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A brief review on BS8848: 2014 and its relevance to new or inexperienced expedition 'medics'

Short title: A Brief review of BS8848: 2014

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British Standard 8848: 2014- What it is and what it means for you as an expedition medic

British Standards are produced by the British Standards Institution, a service organisation that produces standards across a variety of sectors BS 8848:2014 sets standards to manage and minimise the risks associated with a wide range of adventurous travel. Taking its title from the height of Everest in metres, it sets out a good practice for those organising overseas trips including provision of visits, fieldwork, expeditions, and adventurous activities outside the United Kingdom. Whilst it covers all aspects of the venture from organisation to travel arrangements, this brief run down is going to focus on its implications for the expedition 'medic' and is aimed at those interested in starting out in this career. This article does not make up for reading BS 8848 in full, nor does it provide legal advice.

In this article 'medic' refers to anyone providing medical support on a trip and this will very often not be a doctor or a medical professional at all.

BS 8848 and UK law

BS 8848 has created a benchmark by which an expedition company's operational procedures may be evaluated by a court in the event of a serious incident. This is true even if the company does not claim to be BS 8848 compliant.

English courts hold jurisdiction over deaths of Britons wherever they may occur, with no time limit to bring proceedings where an unlawful death has occurred. Under English common law (laws set from previous court decisions, and not the government), an expedition company has a responsibility to ensure staff employed are suitable for the role. This is separate from doctors' and other registered healthcare providers' professional liability.

Where a company claims compliance with BS 8848, but fails to adhere to BS 8848 requirements, action may be taken by the UK Trading Standards authorities.

It is important to be aware that for overseas expeditions local laws may also apply. This impacts on the medications you may carry, for example diamorphine is illegal in America, and the activities that you may undertake.

Another important consideration for all adventure medics is indemnity insurance. Although an off-duty medic will likely be covered under a Good Samaritan clause, as soon as financial or other form of compensation is provided, advice from your indemnity provider should be sought. An agreement to act as a medic will alter your liability. Be particularly aware of working with foreign clients, especially those from America and Canada. Ensure you are explicit with your indemnity insurance provider to guarantee you are covered.

Is BS 8848 Anti-Adventure?

Just as NICE guidelines are in place to support clinicians and protect patients, BS8848 is a tool to help those providing expeditions and those taking part in them to make informed decisions about the risks and their own safety. Prescriptive rules can seem to go against the sense of adventure that overseas expeditions often epitomise, and for those working in healthcare many guidelines can feel overly burdensome. It is important to remember the requirements of BS 8848 are there to

enable all those involved, whatever their experience, to understand the risks involved and how to manage them effectively.

BS 8848 key roles

Below we talk through the sections most relevant to the medic, whether that is the expedition medic, or a member of home-based support crew. BS 8848 does not clearly define exactly what 'medical support' should look like, however a registered medical professional must be involved as part of the wider expedition support group. A 'registered medical professional' is not clearly defined, however they - doctor, nurse, paramedic or other, must have sufficient experience, competency, and skills to fulfil their role on the expedition as defined by the venture provider. The team's expedition medic could range from a first aider to an advanced doctor. The level of skills, knowledge and experience required will depend on the specific expedition, the location, and participant's skills. The FPHC Updated Guidance for Medical Provision for Wilderness Medicine provides further details. As part of considering taking on a medic role on an expedition we encourage you to read the FPHC competencies document and think carefully about your suitability for the role.

Many expeditions are undertaken with no immediate professional medical support but have 'medical support' provided by an expedition leader with enhanced first aid training. Ideally this person should have medical knowledge and skills at least at Level D on the PHEM Competency Matrix 2017 along with all the necessary skills for the expedition being undertaken.

If a registered healthcare professional is felt to be necessary on an expedition then which profession is utilised should be based on how closely they match the medical skill set required, assuming the expedition skills are present, rather than their specific professional title. An experienced nurse or paramedic might well be a much better choice than a less experienced doctor for instance.

