Medical and Evacuation Procedures for South Africa 2020

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1. Introduction

Medical screening

As with all expeditions careful planning is essential to ensure that all individuals enjoy a safe successful trip. Some members of the expedition team (including all volunteers and staff) may have significant pre-existing health problems or disabilities, which in the field, could potentially lead to problems.

Medical questionnaire

All participants are required to complete a medical questionnaire prior to their departure. These details are collected prior to the expedition through the Opwall portal (http://portal.opwall.com) and are sent to both medics and our insurers so we're able to discuss any implications to the site medical kit or the individual's itinerary.

PADI

All those who are undertaking a marine element during the expedition will be required to complete a PADI (Professional Association of Dive Instructors) medical questionnaire according to the rules and regulations set out by PADI. All volunteers are required to get their GP to sign the declaration on the reverse of the PADI form if they have answered yes to any of the questions. The forms are returned to the administrator at the UK, US or Canadian office.

Screening

All medical details are assessed and discussed at a pre-expedition medical meeting. The team of medics will discuss any potential medical issues, advise anyone if a further consultation with a medic is required and will also suggest additions to the medical kits in light of any pre-existing health problems highlighted. The details are distributed to camp managers and taken out to site.

All staff and volunteers are covered by insurance purchased by Operation Wallacea which includes medical costs and repatriation of £1million. Operation Wallacea staff have determine evacuation routes from each site including overland and by air, the western standard hospitals that will be used and the costs so that if evacuation is required there is no delay in the insurance company approving the evacuation and medical costs.

Roles in the event of an emergency

Carefully planned evacuation protocols are in place in all the sites in South Africa. All staff will have training on the evacuation procedures and protocols.

Because of the high variability of influential factors such as weather conditions and nature of potential injuries, a number of different evacuation scenarios must be prepared for prior to the season. All staff are fully briefed in these scenarios, and this report describes the most commonly used and available evacuation options.

It is the responsibility of the Medical Officer at the relevant site to determine if an emergency scenario exists and to ensure the patient is stabilised ready for evacuation. The Medical Officer on site with the casualty

will decide the level of emergency evacuation required for the patient in consultation by phone with doctors from the target hospital. These should be classified as Medium Priority, High Priority or Emergency.

Medium Priority

Cases in which the patient is in no immediate danger but the onsite facilities and local facilities are unable to cope were their condition to deteriorate or where the condition cannot be assessed on site. This requires the patient to be moved as quickly as possible without the need to hire special vehicles to the nearest appropriate suitable local facilities.

High Priority

Cases where the patient's health is at risk if immediate action is not taken. An example of this is a broken bone. This requires the patient to be moved as quickly as possible by ambulance to the nearest appropriate suitable local facilities.

Emergency

Cases where the patient's life is at risk if immediate action is not taken. An example of this is a snakebite. This requires the fastest possible transfer by vehicle or air to a western standard hospital.

The Incident Coordinator at each of the sites is also responsible for ensuring that all relevant staff are aware of the ongoing emergency and follow up actions. All staff involved in the major accident or emergency procedure should keep detailed notes of times, actions taken, contacts made, costs incurred etc. After the incident has been closed it is the responsibility of the Incident Coordinator to compile a detailed report and submit this to the Opwall office.

2. Medical facilities in country

This information has been checked prior to the 2020 season by senior Operation Wallacea staff.

Netcare 911 (International Assistance Division)

Netcare 911 is responsible for all air ambulance and emergency evacuations from the various sites, within South Africa. They will arrange prior approvals with the Op Wall Office in order to avoid any delays in the event of an emergency. They have already been provided with comprehensive details of the Operation Wallacea / WEI expeditions including dates, volunteer numbers, site locations, potential threats and expected types of incidences as well as identified medical care facilities and hospitals in the various regions. Netcare 911 has two fixed wing jets (Hawker Siddely 700 and Citation S2) which they use in combination with 2 helicopters based in Johannesburg (BO 105 Twin Engine) and Durban (350 Squirrel) to provide the required air ambulance service to the nearest hospital. Netcare 911 also has access to The Red Cross helicopters based in Nelspruit and Richards Bay if needed. Netcare 911 has an extensive range of over 150 ambulance vehicles around the country.

The Aero Medical Flight Desk will coordinate all medical emergencies including incidences where road ambulances are required for Operation Wallacea / WEI expeditions.

