

Emergency Medicine in Papua New Guinea

Report for 2005

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December 2005

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Background

Emergency Medicine is identified as a priority for development in the National Health Plan 2001-2010 (Policy Directions and Priorities, Ministry of Health). In 2002 AusAID, through the Medical Officer, Nurse, Allied Health Project (MONAHP), supported the launching of the Master of Medicine Emergency Medicine (M.Med EM) program. The first intake of trainees to the program started in 2003. There was a further intake in 2004 and in 2005. At the beginning of 2005 there were 12 trainees on the M.Med EM program.

The M.Med EM program is now concluding its 4th year. Trainees rotate through registrar posts in surgery, anaesthesia, internal medicine, paediatrics, obstetrics and gynaecology, and emergency medicine in Townsville. There is increasing awareness that the program can provide sorely needed vocationally trained generalists. With numbers of nationals in the major specialties, PNG has the capacity to train generalists. The primary role of EM graduates will be to improve delivery of care for acute illness and injury in hospitals. Their scope, however, will also include prehospital care, district hospital services, administration, teaching and research.

Funding from AusAID has been continued at a lesser level by the Medical School Support Project (MSSP). Support has also come from the University of PNG (2003 and part of 2004), the Australasian College for Emergency Medicine ('03, '04, '05), and the MONAHP Trust Fund managed by the RACP ('04, '05). Visiting emergency physicians have contributed from personal resources.

In 2005 the expanding program received more support than in previous years.

Visitors

In 2005 there was a shift in the activities of visiting emergency doctors. This was in response to the expansion of EM training positions into five provincial hospitals and to the closure of the Senior Lecturer in Emergency Medicine (SLEM) position in mid 2004. The former required an increase in visits to provincial hospitals and the latter allowed some freedom from the undergraduate program in Port Moresby. The increasing maturity of EM trainees at Port Moresby General Hospital (PMGH) allowed these trainees to take on some of the undergraduate teaching. Sam Yockopua was appointed honorary tutor with the School of Medicine and Health Sciences UPNG in recognition of his contribution.

In 2005 a number of constraints resulted in visits being for shorter periods than in previous years. This was offset by an increased number of contributors. Carolyn Annerud attempted to establish a sustained presence through OilSearch medical services but encountered limitations on visa and work permit. New contributors to the M.Med EM program included Ric Todhunter, Naren Gunja and Sandy Inglis.

Madang became an important focus through the enthusiasm of Billy Selve, Dean of Health Sciences at Divine Word University (DWU). He has launched the development of a Diploma in EM for Health Extension Officers (HEOs) and nurses. Sandra Rennie, an EM trainee from Fremantle WA, spent three months contributing to the development of curricula for undergraduate and Diploma programs. She was assisted by Basia Lis, an emergency nurse from Fremantle.

In total there were 20 visits, including three for courses

Chris Hall	3 – 27 January	Madang, Lae, Alotau
Simon Jensen	15 February – 11 March	Mt Hagen
Chris Curry	13 - 25 March	Madang
Carolyn Annerud	18 April – 6 May	Rabaul, Kimbe
David Symmons	8 May – 2 June	Goroka, Lae
Jack Hodge	4 – 19 June	Mt Hagen
Ric Todhunter	19 June – 8 July	Rabaul
Naren Gunja	10 – 22 July	Madang
Chris Curry	31 July – 12 August	Madang, Lae
Sandy Inglis	21 August – 2 September	Madang
Simon Jensen	18 September – 7 October	Madang, Kutubu
Chris Curry	30 October– 11 November	Mt Hagen, Goroka
Antony Chenhall	13 – 27 November	Lae, Rabaul
Rachel Hoyle	2 - 24 February	Wewak
Paul Spillane	7 – 13 August	Kimbe
Sandra Rennie, ACEM trainee	27 July – 27 September	DWU Madang
Basia Lis, emergency nurse	28 August – 20 September	DWU, Madang
Gerard O'Reilly	EMST Course, 19 - 21 July	PMGH
Simon Jensen, Antony Chenhall, Bill Nimorakiotakis	Snakebite Course, 20 - 23 Sept.	Madang

M.Med EM Trainees, 2005

There were 12 trainees on the program at the start of 2005. Ten completed the year satisfactorily, with seven passing exams. Changol Amai withdrew from the program and Nick Dala is required to repeat 4 months of paediatrics.

