1 Introduction

Mandy Stevenson and Mary Billington

Although the majority of women have uncomplicated pregnancies and give birth normally to healthy babies, a small but growing minority have the potential to become critically ill during childbearing. This chapter seeks to put forward a definition of midwifery critical care and to provide the context for midwives' involvement in caring for critically ill women in childbearing.

Defining critical care

In the United Kingdom, there is no clear definition of what 'critical care' is within midwifery or what situations constitute critical care. In light of this deficit, wider exploration of the term critical care may identify the relevant components pertinent to formulating a midwifery-relevant definition. A concept analysis of the terms 'critical' and 'care' (Walker & Avant 1988) find that the commonalities drawn from paper and Internet definitions indicate that 'life threatening' and 'constant observation and monitoring' are the defining attributes that reflect the complexities of critical care provision within any situation. Mosby (1986) provides a definition that corresponds to these components by indicating that critical care provision is "constant, complex, detailed health care as provided in various acute life threatening conditions." Obstetric disorders such as pre-eclampsia, HELLP syndrome (*h*aemolysis, *e*levated *l*iver *e*nzymes, *l*ow *p*latelets) or massive postpartum haemorrhage correspond with the life-threatening component of the above definition (Fraser & Cooper 2003), whilst the aspect of 'complex health care' could represent the provision of invasive and non-invasive procedures and care provision within the delivery suite. Central venous pressure monitoring to evaluate fluid management may be viewed as one such invasive procedure. A specific definition for midwifery critical care could reflect the attributes drawn earlier and could bear a resemblance to "the provision of concentrated care

(physical, psychological and social) on a one to one basis in an acute situation where a woman's condition has or is at risk of deteriorating and where advanced management such as drug therapy, more intensive forms of monitoring and interpretation of results are required on a frequent basis."

Terminology can, however, provide a confusing view on what care is actually being provided. The term intensive care is often interchanged with the term critical care or high dependency care. Hence the consistent use of appropriate terminology needs to be addressed within clinical practice and documented evidence. For the purpose of this book, the authors have adopted the term critical care.

Midwives caring for critically ill women

Midwives are increasingly in contact with women who have the potential to become critically ill due to a variety of reasons. Better neonatal and paediatric care means that women with, for example, cardiac or respiratory disorders, who in the past would not have survived to the age of childbearing, now do so, and with their fertility intact. Advances in fertility treatments also mean that women who may have unrecognised problems can achieve pregnancies. Furthermore, there has been a gradual increase in the age of childbearing, with more women than ever before having children in their late thirties and forties (Office of National Statistics 2005). It is important to recognise that childbearing will be uncomplicated for many of these women but it is equally important to be aware that for some women their age and/or health status makes them more likely to become critically ill.

The report of the Standing Nursing and Midwifery Advisory Committee (1998), *Midwifery: Delivering our future*, recognised that midwives are working in many different ways, which includes caring for critically ill mothers. Becoming a member of a 'high risk midwifery team' or a midwife with critical care skills and knowledge may be viewed as responding to the call of providing woman-centred care (Department of Health 1993) in addition to developing higher level clinical expertise to provide high quality specialist services.

Lee (2000) reporting Yiannouzis at a meeting of the Forum on Maternity and the Newborn of the Royal Society of Medicine, considered the growing trend for critically ill childbearing women being cared for by midwives in obstetric high dependency units. This, it was argued, should enable ill women to "receive the best of both types of care: the 'high tech', reflecting advances in science and technology, combined with the 'high touch' approach evident in a true woman-centred philosophy."

It could be assumed that all midwives are equipped for and capable of providing critical care. However, this assumption is inaccurate as, at the point of qualification, such skills are not a requirement to register (Nursing and Midwifery Council 2004). Due to the evolution of pre-qualifying midwifery programmes, which do not require students to possess a first level nursing qualification, more midwives in clinical practice will not have experienced critical care unless it was

specifically placed within their programme and even then the experience may have only been a short, mainly observational placement.

The Confidential Enquiries into Maternal Deaths for the triennium 2000–2002 (Lewis 2004) recognised that many women who died had higher risk pregnancies, complications or underlying medical conditions that required specialist obstetric or multidisciplinary care. In most cases midwives provided the important continuity, supportive link and point of contact between a woman and a number of different health care professionals. However, one recommendation from the report indicates that all health professionals should receive regular and updated training on the signs and symptoms of critical illness, from both obstetric and non-obstetric causes. It is imperative, therefore, that midwives have confidence in this role, both to provide high standards of care and, when necessary, to challenge other practitioners so that they can truly act as an advocate for women.

