



GUIDELINES FOR OBSTETRIC ANAESTHESIA SERVICES

Published by
The Association of Anaesthetists of Great Britain and Ireland
The Obstetric Anaesthetists Association

MEMBERS OF THE WORKING PARTY

Dr T A Thomas	Joint Chairman/President OAA
Dr W L M Baird	Joint Chairman/President AAGBI
Dr J H W Ballance	Secretary
Dr R J S Birks	AAGBI
Dr G C McDowell	AAGBI
Dr T H Madej	Honorary Secretary OAA
Dr D G Bogod	OAA
Professor M Harmer	OAA
Dr N L A Hickman	Group of Anaesthetists in Training

Ex Officio

Dr M Morgan	President elect/Editor
Dr D A Saunders	Honorary Treasurer
Dr D J Wilkinson	Honorary Secretary
Dr P G M Wallace	Assistant Honorary Secretary
Dr A F Naylor	Honorary Membership Secretary

September 1998

© Copyright of the Association of Anaesthetists of Great Britain and Ireland and the Obstetric Anaesthetists Association. No part of this book may be reproduced without the written permission of the Association of Anaesthetists.

The Association of Anaesthetists
of Great Britain and Ireland
9 Bedford Square, London WC1B 3RA
Telephone: 0171 631 1650
Fax: 0171 631 4352
Email: aagbi@compuserve.com

The Obstetric Anaesthetists Association
PO Box 3219
London SW13 9XR
Telephone: 0181 741 1311
Fax: 0181 741 0611
Email: secretariat@oaa-anaes.ac.uk

CONTENTS

	page
Section 1	Recommendations 1
Section 2	Introduction 2
Section 3	General considerations 3
Section 4	Requirements of an obstetric anaesthesia service 4
Section 5	Guidelines for an anaesthesia service..... 6
Section 6	Professional relationships..... 16
References 19

SECTION 1 - RECOMMENDATIONS

Parturients requiring anaesthesia have a right to the same facilities and standards of peri-operative care as all surgical patients.

Women and purchasers should be informed of the level of availability of regional analgesia in each unit.

At least one consultant obstetric anaesthesia session should be allocated for every 500 deliveries. Extra 'fixed' sessions above this minimum are required in units with a frequent turnover of inexperienced trainees, with a higher than average epidural or Caesarean section rate and/or a substantial number of high risk cases.

Criteria for midwife-led care should be followed.

The person assisting the anaesthetist during anaesthesia should have no other duties at that time. They should have been trained to NVQ level 3 in Operating Department Practice or possess the appropriate ENB qualification. To maintain relevant skills, they should act as an anaesthesia assistant on a regular basis.

There should be a list of problems about which the anaesthetist should be informed. The conditions to be included should be agreed jointly between the departments of anaesthesia, obstetrics and midwifery.

SECTION 2 - INTRODUCTION

In 1986, the Report on the Confidential Enquiries into Maternal Deaths (CEMD) in England and Wales for 1979-81 [1] showed that anaesthesia was the third commonest cause of maternal death. In the same year, the Association of Anaesthetists of Great Britain and Ireland (AAGBI), in conjunction with the Obstetric Anaesthetists Association (OAA), published a report [2] outlining far-sighted proposals for improving the quality and safety of obstetric anaesthesia in the UK.

In the ensuing decade, there have been major changes in the provision of maternity services and obstetric anaesthesia, many of which have reflected the recommendations made in the Associations' report and by the continuing Confidential Enquiries. The number of women delivering in larger units rose from 67% to 83% over the same period. An epidural service that was only available in 56.5% of all units in 1984 had increased to 70% by 1990 [3]. The Caesarean section rate increased but the use of general anaesthesia for Caesarean section fell rapidly, from 77% in 1982 to 44% in 1992 [4].

Over the same period, maternal mortality due to anaesthesia had declined markedly so that, in 1991-93, anaesthesia had fallen to eighth position as a cause of maternal death. This improvement coincided with a decrease in the use of general anaesthesia for Caesarean section, although other important contributing factors probably include improved staffing levels and the availability of senior anaesthesia and obstetric staff, together with better facilities in obstetric theatres and improvements in patient monitoring. These improvements have, of course, necessitated considerable expenditure. The temptation to economise in the face of the reduction in maternal mortality must be resisted and only continued vigilance will maintain the enviable standards achieved in the last decade.

