

Things have changed rapidly in PNG with such strange timing. My last post took you up to Saturday, where after the Raihu Hospital, in Aitape, has gone into Lockdown. I will run through it chronologically.

After Mass, which I had attended as the hospital is a Catholic Hospital, Dr Josephine and I were met by Medical Superintendent Dr Atha, and his partner in both senses of the word, Dr Angela. We were taken for a tour of the hospital. Dr Josephine who is a PNG trained doctor, at the same stage in her training as I am, had also put her hand up to look after the hospital. I was rapt to find out that I was not going to be tackling it all by myself. The hospital is the largest district hospital in PNG (district hospital being a step down from a provincial or state hospital) and is located about 3km inland from the main centre of Aitape town. It has 120 beds including obstetrics, paediatric, surgical, medical, tuberculosis and a couple of isolation wards. The usual team has two doctors and three other health extension officers (HEO), Faith, Beatrice and Alita. The hospital also has: a dental clinic with a dentist; a nurse run functional family planning service; an immunisation service; a lab, where a lot of the tests are performed manually by the lab techs; and there is a physiotherapy department. The outdated X-Ray has not been working for the last year, and multiple attempts to fix it have failed. I would describe the hospital as better staffed than Kompiam, but not as well equipped. Kompiam generally has more laboratory equipment, a functional X-Ray, comparatively great facilities, and more modern equipment. So, for imaging we have a portable ultrasound, and for obstetrics there is an ancient Atari-looking machine that apparently can perform ultrasounds. (I suspect that it is only good for playing pong or possibly to run DOS.) The referral centre is the provincial hospital in Vanimo, which is quicker to reach by tinny than by the bumpy road.

Aitape made world news headlines in 1998 after it was hit by a tsunami. Although the hospital is a fair distance from the coast and the main town, it was still flattened. Cement remnants from the old buildings are a reminder of the tragedy. The hospital was rebuilt with assistance from Rotary clubs throughout Australia. Good on them for the rebuilding work, but the layout of the hospital is poorly considered. The wards are in the shape of the Rotary cogwheel symbol, with multiple wards separated around the perimeter of the circle, all surrounding the epicentre of the central admin offices. The obstetric ward is the furthest from the operating theatre. ED is as far as possible from the surgical and medical wards. Thus the design lacks thought regarding an efficiently operating hospital.

In recent PNG history, Aitape was a hub in the Sepik area, more utilised than Vanimo and Wewak by the early colonial settlers. This led to significant amount of infrastructure, which although destroyed in 1998, was mostly rebuilt. It has consistent diesel generated power, on which the hospital is dependent, as the hospital emergency generator, like the X-Ray machine, has been broken for a significant period of time.

The internet in the centre of the Aitape town is fine, but when you get 3km out to the Raihu hospital, it is poor. There is a little spot out the front of the hospital where people gather to get a whisper of signal. The sun is harsh and the mosquitoes ferocious, therefore I have a limited window for internet.

After the tour and the briefing on our expected roles, the news of sweeping national travel restrictions was disseminated. News fluctuates in its circulation here, depending on when and to whom reception gets through to. There is no travel between provinces, and all flights were delayed. Thus, I can not leave, even if I wanted to, but Dr Atha and Dr Angela cannot leave either. They were scheduled to leave the

following morning. Suddenly, Josephine and I are additional staff rather than vital cogs in the wheel of Raihu. Everyone is happy with this though. Atha and Angela are happy to stay, training Josephine and I up. Josephine and I are happy to have some one-on-one practical sessions and get more of a feel for the hospital.

Each member of the team is allocated a separate part of the hospital to round on and sort out. I was allocated to the surgical ward and worked with Faith, the HEO. She has helped my ongoing orientation, both in answering questions regarding local protocols and in teaching pidgin. My pidgin is improving rapidly under her wing. Not having an X-Ray machine was a fair shock and certainly made for a challenge to manage a particular patient effectively. A lady presented with what appeared to be a supracondylar fracture (a potentially limb threatening fracture if it does not receive the proper management). The best option appeared to be potentially sending her via tinny to Vanimo. Tuesday is theatre day and I did my first tubal ligation, mostly by myself, but Atha was scrubbed and offered occasional advice. Their theatre is pretty good and has enough to get by.

Things took a dramatic turn on Wednesday. After finishing our rounds, we were packed into a Landcruiser, and drove to a district COVID meeting in town. We had minimal warning and only had the trip to prepare. The meeting was to discuss 13 new laws to restrict movement and contact, handed down by the government in the context of a recent COVID positive case confirmed in Lae. The community is to go into forced shutdown for 14 days, with churches, schools, shopping centres, liquor stores, venues, businesses and public transport to cease. Movement by foot and car is discouraged, with multiple check points enforced by police and army personal. The meeting had local politicians, business leaders, and police chiefs. I was asked to present, as on the trip to the meeting I had received sufficient signal to receive statistics from an Australian friend who was keeping me up to date. The data was confronting. Prior to this, the data I had regarding COVID was very outdated, with my understanding that it was not much worse than the common flu in regards to mortality and morbidity. This update suggested a mortality rate closer to 20%, with it expected to be more deadly in the third world context. I spoke briefly, praising the early action that the country had taken in restricting travel, although a lot still depends on individual social isolation, which is the pinnacle in effective disease limitation. The meeting had 35 people in the room, with those who spoke just reinforcing what had already been said and all put their support behind these 13 laws for social isolation. Lockdown was to initiate the next day at 5pm.

