

# Cases in Pre-hospital and Retrieval Medicine\*

*Daniel Ellis and Matthew Hooper*

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Pre-hospital and retrieval medicine is an essential component of the Emergency Medical System, critically so in Australia where geographical isolation often restricts patient access to specialised medical care. Retrieval medicine provides not only transport but also timely, high quality emergency care to the patient and a seamless interface between pre-hospital and hospital care.

Aeromedical retrievals are a relatively new field of medical endeavour and have evolved rapidly over the last 50 years. Much of the development in this field can be attributed to combat related initiatives. The use of civilian helicopters for emergency medical response and transport began in Europe in the late 1960s and the USA in 1969. Australia has been at the forefront of health based aviation since the development of the Royal Flying Doctor Service (or RFDS) in Cloncurry in 1928.<sup>2</sup>

Health personnel will encounter aspects of pre-hospital and retrieval medicine throughout the spectrum of patient care. For some this will be operational as either medical crew or tasking coordinators, while for most it will be as a referral agency or part of accepting hospital teams. Awareness of the differences between hospital or community based care and pre-hospital and retrieval medicine are essential to achieve the best outcomes for patients. This new text makes a significant contribution in developing this understanding, using an easy to read case based format.

Cases in Pre-Hospital and Retrieval Medicine is presented as a 286 page B5, soft cover publication. The body of the text consists of 50 cases and is divided into three main sections. These are – “A: Pre-hospital theme”, “B: Retrieval theme” and “C: Service development and special circumstances”.

In addition to this there is a table of contents, two forewords, preface, acknowledgements, author information, list of reviewers, introduction, appendices, key to cases, glossary and an index.

The introduction is worth reading as it outlines the standard format that the authors have used for each

case. This includes a brief description of the incident followed by relevant information divided into four sub headings – aircraft, local or ground resources, retrieval options / destinations and other key information such as weather. This is followed by questions and discussion, key learning points from the case and suggestions for related additional reading. Each question (between 1 and 4 per case) is followed by a 1000-2000 word discussion with associated photographs or tables. While cases can be read individually, they do build upon each other, and as the authors suggest should be read sequentially to gain maximal benefit from the text. Those after information about specific aspects of pre-hospital and retrieval medicine can use the key to cases at the back of the book to identify relevant material.

The book is easy to read and clearly set out. Particular strengths are the ‘Key Points’ boxes at the end of each section and the quality of the illustrations. The photographs are not simply decorative but also provide information that helps the reader to understand and ‘read’ a scene, adding a vicarious involvement in each case. The appendices are a valuable resource, addressing procedure and equipment issues and are representative of the approach to management advice, which is practical and clearly stated.

The cases selected offer insights into a broad range of issues in pre-hospital and retrieval medicine. This includes clinical care, team membership and system management issues. Trauma and mass casualty management are well represented as expected, with significant critical illness, paediatrics and mental health cases included also. The breadth of scope of this text is evident in the inclusion of military, dive related, bariatric, international and commercial aviation based cases. There are obviously significant difficulties in limiting the number of cases to 50. A notable omission for an Australian audience is the lack of toxinology cases (toxicology is included) while involvement in search and rescue activities is not mentioned. Additionally while obstetric transfers receive a brief mention there are no neonatal cases.

This is a specialised area of service delivery, even in retrieval medicine, and while many of the principles are common, inclusion may help both neonatal and other retrieval teams (adult, paediatric, mixed) understand more fully the differences involved.

Brief details of the two authors are provided at the start of the book. Dan Ellis is a Consultant in Emergency and Intensive Care Medicine at Lister Hospital, Stevenage, UK and Lead Consultant for the Essex and Herts Air Ambulance. Matthew Hooper, a dual certified Emergency Physician and Intensivist, is the Director of MedSTAR Emergency Medical Retrieval Service, South Australia and a Squadron Leader in the Royal Australian Air Force Specialist Reserve. Both authors have worked for the Children's Acute Transport Service and Helicopter Emergency Medical Service (or HEMS) in London as well as aeromedical retrieval services in Queensland and South Australia.

The text itself, as stated by the authors, 'is primarily designed for the 'hands-on' pre-hospital and retrieval doctor. It is also likely to be of interest and value to all those involved in the coordination, referral and reception of patients transported by pre-hospital and retrieval systems. The text is likely to be well received by its target audience and become an especially valuable resource to those starting out in this field. The criticisms mentioned previously are minor and do not in any way detract from the quality of the product. Instead it is likely that there will be an expanded second edition with not just a "top 50" but possibly a "top 100" case list. This is an excellent text and one that is highly recommended.

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### References

- <sup>1</sup> Martin TE. Clinical aspects of aeromedical transport. *Current Anaesthesia and Critical Care* 2003; 14: 131-140.
- <sup>2</sup> Royal Flying Doctor Service. Our history. URL. <http://www.flyingdoctor.org.au/About-Us/Our-History> (Accessed January 20th 2010).