The OAA published its 'Recommended Minimum Standards for Obstetric Anaesthesia Services' in 1995 [5]. This joint report by the AAGBI and the OAA updates the 1987 edition and the OAA's 1995 publication and aims to advance the provision of obstetric anaesthesia services in the UK into the next millennium.

SECTION 3 - GENERAL CONSIDERATIONS

Anaesthetists are involved with an increasing proportion of parturients as the use of regional analgesia increases and Caesarean section rates rise. The Audit Commission has shown that anaesthetists are involved in an average of 38% of labours, although this figure may be as high as 60% in some units [6]. Although this may be an overestimate - as it does not allow for the overlap between regional analgesia and Caesarean section - it clearly demonstrates the importance of the anaesthetist in maternity care.

At the same time, the role of anaesthetists in the care of the parturient has expanded. They are regularly involved in antenatal clinics and classes, the delivery suite, the obstetric theatre and in the high dependency and intensive care units that care for the critically ill parturient. Their skills in the recognition and treatment of cardiovascular, respiratory and central nervous system problems are added to their responsibility for the provision of pain relief in labour and anaesthesia for operative obstetric interventions.

Anaesthetists are an integral part of obstetric care teams. Their presence allows early consultation on the management of life-threatening obstetric complications such as haemorrhage or convulsions. Resuscitation of the mother is a rare but important responsibility for the obstetric anaesthetist and, although paediatric services are responsible for resuscitation of the newborn, anaesthetists are still called upon to assist.

The role of the obstetrician in the provision of maternity care has altered in recent years, following the publication of 'Changing Childbirth' [7]. Midwives are becoming the lead providers for many women with normal, healthy pregnancies but many of these parturients still require anaesthesia services to be available [8]. The question of professional relationships between midwives and anaesthetists needs to be addressed with some degree of urgency, not least because of the rising tide of medical negligence litigation.

SECTION 4 – REQUIREMENTS OF AN OBSTETRIC ANAESTHESIA SERVICE

The provision of a safe obstetric anaesthesia service is the responsibility of the individual trust and should be devolved to the directorate of anaesthesia. A comprehensive service can only be provided if anaesthetists who are skilled and experienced in obstetric anaesthesia and analgesia are immediately available at all times for elective operative deliveries, emergency calls and pain relief in labour. In most instances, the emergency, first on-call, obstetric anaesthesia service is provided by trainee anaesthetists but consultant support and on-call availability is essential throughout the 24 hour period, every day of the year. Standards in the obstetric operating theatre and recovery area should be the same as in other theatre suites and equal to those described by the AAGBI as necessary for all surgical patients [9].

Directorates of anaesthesia that offer a pain relief service in labour using regional analgesia undertake an increased commitment. Units offering regional analgesia at maternal request require extra anaesthesia staff in order to respond to requests in a reasonable time and to provide the continuous dedicated anaesthesia cover needed for patient safety. The CEMD report states that;

"Epidural analgesia is entirely contra-indicated for safety reasons unless a trained anaesthetist is immediately available whenever the technique is in use" [10].

Women delivering in smaller units have a right to the same standard of care. However, in very small units (<500 deliveries per annum), provision of such care may be impractical and uneconomic. In such circumstances, women may require early transfer to a larger unit offering a comprehensive anaesthesia service.

Every Maternity Service Liaison Committee or its equivalent should have a consultant obstetric anaesthetist as a member to ensure that expert anaesthetic advice is always available. Women and purchasers should be informed of the level of availability of anaesthesia and regional analgesia services in each unit.

The anaesthesia service is required to provide:-

- the organisation and audit of anaesthesia care for operative delivery, including pre-anaesthesia assessment, pre-operative and postoperative care;
- the administration, supervision and audit of regional analgesia;
- anaesthesia skills as part of the team managing severe illness in the obstetric patient e.g. severe haemorrhage, fulminating pre-eclampsia and eclampsia. This may include the transfer of a sick patient to another unit. It should not include primary transfer from home or 'flying squads'.
The CEMD state that;

"We endorse the recommendations of the Joint Committee of the Royal Colleges and Ambulance Service that the primary response for domiciliary emergencies such as eclampsia should be by the ambulance paramedics trained in cardiopulmonary resuscitation and the immediate management of obstetric complications" [11].

