Principles in Practice

– Typhoon Haiyan Medical Relief Mission

Text and photos by Dr Tan Chi Chiu

A disaster unfolds

Typhoon Haiyan struck the Philippines on 8 November last year. With winds exceeding 300 kilometres per hour and a storm surge that mimicked a tsunami, swathes of territory were devastated with the loss of 7,000 lives and displacement of two million people. As the disaster unfolded, international media homed in on the island of Leyte and its provincial capital Tacloban, which was the worst-hit city. International teams from non-governmental organisations (NGOs) therefore converged on Tacloban and nearby Ormoc City to join local humanitarian efforts. Early teams on the ground were from Medecins Sans Frontieres (MSF), International Committee of the Red Cross (ICRC), World Health Organization (WHO), United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA), and United Nations High Commissioner for Refugees (UNHCR). Singapore teams from Mercy Relief, Singapore Red Cross Society, CityCare, Anglican Crisis Relief Outreach and Support (ACROSS) and many others joined the efforts, working in Leyte, Cebu and Iloilo islands.

Responding to unmet needs

Some two weeks into the disaster, it became evident that there remained areas that had not yet received sufficient aid. Intelligence from our network of contacts in Singapore and Philippines suggested that another medical team would be welcome in East Samar, an area massively destroyed during Typhoon Haiyan's first landfall, but hitherto relatively overlooked due to geography and lack of international news coverage. I assembled a nine-member medical team, drawn from a network of private sector doctors, nurses and support staff experienced in field disaster medical relief operations. The team consisted of an orthopaedic surgeon, a general surgeon, an anaesthesiologist, a paediatrician, a gastroenterologist, a family physician, two senior nurses trained in midwifery, intensive care and surgical care, and a logistics officer. This eight-day expedition was privately funded and also received support from pharmaceutical companies.

Building partnerships, establishing logistics support

Our local partners comprised a coalition of experienced humanitarian teams from Manila, which represented the corporate social responsibility arms of several large companies. We determined our deployment with up-to-date information provided by these representatives in the field. They also formed the logistics support team, which travelled 30 hours on land by truck and pickup, and across the sea by ferry, laden with medical supplies, generators, food and other items, from Manila to Borongan, the capital of East Samar, where we would rendezvous with them, after flying in from Cebu City to Tacloban and journeying a further six hours by land.

Upon arrival in Borongan, we immediately met with the WHO coordinator for relief work in East Samar, the provincial health officer (PHO) and the chief surgeon of East Samar Provincial Hospital (ESPH). The medical work of local healthcare staff, WHO, UNHCR, UNICEF, ICRC, MSF and other international NGOs was being coordinated at the hospital's operations centre.

Deployment plans

ESPH, a 100-bed facility with two operating theatres, had a daily average of 70 to 80 inpatients. Some patients were from Tacloban as all the hospitals there had been damaged. The ESPH staff themselves had suffered personal losses, and after more than two weeks of unremitting work, were completely drained. We were asked to help in two areas:

Typhoon Haiyan wreaked utter devastation in Hernani

1. Reinforcing the surgical and anaesthesiology capability of the hospital, where there were orthopaedic and surgical cases yet to be treated; and
2. Reinforcing a medical clinic in Hernani (located 40 kilometres south of Borongan, and destroyed during the second landfall of Haiyan), where a single local doctor was utterly swamped.

Tongue in cheek, but with some degree of seriousness, the PHO said, "We are exhausted. You are welcome to take over this hospital!" All the interventions by our team were backed by the medical supplies we brought there, as ESPH was in short supply of everything. Unfortunately, we didn't bring any orthopaedic appliances and there were none available anywhere else in the region, so all the orthopaedic patients were managed conservatively.

