



The Royal College of
Anaesthetists

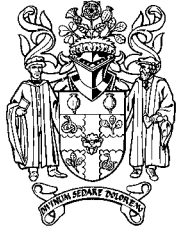


The Association of
Anaesthetists of Great
Britain and Ireland

Good Practice

A guide for departments of anaesthesia,
critical care and pain management

Third edition
2006



The Royal College of Anaesthetists



The Association of Anaesthetists of Great Britain and Ireland

Prepared by the Joint Committee on Good Practice

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Foreword

All doctors practising anaesthesia, critical care and pain management have a primary duty to provide the best care of patients that they can, whether they practise as consultants, non-consultant career grade doctors or trainees, and whether in the National Health Service or in the independent sector.

The stimulus for the first edition (1998) of this document *Good Practice – A Guide for Departments of Anaesthesia* came from a meeting convened in April 1997 by the Chief Medical Officer (England), Sir Kenneth Calman, at which all acute clinical services were urged to produce benchmarks of good practice for their specialty.

The Royal College of Anaesthetists (the College) and the Association of Anaesthetists of Great Britain and Ireland (the Association) set up a joint working party to address this issue. The working party's remit was:

- to collate current agreed guidelines and standards which specify good practice
- to consider how these guidelines and standards could be applied at individual departmental and national level to ensure patient safety
- to offer guidance on the identification and management of poorly performing anaesthetists.

The first edition of the Good Practice document brought together advice, recommendations and information which reviewed the basis of good practice in anaesthesia, critical care and pain management. It also summarised the methods by which the medical profession was regulated and gave guidance to anaesthetists and anaesthetic departments about how departments could set, maintain and monitor standards of good practice within a changing environment. The importance of corporate ownership of standards within a department and local regulation of good practice was emphasised. The document set down as requested the benchmarks for anaesthetic practice in the context of the many changes which marked the end of the last Millennium. It was welcomed in both anaesthetic and wider medical circles.

Subsequently, the Association and the College set up a Joint Committee on Good Practice to develop and advise on some of the themes in the Good Practice document. Many of the initiatives of the late 1990s have evolved to such an extent that it became clear that the Good Practice document would require regular review and updating. Such occurred in 2002 with updating of regulatory issues and reflection of best current practice.

This, the third edition of the Good Practice Guide, is the result of further review and updating of the previous documents to provide appropriate and current advice on the various aspects that constitute good practice. Further guidance pertaining to pain management is under development by the British Pain Society.

We, the Presidents of the Royal College of Anaesthetists and the Association of Anaesthetists of Great Britain and Ireland, commend this guidance to all involved in anaesthesia, critical care and pain management.

Dr David Whitaker,
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Summary

The way in which medicine is practised and the social and political environment in which doctors' work have changed dramatically in recent years. Recent developments in the provision of NHS care within the independent sector have again raised concerns over standards of practice.

From early in 2007 anaesthetists and patients will increasingly encounter the new non-medically qualified member of the anaesthesia team – the anaesthesia practitioner (AP). Three phases of recruitment and training are under way for APs in partnership with hospitals and universities in England, Scotland and Northern Ireland. The Phase 1 students will qualify to practise on successful completion of 27 months of training and shortly after the publication of this document. Working under the direct supervision of an anaesthetist, the AP will be initially indemnified under local arrangements; however, following a period on a voluntary register held by the College, all aspects of registration for the AP will be taken on by a national regulator, most likely to be the Health Professions Council. The AP programme, initiated by the Department of Health (DH) and endorsed by the College and the Association, is the only one in the United Kingdom (UK) which has been formally accepted by patients and anaesthetists as safe and appropriate.

Anaesthetists in the UK have an excellent record of adapting to these changes while maintaining very high standards of patient care. However, concerns have been expressed by Government, public bodies and the media about the continuing ability of doctors to regulate themselves. These concerns will only be allayed as doctors demonstrate clearly their ability to maintain high standards throughout the NHS. Indeed, quality of care has become the centrepiece of the Government's approach, though at the same time there is now acknowledgement that chronic underfunding has contributed to many of the problems in the NHS. There is a major challenge to ensure that, as funding improves, standards are maintained and best use is made of such funding.

This third edition of *Good Practice – A guide for departments of anaesthesia, critical care and pain management*, updates information and sets out the standards which the Association of Anaesthetists and the Royal College of Anaesthetists believe should characterise the delivery of anaesthetic services. It is vital that departments of anaesthesia and individual anaesthetists continue to provide a high quality service and care for patients. It is the wish of the Councils of the College and the Association that departments audit their practice and delivery of anaesthetic services against the benchmarks in this Good Practice document.

