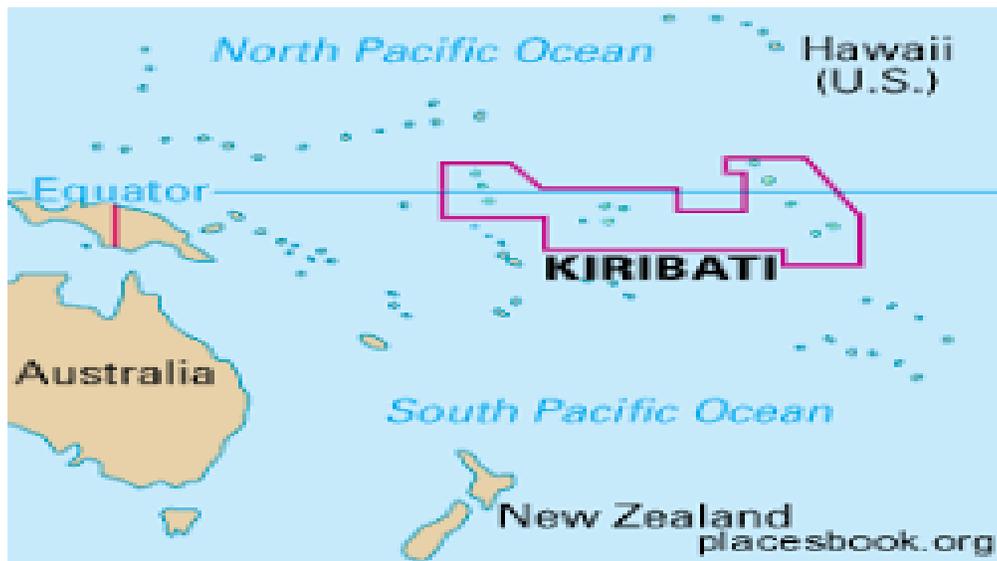


Kiribati Primary Trauma Course

April 16th – 20th 2019



Report



Background:

Kiribati is a Micronesia Pacific island country in the Central South Pacific with a population now approaching 120 000. Kiribati has 33 coral atoll islands that straddle the equator spanning over 3.5 square kilometers of the Pacific Ocean. The capital is Tarawa which is inhabited by close to 50 % of the total population. There are 4 public hospitals, 2 on the capital and the other 2 on the outer islands. Tungaru Central Hospital (TCH) is the main referral hospital on the capital, the other 3 are district level hospitals. Nurses man the island public health clinics and refer cases to Medical Assistants (MA), who look after health centers on the islands and are able to provide basic health care service. The MAs would refer cases they cannot manage to TCH.

The first Primary Trauma Care (PTC) training in Kiribati was in 2010, delivered solely by external facilitators. It was from this first PTC training that local instructors were selected for instructor course who then taught on the second round of PTC in 2010. For the subsequent PTC trainings in 2011, 2014, 2015 and 2017, the same routine rolled on with selection of a number of new instructors of capable doctors and nurses. Some of these local instructors have moved on concentrating on their areas of specialty and some have migrated. PTC trainings have been conducted mainly at TCH and a few times at the smaller hospital, Betio, also on the capital island and once at Ronton Hospital on Christmas Island. The latter is a very isolated island in Kiribati which is close to Hawaii and to get there by plane from the capital, one has to have 2 connecting flights, Tarawa to Nadi Fiji to Christmas Island.

Initially, requests to external PTC facilitators for in-country PTC training was made by TCH Hospital Director. More recently with the inception of the internship training program at TCH in 2013; Kiribati Internship Training Program (KITP), PTC course became a required training for medical interns hence KITP is now the main PTC organizer involving and engaging the assistance of external facilitators so that PTC learning experience is enriched with sharing of experiences and skills by PTC instructors from different settings and backgrounds. KITP is annually receiving new medical graduates of I-Kiribati as well as some Tuvaluan, Nauru and Solomons medical graduates, the majority of whom are Cuban trained. KITP's main role is to provide learning environment for new doctors entering the health care workforce and PTC is one of the essential training workshops that prepares, equips and empowers new doctors and health care workers with skills to attend to trauma cases in the frontline using a systematic approach. Kiribati also recognizes the inclusion of nurses in PTC training because they are part of the trauma team. Of the various types of trauma that happen in Kiribati, motor vehicle road accident is witnessed to be increasing around 5 – 10 cases a month with the newly built public road in 2017 on Tarawa, the capital. This is a strong message to build and upgrade the capacity and skills of nurses and doctors to attend safely to trauma patients. For this PTC, the request from KITP at the Ministry of Health Kiribati was sent to lead PTC Facilitators at Fiji National University (FNU), Emergency Consultants Dr Dennis Lee and Dr Arveen Maharaj to help local PTC instructors to deliver the course. Arrangements and logistics for travel and preparations then followed.