- a training programme for trainee anaesthetists [12]. Opportunities for appropriate continuing medical education for non-trainee grades contributing to the obstetric anaesthetic service;
- education of midwives in training and in-service. Antenatal education of mothers so that they can make informed choices about analgesia and anaesthesia. Information and updating for obstetricians of the scope and limitations of obstetric anaesthesia services;
- participation, if requested by the paediatric service, in resuscitation of the newborn. However, the primary responsibility of the anaesthetist rests with the mother.

SECTION 5 – GUIDELINES FOR AN ANAESTHESIA SERVICE

1. STAFFING OF OBSTETRIC ANAESTHESIA UNITS

(i) Consultant Anaesthetist

Each obstetric unit with an anaesthesia service should have a nominated consultant in charge of obstetric anaesthesia. The nominated consultant should organise the service, maintain or raise standards of practice, review facilities, audit the service and take responsibility for training anaesthetists. Sessional time should be granted for these responsibilities.

For optimal levels of patient care, there should be a designated consultant anaesthetist available in the obstetric unit, during normal working hours, Monday to Friday. In smaller units, the workload may not justify this level of staffing, thus highlighting, once again, the need to rationalise obstetric services by closing smaller units.

Previously, the recommended allocation of consultant anaesthetists to obstetric units was based on a least one 'fixed' session per 500 deliveries per annum. This ratio was first recommended by the House of Commons Social Services Committee in its Second Report of 1979/80. The Committee stated;

"We recommend that every obstetric unit delivering more than 1,000 women should have attached to it a consultant anaesthetist with at least two sessions of his contract committed to obstetric anaesthesia. In units delivering more women, the number of sessions of anaesthesia should be proportionately increased" [13].

The Government responded to this particular point by stating that it did not doubt the desirability of the target described in the recommendation.

It should be remembered that this recommendation was made 20 years ago when the responsibilities of consultants in obstetric anaesthesia were substantially less onerous than they are today. This recommendation must therefore now be regarded as a minimum provision, which should be reviewed to take account of the increased workload and

responsibilities that have been devolved to consultant anaesthetists. Sessional allocations must be greater in units with a fast turnover of trainees, a higher than average epidural or Caesarean section rate and/or a substantial throughput of high risk cases. During 'fixed' obstetric sessions, the consultant should be based on the delivery suite or obstetric operating theatre, with no other commitments. Consultants must have job plans which reflect their commitment to an obstetric anaesthesia service and which are reviewed and agreed annually [14].

In addition to the contracted consultant obstetric anaesthesia sessions, an obstetric unit with an anaesthesia service should have a consultant anaesthetist on call and responsible for the unit at all times, in the same way as a consultant anaesthetist is always available for other hospital emergency services. The CEMD state;

"All obstetric patients should be regarded as high anaesthesia risks, especially when emergency procedures are required and there should be early involvement of consultant anaesthetists in the management of complex deliveries" [15].

These responsibilities should be shared between consultants and local departmental arrangements should prevail. Each unit should display prominently the name of the consultant responsible for the delivery suite at that time. That consultant should not be more than half an hour away from the delivery suite at any time, in keeping with the NHS terms and conditions of service.

Elective Caesarean sections should be arranged at times when there is a dedicated team of anaesthesia, obstetric, midwifery and operating theatre staff available who are not, at the same time, required to cover other operating activities or emergencies.

(ii) Duty Anaesthetist

A duty anaesthetist should be available for the obstetric unit 24 hours a day. There should be time for a formal handover between shifts. All new staff should have a geographical orientation to the unit and access to local guidelines. Adequate accommodation, including provision for overnight stay, should be available, adjacent to the obstetric unit. If the duty

anaesthetist is unlikely to be able to respond because of another emergency, a second anaesthetist should be available. This second anaesthetist does not need to be routinely present on the delivery suite but must attend if needed. A clear line of communication from the duty anaesthetist to the on-call consultant should be assured at all times.

If the duty anaesthetist is a trainee, he/she should have been assessed as competent by the consultant in charge of obstetric anaesthesia and have at least one year's anaesthesia experience before undertaking independent clinical duties on the delivery suite.

(iii) Resuscitation Team

A multidisciplinary resuscitation team should be available for maternal emergencies at all times. Resuscitation equipment and drugs must be regularly checked.