Hospital-based surgical and medical relief work

The surgical team performed four life-saving surgeries in ESPH, all appendicitis cases that did not have a reasonable prospect of being operated on a timely basis. One was a very ill nine-year-old boy who had acute appendicitis with perforation. His family did not have the money to pay for surgical expendables, antibiotics, dressings, and the like, so he was originally supposed to be transferred on a humanitarian flight to Manila, but he would not have survived another day. The surgical team carried out an emergency operation on him at ESPH. After the operation concluded, our general surgeon Dr Chang Wei Yee reported, "As his peritoneal cavity was pierced, a fountain of pus erupted!" The gratitude expressed by his parents was overwhelming. Other surgeries were less urgent but were still performed as part of our function to bridge this hospital towards normal capacity.

Our team did daily ward rounds in ESPH and identified a number of very sick patients, including babies with bronchiolitis and secondary pneumonias or dehydrated from gastroenteritis. Of the adults, we treated wounds, post-partum haemorrhage, intestinal obstructions, accidental poisonings and chest infections.

Our material support for the hospital's work included buying diesel for the generators, which were officially funded to run only at night. Hence, our team had to procure the fuel to run the theatres in order to conduct surgeries during the day. Subsequent to this intervention, and after strong advocacy by the team leader of our local partners from Manila, the local authorities finally responded by allocating more diesel to the hospital for daytime use.

Field deployments

While our surgical team worked in ESPH, the rest of our

Singapore surgeons performing an emergency appendectomy in ESPH

team proceeded to Hernani to set up a field clinic there. As we drove southwards from Borongan, we could imagine what a beautiful stretch of coast this once was. It was disquieting to see stumps of mangroves, standing in the water, stripped bare; stands of coconut trees with fronds frozen in one direction; and increasing destruction of homes and communities as we headed south. Even the dead were not left in peace as the tidal surge had damaged many graves, exhumed remains and left skulls lying around. It was a macabre and sombre sight.

In Hernani, the medical team established contact with the municipal health officer as well as the mayor. They were seeing the expected post disaster problems such as wounds, pneumonias, respiratory tract infections and diarrhoea. Post-traumatic stress disorder counselling was badly needed, but we were unable to fulfill this need.

The existing clinic, which treated up to 80 patients a day, was operating out of a ruined and leaking town hall. We helped out at the medical clinic so that the local doctor could mount mobile outreach missions to various *barangays* (small administrative divisions in the Philippines). The mayor allowed us to move the clinic to a school that was less damaged, but sadly it was also where many children had drowned during the sea surge.

We were supported in our field medical work by the 14th Battalion of the Philippine Armed Forces, based in Borangan. Their commander assigned four armed soldiers and a two-tonne truck to us for the entire time we were there. It was also through military intelligence that we established that we could later return to Tacloban using the less mountainous southern route.

Our field clinics at Hernani and San Miguel saw between 80 and 140 patients a day. There were also patients in serious conditions such as possible acute appendicitis, acute asthmatic attack, acute gastroenteritis with dehydration and bronchitis. One boy had a deep 12-centimetre laceration on his right leg. His wounds were treated on a table, under local anaesthesia. Although the boy had to be held down by our soldier volunteers during the procedure, he was all smiles afterwards!

We were assigned one special task by WHO via UNHCR. As there were many displaced families with serious medical problems in St Miguel *barangay* in the Hernani municipality, WHO and the PHO requested that we find and help this community, which we did by setting up a satellite clinic in the local health post.

Other international medical teams were mostly concentrated at Guiuan, the southernmost part of East Samar, which was the site of Typhoon Haiyan's first landfall. MSF was going northwards as we were moving southwards. Our coordination ensured that one of their teams would take over the support of the Hernani area.

Team maintenance

During our nine days there, the team set up camp in a building in the middle of a paddy field in Maydolong, about midway between Borongan and Hernani, an ideal base from which to launch our work. We did not have electricity; water came from a standpipe that functioned only a few hours a day (which we had to filter and chlorinate before consumption); there was neither mobile signal nor Internet connection. We slept on camping mats and sleeping bags under solar-powered lamps until a generator was brought in, and our local partners set up a field kitchen outside the house. Nightly team meetings provided opportunities for team building and planning.

