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EXPEDITION MEDICINE

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INTRODUCTION

“... I marvell much how he ever should have escaped so manie thousands of imminent dangers ... to have become captived ... his throte cut by the prauling Arabians, and wilde mores ... the lyons greedie mouth, and the devouring jawes of the crocodile ...”
(John Pory writing in 1600 about Leo Africanus, an early explorer)

Three centuries after Pory’s account, Stanley, during his second trans-African expedition, from Zanzibar to the Congo (1874–7), lost 68% of his party of 356 men. Fifty-eight died in battle or were murdered, 45 succumbed to smallpox, 21 to dysentery and 14 to drowning, while 1 was killed by a crocodile, 2 died of fever, 5 were executed and the residue were lost, became insane or were victims of cannibals, opium or starvation. Expeditions were dangerous events in those days. Although some of these conditions remain a hazard to expeditions in the twenty-first century, we are now in a much stronger position than Leo Africanus or Stanley to minimise the risks through careful planning based on knowledge.

An expedition is an organised and usually challenging journey with the defined purpose of exploration, research, education or discovery. Such demanding activity will depend for its success on the health and attitude of mind of its members. To achieve this it is necessary to identify and understand the medical issues that are essential for planning and undertaking an expedition. *Expedition Medicine* aims to provide information on both prevention and treatment of medical problems in challenging environments. Advanced planning is essential in preparing for potential medical problems on any expedition.

This book provides information for doctors, nurses, paramedics and first aiders, as well as for people who are not medically qualified. Its aim is to be useful for people travelling to remote places, for people going on an expedition and particularly for people chosen to be expedition medical officers. It will help readers to be better informed about medical hazards and their prevention. Most chapters start with general statements requiring little background knowledge of the subject discussed; more detailed medical and technical information then follows.

Expedition Medicine is divided into three sections: Pre-expedition Planning; Field Medicine; and Medical Problems of Environmental Extremes. A glossary has been included to make the book more accessible to non-medical readers.

In this, the second edition of *Expedition Medicine*, we have updated some existing chapters, completely rewritten others – vaccinations, legal liability, common infections, emergency dental treatment, hot deserts and heat-related illnesses, tropical, diving and caving expeditions – and added the following new chapters: “Advice for people with pre-existing medical conditions”, “Management of the seriously injured casualty”, and “Remote medical emergencies”.

Section 1, Pre-expedition Planning, aims to prevent, as far as possible, problems arising in the field. There are chapters on vaccinations necessary for travel, first aid training and recommendations for expedition medical kits, medical insurance, risk assessment and people with pre-existing medical conditions. We feel strongly that no one should join an expedition unless they have had first aid training.

Section 2, Field Medicine, provides practical information for use during an expedition or journey to a remote area of the world. Chapter 9 covers the medical officer’s role, Chapter 10 emphasises the importance of camp hygiene and includes practical information on latrines, kitchen cleanliness, food storage, rubbish disposal and camp safety. Chapter 11 provides details about how to provide a safe water supply for the expedition. Chapter 12 is mainly for non-medically qualified people to enable a safe assessment to be made of an injured or ill patient and so lead to appropriate management. Chapter 13 covers first aid and the management of minor injuries in the field. It should be useful for dealing with emergencies where medical help is not immediately available. Despite the best efforts at prevention, illness and injuries sometimes do occur. Chapters 14 and 15 provide information on how to treat a seriously injured casualty and how to manage a medical emergency in a remote setting. Chapters 16 and 17 contain details about communication if evacuation is necessary. Chapters 18, 19 and 20 provide medical information on diagnosis and treatment of common infections and the less common but important tropical diseases. Chapter 21 covers psychological problems that may arise during expeditions and Chapter 22 is a brief summary of dental problems and their management.

Section 3, Medical Problems of Environmental Extremes, deals with the specific problems created by hot desert, tropical, polar and high-altitude environments, in addition to mountaineering, diving, caving and canoeing expeditions.

In short, *Expedition Medicine* aims to improve the confidence, enjoyment and achievement of people who participate in expeditions by helping to prevent medical problems or treat them if necessary. This is not meant to be a theoretical treatise, but a practical guide built from the considerable experience of its contributors. We are not complacent about our book and appeal for readers’ and users’ feedback to keep the advice topical and relevant in a rapidly changing world of exploration and discovery.

DISCLAIMER

The contents of this book are not tailored to any particular factual situation. Emergencies in the wilderness are unpredictable and varied in their circumstances. Medical officers should use their reasonable judgement and skills in the prevailing circumstances. The authors and publishers cannot accept any responsibility for loss occasioned by any person acting or refraining from acting as a result of the material in this publication.

Sarah Anderson

David Warrell

September 2002