Aero Medical Flight Desk Manager: Richard Mulder (Helicopter)
(Richard.mulder@netcare.co.za)
Emergency Call Reporting (Direct) 010 209 8392
Alternative Emergency Call Reporting 082 911

Facilities for Sodwana Bay Incidents

Netcare The Bay Hospital, Kruger Rand Road, CBD, Richards Bay 3900

Tel: 035 780 6111; Emergency or Casualty Service +27 35 780 6202
Facilities include helipad, operating theatres, X-ray, intensive care unit, laboratories and a 24-hour accident and emergency unit, snake anti-venom. The Casualty Manager will be our main contact at the hospital and will ensure all other relevant staff are informed in advance of the expedition season.
Casualty Manager: Delia Schultze Office tel: (035) 780 6334
Email: tber@thebay.netcare.co.za

Mseleni Hospital

Tel: 035 574 1004
This is a government run hospital that primarily deals with the rural community near Sodwana Bay. With a 24-hour emergency and outpatient facility, it's rarely used except in very rare circumstances where it's deemed necessary to use it instead of the facilities in Richard's Bay, due to its closer location to the Sodwana site.

Pongola Hospital, 82 Hansdon Street, Pongola, 3170

Tel: 034 413 1372
Main Contact: Trudie Theron 082 945 7903
Additional Doctors: Dr Du Plessis 034 524 9209; Dr Germishuys 034 413 2135
This high quality private hospital is capable of treating most incidents. They have a trauma unit, casualty, high care unit, along with X ray machines, snake- and scorpion anti-venom. If intensive care is needed the patient would be stabilised and then flown down to Richard Bay or Durban depending on the nature of care required. Pongola Ambulance and Emergency Service Tel: 034 413 1323. Emergency number for ambulance: 10177

Facilities for Balule incidents

Tzaneen Mediclinic, Wolkberg Avenue R71, Tzaneen, 0850

Tel +27 15 306 8500;
Email hospmngrtzane@mediclinic.co.za,
24 Hour Emergency Centre+27 15 306 8526

This hospital has a 24-hr emergency centre, an intensive high care unit, CT scanner, Radiology unit and renal dialysis. Tzaneen Mediclinic is 109km (1hrs 15mins) from Hoedspruit, it may take up to an hour to get from the Expedition Camp Site to Hoedspruit so in total it will take you approximately 2hrs 30min to arrive at the Mediclinic

Military Hospital

Airforce Base Hoedspruit,
Military Base Health Center,

Troupant Weg, Drakensig,
Hoedspruit
Tel: 015 799 2065

This hospital is significantly closer to the Reserve but civilians will only be received for emergencies.

Facilities for Dinokeng incidents

Netcare Montana Hospital, Montana Park, Pretoria, 0159

Tel: +27 (12) 523 3000

This high quality 212-bed private hospital has ambulance services, a 24-hour emergency centre and a general intensive care unit, cardio ICU, operating theatres, along with X ray machines, snake- and scorpion anti-venom.

Hospital General Manager: Daan Slabbert
Tel: (012) 523 3000
Email: daan.slabbert@netcare.co.za
MD available 24/7 in Trauma Unit

Facilities for Gondwana incidents

Life Bay View Hospital Mossel Bay, Alhof Dr, Mossel Bay, 6506

Tel +27 (44) 691 3718
Email: Susan.Oosthuizen@lifehealthcare.co.za

This is a well-equipped 108 private hospital less than 30 min from the reserve gate (note position on reserve greatly affects travel time). The hospital has a Doctor on 24 hour duty at the emergency or casualty unit. They have all modern medical facilities and are capable of treating all venom related incidences. The main contact number has direct access to all wards including emergency unit and ambulances.

Facilities for Masebe Incidents

Mediclinic Lephalale, Cnr Douwater & Joe Slovo Str Onverwacht, Lephalale, 0557

Tel +27 14 762 0400
Email: dalene.devilliers@mediclinic.co.za
Emergency Number: +27 14 763 0408

This hospital is part of a chain of high-quality private hospitals throughout South Africa. It has a 24-hr emergency centre as well as providing a broad spectrum of medical services including well-equipped operating theatres, testing laboratories, and pathology and radiology departments.

Recompression facilities for all marine sites

St Augustines Hyperbaric Medicine Centre - part of Netcare St Augustines Hospital

4 Cato Rd, Berea,
Durban, 4001,
South Africa
Tel:+27312685255

This hyperbaric chamber is used by all the dive organisations north of Richards Bay and up into Mozambique.

