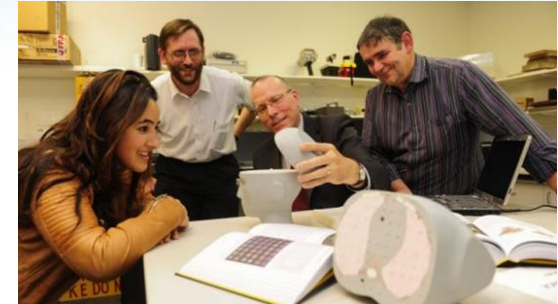
The development of an e-learning platform to allow regionally remote MPs and training residents to have access to online resources and to participate in supervised training programs (utilising programs developed in RAS6038).



Project activities in 2015 (1)

Technical Meeting

Moodle website development to support medical physics clinical training – *AUL*,
25-28 May 2015



Courtesy *Canberra Times*
June 4, 2015

Summary/ Outcomes

- *AMPLE (Advanced Medical Physics Learning Environment):*
 - significant improvements in admin and resources delivery
 - areas of assessment and supervision supported
 - communication enhanced through forums, discussion boards etc
- IT support to help to make more engaging
- For remote sites – on-line orientation programs

Project activities in 2015 (2)

Expert Missions

Development a set of minimum standards and recommendations for education and clinical training centres with the collaboration of relevant regional professional bodies - *MAL, 21-23 Jan*



Development of e-learning structure in clinical training of medical physicists in nuclear medicine - *THA, 23-25 Feb*

Develop guidelines for assessment and certification of medical physics trainees - *NEP, 30 Nov -3 Dec*



Project activities in 2015 (3)

Home-based assignment

Further development of the AMPLE Moodle learning environment – Caroline IRLE (*AUL*), 9-13 Mar 2015

Home-based assignment

Enhancements to AMPLE e-learning environment – Anne PERKINS (*AUL*), 22-26 Jun 2015

Progress during 2015

- Building on the work of RAS6038
- e-learning platform created - AMPLE: **A**dvanced **M**edical **P**hysics **L**earning **E**nvironment – many GPs applied to use
- Position paper on accreditation of Medical Physics MSc and clinical training programs
- Certification processes for individual medical physics professionals (meetings in MAL/ NEP)
- Needs and resources survey - completed
- Survey of training benchmarked against IAEA standards - completed



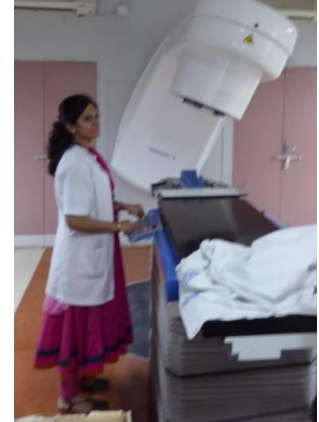
Project surveys – outcome highlights

While there is expected great variety between GPs, generally:

- Number of external beam units << the number required
- ROMP workforce << current equipment levels (benchmarked)
- On current training levels, many years before ROMP workforce adequate in many of the less developed GPs
- Mid-term coordination meeting – recommended publishing the results of the surveys (including GP results) as IAEA document
- How can RCA assist in dissemination of the results to maximise impact in the GPs to stimulate improvement of conditions?

Planned activities for 2016

- Mid-term review meeting – IND, 21-15 March
- e-learning pilots will be launched in early 2016 - IND and THA; others (PHI, BGD, INS) in June/July
- Continued strengthening of AMPLE through added resources and structure review
- Position papers to be published and/or distributed on:
 - Accreditation of Medical Physics MSc and clinical training programs
 - Certification processes for medical physics professionals
 - Results of surveys
- Meeting to establish editorial board for AMPLE



Constraints/ Issues

- 4 year term restricts the ability to properly pilot the effectiveness of the e-learning platform when considering:
 - There are 3 specialities in MP, all requiring attention
 - Each clinical training program takes a minimum of 2 years
 - Roll out for LDCs cannot start until 2016 (second last year) as the platform needs to be fully tested
 - LDCs most need this facility. Unlikely that the pilots would be completed within the life of the project
- Visibility of MPs in the proper and safe conduct of advanced radiation medicine
- Difficulties for remote locations (or locations with small numbers of experienced MPs, to be able to participate in clinical training)

Recommendations

- That NRs promote the survey results regarding the status of MP activity in radiation medicine, and education opportunities, within the respective GPs.
- The longevity of the MP-themed projects is addressing :
 - The need for qualified clinical MPs and the time needed to do clinical training, especially for countries in developmental phases in radiation medicine
 - The impact the AMPLE platform is expected to have if fully tested for a range of environments

Comments and Questions