2. REGIONAL ANALGESIA SERVICE

Ideally, units should be able to provide a regional analgesia service on request at all times. However, some units will only be able to provide an occasional service and units with inadequate anaesthesia staffing may not be able to offer a safe regional analgesia service at all. At booking, women must be informed of the service they can expect because those who, in the antenatal period, are led to expect that epidural analgesia will be available to them in labour are particularly anxious if they are subsequently deprived of this form of pain relief [3].

(i) Anaesthetists and regional analgesia services

The anaesthesia service has responsibility for any ongoing regional block, which cannot be delegated to a midwife or obstetrician. Units which offer a 24-hour on demand epidural analgesia service for women in labour should therefore ensure the presence of an anaesthetist in the hospital, available whenever a woman is in receipt of a regional blockade.

(ii) Midwives and regional analgesia services

A trained midwife should provide continuous care and monitoring of mother and fetus for the duration of an epidural blockade. If adequate midwifery care is unavailable, epidural blockade should not be instituted.

If midwifery staffing becomes inadequate during existing epidural blockade, the consultant anaesthetist must be informed before any existing epidural analgesia is discontinued.

(iii) Obstetricians and regional analgesia services

Epidural analgesia should not be used unless a trained obstetric team is immediately available in the same hospital to treat emergencies. Criteria for regional analgesia in women receiving midwife led care are outlined in Section 6.

3. ACCEPTABLE ANAESTHESIA RESPONSE TIMES

(i) Maternal emergencies

A team trained in cardiopulmonary resuscitation of the pregnant woman and the use of equipment and drugs must be immediately available for the obstetric unit at all times.

Life-threatening maternal emergencies such as total spinal, massive blood loss and pulmonary embolism require a prompt anaesthesia response. The duty obstetric anaesthetist should not undertake duties outside the obstetric unit which cannot be left if an emergency arises in an obstetric patient. When these emergencies arise, the nearest anaesthetist may be occupied with another patient; this situation is recognised in all forms of anaesthesia practice. The AAGBI suggests;

“If it is essential for the anaesthetist to leave the patient to deal with a life-threatening emergency nearby (which is a matter of individual judgement), he or she should instruct another person to observe the patient’s vital signs and should delegate overall responsibility to another registered medical practitioner” [16].

(ii) Fetal emergencies

Fetal distress requiring anaesthesia for operative delivery may need a very short anaesthesia response time. The time from informing the anaesthetist to the start of operative delivery should not exceed 30 minutes and may need to be much less, for example in prolapsed cord or profound fetal bradycardia.

(iii) Regional analgesia for labour

Units which have accepted the commitment of an on-demand service have a duty to respond within a reasonable time to a request for epidural analgesia. The time from informing the anaesthetist of the mother's request until attending the woman should ideally not exceed 30 minutes and, in any case, not exceed 60 minutes, other than in exceptional circumstances.

4. MONITORING OF MOTHER AND FETUS WITH REGIONAL ANALGESIA

A clinical assessment must be carried out and consent obtained and recorded in the notes before the insertion of an epidural catheter. The mother must not be left unattended for any reason for a minimum of 20 minutes after each top-up and she should be encouraged to report any untoward symptoms, in order to detect adverse reactions as early as is practicable. Blood pressure and pulse rate should be measured and recorded every five minutes for the first 20 minutes after the initial dose and as appropriate following top-ups, as well as at least half hourly throughout labour.

Urine output should be recorded and bladder distension prevented. The fetal heart rate should be recorded before and during establishment of the regional block. The midwife may be asked by the anaesthetist to perform and record hourly assessments of the sensory and motor block during labour.

Hospital guidelines on the maintenance of epidural analgesia should be agreed by anaesthetists, midwives and obstetricians. They should be reviewed annually and be readily available to all staff. Training of midwives in epidural maintenance should be a continuing education process.

The hospital epidural guidelines should include clear instructions for the management of inadequate analgesia and stipulate when the midwife should call the anaesthetist for advice or assistance. If a constant infusion into the epidural space or a patient-controlled administration system is employed, this should be subject to a strict protocol involving drug

preparation (diluting or mixing) and pump setting, with regular checks on pump performance. If spinal or epidural opioids are employed, additional monitoring and precautions will be necessary, as directed by the anaesthetist [15].

