NONGA GENERAL HOSPITAL

RABAUL, PAPUA NEW GUINEA

NOVEMBER, 2019

PRIMARY TRAUMA CARE (PTC) COURSE

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Primary Trauma Care (PTC) Course Report for Nonga General Hospital, Papua New Guinea by Dr. Duncan Sengiromo

Outline

The contents of the report are as follows:

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1. Executive Summary.

This is a Primary Trauma Care (PTC) Course Report for the PTC course done at Rabaul, East New Britain Province, Papua New Guinea. The course was run over two days from Tuesday 26th November, 2019 to Wednesday 27th November, 2019. An additional day was included after the 2-day PTC Course to run a 1-day Resuscitation Course for the participants.

The trip was sponsored by the Nonga General Hospital and East New Britain Provincial Health Authority. It was organised specifically for the doctors and nurses of Nonga General Hospital and the rural hospitals and health centers in Rabaul and East New Britain Province of Papua New Guinea.

There were a total of thirty-two (32) participants. By profession, there were six (6) Health Extension Officers (HEOs), fifteen (15) Nursing Officers (NOs), three (3) Community Health Workers (CHWs), two (2) technical officers and six (6) Medical Officers (MOs).

To facilitate the course, five (5) instructors were utilized. The PTC course was limited to the 2-day participants' course only. The PTC Instructors Course was not included.

2. Purpose of the visit.

I. Purpose of the Visit

The Primary Trauma Care (PTC) Course is an important course to teach important basic knowledge and skill to manage trauma patients. Specifically, the purpose of the visit was to:

- Teach the PTC course to the doctors, nurses and health workers in the Emergency Department of Nonga General Hospital and other rural hospitals and health centers;
- Improve participants clinical understanding of concepts relating to trauma; and
- Teach and consolidate basic skills to manage trauma patients.

II. Professional Aspects of the Visit

This course has a professional aspects to consider. Trauma is a major cause of presentation to any hospital or health facility. One-third (11 of the participants) worked in health centers that are logistically challenging to transfer patients quickly to Nonga General Hospital. Therefore, in relation to trauma, they will be required to see, manage and stabilize these patients prior to transfer.

For all participants, the course provided an avenue to gather knowledge and practical skills to approach and manage trauma patients in a systematic approach to save a lives.

3. Nonga General Hospital and Participants.

I. Nonga General Hospital

Nonga General Hospital is public hospital located in the Rabaul District in East New Britain Province, Papua New Guinea. It is a tropical island province with surrounding volcanic islands. See Figure 1.

Generally, the health centers are linked by roads to Nonga General Hospital. However, there are limitations caused by poor road conditions and tough weather conditions (especially heavy rains). The time taken to transport a patient to Nonga General Hospital may take 20 minutes to more than an hour.

II. Participants

The participants were invited from the Nonga General Hospital with particular attention to the Emergency Department staff. Further invitations were given to other facilities (hospitals and health centers) in the District.

The participants are listed in Table 1.

Figure 1. Figure depicting Rabaul Province, Papua New Guinea. (Note the ★ (Black Star)).

Table 1. List of Participants.

List of participants by profession and health facility.			
Number	**Name**	**Status**	**Organisation**
1	Annieker Yariyari	Health Extension Officer (ED)	Nonga General Hospital
2	Irene Reme	Health Extension Officer (ED)	Nonga General Hospital
3	Jessica Bavai	Health Extension Officer	Warangoi Rural Hospital
4	Konia Israel	Health Extension Officer	Kerevat Rural Hospital
5	Sharon Turavai	Health Extension Officer	Butuwin Urban Clinic
6	Sylvanus Arija	Health Extension Officer	Tapipipi Health Center
7	Eilleen Lapu	Nursing Officer (Post-Natal Ward)	Nonga General Hospital
8	Gabriel Orenga	Nursing Officer (ED)	Nonga General Hospital
9	Grace Yap	Nursing Officer	Nonga General Hospital
10	Justine Kale	Nursing Officer (Medicine)	Nonga General Hospital
11	Leonie Paluana	Nursing Officer	Nonga General Hospital
12	Margaret Kirokae	Nursing Officer (Surgery)	Nonga General Hospital
13	Mary Olepaga	Nursing Officer	Nonga General Hospital
14	Michael Samson	Nursing Officer	Nonga General Hospital
15	Rose Timi	Nursing Officer (Pediatrics)	Nonga General Hospital
16	Melipa Bata	Nursing Officer	Napapar Health Center
17	Clara Puhu	Nursing Officer (ED)	Vunapope Hospital
18	Dorish Sapan	Nursing Officer	Rabaul Urban Clinic
19	Jacqueline Merire	Nursing Officer	Warangoi Rural Hospital
20	Simaima Pidik	Nursing Officer	Butuwin Urban Clinic
21	Stephanie Poienou	Nursing Officer (Midwife)	Kerevat Rural Hospital
22	Francis Nalan	Community Health Worker (ED)	Nonga General Hospital
23	Joel Bethel	Community Health Worker (ICU)	Nonga General Hospital
24	Wesley Vutliu	Community Health Worker	Nonga General Hospital
25	Morris Roy	Radiographer	Nonga General Hospital
26	Vernom Nawe	Dental Officer (ENT)	Nonga General Hospital
27	Rocky Levao	Medial Officer (ED)	Nonga General Hospital
28	Lui Apolos	Medical Officer (Anaesthesia)	Nonga General Hospital
29	Maine Asapo	Medical Officer	Nonga General Hospital
30	Tommy Walters	Medical Officer (Surgery)	Nonga General Hospital
31	Micah Misivet	Medical Officer (ED)	Vunapope Hospital
32	Joseph Maine	Medical Officer	Palmalmal-Pomio Health Center
Note: ED- Emergency Department, ICU- Intensive Care Unit.			