The 'venture provider' is anyone providing a 'venture'. They are responsible for all aspects of the trip, including third parties and the medical support. They may be an individual or organisation but must be clearly identified. While the venture provider may have overall accountability, a medic will always be responsible for their professional actions and, as in all healthcare practice, it is the medic's responsibility for ensuring they are adequately competent to deal with the associated situations.

Making use of 8848 as an expedition medic

If you want to join a trip as the team medic, you should ensure the company is BS 8848 compliant and can provide a compliance document. Make sure you are well versed in the expedition plan, evacuation and rescue options, and the organiser's expectations of you as the medic, and as part of the wider leadership team. You must be certain the demands of the trip fall within your competency and skill level, both clinical and the activities you will be undertaking on expedition.

As a junior medic you should identify if there is the provision of 'top cover' and who is providing this (ideally an experienced senior doctor) and how you are able to contact remote support in case of emergency. Before the trip, know who is responsible for putting together the medical kit, who will be transporting it. You should be familiar with the drugs and equipment in the kit, be comfortable with their use and that any documentation needed for carrying them into another

country is signed and in the kit. If you feel any further medications or equipment are required (including drugs that you have more experience in using) then email your provider with enough time to order these and include a brief explanation of what is needed and why.

Expedition medicine takes you away from a structured environment and requires a high degree of adaptability in what may be a highly stressful environment. Therefore, you should have confidence in the kit you do have available and good knowledge of how and when it should be deployed. It is recommended you see the kit prior to departure, or ensure you take time to go through it at the start of the expedition to ensure all items are present and in date, and you know the location of drugs and equipment if needed rapidly. You may be able to purchase extra items in country if items are missing.

Review the risk assessment, ensure it is trip specific, covers the full trip and all planned activities. As the medic you should be familiar with local health resources: which hospitals are available; the facilities within these; and routes of evacuation to definitive care. Discussing this with your expedition leader for each stage of the trip is a useful pre departure exercise so everyone is aware where a casualty would go and how they would get there. This makes emergency evacuation planning a much smoother exercise at a stressful time. There should also be a clear plan for contacting 'home' in emergency circumstances and depending on who you are working with a clear policy on confidentiality and use of social media within the rest of the group.

Details of the expedition participants and medical screening should be available to you before the trip. Many companies undertake their own screening process, only flagging certain medical issues to their senior medical director. You should therefore take time to go through the questionnaires yourself as certain conditions such as obesity or mild asthma may not have been flagged and be important for the activity you will be undertaking. If you are asked to organise medical screening, think very carefully if it is within your competency- it requires detailed knowledge of the destination country, specialist medicine and an understanding of the impact of the planned activity may have on chronic health conditions. Other companies may choose not to pre-screen participants and it is advisable for you to question this practice. You should also feel competent in dealing with any pre-existing conditions participants have and how you will manage an exacerbation. Checking there is a plan in place to ensure adequate supply and storage of long-term medications. With consent, use the pre expedition period to contact any clients you have concerns about to discuss their condition, how they plan to manage it and any concerns they have prior to the expedition.

Be aware that non-disclosure is a huge challenge in expedition medicine, particularly around mental health illness, so a blank form does not necessarily indicate a fit and healthy participant. Be alert at all times and look for physical or mental deterioration.

Finally knowing who is guiding or leading will be important. Know all leaders' roles for day to day operating as you may be expected to take on other duties as part of the senior leadership team. Understanding your other roles will be will help you take these on with confidence and enthusiasm. Expedition guides and leaders are often well trained in emergency first aid and you should explore with them what different skill sets each has and what roles they are likely to take on in an emergency. Most leaders (and participants) love the opportunity to improve their first aid skill set and have a play with any medical kit, so use appropriate down time to do some training It may come in handy if you are the one who gets injured!