Where departments do so, standards of practice will be maintained, anaesthetists will continue to develop their knowledge and skills and the likelihood of poor practice will be greatly reduced.



Chapter 1: Introduction and background

The organisational changes in medicine and in the way it is practised continue at an alarming rate. Against a background of raised public expectations of both the National Health Service and of individual doctors, and in a climate of blame and litigation, the problems within medical practice seem to have increased rather than receded. At the very least, the changes and recommendations initiated in 1998 have reinforced a greater awareness among all doctors of the wide responsibilities they carry for their patients, and the demands on them to demonstrate that their knowledge, skills and attitudes are being continually updated and critically assessed.

1.1 Contemporary issues^{1,5}

Recent years have not only seen major changes in medicine due to scientific advances and technological developments but also changes in the social context within which doctors work. In the latter half of the 20th Century, the culture of paternalism on the one hand and deference on the other, rightly, largely disappeared. The population in general and patients in particular have become better informed about health matters and decisions about their healthcare. Doctors have accepted that they and their patients are partners and they now practise in this climate of better patient knowledge and of co-operation. Simultaneously, time medical practice takes place within a political and economic framework over which the medical profession has little control, but in which it is expected by both politicians and patients to make the system work efficiently and effectively.

Increasingly in the last few years, doubts have been expressed about the ability of the medical profession to set and maintain standards of practice and to deal with those whose knowledge, skills and attitudes are deficient. Every case of alleged poor performance, whether in clinical practice, professional conduct or personal ethics, serves to reinforce that perceived view. Despite the many changes in management and the systems in which doctors work, professionally led regulation of the medical profession is still accepted as the ultimate method for dealing with matters of poor performance, though deficiencies in the robustness of this have been challenged by Dame Janet Smith in her report of the Shipman Enquiry. The basis for this system is that medicine involves knowledge, skills and attitudes which those without a medical training or specific training cannot adequately evaluate and regulate. On the other hand, the importance of the perspective provided by a strong non-medical input is now widely recognised. The maintenance of professionally led regulation can only be expected to remain extant if the overall performance of doctors is seen and agreed to be of a consistently acceptable standard and if the profession deals promptly and effectively with those of its membership who fall below such a standard. It is right, therefore, that Government, the DH, the profession, the media and the public should continue to take steps to ensure the reinforcement of the regulatory process.



The key questions are:

How do doctors set standards?

How do doctors maintain standards?

How are these standards revised when necessary?

How does the profession ensure compliance with these standards?

How does the profession publicly demonstrate this is taking place?

This *Guide for anaesthetists and departments of anaesthesia, critical care and pain management* addresses these questions within the framework of the General Medical Council's document *Good Medical Practice*.⁶ The relevant paragraphs from the document are indicated in italics.

Throughout this document, the terms 'anaesthetist' and 'anaesthetic practice' are used to refer to all anaesthetists involved in clinical anaesthesia and perioperative care, in critical care, in acute and chronic pain management, and in obstetric care.

1.2 The traditional system of regulation

Since the Medical Act of 1858 which set up the General Medical Council (GMC), a complex set of arrangements has developed for professional regulation. These consist of:

The General Medical Council (GMC)

The Postgraduate Medical Education Board (PMETB)

The Medical Royal Colleges and their Faculties

National professional organisations

Contracts of employment

The GMC sets the framework within which UK medical schools undertake basic medical training. It is required to include on the Medical Register all whom the universities deem qualified. From the outset the GMC has had powers to remove from the Register those whom it finds guilty of serious professional misconduct and subsequently to restrict, supervise or suspend the practice of doctors whose health or performance may place patients at risk.

PMETB sets the generic principles, standards and outcomes, onto which individual specialties map their training and assessment programmes. Standards of practice within the medical specialties are regulated by the Royal Colleges in so far as they set up training programmes and examinations under PMETB, establish the requirements for the recognition of training departments and lay down criteria for appointment to consultant posts. Hitherto, their regulatory powers have been confined to training and have not included the activities of consultants. This is gradually changing, especially in the areas of continuing education and professional development and increasingly in the development of criteria for revalidation.



A further part of setting and maintaining standards is the 'guidance' which the Colleges and professional associations issue about clinical care and the safe provision of services. The Association has been particularly active in this field over the past two decades and has issued guidance on a wide range of subjects. While these documents are without statutory authority they have, together with guidance from the College and other groups, and with the support of the body of the specialty, become the benchmarks by which doctors involved in anaesthesia are expected to practise. They also set out the requirements which purchasers and providers need to meet to enable anaesthetists to deliver high quality services. These activities of the College, the Association and other specialist bodies are supported by their educational programmes.