The anaesthetist retains responsibility for the regional block and should attend the woman regularly throughout the duration of the regional analgesia, to assess and record the state of the blockade so that complications are avoided and analgesia ensured. **Attending the woman only when called by the midwife is not sufficient.**

5. ANAESTHESIA FOR CAESAREAN DELIVERY

(i) Pre-operative preparation

There should be interdisciplinary guidelines within units for grouping and cross-matching of blood, oral intake and the use of agents to reduce the volume and acidity of gastric contents. If possible, patients should be visited and assessed by an anaesthetist, in accordance with accepted standards, prior to arrival in the operating theatre. If an 'elective' Caesarean delivery is delayed by more than four hours, the mother should be given the option of an intravenous infusion, to maintain hydration, with a view to proceeding as soon as possible or to have the operation rescheduled for the next available opportunity.

(ii) Monitoring

For operative delivery under regional block, continuous pulse oximetry, non-invasive blood pressure capable of automatic one minute cycles (preferably with printout) and continuous ECG monitoring are required during induction, maintenance and recovery. The fetal heart rate should be recorded during initiation of regional block and until the abdominal skin preparation is begun in emergency Caesarean section. During general anaesthesia, the mother should be monitored in accordance with the recommendations of the AAGBI [16].

6. OBSTETRIC THEATRE, RECOVERY, HDU and ICU FACILITIES

Every obstetric unit with an anaesthesia service must have a dedicated operating theatre. This should be on the same floor as and contiguous with the delivery suite. A second facility may be required in the event of

an emergency. The obstetric operating theatre and any other room so used should be fully equipped to the standard described for operating theatres [16]. Operating department or midwifery staff trained to assist the anaesthetist should be available throughout the procedure and have no other duties.

A fully equipped and staffed recovery area is essential whether regional or general anaesthesia is used. This area should be separate from the operating theatre but in close proximity and on the same floor. The postoperative care of the obstetric patient should be in accordance with the care of any postoperative patient [17]. Recovery care should be undertaken by suitably trained staff, initially on a one-to-one basis. The CEMD state;

"Midwifery staff deputed to look after postoperative patients should be specifically trained in monitoring, care of the airway and resuscitative procedures and should be supervised by a defined anaesthetist at all times" [11].

The woman should be under continuous clinical observation for at least 30 minutes and until discharge criteria are met. Discharge from the recovery area to the postnatal ward should be according to a protocol agreed by the anaesthetist in charge. A midwife should be assigned to provide individual care for any woman following Caesarean section who has a condition that needs continuous care, for example major blood loss, hypertension or diabetes, but which does not justify her transfer to ICU. An obstetric anaesthesia service should not be provided unless facilities for postoperative care, other than general postnatal ward care, are available for every woman who requires them.

In maternity units with obstetric anaesthesia services, high dependency care should be available [15]. Facilities for such care should be on or adjacent to the delivery suite and obstetric operating theatre. Appropriately trained staff should be available on a 24-hour basis. If necessary, obstetric patients should be transferred to the general high dependency unit in the same hospital. Facilities should exist to transfer patients to an intensive care unit in the same hospital if possible, or close by if not. Trained anaesthesia, obstetric and midwifery staff may be

required to accompany the patient. Complex and seriously ill patients and/or those with a compromised fetus, in smaller maternity units, may benefit from pre-emptive transfer to a tertiary referral unit, HDU or ICU.

7. REQUIREMENTS FOR BLOOD AVAILABILITY

All obstetric units should have at least two units of uncrossmatched O negative blood available within five minutes. Crossmatched blood should be available within 30 minutes of receipt of a sample by the blood bank. Uncrossmatched blood of the patient's own group may be available sooner if the group is known but this will depend on local arrangements.

The hospital should agree guidelines as to which obstetric patients should have blood crossmatched.

A haematological opinion and service should be available at all times for the delivery suite.

8. CONSENT FOR OBSTETRIC ANAESTHESIA PROCEDURES

There is no difference between the principle of obtaining consent for obstetric anaesthesia and any other medical treatment. A patient has the right to give or withhold consent or withdraw consent even after it has been given. Consent may be implied or expressed; it may be oral or written.

The patient is entitled to receive an explanation of the proposed procedure in simple language and should be capable of understanding the information given. The explanation should include the nature and purpose of the proposed procedure, as well as any material risks attached to it. The patient should be given an opportunity to ask any questions she may have relating to the procedure. The CEMD state;

"Every effort must be made to improve the quality of information provided and to make sure that it is presented in an appropriate form" [15].