Short Summary

- Expeditions of any type should have access to medical support from the planning stage, but not necessarily a doctor on the team with the expedition.
- A medical professional with expertise relevant to the environment is needed to inform the risk assessment, screening process and planning, and be available to the team throughout.
- The team on the ground should have access to appropriate first aid, the necessary training to use the medical kit they carry, and understand emergency protocols.
- A doctor's letter is recommended to accompany all prescription drugs, and they can be carried by individual team members, or as part of a group kit. This will form a key part of advanced planning.
- A remote consultation may be used where a remote medical support is in place, to enable medications to be given where no prescribers are present on the expedition.
- Participants should have enough information to prevent and identify common health risks, should be aware of all necessary travel prophylaxis, and their doctors or the venture company medical consultant should receive enough information to make decision where pre-existing conditions are identified.
- To be compliant the venture provider is required to adhere to each clause, while notes are recommendations.
- The venture provider must produce a Code of Conduct for participants, this may help to minimise risk and ensure responsible team behaviour.

Section by Section Review¹¹

'6.7 Medical 6.7.1 General The venture provider shall have access to medical advice, services and support for each venture. The availability of these services shall be outlined to the participants and leadership team (and other stakeholders on request) before the contract is concluded.'

This doesn't mean there must be a doctor on the team, instead the Standard emphasises the need for effective qualified medical advice operating within their level of competence. Check the expedition brochure, website or equivalent to see how medical support is described to potential participants.

Medical planning

6.7.2.1 The venture provider shall undertake a risk assessment of the medical hazards associated with the venture in accordance with 4.3.

¹ Extract taken from:

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6.7.2.2 The venture provider shall have a medical screening process for the leadership team and participants.

Well-documented risk assessments should be a standard part of the planning process and available to the entire leadership team. Considerations specific to the expedition medic would include the environment encountered (polar, jungle, altitude, heat) and the remoteness of the expedition and thus access to definitive medical care.

Pre-trip health screening is commonly omitted, even with large companies. Health screening can present several issues, such as securely storing information, and determining how this information is shared. However, when you are considering undertaking the role of medic, knowing who you are caring for is crucial information in deciding if you are competent to undertake the role, if medical planning is sufficient, and if the participant is too high risk to take on the challenge.

NOTE 6.7.2.1 and 6.7.2.2 should both be approved by a registered medical professional with expertise relevant to the venture.

This recommendation implies oversight is necessary in the planning stages, not just from someone with medical expertise, but relevant experience. If you have minimal medical experience (FY2 or less) and minimal expedition experience, you may still be able to join an expedition but enquire as to who the company's medical director is and who provides top cover.

Previous expedition experience and relevant additional training is important to feel competent in the specific expedition environment. This is very expedition dependent: - hiking the Munros will not prepare you for managing jungle-based emergencies.

6.7.3 Pre-existing medical conditions

6.7.3.1 The venture provider shall obtain written confirmation of whether or not the members of the venture have any known pre-existing medical conditions, including psychological health issues, and any medication being taken.

6.7.3.2 The venture provider shall examine the information on any pre-existing medical conditions provided in accordance with the medical screening process in 6.7.3.1 and, in cases where the condition might be exacerbated by the venture, a letter from the participant's medical specialist shall be requested confirming fitness to participate in the venture. In these cases, the venture provider shall provide details of the venture to enable the doctor to make an informed decision.

Understanding of the impact of chronic conditions, the medications and treatments participants are taking, will be essential in the planning stage. This should include mental health conditions. It is also important to consider the impact these pre-existing conditions may have on insurance policies. Communication with participants and their GPs or relevant medical specialist may be necessary to ensure safety on the trip. To evaluate the impact of existing conditions it is necessary to understand the potential impact of planned activities, the environment, and factors such as altitude. This requires a level of knowledge of the condition and expeditions that may be beyond the competency of a participant's GP, and specialist expertise should therefore be sought. This responsibility is likely to fall to an expedition's supervising doctor, as opposed to a team first aider, however awareness of the potential risks should be shared.

6.7.4 Prevention of ill health: vaccinations and prophylaxis

The venture provider shall ensure that the leadership team and participants are informed about sources of information on vaccinations and prophylaxis necessary for the venture and shall advise them to seek guidance as to the health implications of travel to the intended destination from their general practitioner, practice nurse or travel health clinic. This information shall be provided in time to enable the participants to complete any necessary courses of vaccination.

