

World Congress on Medical Physics & Biomedical Engineering

June 3–8, 2018, Prague, Czech Republic, www.iupesm2018.org



A year of volunteering in Cambodia, a family's experience

Nikki Shelton

Radiation Oncology Medical Physicist

National Cancer Centre at Calmette

Phnom Penh, Cambodia



2002 - 2003



Long history of travel



From Bells Beach...



To Angkor Wat



Australian Volunteers Program

**Australian
Aid** 



- Australian Department of Foreign Affairs and Trade
- Volunteers promote positive people-to-people links between individuals, organisations, and communities in developing countries and in Australia.

**Australian
Volunteers**
FOR INTERNATIONAL
DEVELOPMENT

ACPSEM – The Better Healthcare Foundation

- The purpose of this special interest group is to encourage and assist ACPSEM members to work with similar overseas organisations and institutions in the advancement of medical physics and engineering, especially in developing countries in the Asia-Pacific region.



- More information: www.acpsem.org.au/about-acpsem/asia-pacific-sig

September 2016

- Team of Australian Specialists arrived for 1 week
- **APROSIG team:**
- Dr Iain Ward, Christchurch – RO and APROSIG co-chair
- Dr Mei Ling Yap, Sydney – RO and APROSIG co-chair
- Dr Stephanie Corde Tehei, Sydney – medical physicist and member of APSIG, PMSF
- Kate Rogl, Cairns - radiation therapist and future AVI volunteer



Cambodia's National Cancer Centre at Calmette

November 2017



Set up

VARIAN – ARIA-
Eclipse –
GammaMed – PTW

- Breast
- HN
- Cervix



Managing expectations


ព្យាបាលមហារីកដោយកាំរស្មី
Varian Clinac iX
 ម៉ាស៊ីននីវេប៊ី បច្ចេកវិទ្យាកាំរស្មីចុងក្រោយ
 ព្យាបាលជំងឺមហារីកគ្រប់ប្រភេទ
 សុក្រិត្យភាព ប្រសិទ្ធភាព និងសុវត្ថិភាពខ្ពស់បំផុត
 Dernière technologie en radiothérapie
 Pour tous les cancers
 Avec la plus grande précision, efficacité et sécurité
 Cutting-edge radiation technology
 For all cancers
 Highest precision, efficacy and safety



ជម្រើសថ្មី ប្រសិទ្ធភាពខ្ពស់!
 Nouveau choix pour la meilleure efficacité!
 New choice for maximum efficacy!


ម៉ាស៊ីនប្រាតិករ៉ាពី
HDR Brachytherapy
 ម៉ាស៊ីនស្តុំព្យាបាលជំងឺមហារីកមាត់ស្បូន
 បច្ចេកវិទ្យាកាំរស្មីចុងក្រោយ
 ប្រសិទ្ធភាពខ្ពស់បំផុត ប្រើពេលខ្លី
 HDR Brachytherapie pour le traitement du cancer du col
 Haute technologie en radiothérapie
 Efficacité, du temps gagné
 HDR Brachytherapy for cervical cancer treatment
 State-of-the-art radiation therapy technology
 Highly effective, time-saving



ដៃគូព្យាបាលជំងឺមហារីកមាត់ស្បូន ផ្តល់ទំនុកចិត្តខ្ពស់!
 Votre partenaire en toute confiance pour le cancer du col!
 Your most trusted partner for cervical cancer!

Varian Clinac® iX System
 A historic and solid investment
 Like Calmette a sophisticated
 and reliable radiotherapy Provider
 The high performance Clinac® is a reliable accelerator built
 on the proven C-series platform. This powerful workhorse
 has served thousands of patients around the world every day
 designed to deliver a wide range of imaging and patient
 treatment options, the Clinac system offers advanced
 features to facilitate state-of-the-art treatments including
 RapidArc and stereotactic radiosurgery.



Eclipse™ Treatment Planning System
RapidPlan Knowledge Based Planning Software
On-Board Imager™ (OBI)

Workload

CT

Linac

Radiation
Protection

Brachytherapy

Nuclear Medicine

Planning



Where we are now

- Commissioned the GECT 16 slice
- Commissioned Clinac21iX Linac for 3DCRT
- Photons
- Electrons
- Treating from end March 2018
- Substantial waiting list



Major challenges

Humidity	equipment
Language	technical
Education	modality
Recognition	role
Regulations	Laws
Collaboration	Uni, MP
International	experts
Funding	meetings, equipment

Technical challenges humidity



Equipment challenges



The future for the National Cancer Centre

- Staff recruitment

- Brachytherapy – Ca Cervix
- Invivo dosimetry
- 2nd linac
- 2nd Medical Physicist MSc - woman
- IMRT (HN) / VMAT
- Co-operation and communication b/w
Medical Physicists in Cambodia

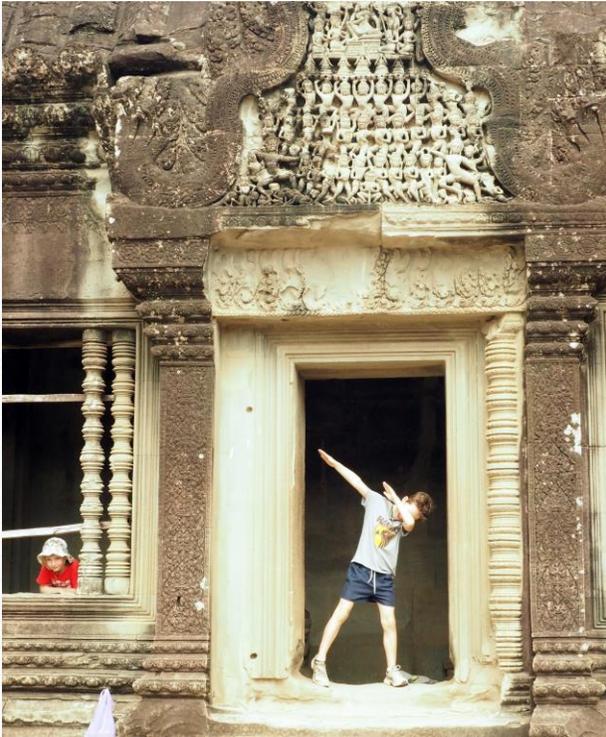


The future for the National Cancer Centre

- Establishing a cancer registry
- Improvement of clinical skills
- Establishing a culture of research
- Expand to the provinces
- Continue to strengthen the collaboration between the NCC and Australia/NZ



Family - thriving



Volunteering

- Sound challenging?
-
- Get scared
 - Do it anyway
 - Make a difference

References

- Bruni L, Barrionuevo-Rosas L, Albero G, Serrano B, Mena M, Gómez D, Muñoz J, Bosch FX, de Sanjosé S. ICO/IARC Information Centre on HPV and Cancer (HPV Information Centre). Human Papillomavirus and Related Diseases in Cambodia. Summary Report 27 July 2017.