Although the mechanism for obtaining consent will vary from unit to unit, it is important that every unit should develop a policy whereby,

during the antenatal period, patients are given a detailed, unbiased explanation about pain relief and operations under regional and general anaesthesia. If possible, these explanations should be given by an anaesthetist. It is still necessary to give the patient an explanation at the time of the proposed procedure, even though she may not fully understand exactly what is being said because of pain or being confused by analgesic or sedative drugs. All explanations should be documented and witnessed.

9. ASSESSMENT OF THE SICK OBSTETRIC PATIENT

Any woman with a medical condition or complication of pregnancy should be assessed by an obstetric anaesthetist during the course of her pregnancy, well before delivery is contemplated. The CEMD state;

“Anaesthetists responsible for obstetric services should liaise with midwives, obstetricians and physicians to agree management for successful delivery. The anaesthetist must become involved in the management of the 'at risk' patient at an early stage and can provide the liaison with high dependency and intensive care on behalf of the management team” [15].

There should be a list of problems about which the anaesthetist should be informed. The conditions to be included should be agreed jointly between the departments of anaesthesia, obstetrics and midwifery.

10. ASSISTANCE FOR THE ANAESTHETIST IN OBSTETRIC ANAESTHESIA

The ideal person to assist the anaesthetist in obstetric anaesthetic practice is an appropriately trained Operating Department Practitioner (ODP) or a specifically trained Anaesthesia Nurse. If such a person is not available for any reason, a registered nurse or midwife with current and effective registration, who has received equivalent anaesthesia training to a nationally or regionally recognised standard (though not local standard), should be employed to perform such duties. NVQ level 3 in Operating Department Practice is the accepted national standard. The person trained to a recognised standard should assist the anaesthetist on a regular basis, not only occasionally, to ensure maintenance of competence. Such

a person thus employed should have no other duties in the operating department at that time [9].

11. DEPARTMENTAL GUIDELINES

All departments should have agreed and regularly updated guidelines on the following topics:

- antenatal referral to the anaesthetist;
- major haemorrhage;
- pre-eclamptic toxæmia;
- failed intubation drill;
- management of regional anaesthesia including:-
 - regional blocks for analgesia
 - regional blocks for surgery
 - unintentional dural puncture
 - severe hypotension
 - total spinal anaesthesia;
- admission and discharge criteria from delivery suite to HDU.

SECTION 6 - PROFESSIONAL RELATIONSHIPS

1. ANAESTHETISTS AND MIDWIVES

In the early 1990s, the UK Government commissioned a major review of the provision of maternity services. The subsequent report, 'Changing Childbirth', published in 1993, has led to the progressive demedicalisation of normal pregnancy and childbirth [7]. Midwives are taking an increasing role as lead or even sole providers of maternity care for these women, many of whom still require regional analgesia, often without prior planning [8].

Historically, anaesthetists only provide services to patients at the request of another doctor, although some exceptions to this rule do exist. Informal arrangements between midwives and anaesthetists are probably not uncommon and many units skirt around the difficulties of the involvement of anaesthetists in midwifery-led care by having an obstetrician nominally in charge of low-risk women. The situation is made more complex by the fact that epidurals can, in themselves, influence the progress of labour [18].

With the upward trend in the use of regional anaesthesia [3], it is inevitable that anaesthetists will be increasingly involved in the provision of pain relief for women who are not under the care of another medical practitioner and where there is no direct obstetric input. The current trend in litigation against those involved in maternity care is a strong impetus to formalise these arrangements for the benefit of patient, anaesthetist, midwife and obstetrician.

It is recommended, therefore, that the following criteria should be met whenever a hospital or maternity unit is proposing that anaesthetists should work directly with midwives who are acting as lead providers of obstetric care:

- there must be a consultant-led obstetric service immediately available;
- there must be guidelines in place for the management of regional analgesia that have been agreed by anaesthetists, midwives and

obstetricians. These guidelines must be readily available and regularly updated. Midwives practising independently but intending to make use of a regional anaesthesia service must agree to follow the guidelines of the unit where they deliver their patients;

- the midwife requesting regional analgesia must be trained in its management, to a standard acceptable to the anaesthetist responsible for the service and must undergo regular refresher training;
- the midwife must be managing patients with regional analgesia on a regular basis;
- the midwife should allow the anaesthetist access to any woman considering regional analgesia who wishes to discuss pain relief options;
- if the anaesthetist feels that an obstetric opinion is necessary, he/she should consult the midwife in the first instance. However, the anaesthetist must, if necessary, be able to consult obstetric staff directly without recourse to the midwife who must then allow them to attend the patient;
- the anaesthetist must retain responsibility for the regional analgesia at all times and must be allowed unimpeded access to the patient for this purpose;
- all decisions regarding regional analgesia must rest with the anaesthetist.