In addition to all these initiatives, doctors are subject to a range of legislation and to their contracts of employment with the accompanying disciplinary procedures. Individual Trusts are required to work under NHS employment guidelines, which include all aspects of their clinical duties, including local performance assessment. They are also influenced by the activities of the civil courts and by the demands of their own defence societies.

During the early 1990s, in response to increasing concerns about the profession's ability to set and monitor standards and demonstrate that they were adhered to, the profession initiated further regulatory developments. In 1995, there was a national conference on the core values of medicine⁷ and the Royal Colleges also introduced continuing medical education for consultants. If individuals failed to meet the prescribed targets, they might no longer be able to teach and supervise trainees. If a department failed to meet them, recognition for training would be at risk. Requirements for continuing medical education for non-consultant career grades were also introduced. In April 2000, the Royal College of Anaesthetists issued a revised scheme for Continuing Professional Development (CPD). The College believes it is a professional necessity for all career grade anaesthetists to take part in CPD. This includes those who are full-time or part-time, those who are locum anaesthetists, those engaged wholly in independent practice and those affiliated to non-UK Colleges or Faculties.

The organisation of programmes of CPD is expected to make a major contribution to the standards of practice. In addition, the College incorporated into CPD the list of core topics; these are topics in which an individual specialist working in a typical hospital and participating in the emergency on-call rota should have up-to-date knowledge and proficiency.

The GMC and PMETB together have a statutory responsibility to co-ordinate all phases of medical education, a responsibility which in the past it has discharged in relation to undergraduate and postgraduate education up until entry into the career grades. In future it will also, through its CPD board working in close collaboration with the Medical Royal Colleges and others, co-ordinate CPD for all career grade doctors. It is clearly essential that CPD schemes meet the criteria required for revalidation. This attests to the importance with which these activities are regarded.



1.3 Recent developments in regulation

1.3.1 The General Medical Council

1.3.1.1 Medical Act 1995

In July 1997, the GMC's new procedures for assessing the performance of doctors under the 1995 Medical (Professional Performance) Act,⁸ came into force. These procedures enable the GMC to assess formally a doctor's clinical and professional performance, including tests of knowledge and skills where there is reason to believe that these may be seriously deficient.

The GMC has powers to require doctors to undergo further training, to restrict their practice or to suspend them from practice, initially for a limited period but indefinitely if deficiencies are not remedied. The boundaries between these procedures and the NHS complaints and disciplinary procedures and the criteria for referral to the GMC are set out in the GMC document, *Maintaining Good Medical Practice*.⁹

1.3.1.2 Revalidation

The GMC has also initiated changes which will result in all doctors having to undergo a process of revalidation, in order to maintain their licence to practise. Although this was planned to commence in 2004, its start has been delayed pending a review by the CMO, following publication of the Shipman report. The appraisal system will form the basis of the process for most doctors and there will also be a major lay input into the assessment of doctors for revalidation. Individual specialties will have a major involvement in setting the standards by which doctors are judged. It seems likely that several different elements will contribute to the process including regular satisfactory appraisals which must incorporate the development and fulfilment of a personal development plan and verified evidence of personal performance, which will vary between specialties. This could include personal audit, multi-professional feedback (360°) or evidence from hospital performance figures. The final element will be a positive sign-off by the employer that there are no causes for concern. The Academy of Medical Royal Colleges has been working to try to develop systems which will be equable across specialties and throughout the whole country.

1.3.2 Government¹⁰

The governmental initiatives outlined below refer to England. Equivalent bodies are present or are being set up in Scotland, Wales and Northern Ireland.

1.3.2.1 White Paper

The White Paper, *The New NHS*,¹⁰ published in December 1997, made it clear that practitioners must accept responsibility for developing and maintaining standards within their local NHS organisations. Self-regulation was strengthened and extended into the local clinical community. Chief executives are now held accountable for the quality of the services provided by their Trust. Through clinical governance and the appraisal system, chief executives have been provided with the tools whereby they should be able to encourage medical practitioners to keep their skills up to date and should have an early warning of impending problems and the means to rectify them. The quality of local clinical services is now overseen by the Healthcare Commission with statutory powers to ensure that local systems are in place to monitor and improve quality.



1.3.2.2 The National Clinical Assessment Service (NCAS) (formerly Authority)¹¹

In April 2001, the National Clinical Assessment Authority (NCAA) was established and represents part of the Government's commitment to quality assurance in the health service. In April 2005, following the Arm's Length Bodies Review, the NCAA became part of the National Patient Safety Agency (NPSA), changing its name to the National Clinical Assessment Service (NCAS).