4. Planning and Coordination.

Nonga General Hospital with the East New Britain Provincial Health Authority sponsored the course.

Significant components sponsored include:

I. Venue and stationaries;
II. Meals and refreshments for both instructors and participants;
III. Airfares for four instructors from Port Moresby (return tickets from Port Moresby to Rabaul with Air Nuigini);
IV. Hotel accommodation for three instructors (with Rabaul Hotel);
V. Travel allowances for the instructors; and
VI. Hire Car (Ute) and Logistics support.

Key individuals involved in planning and coordination include:

I. The Chief Executive Officer, Dr Ako Yap, and the Nonga General Hospital Management.
II. The Director Medical Services, Dr. Patrick Kiromat; and
III. Dr. Lyanne Painap, Specialist Medical Officer, Anaesthesia.

5. Course instructors.

There were five course instructors. All with a background of Emergency Medicine and Anaesthesia. Utilizing knowledge and skill with personal experience and local perspective added value to emphasize important basic principles. Moreover, a combination of knowledge in Anaesthesia and Emergency Medicine as facilitators broaden the scope of teaching which was valuable in lectures and practical stations- e.g. skill stations on advanced airway and analgesia.

The instructors for the course are listed in Table 2.

Table 2. List of Course Instructors.

Number	Name	Status	Hospital
1	Dr. Duncan Sengiromo	Specialist Medical Officer (Emergency Physician)	Port Moresby General Hospital
2	Dr. Desmond Aisi	Senior Specialist Medical Officer (Emergency Physician)	Port Moresby General Hospital
3	Dr Steven Aaron	Specialist Medical Officer (Emergency Physician)	Port Moresby General Hospital
4	Dr. Lyanne Painap	Specialist Medical Officer (Anaesthetist)	Nonga General Hospital
5	Dr. David Pomat	Medical Officer (Emergency Medicine Trainee)	Nonga General Hospital

6. Activities.

The activities done are summarized below in Table 3.

Table 3. Overview of daily activities.

Day	Date	Activity	Comments
1	Monday 25th November, 2019	Travel to Rabaul: Air Nuigini. Hotel Check-in: Rabaul Hotel.	Organised by Nonga General Hospital.
		Course venue set up at Rabaul Hotel Conference Room.	Venue at Rabaul Hotel. Set-up done by Instructors.
		PTC Instructors dinner and course plan.	Done by Instructors.
2	Tuesday 26th November, 2019	PTC Day 1	Facilitated by instructors. Opening remarks by PTC Coordinator, Nonga General Hospital CEO Dr. Ako Yap.
3	Wednesday 27th November, 2019	PTC Day 2	Facilitated by instructors.
4	Thursday 28th November, 2019	PTC Day 3 for Resuscitation Course. Certificate and Photos	Facilitated by instructors. Conclusion remarks by Nonga General Hospital Director Medical Services Dr. Patrick Kiromat. Presentation of Certificates (two per participant: PTC and Resuscitation Course. Photos: All.
5	Friday 29th November, 2019	Hospital Visits to Nonga General Hospital and Vunapope Hospital Emergency Departments.	Instructors.
6	Saturday 30th November, 2019	Hotel Check-out and Travel back to Port Moresby. Back to normal routine activities.	Instructors.

7. Contents of the Primary Trauma Care Course.

The contents are summarized in the timetable in Attachment 1. See Attachment 1.