Course Facilitators:**External Team**

Dr Dennis Lee, Emergency Consultant, FNU College of Medicine, Nursing and Health Sciences

Dr Arveen Maharaj, Emergency Consultant, FNU College of Medicine, Nursing and Health Sciences

Local Team from Tungaru Central Hospital

Dr Tekeua Uriam, Anaesthetist

Dr Maria Mikaere, Registrar General Surgery

Dr Jone Cakobau, Registrar Emergency

Dr Frank Mautai, Registrar Internal Medicine.

Dr Titai Naitoa, Registrar Anaesthesia

(The 4 registrars above also helped instructed in the previous PTC in 2017).

Workshop Dates

PTC training is a 2-day course and there were a total of 2 trainings conducted; the first PTC took place at TCH at Taiwan building lecture room ground floor then followed by second PTC course which was held outside of the hospital premises in a local open meeting hall called the Maneaba. The shift to this second venue resulted from heavy rainfall that unfortunately flooded the lecture room on day 2 of the first PTC course. PTC 2 was carried out on Thursday 18th and Saturday 20th as Friday was Good Friday Public Holiday in honour and respect of the Passion of Christ. PTC 1 had 22 participants and PTC 2 had 32. A total of 54 health workers were trained over the 2 PTC courses; 21 medical interns, 4 registrars (3 from Emergency and 1 Paediatrics) and 29 nurses coming from the wards and public health clinics on Tarawa as shown below.

	Dates		Venue	Participants	Numbers
2-day PTC training	16/04/19-17 /04/19 (first round)	1	Tungaru Central Hospital (TCH), Taiwan building lecture room	Interns Registrars Nurses	9 1 12
	18/04/19 & 20/04/19 (second round)	2	Maneaba (open meeting hall 5 mins drive away from TCH)	Interns Registrars Nurses	12 3 17
	Total				54

Workshop Activities

The 2-day PTC training was conducted with the program shown in the table below.

Day 1	(min)	Sessions	Day 2	(min)	Sessions
8:30	30	Welcome/Introductions/ MCQ	8:30	45	Head & Spinal Injuries
9:00	15	Local Trauma Perspective	9:15	30	Trauma in Children & Pregnancy
9:15	15	PTC Overview	9:45	30	Burns
9:30	30	ABCDE of Trauma & Primary Survey	10:15	15	Tea break
10:00	15	Tea Break	10:30	80	Workshops:
10:15	40	Airway & Breathing			Analgesia
10:55	35	Circulation & Shock			Transportation
11:30	35	Chest Injuries			Paediatric trauma
12:05	30	Lunch break			Neurological assessment
12:35	85	Skills Stations:	12:00	30	Secondary Survey
14:00	40	Basic/Advanced Airway: 2 groups	12:30	30	Lunch break
			13:00	50	Disaster Management
	20	Cervical Spine/ Logroll/Pelvic	13:50	80	Scenarios (in groups)
	20	Chest Drains	15:10	15	Tea break
14:15	15	Demonstration Scenario8	15:55	15	Repeat MCQs
14:30	15	Tea Break	16:10	20	Summary (Feedback/Evaluation)
15:20	50	Abdominal, Pelvic, Limb injuries	16:00	15	Closing & Certificate presentation
16:30	70	Scenario Practice			
16:35	5	Overview & Summary			

