



Protocol: Survey of medical events amongst Nepalese trekking staff and porters

Partners

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Purpose

The purpose of the survey is to raise the awareness of foreign nationals in their duty of care for the Nepalese staff employed to support their expeditions and treks whilst in Nepal, particularly in remote regions. Remote regions have less infrastructure to support expeditions/treks, requiring more Nepalese support and reduced access to assistance in the event of accidents and illness. ***We hypothesize that there will be a greater risk of death or serious medical mishap to Nepalese trekking staff when supporting expeditions/treks in remote regions compared to more frequented regions.*** Data will be collected through questionnaires to gain better understanding of the nature of any incidents, the preparedness of the expedition/trek and the awareness of foreign nationals of their duty of care.

Primary Outcome

Comparison of the absolute number and proportion of Nepalese deaths and serious medical mishaps per number of foreign nationals on expedition/trek in a popular area and in a remote area.

Secondary Outcomes

(1) To determine the nature of the medical incidents recorded, (2) To evaluate the preparedness of the expedition/trek, (3) To evaluate the awareness of responsibility for expedition/trek safety by foreign nationals.

Participants (including the criteria for inclusion/exclusion)

Nepalese staff and porters recruited within Nepal who are deployed in the field in the service of a foreign expedition/trek will be surveyed. Foreign nationals trekking in the two areas will also be surveyed.

Risks of taking part in the survey

There is no known risk to the participants who will be completing the survey.

Benefits of taking part in the survey

Participants will be thanked for giving up their time to participate in the survey and offered a gesture of appreciation, such as an item of clothing (e.g. a cap), and/or a copy of the Travel At High Altitude booklet.

Data Collection

The questionnaires will be completed by volunteers (e.g. medical elective students; other applicants are also welcome) and Nepalese experienced in expedition/trek logistics. It is envisaged that the Nepalese will be better able to obtain information from the expedition/trek sirdars and head porters. The volunteers will be able to obtain information from the foreign national expedition/trek members. All Nepalese staff and foreign nationals fulfilling the inclusion/exclusion criteria are eligible for the trial. Screening logs will be kept, documenting reasons for non inclusion.

A team of volunteers (initially 2-4) and one Nepalese expedition/trek expert will be stationed at the trail end for a remote and popular trek, initially these will be Muktinath for the Annapurna circuit, and Marpha for the Dhaulagiri circuit. The teams will question as many expeditions/treks as possible passing through the trail ends, initially during a two week period. They will then swap over to ensure balanced data collection. The initial data collection phase (in Spring 2010) will be four weeks, plus the time to travel between locations. It is proposed that this phase of the survey will test the robustness of the questionnaire, and inform power calculations for subsequent data collection, which may be rolled out to other expedition/trek regions during subsequent trekking seasons.

Data Analysis

The quantitative data will be compared using standard statistical methods. The significance of the data will be dependant on the number of incidents and the populations surveyed. The ratio of Nepalese staff/porters to foreign nationals is expected to be higher for the remote area than for the popular area. The popular area can be expected to have a higher absolute number of foreign nationals. The qualitative data will be used to assist in interpretation of the statistical results and to enable a descriptive presentation of the study.

Data Handling and Confidentiality

Consent to enter the study will be sought from Nepalese expedition/trek staff and foreign national expedition/trek members after a full explanation has been given. Signed participant consent will be obtained. The right of the participant to refuse to participate, or withdraw at any time without giving reasons will be respected.

Data will be collected on anonymised paper records and participants will not be individually identified in any results publications. The identifiable data will be kept separately from the answers to the questionnaires and will only be accessible to the trial team. Upon return to the UK the paper recorded will be stored electronically and secure procedures are in place to ensure the security of the data base is maintained. All listed investigators will preserve the confidentiality of participants taking part. Medical Expeditions is registered under the Data Protection Act.

Funding

This is a questionnaire based study with minimal logistical costs. The volunteers will be expected to cover their own costs which will include flights to Nepal, internal flights food and tea house accommodation. Volunteers will also arrange their own travel, rescue and health insurance. The costs of employing Nepalese expedition/trek experts to work alongside the volunteers will be borne by Porters Progress UK and Medical Expeditions.

Timeline

Aug 09:	Develop protocol
Sept 09	Finalise any requirement for ethics committee approval
Sept/Oct 09	Finalise protocol, questionnaires and submit ethical applications Finalise names of medical students taking part and Nepalese expedition/trek experts. Agree dates of the initial data collection.
Nov 09	Book flights/ finalise arrangements with trekking agent
Spring 10	Complete initial data collection in the field
May 10	Review data, agree analysis plan and write up. Revise protocol for future studies
June/July	Publication of data/arrange future projects

Appendix A – Definitions

1. Nepalese trekking staff are the staff employed by the trekking team for the duration of the expedition/trek. They are often although not always ethnically Sherpa. The trekking staff includes the Sirdar, the guides, the cook, the cook boys, climbing guides and high altitude porters.
2. Porters are usually employed for part of the expedition/trek and may be hired or fired along the way. They will be lead by a head porter.
3. The Sirdar will be in overall charge, whilst in the field, of the trekking staff and will supervise the head porter.
4. The Head Porter will know exactly who he has on the payroll and when and where they were paid off and why.
5. The Agent will usually be based in Kathmandu and will manage all aspects of the expedition/trek from there.
6. We have used the term expedition/trek to describe a team of variable size that will have crossed a pass to 5300m to reach the survey point and it may be made up of either trekkers, mountaineers or a mixture of both. This description includes those on holiday, on expeditions etc.
7. We have used the term Nepalese to describe staff or porters recruited within Nepal who are deployed in the field in the service of a foreign expedition/trek.
8. We have avoided the term westerners as Japanese expeditions constitute a proportion of foreign nationals.
9. Death should be defined as a death that occurred to a Nepalese trekking staff member, porter or foreign national whilst participating in the trek or whilst returning to the valley having been paid off.
10. Serious Medical Mishap should be defined as an illness or injury sufficiently severe as to require the Nepalese team member to be paid off prematurely, sent down, escorted down or carried down or otherwise evacuated.

Porter days are the total number of porters employed for the whole expedition/trek multiplied by the actual number of days they worked. The Sirdar, Head Porter or Trekking Agent will be able to provide this figure with a degree of accuracy. The number of porter days for a tea house trek will be small, but for a remote trek where infrastructure for accommodation, cooking and purchase of provisions en route is not already in place, will be large. This is why a simple comparison of absolute numbers between the treks is not useful. We estimate that the ratios will be approximately 1:9 in a remote region, whereas for the tea house trek it maybe 3:1.