Post Part 1 trainees

Yongoe Kambue DA,	Lae	medicine, paediatrics
Sam Yockopua DA,	PMGH	anaesthesia
Marcella Seve DA,	QLD	Townsville, rural relief.
Vincent Atua DA,	Madang	anaesthesia
Alfred Raka DA,	PMGH	anaesthesia
Moses Lester,	Mt Hagen	medicine, paediatrics
Nick Dala,	Goroka	O&G

Part 1 trainees

Desmond Aisi	PMGH
Wala Marjen	PMGH
Sonny Kibob	Mt Hagen
Julius Plinduo	Rabaul

Examinations passed in November 2005

Diploma in Anaesthesia	Sam Yockopua, Vincent Atua, Alfred Raka
Part 1 (surgery)	Desmond Aisi, Wala Marjen, Sonny Kibob, Julius Plinduo

Plans for 2006

Yongoe Kambue	Medicine, O&G PMGH
Sam Yockopua:	QLD rural relief, O&G PMGH.
Marcella Seve	QLD rural relief
Vincent Atua:	O&G 4/12, 1/12 Ophth, 1/12 ENT, Paeds 6/12, Madang
Alfred Raka:	ENT 1/12, Medicine 4/12 PMGH, Townsville 6/12
Moses Lester	Dip Anaesthesia, Mt Hagen
Nick Dala	Rural Block, Goroka
Desmond Aisi	Dip Anaesthesia, PMGH
Wala Marjen	Dip Anaesthesia, PMGH
Sonny Kibob	Dip Child Health, Mt Hagen
Julius Plinduo	O&G, Paeds, Rabaul

New Trainees appointed for 2006

John Tsiperau	surgery, PMGH
Elsie Apuahe	surgery, Lae
Taita Kila	surgery, Madang
Daryl Robert	surgery, Goroka

Courses

- **Primary Trauma Care (PTC)**

February	Mt Hagen	Simon Jensen, Moses Lester, Sonny Kibob.
March	Madang	Chris Curry, Vincent Atua, Gertrude Didei
May	Goroka	David Symmons, Moses Lester, Sonny Kibob, Nick Dala
May	Lae	David Symmons, Yongoe Kambue
June	Mt Hagen	Jack Hodge, Moses Lester, Sonny Kibob
June	Rabaul	Ric Todhunter, Julius Plinduo
July	Madang	Naren Gunja, Vincent Atua, Gertrude Didei
July	Kimbe	Yongoe Kambue
August	PMGH	Sandy Inglis, Sandra Rennie, Sam Yockopua, Alfred Raka Desmond Aisi, Wala Marjen
September	Goroka	Sandra Rennie, Yongoe Kambue, Sam Yockopua, Vincent Atua, Moses Lester, Sonny Kibob
November	Lae	Antony Chenhall, Yongoe Kambue
November	Rabaul	Antony Chenhall, Julius Plinduo

- **Clinical Management of Snakebite in PNG**

September	Madang	Simon Jensen, Antony Chenhall, Bill Nimorakiotakis, Sandra Rennie
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- **Early Management of Severe Trauma (EMST)**

July	PMGH	Gerard O'Reilly
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Health Extension Officer training

Visits to Madang and Divine Word University by Chris Hall, Chris Curry and Naren Gunja paved the way for a three month visit by Sandra Rennie to assist in the development of a postgraduate Diploma in Emergency Medicine for Health Extension Officers and Nurses. It is hoped that this course will be launched in mid 2006.

(See Appendix 1)

Publications

“Venomous Bites and Stings in Papua New Guinea”

- A treatment guide for health workers and doctors -

Editors David Williams, Simon Jensen, Bill Nimorakiotakis, Kenneth Winkel

Publishers: Australian Venom Research Unit

University of Melbourne, Parkville, Vic 3010, Australia

ISBN 0-975937-0-5 (paperback)

ISBN 0-9757937-1-3 (CD-ROM)

“HIV antibody seroprevalence in the emergency department at Port Moresby General Hospital, Papua New Guinea”

Chris Curry, Paul Bunungam, Carolyn Annerud, Diro Babona

Emergency Medicine Australasia (2005) 17, 359-362

Editorial: “*HIV/AIDS in Papua New Guinea: an unfolding disaster?*”

William J McBride

Emergency Medicine Australasia (2005) 17, 304-306

Annual Symposium of the Medical Society of PNG

The Emergency Medicine Specialty Meeting, 8&9 September, developed on previous meetings and was a success. Eleven nationals made presentations. Major themes were Research, Education and Clinical Emergency Medicine. Keynote speakers were David Williams (Snake venoms researcher), Billy Selve (Dean of Health Sciences at DWU) and Glen Mola (Professor of O&G, SM&HS). A short course for Primary Trauma Care and Resuscitation was conducted. The South Pacific Society for Emergency Medicine had an extensive meeting led by Yongoe Kambue, president. The Medical Society of PNG announced that Emergency Medicine is to be a theme for the 2006 Annual Symposium in Madang.