The 2-day PTC training started after the introduction of the facilitators and participants together and completion of the Pre-test MCQs. The training was both lectures and interactive/practical sessions, putting into practice the principles of PTC. The latter included skills stations, case scenario stations and group work which drew a lot of group interactions and interest in hands-on learning of the ABCDE principles of trauma management. There were morning tea, lunch and afternoon tea sessions to maintain energy levels of the participants and instructors. The original schedule of PTC lectures and sessions depicted above was followed however the red highlighted WORKSHOPS session was decided by the facilitators to be omitted due to time constraints and that more time should be directed to practical sessions from which the participants would gain and learn more. The workshop topics was also decided by the team to be covered during the scenario stations. Post- test MCQs was done to evaluate the change/improvement in level of understanding of PTC concepts of the participants and then followed by certificate presentation. The lecture topics and scenario stations were divided equally for delivery by the local and FNU instructors.

PTC group 1 (April 16th -17th)

Day 1 was smoothly conducted and the participants were very interactive. Day 2 was not smooth as heavy downpour of rain the whole morning started flooding the lecture room by midday. The room became a hazard venue hence the class (people and teaching equipment) was shifted upstairs room where everyone was squeezed into the office setting. Despite this drawback with the unfriendly weather, PTC continued to successful completion at around 5 pm. With luck that day, the PTC training had the space upstairs all to itself for the remainder of the day as the occupants were on holiday. The trauma of the day was well managed by everyone and on this note we are thankful for the ongoing enthusiasm and energy by everyone.

PTC group 2 (April 18th & 20th – April 19th Good Friday holiday)

It was organized at the end of Day 2 PTC1 that the venue should be shifted from the Taiwan building lecture room as the weather forecast for the week was still heavy rainfall. Since the other venues at TCH were already booked by other parties, the venue chosen was the Maneaba, a local open meeting hall which was within 5 minutes' drive from the hospital. The Maneaba was set up with chairs, tables and white board the same afternoon ready for second group PTC the next day. PTC 2 participants were transported from hospital to venue on hospital bus in the mornings and picked up again from venue to hospital in the afternoons.

As Day 1 was ready to start, another hick-up revealed itself; no power. The team then found out that power outage has been happening in the daytime for this particular settlement area as major repair work was underway at the main Public Utilities Board headquarters. Nevertheless, PTC still pressed on without power, with the facilitators speaking aloud and using whiteboard and marker. Intermittently heavy rainfall was also creating noise off the roof of the maneaba. It was very spacious and it made the scenario stations easier for people to move around freely. Day 2 was also similar with no power.

Despite the obstacles of heavy rainy weather that was affecting PTC group 1 venue, power outage and open setting venue for PTC group 2, the interest and enthusiasm of the participants and the facilitators, were maintained for the 2 days of the 2 PTC courses. This was seen in the instructors unstopping spirit to complete delivery of PTC under the difficult circumstances and moreover in the participants' contributions to the sessions, their 100% attendance, the feedback (refer next page) and successful completion and receipt of PTC certificates. The 2 groups were very interactive in the scenario stations.

In this particular PTC week, there was no Instructors course. The junior local instructors selected, taught in PTC 2017 at TCH and Betio hospital.

	Pretest	Post-test
Min	2	4
Max	10	12
Median	7	9
Mean	6.5	9
Mode	8	9
No. of failures	13/32	4/32
No. of pass	19/32	28/32

MCQs distributed for pre-test. C 1 was only one pager which contains questions 1-10) was unknowingly missed during the distribution as across the days, only 13 MCQs were used for the remainder of the PTC days. The pass mark is 7/13. See table below for results.

PTC 1: 22 participants			PTC 2: 32 participants
	Pretest	Post-test	
Min	1	5	
Max	10	13	
Median	6	9	
Mean	6.1	9	
Mode	6	9	
No. of failures	13/22	3/22	
No. of pass	9/22	19/22	

PTC 1 group: n=22

Baseline knowledge of PTC improved at the end of day 2 as seen by the increase in pass rate from 9 out of 22 participants (40% of the group) in the pre-test to 19 (86%) at post-test. The mean score also improved from 6.1/13 (failure mark) to 9/13. The mode score was 6 in the pre-test and improved to 9 post test. The range of marks was 1 - 10 in the pre-test and improved to 5 – 13 at post-test.

