Pre-Hospital Obstetric Emergency Training
The Practical Approach

Advanced Life Support Group
EDITED BY
Malcolm Woollard
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Note to text:
Drugs and their doses are mentioned in this text. Although every effort has been made to ensure accuracy, the writers, editors, publishers and printers cannot accept liability for errors or omissions. The final responsibility for delivery of the correct dose remains with the practitioner administering the drug.
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Dedication

With thanks to our families for their tolerance and support during the development of this manual and its associated course.
Foreword

I was delighted and pleased to read ‘POET’ which gives practical advice to a range of practitioners. Although it is intended for pre-hospital practitioners there is valuable information for nurses, midwives, general practitioners (GPs) and pre- and post-registration doctors. The chapters cover a wide variety of topics starting from the organisation of obstetric services to details of anatomy, physiology and normal delivery. Once this is covered, the chapters logically proceed to a general approach to the obstetric patient followed by management of emergencies in early and late pregnancy and during delivery. The illustrations and flow charts of care pathways make it simple to read and to keep in mind the logical steps to be taken to provide the best care.

The chapter on ‘Care of the baby at birth’ is a welcome chapter for such a book. The management of non-obstetric emergencies, cardiac arrest and shock in pregnancy has different management issues compared with a woman who is not pregnant. The knowledge needed for these is provided in a way that could be easily understood. This chapter will be useful for a different range of practitioners.

POET is a comprehensive book that covers the knowledge needed for pre-hospital practitioners. But I would recommend this book for a wider audience of nurses, midwives, GPs and A&E doctors who may face the pregnant mother in an outside hospital setting or in a hospital with no maternity service provision. The authors deserve credit for simplifying a complex subject and for covering the knowledge needed on this topic for pre-hospital practitioners.

S. Arulkumaran FRCOG, PhD
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November 2009
Pre-hospital obstetric incidents make up a significant proportion of the more costly litigation claims against UK ambulance services. These claims are based either on an alleged failure to identify and manage a problem or lack of appropriate equipment for the treatment of a preterm baby.

For a number of years after the UK national paramedic curriculum was introduced in the UK, it included no specific training on the management of obstetric emergencies at an ‘advanced life support’ level. Most staff received only a half-day of lectures during their initial ambulance technician training at the beginning of their career. Since 1999, advanced obstetrics and gynaecology became a mandatory part of the paramedic course for new entrants but with the expectation that existing paramedics would receive update training. Our experience has indicated, however, that paramedics in many parts of the UK have not had the opportunity to do so.

A confidential enquiry into maternal and child health (CEMACH) report has indicated that many of the pregnant women dying ‘had chaotic lifestyles and found it hard to engage with maternity services’. The ambulance service may be the initial contact with the health service for these patients and their peers who become unwell but are fortunate enough to survive. The CEMACH report identifies the need for a widened awareness of the risk factors and early signs and symptoms of potentially serious problems in pregnancy, and makes a number of key recommendations that could be addressed in part by appropriately trained pre-hospital practitioners. For example, it states:

All clinical staff must undertake regular, written, documented and audited training for:

- The identification, initial management and referral for serious medical and mental health conditions which, although unrelated to pregnancy, may affect pregnant women or recently delivered mothers
- The early recognition and management of severely ill pregnant women and impending maternal collapse
The improvement of basic, immediate and advanced life support skills. A number of courses provide additional training for staff caring for pregnant women and newborn babies.

There is also a need for staff to recognise their limitations and to know when, how and whom to call for assistance. This manual and its associated Advanced Life Support Group training course (also called POET) hope to meet these educational needs for a range of pre-hospital practitioners. Both the text and the course have been developed by a multi-disciplinary team of senior paramedics, consultant obstetricians and midwives, all of whom are practicing clinicians and experienced educators. POET course teaching teams have a similar multi-professional membership with a shared philosophy of combining pre-hospital and obstetric expertise. Although we anticipate that paramedics and pre-hospital physicians will make up the bulk of our readership and course candidates, POET will also be of value to nurses working in walk-in and unscheduled care centres and to midwives and to GPs – particularly those working at a distance from further support.

It is our sincere hope that POET will build the confidence and competence of pre-hospital practitioners and thus contribute to reducing the incidence of maternal and fetal mortality and morbidity.

Malcolm Woollard,
Helen Simpson,
Kim Hinshaw
and Sue Wieteska
November 2009
Acknowledgements

A great many people have worked hard to produce this book and the accompanying course. The editors thank all the contributors for their efforts and all POET providers and instructors who took the time to send their comments during the development of the text and the course, in particular Bernadette Norman who completed a full review of the text.

We also acknowledge Rachel Adams at ALSG for her support. We are also greatly indebted to Kate Wieteska for producing the first draft of the line drawings that illustrate the text and thank the ALSG/CAI Emergency Maternal and Child Health (EMCH) programme and the ALSG Managing Obstetric Emergencies and Trauma (MOET) course for the shared use of some of their line drawings.

Finally, we thank, in advance, those of you who will attend the POET course; no doubt, you will have much constructive critique to offer.
Contact details and website information

ALSG: www.alsg.org
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Updates
The material contained within this book is updated on approximately a four-yearly cycle. However, practise may change in the interim period. We will post any changes on the ALSG website, so we advise you to visit the website regularly to check for updates (url: www.alsg.org – updates are on the course pages). The website will provide you with a new page to download and replace the existing page in your book.

References
To access references visit the ALSG website www.alsg.org – references are on the course pages.

On-line feedback
It is important to ALSG that the contact with our providers continues after a course is completed. We now contact everyone 6 months after his or her course has taken place asking for on-line feedback on the course. This information is then used whenever the course is updated to ensure that the course provides optimum training to its participants.
CHAPTER 1
Obstetric services

OBJECTIVES
Having read this chapter, the practitioner should be able to:

- understand the relationship between the different professional groups involved in the management of the obstetric patient
- understand the function and importance of hand-held records and how to use them effectively

ORGANISATION OF OBSTETRIC SERVICES,
EPIDEMIOLOGY OF OBSTETRICS AND
GYNAECOLOGICAL EMERGENCIES AND ROLE OF
THE AMBULANCE SERVICE, GENERAL
PRACTITIONER AND MIDWIFE

The organisation
Obstetrics is a multidisciplinary specialty in which midwifery and medical staff work together to provide optimal care. The majority of care is performed in the out-of-hospital setting and by community midwives. Inpatient antenatal care is now uncommon and not usually for long periods. Similarly, the postnatal length of stay for all women, even those with Caesarean section, has also been reduced, with the majority of care occurring in the community.

General practitioners (GPs) have in recent years become less and less involved in all aspects of pregnancy care, although there are still a small number who are involved in care in labour.

Place of delivery
Women undergo a risk assessment prior to delivery to help them choose where to deliver. This assessment is undertaken by their