3. Medical cover at each site

There are five sites that are being run in the 2020 season in South Africa:

- School Groups in Balule
- School Groups in Masebe
- Dissertation Students, Research Assistants and School Groups in Dinokeng
- Research Assistants in Gondwana
- Research Assistants and School Groups in Sodwana Bay

Balule

The Balule site is 2hrs 30mins from excellent medical facilities in Tzaneen (Tzaneen Medi-Clinic). However, there are also First Aid facilities at the camp and all the guides have First Aid training as part of their FGASA qualifications. The Hoedspruit Military and Airforce Hospital which is about 1hr from the camp is used for all serious and life-threatening emergencies. There is a designated area that can double as a helicopter landing pad for the worst-case scenarios.

Dinokeng

The Dinokeng site is around 40 minutes from Netcare Montana Hospital in Pretoria North. This hospital has excellent medical care facilities to cover any emergency or trauma. The Field Guides used at Dinokeng all have First Aid certification as part of their guiding qualifications.

Gondwana

All Field Guides have at least EFR and level one medical certification. A med kit is available at all lodges on the reserve, including our base camp, along with a med kit accompanying any of our vehicles. Life Bay View hospital is less than 30 minutes from the gate of the reserve. Life Bay View is capable of dealing with all incidents. There is a trauma Doctor at the hospital 24 hours for emergency. There is also a GP available for less urgent medical consultations.

Masebe

The Masebe site is around 1 hour from the Mediclinic in Lephalale. This hospital has excellent medical care facilities to cover any emergency or trauma, or more minor ailment. The Field Guides used at Dinokeng all have First Aid certification as part of their guiding qualifications.

Sodwana Bay

All the Dive Instructors at Sodwana Bay lodge have First Aid training as part of their PADI qualifications. Sodwana Bay is also 40 minutes from the Government-Run Mseleni Hospital, and 3 hours from the better equipped Richard's Bay hospital. During certain busy periods Operation Wallacea also employs someone specifically as a site medic, who has a medical background (e.g doctor, paramedic, nurse)

All sites

For all sites an air ambulance evacuation operated by Netcare 911 and funded by the Opwall insurance policy is in position, so that response times to the hospitals can be even quicker. Air ambulances will be used in all cases where there is a potential spinal injury and in cases where there is a potential threat to life, loss of limb or eyesight and the travel time to meet the patient with ambulance facilities will be faster than transfers overland.

At camps where the First Aiders are providing the initial medical cover, a male and female Medical Officer will be identified as the main contact for the students to discuss any medical issues. These staff will be provided with the medical details completed by all volunteers and staff on site under their care and the forms will be forwarded by these staff to the next location for anyone moving to the marine site or between bush camps. Any care beyond First Aid at sites where there is not a qualified medic will require the patient to be transferred to hospital so that they have the highest medical care possible.

At each site and for each group going into the field from those sites, the contents of the First Aid kits have been prescribed by a UK based doctor with extensive expedition medicine experience to account for the level of First Aid care available and the distance to hospital to access high quality medical facilities.

All field guides accompanying our volunteers hold (at least) a Level 1 First Aid qualification which covers the following:

Wilderness First Aid and Basic Life Support Intervention - Level 1 Course Content (as per Department of Labour)

- Principles of First Aid and Safety/Emergency Scene Management
- Artificial Respiration
- One-Rescuer CPR
- Choking
- Wounds and Bleeding
- Shock, Unconsciousness and Fainting
- Fractures
- Burns
- Head and Spinal Injuries

Minor Medical Issues

All sites have small local doctors clinics that are used for minor medical issues where evacuation to a hospital is not deemed necessary (for example for minor sicknesses or injury). Utilization of these clinics is determined on a case by case basis, dependent on the severity of the issue and the availability of appointments.

4. Evacuation procedures

It is the responsibility of the Medical Officer at the relevant site to determine if an emergency scenario exists and to ensure the patient is stabilised ready for evacuation. Once a major incident or emergency at any of the South African sites is identified the South Africa Emergency Co-ordinator, Johan Scholtz, must be notified. Johan Scholtz will be in telephone contact 24/7 throughout the expedition period, either in the field or in WEI headquarters in Cape Town. He will then take overall control as Incident Coordinator. The Medical Officer on site with the casualty will decide the level of emergency evacuation required for the patient in consultation by phone with doctors from the target hospital. These should be classified as Emergency (requiring the fastest possible transfer by air to hospital facilities in Richards Bay, Hoedspruit or Pretoria), High Priority (requiring the patient to be moved at the fastest speed possible by to hospital facilities in Richards Bay, Hoedspruit or Pretoria) or Medium Priority (requiring the patient to be moved as quickly as possible without the need to hire special vehicles to the nearest appropriate medical facilities).