8. Subsidiary activities.

Subsidiary activities included the following:

I. Intra-osseous access using chicken drumsticks;
II. Care of the C-spine using saline bags, neck collar application and log-roll;
III. Disaster lecture and group discussion for pre-hospital and hospital response;
IV. Resuscitation Course;
V. Hospital visits to Emergency Department: Nonga General Hospital and Vunapope Hospital; and
VI. Tourist site visits.

9. Media coverage.

No media coverage arranged.

10. Evaluation of the success and relevance of the visit.

The Pre-Course Survey and Post-Course Survey forms were utilized. Generally, findings include:

1. Pre-course Survey. Some skills that participants wanted to learn from the course:
    a. How to approach a trauma patient?
    b. How to protect the airway?
    c. How to manage head injuries, chest injuries, etc.

2. Course Feedback Questions
    a. Only 24 feedback forms were received. For all activities, an average of 75% gave a feedback of Very Good (Score of 5), an average of 19% gave a feedback of Good (Score of 4) and an average of 6% gave a feedback of Average (Score of 3). There were no feedback assessment of Very Poor (2) or Poor (1).
    b. The lecture with the most positive feedback was the ABCDE and Primary Trauma Survey. The lecture to improve on was the Trauma in Children, Burns and Trauma in Pregnancy.
    c. The Scenarios were seen as the best part of the course.
    d. There was a general consensus that more time was needed for Skill Stations.

Generally, the course feedback before and after were good. There is room for improvement in future courses.

11. Summary of Multiple Choice Questions scores: Pre-course and Post-course.

- MCQ results before the course: one participant scored the highest score of 18 and, most hovered between 10 and 14 while notably twelve participants scored less than 10.
- MCQ results after the course: two participants scored the highest of 20 with two participants scoring 19 and three scoring 18. On the other hand, only three scored less than 10.

Generally, there is significant improvement in the knowledge and skills. This is a positive feedback for the course and facilitators.

12. Instructor Course.

Five instructors were identified. An instructor course will be organised in the near future.

13. Summary.

The course was generally run well with good outcome for both facilitators and participants. Observations and recommendations for future visits include:

1. Introduce PTC Instructor Course.
2. Integrate the PTC Course into annual activity plans to run the course yearly with specific attention to Rural Health Staff.
3. Involve more medical officers and nursing officers at Nonga General Hospital.

14. Acknowledgments

Acknowledgements must be given to the stakeholders of this course. They include:

1. The Primary Trauma Care (PTC) Foundation.
2. The Papua New Guinea Society for Emergency Medicine (PMGSEM).
3. The Primary Trauma Care (PTC) Papua New Guinea Country Director Dr. Desmond Aisi.
4. The Port Moresby General Hospital and the Emergency Department.
5. The Nonga General Hospital and East New Britain Provincial Hospital.
6. The Nonga PTC Instructors: Dr. Desmond Aisi; Dr. Steven Aaron; Dr. Lyanne Painap; Dr. David Pomat and Dr. Duncan Sengiromo.

15. Attachments

1. PTC Course and Resuscitation Course Timetable.
2. Course photos.

Attachment 1. PTC Course Timetable.

Day 1 of PTC Course.

"Papua New Guinea Society for Emergency Medicine"

Primary Trauma Course Timetable: Nonga General Hospital, Rabaul, PNG.

Day 1 Tuesday 26th November, 2019

Time	Topic	Presenter
8.00 am	Registration	All
8.30 am	Welcome and Introductions	Sengiromo/ Faculty
8.45 am	MCQ	Aaron
9.00 am	Local Trauma Perspective	Yockopua/ Pomat
9.15 am	PTC Role Play/ Demonstration	Faculty
9.25 am	PTC Overview	Sengiromo
9.40 am	ABCDE of Trauma and Primary Survey	Sengiromo
10.10 am	Break	
10.20 am	Airway and Breathing	Steven
10.55 am	Circulation and Shock	Yockopua
11.30 am	Chest Injuries	Aaron
12.00 am	Lunch Break	
12.45 pm	Skill Stations	
20 minutes	*Basic Airway*	Pomat
20 minutes	*Advanced Airway*	Aaron
20 minutes	*Cervical Spine/ Logroll*	Yockopua
20 minutes	*Chest drains*	Sengiromo
2.05 pm	Break	
2.15 pm	Abdominal and Pelvic Injuries	Pomat
2.40 pm	Limb Injuries	Aaron
3.05 pm	PTC Role Play/ Demonstration	Faculty
3.20 pm	Scenario Practice (in groups)	Faculty
4.30 pm	Overview and Summary	Sengiromo

Day 2 of PTC Course.