NCAS provides a service to NHS organisations and organisations that provide healthcare services to the NHS, as well as to doctors and dentists themselves, aimed at helping them tackle performance problems at an early stage, earlier than is current practice. One of its key aims is to help avoid the inappropriate use of suspension or exclusion, which was so often the case in the past, causing great damage to services and to doctors themselves. Concerns about a doctor's performance should be tackled locally and problems hopefully resolved. If not, doctors can be referred to NCAS which can provide a range of advice, support and assessment services which are aimed at recommending how to proceed. It may suggest a range of possible options, for example, that the doctor should return to work, should have a period of retraining organised and implemented through the postgraduate dean, or perhaps should be referred to the GMC. It will be the responsibility of the Health Authority or Trust to implement any recommendations. NCAS now has more than five years of experience in this work, and evaluation of its work has shown evidence of earlier resolution of even complex and challenging cases and of substantial reductions in inappropriate use of suspension and exclusion. Evaluation reports are available from the NCAS website at: www.ncas.npsa.nhs.uk or directly from them by email: ncas@ncas.npsa.nhs.uk.

The College has been working closely with the Association of Anaesthetists and NCAS to develop a portfolio of documents to advise over issues of poor performance. This has been achieved under the umbrella of the Joint Committee on Good Practice. It is hoped that, wherever possible, NCAS and the Joint Committee can work together so that, effectively, there is a single point of contact for all concerns. It is often difficult to discover initially whether the perceived problems are with the system, an individual or a group of clinicians. The documents available include advice to Trusts, advice to College/NCAS visitors and advice on retraining, and, for individual referral, the confidential 'sick doctor' scheme still operates.

The Government expects the profession to deliver a uniformly high standard of practice throughout the NHS and will continue to look to individual healthcare professionals to be responsible for the quality of their clinical practice.

1.3.2.3 The National Patient Safety Agency (NPSA)¹²

The NPSA was established in September 2001 with the remit to identify errors in the process of patient care and enable such errors to be reduced in a blame free environment. In this regard the College Critical Incident Reporting System has been adopted in full with minor modifications for use by the agency. The results obtained from this anonymous reporting will be collected from all NHS hospitals and will be used to reduce risks to patients.



1.3.3 The Academy of Medical Royal Colleges (AoMRC)

The Academy of Medical Royal Colleges is a common forum for College representatives to meet to discuss items of mutual interest and from which a common voice can be formulated to negotiate with Government, the GMC and other bodies. It does not devalue the status of the individual Colleges but allows a stronger position to be adopted in areas of common interest.

1.3.4 The Postgraduate Medical Education and Training Board (PMETB)

PMETB is a regulatory authority which has replaced both the Specialist Training Authority (STA) and the Joint Committee for Postgraduate Training in General Practice (JCPTGP). It is independent of the Department of Health and answers to the Secretary of State. It launched in September 2005 and is charged with quality assuring all aspects of medical education, training and assessment, ensuring that programmes and curricula are fit for purpose, and appropriately validated. It will be responsible for delivering all aspects of Modernising Medical Careers, though responsibility for Foundation training, and particularly the first pre-registration year, will be shared with the GMC.

1.3.5 The British Medical Association (BMA)

The BMA represents the whole medical profession, is the interface between doctors, their employers and the public and can exercise an overview of the different specialties. It takes on board the terms and conditions of service and speaks for the profession in discussions of remuneration and in disputes, and in how the NHS can best provide a comprehensive service for all patients.

1.4 Local standard setting and regulation¹³

The culture in which doctors work is still often not conducive to the admission of deficiencies, which tend to be regarded as a sign of weakness, and ignored or covered up. There are gaps between central guidance, regulation and the individual doctor. The introduction of annual appraisal from April 2001, as a contractual obligation, has emphasised the need for the regular and constructive review of the way in which the employee is keeping up to date with the developments in theoretical knowledge, with the preservation of practical skills and with the retention of appropriate attitudes. It is expected that the appraisal process will be informed from a number of sources, representative of all the areas in which the individual doctor works, including the private sector. Appraisal is designed to be a constructive non-confrontational developmental process. As well as the responsibility of individual doctors for their own professional development, it is also necessary for the sense of corporate responsibility to be further developed within departments. This need is highlighted by the changes which have taken place in the way in which medicine has been practised during the past decade, the main features of which are as follows.

1.4.1 Team working

It has become unusual for doctors to work as isolated individuals; in hospital practice, they are usually members of departments which provide a service. This has long been the model in anaesthesia. On a different level, doctors also function as members of multidisciplinary healthcare teams. While they are commonly the leaders of clinical teams, their ability to care for patients depends vitally on the skills of other doctors

and healthcare professionals. In such cases, the details of an individual anaesthetist's practice may be little known to colleagues in the same department.