After the meeting we went straight into a district health meeting, planning the action of the hospital and extended services will take. It was decided that the hospital will be closed, and all non-essential services will be shut. All patients that can go home, will be discharged. Patients can only have one support person, no other visitors to hospital. All staff that are not required, will stay at home. Emergency cases can present, but will be triaged accordingly and potentially placed into an isolation ward. Two wards will



The blue arrow indicating Aitape, and the yellow marker indicating Lae, where the first COVID case was recorded in PNG, with Kompiam, in the middle. The data was confronting. Prior to this, the data I had regarding COVID was very outdated, with my understanding that it was not much worse than the common flu in regards to mortality and morbidity. This update suggested a mortality rate closer to 20%, with it expected to be more deadly in the third world context. I spoke briefly, praising the early action that the country had taken in restricting travel, although a lot still depends on individual social isolation, which is the pinnacle in effective disease limitation. The meeting had 35 people in the room, with those who spoke just reinforcing what had already been said and all put their support behind these 13 laws for social isolation. Lockdown was to initiate the next day at 5pm.

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be used for isolation, one for confirmed cases and one for potential/suspected cases. The outpatients/ED will run with patients outside the fence and some reviews taking place through the fence, others will be allowed inside the fence. These changes were announced to the community 24 hrs before they were to be initiated. Dr Atha, the District Head for Communicable Disease Control (CDC) and the dentist spoke. Dr Atha and the District Head of CDC gave a clear message of changes to the community and hospital. The importance of social isolation was stated repetitively, with examples of things that should not be done. The dentist gave a passionate plea regarding ways to reduce infection transmission, with most points coherent. However, his tips on drinking hot (not boiling) water and eating some specific leaf from a local tree, I doubt are based on fact.

As a hospital, there is nothing that we can do for patients with COVID. We have no test kits, limited oxygen, no functional ventilation machines and cannot even X-Ray. Our treatment plan for anyone presenting with symptoms relating to COVID, is to send them home and get them to call a hotline number. Then a specialist team will come to assist treatment and management. The problem with this strategy is that we are located in a malaria prone area and have very limited objective diagnostic tests. The staff are scared, and it is likely that patients will be sent home without proper treatment for potentially treatable infectious diseases.

Personally, I am reasonably concerned, although not panicked as of yet. The limited information I have accessed has been pretty frightening. I can now somewhat understand the rationale for sweeping social changes throughout Australia and the world. I am extremely sceptical regarding the local population's ability to adhere to social isolation. PNG people are extremely social and have limited education, and they love chewing betel nut and spitting the resultant red gunge. Mostly illiterate and without much stuff or technologies, what are they to do in isolation? They can't really sit around and play bridge. However, the government has made swift changes based on the single Lae case, therefore I am hopeful that it will be effective.

Logistically, I have rationed food for 28 days, rather than for the 14 days, as I am expecting an elongation of the lockdown period. The food I have is mainly carb based, with plenty of bread and rice. My access to fresh food will likely cease entirely. The supermarkets only really stock the local staples, which are dry crackers, tinned fish and rice, so my range is narrow. I have some milk powder and beans for protein but am lacking in vitamins. I am hopeful for some drop of fresh fruit and/or vegetables, but I think that is unlikely. Maybe I will get scurvy, which is such a shame as I had been working so hard on my gums. I also have water, supplied by a big tank which has a header on the roof. Electricity will continue for as long as the Aitape diesel generators run. Internet and phone service are also reliant on constant refilling of diesel generators, so this has the potential to run out. I have personally started to take precautions as per advice from Australian mates, with a hand wash station (bleach diluted in water) on arrival to the house. Everything I take outside the house stays next to the front door. Despite being in a malaria area, I had decided not to take doxy prophylaxis. However, since I am going to be in isolation anyway, why not. It would be a shame to think I have COVID when actually I have Malaria.

So, within 24hrs of arriving in Aitape, I could not depart. Within 48hrs I had completed my first surgery. Within 72hrs I was asked to proffer advice on something that I am definitely not qualified for. Who knows what the next 350 hrs will hold.

If you are joining with me in prayer, please pray for all medical staff in third world countries. The problems they face with managing resources, travel restrictions and widespread fear are large. I imagine health staff are abandoning their workplaces due to panic. Pray that Raihu will continue to faithfully

treat patients, not excluding interventions through fear, and that we all remain safe. Pray that the PNG people adhere to social isolation. Please pray that a figurative viral tidal wave does not hit Aitape.