A sense of hope

We saw encouraging signs everywhere. Residents and volunteers from other provinces pulled together to rebuild houses. Businesses were resuming operations and some schools had already reopened. Despite the atmosphere of despair, there was also joy on the faces of children and adults whom we came into contact with, our presence providing some comfort. Incongruously, there were decorated Christmas trees standing in the open next to destroyed wooden homes – a sign of hope and resilience of the human spirit. People wanted to show that they were cowed but not broken, that they still had life to live and Christmas to celebrate.

Practice points

- Despite ground intelligence, we could not be assured that we would do hospital work. However, it is easier to get specialists to work as generalists than the reverse. Volunteers need to be open to doing whatever is required of them, even if it means never employing their specialist skills.
- Before launching a relief team, it is important to ensure a low risk of redundancy. Up to 36 hours before we left for Manila, despite frantic preparations, I was prepared to stand down the team if adequate information was unavailable, rather than embark on a token mission. We had to be sure we were welcome and could be useful there.
- It is crucial to establish partnerships with local organisations. "Lone ranger" expeditions risk being directionless and of little value. Worse, they may stray into dangerous situations with unfortunate consequences. Local partners are invaluable for providing teams with guidance. Apart from our Manila partners, our serendipitous relationship with the local military detachment, which adopted us, was a huge bonus as well.
- Coordination within the system is important to maximise the benefits of a team. Through WHO and the PHO, we were able to exchange information and establish both place and purpose. We helped to create an evacuation chain involving our clinics in Hernani, which culminated in ESPH.
- Logistics is the key to success. Our partners purchased medical supplies from Manila on our behalf. This was cheaper than what we could get from Singapore and also easier to transport to where we needed them. We bought additional surgical supplies from Cebu to add to the inventory. A dedicated logistics team freed our doctors and nurses from worrying about stores and maintenance, so as to concentrate fully on medical work.
- Despite difficulties in the field, it is crucial to maintain the team in the best condition possible for high morale, good health and work efficiency. Besides organising the best material comforts and food given the circumstances, regular meetings are invaluable for team members to share their experiences, ventilate concerns, provide mutual support and enhance camaraderie.
- As guests in a foreign country, it is always difficult to exercise advocacy as we are not familiar with the local social and political sensitivities. It is also not our place to speak up loudly or "bang on tables". As part of exercising diplomacy, it should be left to local partners to advocate for patients, sometimes vehemently, such as when our partners pressed (they say shamed) local authorities to provide diesel to power hospital generators in the daytime for us to work. Another instance was when our local partners liaised with hospital administrators to ensure that there would be low risk of systemic pilfering of supplies left behind for the use of indigent patients.
- Professionalism cannot be compromised. While adaptation to rudimentary facilities is necessary, an acceptable quality of care is mandatory. The equipment that independent civilian medical teams can bring with them is at present very limited, and this is an area for further development.
- I envisage that in the future, medical teams will be well practiced in the use of mobile surgical facilities, which have been procured and made ready for use in overseas disasters. I also foresee a formal network of doctors, nurses and ancillary volunteers who will learn how to function in disasters together and prepare to be activated for overseas deployment, independently or in support of other disaster relief agencies. ■

Community clinic in San Miguel *barangay*, Hernani

Typhoon Haiyan – Singapore medical team

Team leader

Dr Tan Chi Chiu *(gastroenterologist)*

Team members

Dr Chang Wei Chun Eddie *(orthopaedic surgeon)*
Dr Lo Wai Kit *(anaesthesiologist)*
Dr Chang Wei Yee *(general surgeon)*
Dr Ong Yong Kwang Gene *(paediatrician)*
Dr Adam Patrick *(family physician/GP)*
Ms Antoinette Sabapathy *(senior nurse, midwifery)*
Ms Darlene Husain *(senior nurse, intensive care)*
Mr Jonathan Chang *(logistics officer)*

Dr Tan Chi Chiu is a gastroenterologist and Chairman of Endoscopy & Member of Gleneagles Hospital's Internal Medicine Medical Advisory Board. He is an elected Member and Chairman of Medical Ethics in the Singapore Medical Council, and Chairman of the Lien Centre for Social Innovation in Singapore Management University. He is a Columbia-certified executive and organisational coach. He has also been involved in international disaster relief work for over 20 years.