Day 2 Wednesday 27th November, 2019		
Time	**Topic**	**Presenter**
8.30 am	Head Injuries	Sengiromo
8.50 am	Spinal Injuries	Yockopua
9.10 am	Trauma in Children	Aaron
9.30 am	Trauma in Pregnancy	Pomat
9.50 am	Burns	Sengiromo
10.20 am	**Break**	
10.30 am	Workshops	
20 mins	*Analgesia*	Sengiromo
20 mins	*Transportation*	Yockopua
20 mins	*Pediatric trauma*	Aaron
20 mins	*Neurological assessment*	Pomat
11.50 am	Secondary survey	Aaron
12.20 pm	Break	
1.20 pm	Disaster management	Yockopua
2.00 pm	Scenarios (in groups)	Faculty
3.20 pm	Break	
3.30 pm	Repeat MCQ's	Aaron
3.45 pm	Summary, Feedback and Evaluation	Sengiromo
4.05 pm	Faculty Discussion	Faculty
4.20 pm	Presentation of Certificates	All

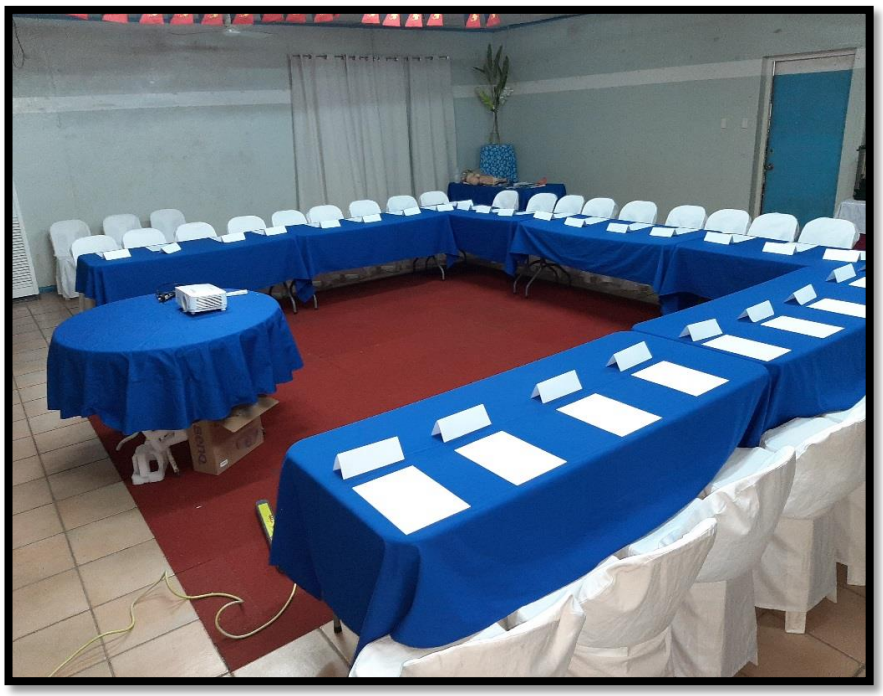
Day 3 of PTC Course/ Resuscitation Course.

Day 3 Thursday 28th November, 2019

Resuscitation Course

Time	Topic	Presenter
8.00 am	Registration	All
8.30 am	Welcome and Introductions	Sengiromo/ Faculty
8.40 am	General Principles	Aisi
9.00 am	Triage	Sengiromo
9.20 am	Basic Life Support Protocol	Pomat
9.40 am	Care of the Unconscious Patient	Aaron
10.00 am	Break	
10.20 am	Shock and Fluids	Sengiromo
10.50 am	Advanced Cardiac Life Support	Painap
11.20 am	Defibrillator/ Defibrillation	Aaron
11.50 am	Drowning	Aisi
12.20 pm	Lunch Break	
1.20 pm	Skill Stations	
40 minutes	*Basic Airway/ Basic Life Support/ CPR*	Faculty
2.00 pm	Break	
2.30 pm	Skill Stations	
20 mins	CPR in Children	Faculty
20 mins	ACLS	Faculty
20 mins	BLS and Airway Adjuncts	Faculty
20 mins	Defibrillation	Faculty
3.50 pm	Overview and Summary	Aisi/ Sengiromo
4.00 pm	Closing Remarks	Faculty
4.30 pm	Presentation of Certificates/ Photos	Faculty

Attachment 2. Course Photos



a)

b)

I. Course venue set-up: (a) for lectures; and (b) skill stations (Basic Airway).

II. Skill Station on Chest Injuries.

III.Skill Station: Cervical Spine Protection and Log-Roll.

IV.Group Photo: Sponsors, Participants and Instructors.

Report compiled by:

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