(See Appendix 2 and 3)

The Future

- ***Annual Symposium 2006***

This will be a major event for Emergency Medicine in PNG. It is hoped that emergency physicians who have contributed to the development of the program will be able to attend. Plans are developing for national trainees to be included in the main program.

- ***Part 2 exams 2006***

It is expected that the first trainee for Part 2 exams (Yongoe Kambue) will present in November 2006. In preparation, Chris Curry observed the Part 2 exams for surgery, internal medicine, paediatrics and O&G in November 2005.

- ***The direction for M.Med EM graduates***

There is increasing awareness in PNG that the M.Med EM program can provide the vocationally trained generalists that the country sorely needs. Now that there are numbers of nationals in the major specialties, PNG has the capacity to train generalists. The primary contribution of EM graduates will be to improve delivery of care for acute illness and injury at hospitals. Their scope, however, will also include prehospital care, district hospital services, administration, teaching and research. EM graduates will contribute to providing the services previously provided by expat. generalists.

- ***Supporting visits***

Continuation of visits by emergency professionals will be essential to the ongoing development of the expanding EM projects. Sustainability by nationals in country is likely to be achievable after a period not less than a decade. There is an urgent need to secure consistent and reliable funding to sustain these important endeavours.

Support

- *Funding*

- The Medical School Support Project (MSSP) of AusAID continued to provide substantial logistic and office support, as well as funding for selected visits.
- The Australasian College for Emergency Medicine (ACEM) made a further contribution of \$25,000 to the project. ACEM contributions now total \$75,000.
- The MONAHP Trust Fund managed by the Royal Australasian College of Physicians (RACP) contributed additional funds.
- Individuals contributed from their own resources, including conference, study and annual leave allowances as well as personal donations.

- *Accommodation*

When in Port Moresby, visitors shared a UPNG flat occupied by an Obstetrician working at PMGH with SM&HS. This afforded considerable savings on hotel accommodation.

Acknowledgements

The continuation of the M.Med EM program is possible because of the ongoing support of a large number of people. Particular acknowledgement is due to:

- SM&HS: Mathias Sapuri, John Vince, Sir Isi Kevau, Sydney Chung, Glen Mola, Andrew Masta, Ika Kevau, David Linge, Harry Aigeeleng, Hang Chau
- PMGH: Simon Mete
- Provincial Hospital CEOs: Margareth Samei (Angau in Lae), James Kintwa (Mt Hagen), Joe Apa (Goroka), Jethro Usurup (Madang), Cornelius Kalimet (Nonga in Rabaul)
- MSSP: Jill Wearne, Claire Matainaho, Jerome Solon

Appendices

1. Diploma in EM for HEOs and Nurses at Divine Word University, Madang
2. Program for the Emergency Medicine meeting at the Annual Symposium of the Medical Society of PNG
3. Message to the Emergency Medicine meeting at the Annual Symposium of the Medical Society of PNG

Continued: Appendices:-

Appendix 1

Diploma in Emergency Medicine for Health Extension Officers and Nurses in Papua New Guinea Divine Word University, Madang

Chris Curry and Sandra Rennie

The Faculty of Health Sciences at the Divine Word University in Madang, PNG, is developing a Diploma in EM for health extension officers (HEOs) and nurses. Dean Billy Selve expects that the course will be on offer for the 2006 academic year. He is being assisted by Sandra Rennie, an advanced trainee with ACEM from Fremantle Hospital, WA.

Divine Word University was established in 1996 and took over HEO training from the National Department of Health in 2003. Clinical training is mainly at Modilon Hospital, the government funded provincial hospital in Madang.

HEOs and nurses are the backbone for health care provision in most of PNG. They are commonly the sole providers for rural communities, where 80% of the population live. They also play a major role in hospitals, functioning with considerable independence. In Outpatient and Emergency Departments they are the sole providers of care for the majority of attendances.

HEOs and nurses train in three year undergraduate programmes. Until recently the curricula have not included emergency medicine. The Diploma in EM will be offered as postgraduate training to enhance the capacity of primary providers in the delivery of appropriate care for the full spectrum of acute illness and injury in the rural PNG context.