1.4.2 Continuity of care

Doctors have increasing concerns about the quality of their lives apart from their work. This has been particularly reflected in the reduction in working hours of trainees. Consultants, while theoretically having continuous responsibility for patients under their care, frequently hand this over to an on-call colleague at night and at weekends. This issue is dealt with in more detail in Chapter 3.

1.4.3 Management

The NHS has a complex management system which often defines the limits of what doctors can do. Many clinicians are involved in healthcare management as clinical leads, clinical directors and medical directors. It is important that those undertaking these roles are properly trained and resourced in terms of time free from other clinical responsibilities.

1.4.4 Complaints

When a patient complains it is because of dissatisfaction with some aspect of their care which may range from an administrative error to dissatisfaction with their clinical management. At the same time, expectations have increased and patients' tolerances have decreased. Not all mistakes result in a complaint and not all complaints are because of a mistake. The management of complaints must focus firstly on complaints avoidance by ensuring that systems are in place so that problems are minimised. The Clinical Negligence Scheme for Trusts (CNST)¹⁴ allows Trusts to target areas of repeated adverse events. Complaints are often multifaceted but good communication with patients will often defuse potentially difficult situations and minimise the causes for complaint. For this to develop in a constructive manner there is need for a culture of openness. Where local action fails to resolve a complaint then an independent review panel can be convened. Complaints are now a fact of working life and the best way to minimise their impact is to deal with them quickly, fairly and openly.

These changes have major implications for the organisation of medical work and the provision of patient care. They also emphasise the need for local, corporate regulation.

The former President of the GMC, Sir Donald Irvine, has summarised professional regulation and standard setting in the following way:

Figure 1 Routes of accountability

Individual doctors	Clinical team	National bodies
↓	↓	↓
Personal standards	Local collective standards	National professional standards
↓	↓	↓
Self-assessment	Local audit	External review



The key to the effective working of these arrangements is to be found at a local level.

Anaesthetists are used to working as members of a department, and team-working is usually accepted from an early stage of an anaesthetist's career. The corporate standards and ethos of departments of anaesthesia, critical care and pain management provide the most effective way of ensuring high standards of patient care, preventing any decline in an individual's performance and recognising when a deterioration occurs.

Several requirements are essential for departments to work in this way. These include:

- an effective and constructive system of appraisal
- an agreed system of continuing medical education and professional development
- methods of dealing sensitively and effectively with those anaesthetists whose clinical and professional standards fall below an acceptable level.

At a national level, there are a series of initiatives to allow for the development of national standards and monitoring of such standards. Figure 2 gives a diagrammatic summary of some of the mechanisms involved in the setting, delivery and monitoring of these standards. The National Institute for Health and Clinical Excellence and the different National Service Frameworks are designed to give national standards of service. Professional Self-Regulation and Clinical Governance allied to Life Long Learning are designed to give dependable local delivery. In England the process is monitored by the Healthcare Commission, the National Performance Framework and National Patient and Users Surveys. Equivalent bodies and procedures are operational or planned in Scotland, Wales and Northern Ireland.

Figure 2 Standards – setting, delivering, monitoring

■	National Institute for Health and Clinical Excellence National Service Frameworks	■	Clear standards of service
■	Professional Self-Regulation Clinical Governance Life Long Learning	■	Dependable local delivery
■	Healthcare Commission National Performance Framework National Patient and Users Surveys	■	Monitored standards

The Association and the College believe that where anaesthetists corporately take the responsibility in the light of agreed advice for setting local standards and complying with them there will be:

- a high level of professional satisfaction within departments
- continuously rising standards of perioperative care for patients
- considerable influence exerted throughout the hospital.



Chapter 2: The ethical framework^{6, 15-18}

The apparently straightforward relationship of mutual Trust and respect between doctors and patients has been complicated by changes, summarised in the introduction, which have taken place in both medicine and society in recent years. Various groups and individuals have developed an ethical framework which sets out what is required of doctors if they are to merit and retain the Trust of patients and the public. The ethical framework within which anaesthetists should practise may be summarised under four main headings:

- Professional competence.
- Professional relationships with patients and colleagues.
- Public duties.
- Probity.

2.1 Professional competence

In providing care you must recognise and work within the limits of your competence.

A doctor's first duty is to work for the benefit of patients. This requires a detailed, up-to-date knowledge of the particular area in which the doctor works together with proficiency in the skills which practice in that area requires. The time has passed when the basic medical undergraduate training and subsequent specialist training equipped those in anaesthesia, critical care and pain management with the knowledge and skills for a career-long practice of high standard. The rate at which advances are made in all aspects of the care of patients is so great that every anaesthetist needs to be involved in a programme of continuing education and training at local and national level. With such a rapid rate of change, anaesthetists will develop particular areas of expertise which should be available to colleagues within a department.