PTC 2 group: n=32

Baseline knowledge of PTC improved in this group as well. This is reflected in the increase in pass rate from 19 out of 32 participants (59% of the group) in pre-test to 28/32 (87%) at post-test. The mean score in the pre-test was 6.5/13 (failure mark) and it jumped to 9/13 in the post-test. The pre-test mode score was 8 and increased to 9 in the post-test. The range of marks was 2 – 10 at pretest and improved to 4 – 12 at post-test.

Summary of results: It was evident that after the 2 PTC courses, through pre-test and post-test MCQs, the average baseline PTC knowledge greatly improved from average failure (6/13) in the pre- test for the 2 groups to average score 9/13 in the post-test for both groups. Pass rates also improved dramatically from 40% in group 1 and 59% in group 2 to similar rates at 86% and 87% respectively for the 2 groups at post-test.

Pictures PTC group 1, Day 1



Log-roll during practical station
Local instructor left corner



Case scenario
Local instructor right corner



Local instructor with Dr Lee

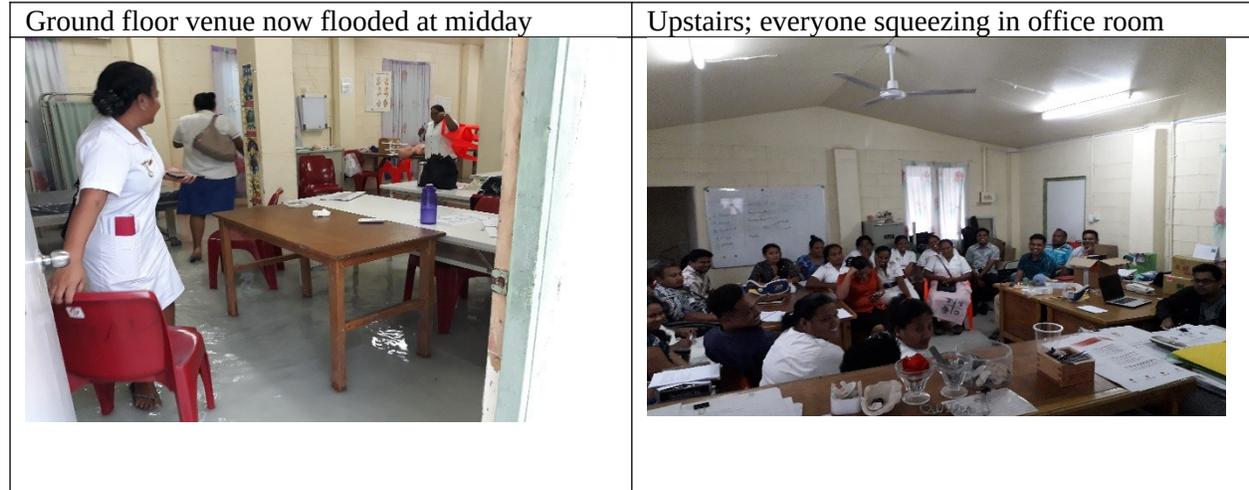


Surgical airway station



Nurse acting team leader at
practical case station

PTC group 1; Day 2



PTC group2 at Maneaba



Venue: Maneaba (open meeting hall)
No powerpoint



Nurse (Day 2, Saturday in private wear) jotting her team's Disaster management plans



Practical station



Morning lecture



More talks by external facilitators



Case scenario



Congratulations group 2; smiling with PTC certificates

Feedback by participants

Comments made by the 2 groups at the end of PTC were:

1. What they liked best:

- The majority enjoyed and learnt a lot from the scenario practice stations.
- Disaster Management was also described as best part by some
- Primary Survey was also mentioned many participants to be best part.
- Food (This is typical Pacific Islander stomach).

2. Recommendations:

- Use of manikin for demonstration
- For PTC refresher course once every 2 years
- More food
- From PTC group 2, because of open hall venue, noisy when heavy rain hence need for quiet venue with microphone. (Unfortunate that power was also out for the 2 days for the second group)
- A few commented on Question 13 in MCQ to be reconsidered as Haemothorax can lead to answers in c,d,e so more than one correct answer.
- More time needed for explanations for trauma assessment and management. (This is a reminder that as instructors we need to be mindful of the mixed audience with different capacities i.e., nurses and doctors and tailor accordingly the speed and terms used in the course delivery).

