Medical and evacuation procedures -
Mexico 2013
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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 volunteers and staff) may have significant pre-existing health problems or disabilities, which in the field, could potentially lead to problems. All participants are required to complete a medical questionnaire prior to departure. All those participants who are diving during the expedition are also required to complete a PADI medical questionnaire. On these forms all those who have answered yes to any of the questions are required to get their GP to sign the declaration on the reverse of the form.

The forms are returned to the administrator at the UK, US or Canadian office. These medical forms are then checked by the Operation Wallacea appointed Expedition Medic to check for any conditions that may cause problems on the expedition and to suggest additions to the medical kits in light of any pre-existing health problems highlighted.

Operation Wallacea has purchased medical and evacuation insurance cover for all volunteers and staff to a value of £1 million per person.

Roles in the event of an Emergency
Carefully planned evacuation protocols are in place in all of the sites in Mexico. All staff will have training on the evacuation procedures and protocols.

Once a major incident leading to an evacuation is identified the Country Manager will take overall control and will decide the level of emergency evacuation required for the patient. These are classified as either: Medium Priority, High Priority or Emergency.

Medium Priority – Cases in which the patient is in no immediate danger but the onsite facilities are unable to cope were their condition to deteriorate. An example of this would be dehydration due to sickness. This requires the patient to be moved as quickly as possible without the need to hire special vehicles or boats to the nearest appropriate suitable facilities in Xpujil, Chetumal or Playa de Carmen.

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 transportation, via specially arranged vehicles to medical facilities available in Xpujil, Chetumal or Playa del Carmen in the case of decompression sickness.

Emergency Priority – Cases requiring the fastest possible transfer, usually by air to Rivera Mayan in Playa del Carmen.

In the case of an Evacuation, the Country Manager will be responsible for contacting the insurance company.

2. Medical Facilities in Country

Camps

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There are medical officers (doctors, nurses, paramedics) at each of the field camps being operated (KM20, Zona Archaeologica, Hormiguero, and Mancolona camps in Calakmul). Each of these medical officers has a medical kit designed to treat the commoner conditions and to stabilise the patient in the event of a more serious case where evacuation is needed. Centro Ecologico Akumal in Akumal has an On Call Doctor and clinic available.

**Anti-Venom**

Anti-venom specific to the vipers and tropical rattle snake are available in hospitals in Chetumal and Playa del Carmen. Chetumal is a maximum of a 3-hour drive from the forest survey sites in Calakmul and Playa del Carmen is a 30 minute drive from the marine site in Akumal. As it is always advisable to administer anti-venom in hospital surroundings due to the risk of anaphylactic shock, and patients have up to 4-6 hours following a snake before requiring treatment, anti-venom will not be stored on site because patients can be evacuated to a hospital within 3 hours of being bitten. Checks will be made with each hospital prior to the start of the expedition to ensure that they have sufficient stock of the anti-venoms.

**Facilities in Chetumal: Suitable for medium, high and emergency priority evacuations from the forest camps in Calakmul Biosphere Reserve**

Clinica Carranza  
Address: Avenida Venustianjo Cattanza #366, Chetumal, Quintana Roo, Mexico  
Tel: +52 983 835 1440, Fax: +52 983 50440 ext. 214  
Email: info@clinicacarranza.com, Website: www.clinicacarranza.com  
Clinica Carranza is a large (100+ beds) private hospital which has been offering the highest quality medical care in Chetumal for the last 18 years. The hospital has a separate accident and emergency building that is fully equipped to deal with all kinds of emergencies, state of the art diagnostic equipment, including MRI scanners, ultrasound and X-ray, a separate pharmacy, laboratory for clinical analysis, several operating theatres, and very highly trained bilingual doctors.

**Facilities in Xpujil: Suitable for medium, high and emergency priority evacuations from the forest camps in Calakmul Biosphere Reserve**

Hospital de Xpujil  
Calle Silvituc entre Becan y Balankan, Xpujil, Quintana Roo, Mexico  
Tel: +52 982 87 1 61 00  
Hospital de Xpujil is modern, moderately sized hospital equipped do deal with the majority of incidents. The hospital facilities include diagnostic equipment, ultrasound and X-ray, a separate pharmacy and laboratory for clinical analysis. Ambulance available for transfers to Chetumal.

**Facilities in Playa del Carmen: Suitable for medium, high and emergency priority evacuations**

Hospiten Riviera Maya  
Address: Colonia Balamcanché, Lote 1, MZA.30, Carr. Federal, Playacar Fase II en Playa del Carmen  
C.P. 77710, Quintana Roo, Mexico.  
Tel: +52 984 803 1002, Fax: +52 984 803 1606  
Email: Rivieramaya@hospiten.com, Website: www.hospiten.es  
Hospiten is a small (20 beds), but very well equipped Spanish hospital group offering a full medical surface to Western European standards. The hospital contains a trauma department, state-of-the-art equipment, European-trained bilingual doctors, operating

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rooms, a full stock of medicines, and is suitable for all kinds of diagnosis, treatment and emergency care.