Midwives possess an individual responsibility to identify any shortfalls in their knowledge base and should update their skills as part of their continuing professional development (Nursing and Midwifery Council 2004), while employers should aid the continuing professional development of midwives to improve care delivery and clinical risk management (Lewis 2004).

Suboptimal care has been blamed in many instances for the deterioration and/or demise of women related to childbirth. Of the 261 women who died from *direct* and *indirect* causes, 67% were considered to have some form of suboptimal clinical care (Lewis 2004). Examples indicate that staff had failed to recognise and act on common signs of critical illness that were not specifically related to obstetric practice, such as pyrexia or tachycardia. This lack of attention to basic assessment findings could cause the women to require more intensive care in a dedicated unit away from their baby and midwifery support. The report does not differentiate clearly between the professionals involved in providing suboptimal care. However, it is important that midwives possess the competencies to recognise that a woman's condition is deteriorating and that prompt referral needs to take place. With education and training, midwives can develop both the competencies and opportunities to provide care to women who can then remain in a familiar environment in close contact with their babies on the delivery ward, whilst still receiving both critical- and midwifery-specific care and management.

The Royal College of Medicine and Royal College of Obstetricians and Gynaecologists (1999) report appears to be the first UK-based policy document to support the ethos of midwives being educated to provide high dependency care to critically ill women. Prior to the publication of the report, it had been suggested all midwives were able to work interchangeably in any part of the midwifery services (Bryar 1995). This assumption could be viewed as problematic as not all midwives have acquired the relevant skills and knowledge in their education to provide optimal care within the critical care arena. This potential lack of education to gain appropriate knowledge and understanding could impact upon clinical practice by causing a delay in summoning other appropriate specialists, initiating treatment or in failing to recognise the severity of a condition.

Critical care in childbearing for midwives

A significant development in line with the increasing rate of critically ill women has been the development of high risk/critical care teams. The rationale behind the evolution of such teams is primarily to enable the provision of greater continuity of care. Midwives can care for the ill woman in a majority of situations in the delivery ward as opposed to being cared for by nurses in the intensive treatment unit (ITU). Chapter 2 provides evidence of the development of one such team in a NHS trust, while Chapter 3 investigates the concept of autonomous practice in relation to the midwife providing care for critically ill women.

An overview of some of the more common causes of critical illness in childbearing is provided in Chapters 4–8, which variously consider a range of medical and haematological disorders (Chapters 4 and 5), hypertensive disorders (Chapter 6) and obstetric haemorrhage (Chapter 7), as well as an overview of the various causes of shock (Chapter 8). The next chapters provide information on aspects of management and care, namely fluid replacement and therapy (Chapter 9), specialist technology and skills (Chapter 10), anaesthesia and resuscitation (Chapter 11), pain management (Chapter 12), and transfer to the intensive treatment unit (Chapter 13). Last, but by no means least, Chapter 14 considers the psychological needs and care of women (and their families) who experience critical illness during childbearing.

References

Bryar, R. (1995) *Theory for Midwifery Practice*. MacMillan Press, London.

Department of Health (1993) *Changing Childbirth*. Her Majesty's Stationery Office (HMSO), London.

Fraser, D. and Cooper, M. (2003) *Myles Textbook for Midwives* (14th edn). Churchill Livingstone, Edinburgh.

Lee, B. (2000) Life threatened by birth: mothers in high dependency obstetric care *RCM Midwives Journal*, **3** (9): 282–3.

Lewis, G. (2001) *Why Mothers Die 1997–1999: The Confidential Enquiries into Maternal Deaths in the United Kingdom*. Royal College of Obstetricians and Gynaecologists (RCOG) Press, London.

Lewis, G. (2004) *Why Mothers Die 2000–2002: Report on Confidential Enquiries into Maternal Deaths in the United Kingdom*. Royal College of Obstetricians and Gynaecologists (RCOG) Press, London.

Mosby (1986) *Mosby's Medical and Nursing Dictionary* (2nd edn). C.V. Mosby, St Louis.

Nursing and Midwifery Council (2004) *Standards of Proficiency for Pre Registration Midwifery.* Nursing and Midwifery Council (NMC), London.

Office of National Statistics (2005) *Age specific fertility rates, 1994–2004.* www.statistics.gov.uk

Royal College of Midwives and Royal College of Obstetricians and Gynaecologists (1999) *Towards safer childbirth. Minimum standards for the organisation of labour wards. Report of a joint working party*. Royal College of Midwives and Royal College of Obstetricians and Gynaecologists (RCOG) Press, London.

Standing Nursing and Midwifery Advisory Committee (1998) *Midwifery: Delivering our future.* Department of Health, London.

Walker, L. and Avant, K. (1988) *Strategies for Theory Construction in Nursing* (2nd edn). Appleton & Lange, Connecticut.