The curriculum will be based upon the 'Standard Treatment Guidelines for HEOs, Nurses and Doctors' that have been produced by the disciplines of medicine, paediatrics and O&G at the School of Medicine and Health Sciences, UPNG. HEOs learn a range of minor surgical skills, which will be enhanced.

The Diploma will address the specific needs of health care workers in Papua New Guinea, who often face issues of extreme isolation and remoteness, together with a high rate of emergency situations accompanying illness, injury, reproduction and childhood. Sources of injury include motor vehicle crashes, falls from trees, natural disasters (volcanoes, tsunamis), domestic violence and clan violence.

Topics will include personal protection and adequate preparation for emergencies, triage in large scale emergencies and natural disasters, and appropriate evacuation of patients to centres of definitive care. Students will gain confidence in their ability to anticipate, assess and manage emergency situations, improve individual patient outcomes and contribute to community wellbeing.

The Diploma will also need to address the challenges related to limited resources and transportation.

Appendix 2

Emergency Medicine**4th Specialty Meeting and 4th Annual General Meeting of the South Pacific Society for
Emergency Medicine****Annual Symposium of the Medical Society of PNG
Goroka
8th and 9th September 2005****Thursday 8th September**

8.30am	Registration	
9.00am	Welcome Address Yongoe Kambue, President of the South Pacific Society for Emergency Medicine Message from Chris Curry and the Australasian College for Emergency Medicine	
9.30am	Snakebites and anti-venoms <i>Keynote Speaker: David Williams, Melbourne University, Victoria</i> Health Worker perceptions of snakebite in Papua New Guinea What price salvation? Antivenom costs and availability in PNG 1992-2004 Premedication and early adverse antivenom reactions in the management of snakebites in rural PNG	Chairperson: Yongoe Kambue
10.30am	Morning Tea	
11.00am	Emergency Medicine Research Triage and Casemix in the ED at Angau Hospital, Lae Pre-hospital care in Port Moresby Complications of ventilation of paralysed snakebite patients Deliberate self harm in Port Moresby Weapons related injuries in Port Moresby	Chairperson: David Williams Yongoe Kambue Sam Yockopua Alfred Raka Hawali Hamiya John Tsiperau
12.30pm	Lunch	
1.30pm	Emergency Medicine Education <i>Emergency Medicine for Health Extension Officers and Nurses</i> Development of a Diploma in EM at Divine Word University A Standard Treatment Manual for EM in PNG	Chairperson: Sam Yockopua <i>Billy Selve</i> Sandra Rennie Vincent Atua
2.30pm	Afternoon Tea	
3.00pm	Clinical Emergency Medicine <i>Emergencies in Reproductive Health</i> Women and Childrens Support Centre, Angau Hospital Severe Asthma at PMGH, Port Moresby Experience with Asthma in Rabaul Tuberculosis of the spine The first use of endoscopy for ERCP in the South Pacific	Chairperson: Sandra Rennie <i>Prof Glen Mola</i> Yongoe Kambue Sam Yockopua Julius Plinduo Desmond Aisi Wala Marjen

Thursday 8th September (continued)**4.30pm 4th Annual General Meeting of the South Pacific Society for Emergency Medicine**

President: Yongoe Kambue
 Vice President: Sam Yockopua

Election of Officers
 Discussion: Training for the Master of Medicine Emergency Medicine

7.00pm Emergency Medicine Dinner**Friday 9th September**

**Primary Trauma Care and Resuscitation
 Short Course**

08.30	Introduction	Yongoe Kambue
	Primary Survey and Resuscitation	
09.30	Airway	Sam Yockopua
10.00	BREAK	
10.30	Breathing	Moses Lester
11.00	Circulation	Alfred Raka
11.30	Secondary Survey	Vincent Atau
12.00	BREAK	
1.00	Head injury	Sonny Kibob
1.30	Chest injury	Wala Marjen
2.00	Abdominal injury	Desmond Aisi
2.30	BREAK	
3.00	Limb injury	Julius Plinduo
3.30	Spinal injury	Sandra Rennie
4.00	Questions and Discussion	

7.00pm National Doctors Association Dinner Dance

Convenor:	Sam Yockopua, PMGH, Mobile 689 7943
Co-convenor:	Yongoe Kambue, Angau Lae, Tel 472 4295
Goroka organiser:	Nick Dala, Goroka, Mobile 688 1336
Meeting Secretariat	Claire Matainaho, School of Medicine and Health Sciences, Tel 323 5927

Appendix 3

Message to the 4th Emergency Medicine Meeting at the Annual Symposium of the Medical Society of PNG

Chris Curry
Visiting Professor in Emergency Medicine, UPNG

I wish to extend a welcome to you all, and my apologies and regrets that I cannot be with you on this occasion.