**Recompression Chambers**
Playa del Carmen International Clinic
SSS Recompression Chamber Network
Address: Avenida 10, esq 28 Nte, Playa del Carmen, Centro, C.P. 77710, Quintana Roo, Mexico
Tel: 984 873 1365
This clinic is on call 24 hours a day, 7 days a week. The recompression chambers are run by two qualified doctors and the clinic can also provide emergency medical care, including diagnosis, X-ray, life support and surgery.

**Helicopter Support for evacuations**
201st Squadron Mexican Air Force Base in Cozumel
Address: Aeropuerto Internacional de Cozumel, Quintana Roo, Mexico
Tel: (emergency only) 24 Hours a day
Principal Contact & Position: General Eduardo Aldasoro Suarez Tel: 0052 987 872 6452
A helicopter can be at any of the Calakmul survey sites within 90 minutes of the call. As the hospital in Playa del Carmen is only a 25 minute drive from Akumal along the very well maintained highway, evacuation for severe injuries from the marine site in Akumal will most likely be managed by ambulance from Hospiten Riviera Maya.

Coordinates of each of the forest camps is provided in advance with the UTM, Lat/Long and Degree Minutes Seconds coordinates. Evacuation can be by landing (> 30 X 30 m2) or via a winch hole (>15 X 15m2). On-board medical facilities include life support to stabilize the patient en-route to hospital. Short description of patient injury is necessary prior to departure. Note this option can only be used for incidents which are life threatening or may result in loss of limbs or eyesight. The helicopter will take the patient directly to the Hospiten Hospital in Playa del Carmen.

3. Communications

**Forest comms**
Zona Archaeologica base camp in Calakmul is the main operations and comms centre for the forest project. There are parts of the camp where handphone calls can be made however this can be unreliable so a ‘rural’ telephone land line has been installed at the main base camp with radio communication with both the satellite camps and reserve office in Xpujil. Each of the teams working on the transects around Zona Archaeologica have to take a hand held radio or runner in case an incident should take place.

Each of the forest field camps have radio or phone contact with the main base and there are pre-arranged daily comms times. All groups at each of these camps have to take a hand held radio or runner when walking the transects to communicate back to the camp in the event of an incident.

**Marine comms**
There is excellent land line and cell phone coverage for the entire Akumal area and so all communications will be made by telephone.

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Transfers
All bus and vehicle transfers have cell phones with the drivers.

4. Evacuations from Various Field Sites

Camps and survey sites in Calakmul Biosphere Reserve
Evacuation from the sites is by vehicle to Hospital de Xpujil (Zona Archaeologica: 2.5 hours, KM15: 2 hours, Hormiguero camp: 1 hour, Mancolona: 2 hours) for medium and high evacuations. Emergency evacuations such as spinal injuries may be conducted via helicopter to the Hospiten Hospital in Playa del Carmen (1.5 hours from initial call time to mobilize a helicopter).

Marine site in Akumal
Medium, high and emergency evacuation from the marine site in Akumal is by vehicle to Hospiten Riviera Maya Hospital in Playa del Carmen (maximum journey time 30 minutes drive). For emergency evacuations such as spinal injuries, an ambulance will be sent from Hospiten to collect the injured party and transfer them to the hospital (patient will be at the hospital within 1 hour of the telephone call to the hospital).

5. Reporting and Logging

During evacuations it is crucial that a log is kept by the Mexico Country Manager detailing times, personnel involved and all relevant details of each step of the evacuation process.

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 Mexico Country Manager will collate the reports of all medical treatment and evacuations and will submit the final report to the UK office. The Mexico Country Manager will also submit the costs and report to the insurance company for re-imbursement of costs.

6. Mass Evacuations and Disaster Management

The most likely scenario is warning of an impending hurricane. Hurricanes can occur in the Yucatan Peninsula of Mexico at any time from June to November but are most likely in October followed by September which are both months outside the Opwall survey season. However, it is possible that a hurricane will occur. Mexico has an excellent warning system with about a week’s advance notice of any hurricanes heading for Mexico. This information phase is succeeded by a Warning Phase if the hurricane is headed for Mexico. If it looks as though a hurricane is headed for Mexico the survey teams at the marine site will be evacuated to Playa de Carmen. Due to its inland location, Calakmul is less likely to be affected by hurricanes than the coastal areas. With this in mind, the survey teams will be evacuated from the forest to the town of Xpujil and the entrance of the reserve.

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