However, while the benefits of modern peri-operative care are obvious, most anaesthetic procedures carry some risk of harm to patients. Audit of both individual practice and the service provided by a department is essential if these risks are to be minimised and benefits maximised.

2.2 Professional relationships

2.2.1 With patients¹⁹⁻²⁰

Patients must be able to trust doctors with their lives and health.

Having an anaesthetic, an admission to critical care or the requirement for pain management are often parts of the peri-operative care about which patients are the most anxious. The degree of trust and confidence patients have in their anaesthetist is crucially dependent on the relationship the anaesthetist establishes with them. Courtesy is the essential prerequisite. It is also important to give a clear explanation of what the anaesthetic and peri-operative care involve in language which the patients

can understand. Patients' concerns and anxieties should be listened to, their questions answered and information should be given to enable them to face the operative and peri-operative care with confidence. The anaesthetist should also ensure that the patient understands and has signed the appropriate consent form for the procedure to be undertaken. Often written information can be helpful, particularly for same day admissions and day case surgery where the pre-operative visit by the anaesthetist may of necessity be brief.²¹ A collection of leaflets on anaesthesia and anaesthetic risk are available from the College for this purpose. Care by the anaesthetist should never be prejudiced by a patient's gender, age, culture, background, education, race or life style. Interpreters should be available and consideration should be given to the production of appropriate translated written material. It is not best practice to rely on the patient's family for interpreting facilities.

Patients in pain management clinics may also display a variety of concerns and emotions. Empathetic handling of these patients is essential for a mutually successful outcome. Chaperones should be routinely available for outpatient consultations and examinations.

If a mistake is made or a complication occurs during the course of a patient's perioperative care which affects outcome or may have implications for a future anaesthetic, it must be discussed openly and honestly with the patient and where appropriate with relatives. This discussion should be recorded in the patient's notes.

2.2.2 With colleagues

Para 41: *Most doctors work in teams with colleagues from other professions.*

You must:

- *respect the skills and contributions of your colleagues*
- *communicate effectively with colleagues within and outside the team.*

Anaesthetists working in the NHS necessarily work as members of departments of anaesthesia, critical care and pain management. In the provision of peri-operative care, obstetrics, critical care and pain management they work with other doctors and health professionals. The ability to work harmoniously in departments and teams is essential if patients are to be cared for properly. Anaesthetists will often take the lead in decision making, and robust debate within departments and with other groups is an essential component in providing a high quality anaesthetic service. However, there is no place in modern departments of anaesthesia for individuals who pursue their clinical practice and style of personal conduct irrespective of the views and wishes of their colleagues. Professional independence is important and variety is healthy, both in clinical practice and personal style, but the limits of acceptable behaviour must be recognised by all concerned.

2.3 Public duties

Like other doctors, anaesthetists practise in a service with limited resources. While these resources could be significantly increased if there was the political will to do so, there is still debate whether it is possible to fund from public sources all that medicine can do. As members of society, therefore, anaesthetists have a duty to see that public



funds are used responsibly. If this is to be reconciled with the duty to bring benefit to individual patients, anaesthetists must base their clinical practice on the best available evidence and run their departments efficiently.

If factors in the working environment are threatening the safety of patients, anaesthetists have an ethical duty to take appropriate action. This may mean declining to provide certain types of anaesthetic care, critical care and pain management until the deficiencies have been rectified.

2.4 Probity

As responsible members of society, doctors should be honest in their financial dealings, in their approach to patients and in all matters involved with their work, their teaching responsibilities and in research. An anaesthetist's contract of employment and job plan set out the contractual obligation to the employer. Failure to meet these obligations is a disciplinary offence.

While, in employment terms, NHS and independent practice are separate, in professional terms they are often closely related. Anaesthetists are largely dependent on surgeons for their access to independent practice and the possibility exists for this relationship to compromise an anaesthetist's independence. One way of preventing this is by NHS anaesthetists organising themselves in clinical groupings to optimise patient care and auditing their independent sector work in the same way that they audit their NHS work.

2.5 Research

Research is vital in improving care for present and future patients. Doctors involved in research have an ethical duty to show respect for human life and people's autonomy.