In all Emergency or High Priority cases where a patient is being transferred to medical facilities they should be accompanied by the relevant Medical Officer or someone appointed by the Medical Officer as fit to accompany the patients. The absence of the Medical Officer from the site whilst the patient is accompanied to the hospital will require the temporary appointment of another Medical Officer at the site (most sites have multiple Field Guides, Camp Managers or Safety Rangers with the required First Aid qualifications) or if this is not possible the suspension of all high risk activities at the site until the Medical Officer is back on site. In the case of a Medium Priority evacuation (e.g. transfer to a hospital for a confirmatory X-ray) another staff member other than the Medical Officer may be nominated to accompany the patient.

All staff involved in the major accident or emergency procedure should keep detailed notes of times, actions taken, contacts made, costs incurred etc. After the incident has been closed it is the responsibility of the Incident Coordinator to compile a detailed report and submit this to the Opwall office for process.

Balule

For all levels of emergency except spinal injuries at Balule the patient would be evacuated to the hospital in Tzaneen or the Hoedspruit military hospital by vehicle from the site. For spinal injuries an air ambulance would be called.

Dinokeng

For all levels of incidents except spinal injuries, the patient would be driven overland to the Netcare Montana Hospital in Pretoria. In emergency cases the air ambulance would be despatched from the Netcare Montana Hospital to meet the patient part way. In spinal injury cases the air ambulance would fly to the Dinokeng reserve.

Gondwana

For all levels of incidents patients would be driven to Life Bay View Hospital in Mossel Bay. In emergency cases or spinal injuries, patients can be airlifted though the nearest helicopter is located in Port Elizabeth. When transporting a patient, the driver should note their relative location on the reserve as there are multiple entrances and exits.

Masebe

For all levels of emergency except spinal injuries at Masebe the patient would be evacuated to the Mediclinic in Lephalale by vehicle from the site. For spinal injuries an air ambulance would be called.

Sodwana Bay

For all levels of incident except spinal injuries the patient would be driven to the hospital in Richards Bay or the hospital in Mseleni. In cases of potential spinal injury the patient would be taken to hospital by air ambulance from the dive centre or lodge in Sodwana Bay.

6. Reporting and Logging

During evacuations it is crucial that a log is kept on site by the Medical Officer and by the Emergency Coordinator detailing times, personnel involved and all relevant details of each step of the evacuation process.

All medium priority evacuations must be logged by the Medical Officer and included in the post-season report. For high priority and emergency evacuations the Medical Officer and Emergency Coordinator and any other staff involved in the incident must make a report immediately following the incident. A full safety assessment must be carried out after all evacuations and if a similar incident is likely all activities must be stopped until the situation has been rectified.

The Emergency Coordinator will collate the reports of all high priority and emergency evacuations and will submit the final report to the UK office. The Emergency Coordinator will also submit the costs and report to the insurance company for re-imbursement of costs.

7. Mass Evacuations and Disaster Management

There is the possibility, albeit incredibly small, that a large scale incident could occur which would require a large number of Operation Wallacea volunteers and staff being repatriated. Such incidents could include political unrest, natural disaster and terrorist attacks. These incidents can be broken into two types, those with prior warning and those without.

Major Incident With Prior Warning

Some major incidents come with a degree of prior warning. A good example of this is political unrest resulting in violence, which would have a build up period. We constantly monitor the political situation of the area we work in and if our experienced field operatives decide that the political situation has become unsafe they would order a full evacuation.

In such an incident the Emergency Coordinator would liaise with the insurance company and relevant embassies to agree the best route for repatriation.

Major Incident With No Prior Warning

Some incidents, such as a terrorist attack or natural disaster, would have no prior warning. In cases such as these the field staff would get all volunteers and staff to a place they deemed safe by which ever means they decide best. From here the Emergency Coordinator would contact the volunteers' embassies to coordinate an evacuation strategy. The details of such an evacuation would vary dramatically depending on the situation and as such it is impossible to produce more detailed procedures than this.