

THE *Pacific* WAY

COVID support provided by the PPTC

The PPTC continues its contribution towards the diagnosis and management of COVID-19 as the disease emerges into the Pacific region.

Blood gas instrumentation: Situation in Fiji

The hospitals in Fiji continue to experience large increases in the number of COVID-19 cases requiring respiratory support, and blood gas analysis is essential in determining appropriate management strategies for these patients as well as other critically ill patients. The PPTC acknowledging the increasing impact of the COVID-19 pandemic and the concerns of local government and health sectors in managing COVID-19 cases, made an application to the New Zealand Government for support funding, and on approval, the PPTC was able to respond to the COVID-19 outbreak in Fiji by procuring and installing essential blood gas analysers with reagent supply in the three main hospitals in Fiji.

Towards the end of 2021: Lautoka Hospital

Lautoka Hospital reported approximately 200 positive COVID-19 cases per day, of which approximately three COVID-19 positive patients were ventilated per day, with an additional 12 on oxygen support. The laboratory services at this time did not have a blood gas analyser, but unfortunately it had not been operational for over a year, and this was predominantly due to the lack of technical support offered to Lautoka to restore the instruments functionality once it became problematic.

Suva Hospital

Suva hospital operates at three times the capacity of Lautoka hospital. As with Lautoka, Suva Hospital did not have a blood gas facility in ICU. The laboratory did have an analyser but unfortunately, through poor performance, repeated breakdowns, lack of technical support and reagent shortages, blood gas testing unfortunately became unavailable.

Labasa Hospital

Blood gas analysis has not been available in this laboratory, to meet the hospitals ongoing clinical management of patients in terms of their oxygenation and ventilation needs and so Labasa became the third hospital to be considered for the essential supply of blood gas analysers.

Training on the ABL and POCT I-STAT analysers supplied to Suva and Lautoka and Labasa is now well completed, and all instrumentation is operational in each of the three hospitals. A special acknowledgement from all involved goes to Mr Navin Karan the PPTC's Microbiology and Molecular Specialist for initiating the PPTC's response to the diagnostic need in Fiji with financial support from the NZ Ministry of Foreign Affairs and Trade and also to Mr Filipo Faiga the PPTC's Biochemistry specialist who has dedicated a great deal of time and contributed his expertise in preparing the laboratories and clinical staff for blood gas analysis. He has been instrumental in organising the training sessions, setting up the analysers in Fiji across all sites and has provided his technical advice with SOP, workflow and troubleshooting to the team in Fiji.



Labasa laboratory scientist – Sunil Chand and Biomed Sonal Chand handing over the i-STATs to Dr Jocelyn Christopher.



Lautoka Laboratory scientist Roddy Narayan and clinician Dr Sovaia Garau and her colleagues attending I-STAT training via remote link.

Situation in Vanuatu

The situation in Vanuatu was similar to that in Fiji. The main laboratory at Vila Central (VCH) hospital did not have a blood gas analyser in operation. In response to this, the PPTC through support from the NZ Ministry of Foreign Affairs and Trade was able to procure, validate and install ABL analysers with three months of reagent supply to the Vila Central hospital laboratory.

Portable laboratory construction

The Pacific Community (SPC) engaged the Pacific Pathology Training Centre (PPTC) to oversee refurbishment of shipping container units, to be used as a mobile PCR laboratory in Labasa by the Fiji Ministry of Health and Medical Services (MOHMS). The modified container units have enabled the laboratory services to setup and implement real time RT-PCR testing for SARS-CoV-2 testing in the Northern Division. The PPTC worked with a New Zealand based container modification company – Boxman Containers, to refurbish and supply mobile laboratory units, ensuring that the testing laboratory was fit for

purpose. The PPTC oversaw the shipping and transportation of the container units locally within New Zealand and internationally, to Suva, Fiji. The PPTC also procured a Class II Biological safety cabinet which was certified and installed into the modified laboratory via MFAT funding. This ensured that the laboratory could start processing COVID-19 samples for testing on the GeneXpert analyser while the RT-PCR equipment was being procured by SPC (The Pacific Community) and the Fiji MOHMS.



CAN YOU HELP?

If any New Zealand medical laboratories have items of diagnostic instrumentation that have been recently upgraded or continue to be stored in the laboratory but are actually surplus to requirements, the PPTC would be most grateful if such items could be donated through its Centre to Pacific Island laboratories where there is an exceptional need. Pacific laboratories have very restricted budgets and often cannot afford to replace troublesome instrumentation that continues to breakdown, and which is often discontinued because it is so outdated.

The PPTC would also welcome teaching resources in terms of wall charts, Haematology case studies (stained blood films), projector slides, textbooks and journals (within 10 yrs. of publication) etc., for teaching purposes in the Pacific, if you no longer have a use for them. Any contribution is so valuable to us.

Please contact
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PPTC Technical Staff 2022

Requests for an increase in COVID supplies

In Nov 2021, the WHO offices in Fiji and in Kiribati were informed by the Kiribati Ministry of Health and Medical services that stocks of nasopharyngeal swabs and UTM were critically low and help was required to rectify this situation. WHO through the laboratory's Manager reached out to the PPTC for any available support to urgently increase stocks, so that the laboratory could continue to test for SARS-CoV-2. The NZ Ministry of Foreign Affairs and Trade once again approved funding to the PPTC in this emergency situation to buy the required stock and have it transported on a flight scheduled for Tarawa, organised by MFAT. In January of this year, the PPTC was instrumental in moving over 2,000 Gene Xpert Cartridges (which were in excess to Tonga's needs), to Fiji where the demand was higher, and where they could be supplied for immediate use before expiry.

General laboratory strengthening Anatomic Pathology

The PPTC through its current Grant Funding Arrangement with the NZ Ministry of Foreign Affairs and Trade was able to strengthen the division of Anatomical Pathology by purchasing and supplying MOTIC telepathology whole-slide imaging scanners to the Solomon Islands, Vanuatu, and Tonga.