It is essential that there is a partnership between the participants and the healthcare team, based on trust. There must be respect for the patients' and volunteers' rights to make decisions about their involvement, their privacy and dignity, and at all times they must be treated with politeness and consideration.²²

2.6 Health

The GMC⁶ has issued guidance to doctors on what measures to take to protect themselves and others, including patients, from infection by serious communicable diseases such as hepatitis B.²³

It includes guidance on what to do if a healthcare worker suffers a needlestick injury, and how to implement appropriate infection control measures. Those involved in 'exposure prone procedures' may have to modify their professional practice. Anaesthetists, however, are seldom involved in these procedures, described by the DH as 'those where the risk that injury to the healthcare worker could result in exposure of the patient's open tissues to the blood of the healthcare worker'.

It is equally important for departments and Trusts to have in place mechanisms to support colleagues during periods of illness or following a clinical catastrophe.²⁴

Chapter 3: Duty of care for anaesthetists

The nature of anaesthetic practice means that most anaesthetists have a varying work pattern with duties performed in several sites within both the public and independent sectors. This diversity of activity means that an anaesthetist may be involved in the care of patients in a variety of sites for a variety of durations. Concerns have been raised as to the responsibility of the anaesthetist in the on going care that has followed the anaesthetic intervention.

It is important to remember that, just like any other doctor, an anaesthetist has a recognised 'duty of care' to patients. The term 'duty of care' is a legal phrase defining whether a doctor (or other healthcare worker) can be held to be responsible for the care of an individual patient. However, it may be more helpful to try to look at the issue more from the GMC's approach to doctors' responsibilities than from a legal one.

Levels of responsibility vary. At times an anaesthetist will:

- a have a responsibility to be physically present with the patient, such as whilst administering a general anaesthetic. If in exceptional circumstances the anaesthetist has to leave the patient they must delegate responsibility to another appropriate person in line with GMC guidance on delegation:⁶

Para 54: *'When you delegate care or treatment you must be satisfied that the person to whom you delegate has the qualifications, experience, knowledge and skills to provide the care or treatment involved. You must always pass on enough information about the patient and the treatment they need. You will still be responsible for the overall management of the patient.'*

- b share responsibility with other healthcare professionals, being available for advice and help such as during the postoperative recovery period. The nature and intensity of such help will vary from the immediate postoperative recovery period until the end of the 'episode of care', whenever that happens to be. The GMC also gives guidance on this:

Para 41: *'Healthcare is increasingly provided by multi-disciplinary teams. Working in teams does not change your personal accountability for your professional conduct and the care you provide.'*

Para 50: *'Sharing information with other healthcare professionals is important for safe and effective patient care.'*

- c be asked to provide care when not on duty. Anaesthetists also have a responsibility to ensure that satisfactory arrangements for the delivery of care are in place to cover periods when they are not available. In the NHS, this is usually assured by the 'on-call' system and other local departmental arrangements, but this is not always the case in the independent sector. In the past surgeons have fallen foul of the GMC for not making proper arrangements to deal with emergency postoperative complications arising when they are not available; there is no theoretical reason why anaesthetists should be treated differently.



Para 48: *'You must be satisfied that, when you are off duty, suitable arrangements have been made for your patients' medical care. These arrangements should include effective hand-over procedures involving clear communication with healthcare colleagues.'*

The GMC guidelines cited above are of necessity written in generic terms and include the concept of 'an episode of care' without defining the precise meaning of the term. For a surgeon or a physician, that 'episode of care' might reasonably relate to a period of time in hospital or a specific consultation. The situation for anaesthetists is less clear as the 'episode of care' could be interpreted as ranging from just the period of anaesthesia, through to the complete duration of hospital confinement. For anaesthetists practising invasive pain management, the 'period of care' could even extend to include the complete period of treatment (possibly lasting years).

Notwithstanding the fundamental principles of a 'duty of care' but to provide some clarification of the situation, the following are suggestions to quantify the term 'episode of care' within the variability of activities undertaken by anaesthetists. They are constructed on the basis of the extent of any intervention or the duration of action of medications administered in the course of anaesthesia and postoperative management.

1 Outpatient consultation (including pre-assessment)

The episode of care ends when the patient leaves the consulting room. In the case of repeated consultations such as for chronic pain management, the cessation of a particular episode of care does not mean that there is not an on going general duty of care to the patient particularly if a course of treatment has followed that consultation.

2 Day case surgery

For the majority of day case surgical patients, the episode of care lasts from the initial pre-operative visit on the day of surgery through to discharge from hospital. Should the patient require admission as a result of an anaesthetic incident, the episode of care shall extend until the patient has fully recovered from the effects of that incident or the care of the patient has been transferred to another person. Should admission be as a consequence of the surgical procedure, the episode of care for the anaesthetist will cease as for a standard in-patient (see below).