This is the 4th Emergency Medicine specialty meeting. The first was conducted in Alotau in 2002. At that time the only PNG doctor pursuing emergency medicine was Yongoe Kambue, then on rotation to Townsville, Queensland.

In 2003 the program for the Master of Medicine, Emergency Medicine was launched. The first doctors on the program included Yongoe Kambue in Lae, Sam Yockopua in Mt Hagen, and Marcella Seve in Port Moresby.

In 2004 new appointments to the program were Nick Dala in Goroka, Moses Lester in Mt Hagen and Alfred Raka in Lae.

This year the Postgraduate Committee of the School of Medicine and Health Sciences accepted Vincent Atua in Madang, Desmond Aisi and Wala Marjen in Port Moresby, Sonny Kibob in Mt Hagen and Julius Plinduo in Rabaul.

So there are now 11 doctors on the Masters of Medicine Emergency Medicine program, supported by 6 hospitals.

The National Department of Health has identified Emergency Medicine as a priority for development. The Plan for development envisages the eventual inclusion of an emergency doctor on the staff at eight additional hospitals, Alotau, Wewak, Vanimo, Daru, Manus, Buka, Kimbe and Kavieng. The School of Medicine and Health Sciences envisages a University role for three emergency doctors in Port Moresby.

The role and scope for graduates of the Master of Medicine Emergency Medicine will be particular to Papua New Guinea. The program will provide PNG with hospital generalists, doctors with the skills to provide primary care for the full spectrum of acute illness and injury. Training includes rotations in surgery, anaesthetics, medicine, paediatrics, obstetrics and gynaecology, so emergency doctors will be uniquely qualified to contribute to hospital services on a wide basis. The program encourages trainees to undertake Diplomas in Anaesthesia, Paediatrics and O&G. These qualifications will expand the roles that emergency doctors can take on. In addition there will be opportunities in hospital management, pre-hospital care, teaching and research.

The development in PNG of a capacity to provide for acute illness and injury requires the development of training for all primary care providers. For much of PNG the first and often sole providers are Health Extension Officers and Nurses.

Billy Selve, Dean of Health Sciences at Divine Word University in Madang, is now working on the development of an emergency medicine syllabus for HEO undergraduate training, and on providing a Diploma in Emergency Medicine as a postgraduate training for HEOs and Nurses. This is a very important initiative that will improve the capacity of primary carers to provide appropriate care to the majority of Papua New Guineans.

There is also a component for emergency nursing included in the Nurses program at the School of Medicine and Health Sciences in Port Moresby.

Emergency doctors from Australia and New Zealand will maintain, and I hope will expand, their contributions to these developments. It is also my hope that emergency nurses will play a role as well. The Australasian College for Emergency Medicine will continue its support.

While expats can assist in some limited areas, the main drive for development needs to be by Papua New Guineans for Papua New Guineans. It is heartening to see this happening, as senior people in the medical fraternity become involved and as trainees themselves develop through the program. Involvement of national emergency doctors in teaching medical students at UPNG and in teaching the Primary Trauma Care course demonstrates this expanding capacity.

So does this, the 4th Emergency Medicine Meeting at the Annual Symposium. It is being run by nationals for nationals. The Meeting program includes the Keynote topic of snakebite envenomation, a major clinical challenge for PNG that emergency doctors will make an increasing contribution to. Sessions on Research, Education and Clinical Emergency Medicine are provided by national trainees. The Annual General Meeting of the South Pacific Society for Emergency Medicine will provide a forum for discussion of issues impacting on the development of emergency medicine. The presentation of a short course for Primary Trauma Care and Resuscitation is a clear demonstration of the increasing maturity of the PNG emergency medicine community.

A very important purpose in a meeting of this sort is the opportunity for 'networking'. This is the person to person contact, the face to face meetings that can lead to greater understanding, co-operation and collaboration towards a common purpose.

So I wish you well in your two days of collective engagement with emergency medicine, and I wish you well for a constructive and motivating meeting with people of like mind.

Chris Curry
1 September 2005