Closing of PTC

There was an informal dinner at a Chinese restaurant, arranged by KITP, as a token of appreciation of the great efforts of the external and local PTC instructors. Great job well done!!

Powerful message from this PTC training:

Be ready, PTC will press on no matter the circumstances and difficulties, whether it be flooding, lack of power, heavy rain, sudden shifts and changes in PTC venue and many more. It's the delivery of life-saving skills and message of PTC that is very important so that more and more health care workers have the basic knowledge and skills that enables them to help attend trauma cases systematically and improve health outcomes.

Kiribati PTC team is now ready for more challenging PTC trainings such as the ones experienced in this training.

Acknowledgements

- External PTC Facilitators from Fiji (FNU) for their time, facilitation and great support: Emergency Consultants; Dr Dennis Lee and Dr Arveen Maharaj.
- FNU College of Medicine, Nursing and Health Sciences, Dean Dr William May for the release of Dr Dennis and Dr Arveen to help conduct PTC in Kiribati
- Local PTC Team for the hard work and endurance
Dr Maria Mikaere
Dr Frank Mautai
Dr Jone Cakobau
Dr Tekeua Uriam
Dr Titai Naitoa
- KITP- MFAT funding support.
- KITP coordinator Odylia Teaero for ground work; paper work, preparation and organization and handling of logistics.
- Dr Georgina Phillips for her prompt response in sending e-copy of the PTC certificates
- All PTC participants for attending and their commitment to learn, without your presence, PTC training would not have happened.
- All fellow doctor colleagues (Supervisors and all doctors) and also nurses covering the service in the wards while PTC training was on.
- The food caterers for maintaining glucose and energy levels throughout the training.

- MHMS Kiribati

Report prepared by:

Dr Tekeua Uriam

Anaesthetist and KITP Supervisor

Tungaru Central Hospital

Participants

PTC1			PTC 2		
	Name	Department		Name	Department
1	Erita Beriari	Nurse PH clinic	1	Tereneti Uriam	Nurse
2	Kantaake Baewa	Nurse PH clinic	2	Richard Tekobea	Registrar ER
3	Utiraoi Temoana	Intern	3	Taomati Takai	Nurse Betio Hospital
4	Tekarube Teuaba	Nurse ER	4	Dominic Taeboa Tabanga	Nurse ER
5	Teannako Rutio	Registrar ER	5	Kaateiti Booti	Nurse ER
6	Teubwaniman Akineo	Nurse Betio Hospital	6	Taraba Matibei	Nurse Betio Hospital
7	Apinelu Faaalo	Intern	7	David Demaunga	Intern
8	Sina Apinelu	Intern	8	Daniel Tenieru Tabera	Nurse
9	Teuee Tereboo	Nurse Paying wd	9	Kiatoa Smith Dudley	Nurse ER
10	Tekeeke Tekawa	Nurse PH clinic	10	Monica Tauman	Nurse PH clinic
11	Kaakoa Timoteo	Nurse Betio Hospital	11	Tiantaake Kiatoa	Nurse
12	Miri Tebau	Nurse ER	12	Waiema Kateata	Nurse Surgical wd
13	Tabwaria Buaka	Nurse Medical wd	13	Katerine Tebwaki	Nurse
14	laakobwa	OT nurse	14	Tatiri Toma	Nurse ER
15	Tetikannari Toom	Intern	15	Kianako Bateriki	Nurse
16	Taulaga Baratio	Intern	16	Toromon lokinti	Intern
17	Teitu Roreti	Intern	17	Rere Maina	Intern
18	Teaotai Tubaea	Intern	18	Erinita Ata	Intern
19	Bwerebwere Takai	Nurse PH clinic	19	Lologalima Telefoni	Intern
20	Maeriti Tooki	Nurse ER	20	Tefatu Tipelu	Intern
21	Baraniko Eromanga	Intern	21	Kirara Martin	Intern
22	Tabutoa Eria	Intern	22	Teraiman Kabong	Intern
			23	Nanumaga Mami Lafai	Intern

3	Fatimwa	
1	Mwemwenikeaki	Registrar ER
3		
2	Tolo Nafatali	Intern