2. ANAESTHETISTS AND OBSTETRICIANS

The anaesthetist is an integral part of the team caring for maternity patients, often participating in the management of over 50% of parturients in a typical unit. As such, it is essential that a good working relationship is established between anaesthetists and obstetricians, whether at consultant or non-consultant level.

Anaesthetists should encourage and facilitate consultation in the antepartum period by making themselves available when antenatal clinics are

in progress and by ensuring clear lines of referral. A high-risk antenatal anaesthesia clinic should be considered in tertiary referral centres.

Decisions about the suitability of patients for regional analgesia and anaesthesia must be made by the anaesthetist, bearing in mind the reasonable clinical preferences of the obstetrician.

Good communication on the labour suite is vital in order to minimise last minute referral and the hasty decision making that often ensues. Anaesthetists should make themselves known to obstetricians who should, in turn, keep them informed of developing problems.

Anaesthetists should be involved in planning decisions that affect the delivery of maternity services. Anaesthesia should be represented on the Maternity Services Liaison Committee, Labour Suite Working Party, obstetric directorate and any other bodies involved in the planning and delivery of such services.

REFERENCES

- 1 Department of Health and Social Security Report on Health and Social Subjects 29. Report on the Confidential Enquiry into Maternal Deaths in the England and Wales 1979-1981. London: HMSO, 1986.
- 2 Anaesthetic Services for Obstetrics – a Plan for the Future. Association of Anaesthetists of Great Britain and Ireland and Obstetric Anaesthetists Association. London 1987.
- 3 Chamberlain G, Wraight A, Steer P. Pain and its relief in Childbirth. The Results of a National Survey Conducted by the National Birthday Trust. Eds Chamberlain G, Wraight A, Steer P. Churchill Livingstone; Edinburgh 1993.
- 4 Brown G W et al. A survey of anaesthesia for Caesarean section. IJOA 1995; 4: 214-8.
- 5 Recommended Minimum Standards for Obstetric Anaesthesia Services. Obstetric Anaesthetists Association. Nottingham 1995.
- 6 Anaesthesia under Examination: Report of the National Audit Commission. National Publications; Oxford 1997.
- 7 Cumberlege Report. Changing Childbirth: Report of the Expert Maternity Group. HMSO; London 1993.
- 8 Pickett J A et al. Does midwifery–led intrapartum care require anaesthetic services? IJOA 1996; 5: 152-5.
- 9 The Anaesthesia Team. Association of Anaesthetists of Great Britain and Ireland; London 1998.
- 10 Department of Health and Social Security Report on Health and Social Subjects 14. Report on Confidential Enquiries into Maternal Deaths in England and Wales 1973-1975. London: HMSO, 1986.

- 11 UK Health Departments. Report on Confidential Enquiries into Maternal Deaths in the United Kingdom 1988-1990. London: HMSO, 1994.
- 12 On Modular Training in Obstetric Anaesthesia (in preparation). Obstetric Anaesthetists Association. London.
- 13 Second Report from the Social Services Committee, Session 1979-1980, Perinatal and Neonatal Mortality, Vol. 1. London: HMSO, 1980.
- 14 Guidance on Contracts and Workload for Consultant Anaesthetists. Association of Anaesthetists of Great Britain and Ireland; London 1997.
- 15 UK Health Departments. Report on the Confidential Enquiries into Maternal Deaths in the United Kingdom 1991-1993. London: HMSO, 1996.
- 16 Recommendations for Standards of Monitoring during Anaesthesia and Recovery. Association of Anaesthetists of Great Britain and Ireland; London 1994.
- 17 Immediate Postanaesthetic Recovery. Association of Anaesthetists of Great Britain and Ireland; London 1993.
- 18 Miller AC. The effect of epidural analgesia on uterine activity and labour. *IJOA* 1997; **6**: 2-18.