



Medical and Evacuation Procedures

Ecuador & Galapagos 2019

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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 will be required to enter their medical details onto the Operation Wallacea data portal. Details of how to log on are sent out upon receiving the booking from the participant. The medical questionnaire is based on the PADI health form and asks the same questions, albeit in more detail for some conditions. If the student answers yes to one of the health questions, then if it is one that might affect suitability for diving (eg asthma), they are told they need to contact a doctor with knowledge of hyperbaric medicine for an assessment of their suitability to dive. There are some conditions though (eg epilepsy) where a positive answer will mean the student will not be allowed to dive although they may, depending on the assessment of their own doctor, be able to join the rest of the expedition. The data is stored securely and is initially only available to certain Operation Wallacea staff members, and, for groups of school students, the teacher leading the group.

Screening

Operation Wallacea assesses all medical forms and those with medical conditions likely to affect their safety on any aspect of the expedition are referred to an external advisory medic for their opinion as to their suitability to join the expedition. Following the initial screening by the country manager, the details are then passed to the on-site medic. He or she can ask for further information, and will have an opportunity to discuss any issues of concern at a medical meeting (between the expedition medics and Operation Wallacea staff) held approximately 3 months prior to the expedition. 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.

Insurance

Operation Wallacea has purchased a comprehensive travel insurance policy on behalf of all of its participants which includes personal property, cancellation, curtailment and rearrangement cover as well as unlimited overseas medical and repatriation expenses. This ensures that Operation Wallacea can agree evacuation routes with the insurers prior to the expedition, thus expediting the administrative processes behind organising an evacuation.

Roles in the event of an emergency

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

Once a major incident leading to an evacuation is identified the Amazon or Galapagos Manager (depending on the site where the incident occurs) 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 Coca, Quito or the Galapagos.

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 or boats to medical facilities available in Coca, Santa Cruz or Quito.

Emergency Priority

Cases requiring the fastest possible transfer. In the Amazon this will usually be by helicopter to medical facilities in Coca, whilst in the Galapagos this will be by vehicle to the medical facilities in Puerto Ayora.

In the case of an evacuation, the Amazon or Galapagos Manager will be responsible for contacting the UK 24 hour manned office to inform them of the incident, gain access to specialist medical advice over the phone and to alert the insurance company and their evacuation management team of the ongoing incident.

2. Medical Facilities In Country

Facilities at camps

There will be a medical officer (doctors, nurses, paramedics) at the Sani Camp in the Amazon and this medical officer has a medical kit designed to treat the more common conditions and to stabilise the patient in the event of a more serious case where evacuation is needed. On Santa Cruz in the Galapagos there is no need for a medic in camp since there are high standard medical facilities readily available on the island.

Anti-venom

Anti-venom specific to the vipers are available in hospitals in Coca. 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. We will also have Anti-venom on site produced from the Instituto Clodomiro Picado, which our medics, will be able to administer on site.

Facilities in Coca

Suitable for medium, high and emergency priority evacuations from the forest camps in Sani

Hospital Francisco de Orellana
Av. Alejandro Labaka, Francisco de Orellana, Ecuador

+593 62 861 697
+593 62 861 831
+593 62 880 139
+593 62 861 521

This is a relatively new public hospital with a good range of diagnostic, (X ray, ultrasound) laboratory, treatment facilities and separate pharmacy on site. Snake anti venom is held at this hospital and they also have booster shots for rabies.

Facilities in Quito

Suitable for medium, high and emergency priority evacuations

Hospital Metropolitano
Avenida Mariana de Jesús y Occidental
Quito, Pichincha
Tel: +593 (0) 2 399 8000
Tel: +593 (0) 2 399 1520
Latitude -0.184013, Longitude -78.503725

Hospitals in Quito are extremely well equipped and this is a large, modern hospital suitable for all evacuations. The hospital facilities include diagnostic equipment, ultrasound and X-ray, a separate pharmacy and laboratory for clinical analysis. Evacuation time from Coca around a 6 hour drive or 1 hours by air.

Facilities on the Galapagos

Suitable for medium, high and emergency priority evacuations

Hospital República del Ecuador Avenida Baltra, Muelle Municipal
Puerto Ayora
Tel: +593 5 2527 439 / +593 5 2526 103
Emergency: 911

Hospitals in the Galapagos are smaller and have more basic facilities than those found in Quito. The hospital on Santa Cruz is suitable for more minor issues and for stabilizing a serious case before evacuation to the mainland. In addition though in Puerto Ayora there is a hyperbaric chamber with an English speaking doctor specializing in hyperbaric and trauma medicine.

Dr. Gabriel Idrovo
Calle Marchena s/n and Calle Adolfo Hanni
Puerto Ayora
Tel: +593 98 448 8231

Helicopter evacuation arrangement

Avioanders

Calle del Establo y Calle "C, Torre 2

El Coca

Director of Operations: Capitan Guido Tamayo Cabrera

Tel (Whatsapp): +593 99 738 7086

Tel: + 593 23 93 1620 ext 112

3. Communications

Forest communications

The camp at Sani has limited cell phone reception, so a satellite phone will be used for emergency communications from the camp back to the Lodge and to the outside world. The Sani Lodge used to operate radios but reception was so poor through the dense forest areas that this system was abandoned. Runners will be used to get messages back to the main camp from any field based teams.

Galapagos communications

There is reliable cell signal across Santa Cruz, so mobile phones will be used for all communications including those on the dive boats.

Transfers

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

4. Evacuation From Various Field Camps

Sani Lodge and Santa Cruz Island

Evacuation from the Sani site will be kayak back to the lodge (1hour) and then by motorised canoe up river to Coca (3 hours) On Santa Cruz, evacuation will be by vehicle to the hospital in Puerto Ayora (max 1 hour).

Emergency priority evacuations for life threatening or spinal injuries or those that may result in loss of limbs or eyesight will be done by helicopter from the Sani Reserve site in the Amazon. On the Galapagos overland transfers to the hospital or airport on Baltra Island for evacuation to Quito for treatment are the preferred routes.

If the medic at the Sani camp deems that there is a need for an Emergency evacuation, then Sani Lodge should be alerted by radio or sat phone that a patient is to be evacuated and a motorized boat is needed for emergency evacuation back to the lodge. The normal route from the camp to the lodge is by a 30 minute transfer by kayak or if going out by speedboat, a further 15 minute stretcher carry along the board walk to the Napo river. The sat phone will be used to alert the Opwall UK based emergency team that an incident is ongoing and a call will be made to Avioandes (Capitan +593 99 738 7086) will allocate a helicopter to be scrambled to fly to Sani Lodge to pick up the patient and the on site medic.

Coordinates of the Sani lodge helicopter landing point will be 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.

The availability of helicopters at short notice is never guaranteed, so as a back up plan the country manager will coordinate for a speedboat with 2 X 200hp engines to be waiting at the end of the boardwalk and this can transfer the patient back to Coca in 90 minutes in an emergency.

5. Reporting and Logging

During evacuations it is crucial that a log is kept by the Amazon or Galapagos Manager whoever is dealing with the emergency, 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 Ecuador Country Manager will collate the reports of all medical treatment and evacuations and will submit the final report to the UK office. The Ecuador Country Manager will also submit the costs and report to the insurance company for re-imburement of costs.