It is important to note the duty to the participants' health partly starts before the trip has even begun in ensuring all relevant pre-screening and vaccination advice has been given. However, prophylaxis is advice only, it is not mandated that participants must be vaccinated, for example, but that the venture provider should have as a minimum told them where they should seek advice. Malaria prophylaxis, is particularly highlighted, below (6.7.5.3)

6.7.5 Environment-related illnesses

6.7.5.1 The venture provider shall ensure that the leadership team has knowledge of the risks, prevention, recognition and treatment of environment-related illnesses as identified by the risk assessment (see 4.3).

6.7.5.2 The venture provider shall ensure that participants are informed as to the prevention, recognition and actions to be taken on recognition of signs of the onset of environment-related illnesses (e.g. dehydration, heat-related illness, altitude sickness) which could be experienced on the venture.

6.7.5.3 For ventures in malarial zones the venture provider shall ensure that all the leadership team and participants are informed as to the recommended health information to minimize the risks of malaria, including prevention tablets, standby treatment, mosquito nets, insect repellents and clothing.

6.7.5.4 The venture provider shall identify and manage the hazards associated with food, drink and hygiene overseas because these might vary substantially from the UK.

Significantly the above illustrates it is important not just for the team medic or leaders to be aware of potential medical emergencies; participants should also be informed and equipped to spot potential risk and early symptoms. The expedition Code of Conduct should cover a situation when for a participant refuses to follow recommendations. Although they may be making an informed choice, you should consider the wider impact on the group should a participant fall ill during the expedition.

6.7.6 Medical expertise

6.7.6.1 The venture provider shall ensure that medical services are provided by registered medical professionals with expertise relevant to the venture.

6.7.6.2 *The venture provider shall check the first aid qualifications of the leadership team and ensure that they are commensurate with the needs of the venture.*

6.7.6.3 *The venture provider shall provide a method for the leadership team to communicate during the venture with a medical professional who has expertise relevant to the venture.*

6.7.6.4 *The venture provider shall establish and operate a procedure to ensure that any medical treatment or support that has been administered during the venture is documented. With the patient's consent, this information shall be made available to their general practitioner when requested.*

NOTE 1 Access to medical services can be through either the venture provider's or participants' personal medical insurance and in-country medical facilities.

NOTE 2 Ventures in remote regions with limited access to medical facilities should appoint a medical professional (e.g. doctor, nurse or paramedic) as part of the leadership team. If this is not possible, the venture provider should ensure that one or more of the leadership team attends a wilderness first aid course or equivalent, in addition to their first aid qualification.

Good documentation is something every healthcare provider is familiar with and, as highlighted above, it does not stop when in the wilderness. Thorough documentation is essential in all expeditions: In a 'worst case scenario' accurate documentation that can be used in a court of law is essential not only for good patient care but to support you should a negligence case arise.

If the venture provider has a proforma for incident reporting in place, make sure you review it and ensure it is adequate for purpose

6.7.7 *First aid provision*

The venture provider shall ensure that first aid provision, including first aid and medical kits: a) meet a specification prepared by a medical professional with knowledge and experience relevant to the venture; and b) are available on the venture.

6.7.8 *Medical protocols*

6.7.8.1 *The venture provider shall ensure that the leadership team are informed of the medical protocols specific to the venture.*

6.7.8.2 *The venture provider shall ensure that the leadership team have received training in the use of the first aid and medical kits used on the venture.*

6.7.8.3 *Any prescription drugs carried shall be logged and only prescribed to a participant on the authorization of a registered medical professional.*

NOTE 1 Authorization from a registered medical professional can be via protocol, verbal instruction or direct supervision.

NOTE 2 It is recommended that prescription drugs are accompanied by a signed doctor's letter or certificate.

The team, not just the medic, is expected to be able to respond in a medical emergency. The team medic may be directing the response remotely.

All of 8848 places responsibility with the venture provider, however you as a medic will always retain a duty of care. By agreeing to provide medical support on an expedition you are assuming

risk in an unpredictable environment. Working with BS 8848 compliant companies - they should have documentation in place to ensure you, as a professional, are happy with the plans and procedures in place and that you feel confident you have the knowledge, skills and expertise to provide the level of support required of you.