3 Inpatient anaesthesia

There is a wide range of anaesthetic involvement in patients admitted for a variety of surgical procedures. For all cases, the principle should be that the episode of care extends from the initial pre-operative visit through to the cessation of the effect of drugs administered during and immediately following the anaesthetic. In the case of opioid analgesic drugs administered as part of the anaesthetic, the episode of care related to that drug shall cease with the administration of subsequent analgesic medication (i.e. it has worn off). In the case of local or regional anaesthesia, the episode of care shall end with the recovery of normal sensation and muscle power.



The postoperative prescription of drugs does not in itself imply a continuing 'episode of care' as long as there is a clear line of responsibility for the care of the patient relevant to drugs prescribed (e.g. for patient-controlled analgesia, there is a protocol involving follow up by an acute pain service, or equivalent).

4 Use of neuraxial blockade for postoperative analgesia

The principle should be that the duty of care shall continue until such time as the effect of the intervention ceases. In the case of intrathecally-administered opioids, that would be the need for additional analgesic medication. For epidural analgesia, the episode of care would cease with the removal of the epidural and the recovery of normal sensation and motor power.

5 Implanted drug-delivery systems

These may be used for chronic pain management. In this instance, the 'implanting' physician retains responsibility until the device is removed. This implies a long-term responsibility but the care can be shared with others (on-call availability for any problems) or transferred to others (transfer of care back to the original referring physician).

In the case of any complication of anaesthesia or analgesia, the anaesthetist shall retain responsibility for the patient until such time as that care is transferred to someone else.

In the event of circumstances preventing the anaesthetist from being available throughout an episode of care (e.g. booked annual leave on the day following major surgery and use of epidural analgesia), it is the duty of the anaesthetist to ensure that appropriate support and monitoring are available for the patient. This may be in the form of transfer of care to a colleague or through a mechanism such as an acute pain service.

The anaesthetist does not have a requirement to provide care beyond the end of the 'episode of care' but it would be seen as good practice to retain an interest in the on going progress of any patient with whom there has been professional involvement.



Chapter 4: Professional and clinical guidelines

Over the last 20 years, guidelines published by the College, the Association and other specialist organisations have played a key part in developing and maintaining high standards of anaesthetic care in the UK. Modern peri-operative care is complex; it is provided by many different anaesthetists working with other doctors and healthcare professionals. Wards are increasingly busy and are often short of staff, and staff of all disciplines looking after patients change frequently during each 24-hour period. There is, therefore, very considerable potential for mistakes to be made.

It is widely accepted that the practice of individual anaesthetists may vary where evidence supports a range of different techniques. However, under certain circumstances and in those areas where the patient is not being immediately and personally supervised by the anaesthetist, such as in the recovery room, high standards of care are more likely to be maintained if there are agreed guidelines within a department and hospital. Where such guidelines have been agreed by members of a department, they should normally be adhered to.

Guidelines are particularly appropriate where:

A problem is life threatening:

- For example
- management of the difficult airway
 - cardiopulmonary resuscitation
 - management of massive bleeding
 - acute hypersensitivity (anaphylaxis)

A problem is unusual:

- For example
- abnormal haemoglobins
 - malignant hyperthermia

A problem is routine but is managed by different people in different wards and departments:

- For example
- blood ordering schedule
 - postoperative pain relief
 - day case anaesthesia
 - peri-operative management of diabetes
 - endocarditis prophylaxis
 - pre-operative investigation
 - pre-operative starvation

In many areas national guidelines are available which may need to be amended according to local circumstances. In other areas, notably in the way particular services are provided, local guidelines are often necessary. These should be based on available evidence and audited, reviewed and revised regularly.



Chapter 5: Audit: setting, monitoring and reviewing standards

Para 14: *'You must work with colleagues and patients to maintain and improve the quality of your work and promote patient safety. In particular you must:*

- *maintain a folder of information and evidence, drawn from your medical practice*
- *reflect regularly on your standards of medical practice in accordance with GMC guidance on licensing and revalidation*
- *take part in regular and systematic audit*
- *take part in systems of quality assurance and quality improvement*
- *respond constructively to the outcome of audit, appraisals and performance reviews, undertaking further training where necessary*
- *help to resolve uncertainties about the effects of treatment*
- *contribute to confidential enquiries and adverse event recognition and reporting, to help reduce risk to patients*
- *report suspected adverse drug reactions in accordance with the relevant reporting scheme.'*

Clinical audit is a quality improvement process which seeks to improve patient care and outcomes through systematic review against explicit criteria leading to implementation of change if required.²⁵ It is a key component of clinical governance. Regular review by departments of anaesthesia of what anaesthetists do and how they do it is essential for maintaining high standards of practice. Audit became a contractual obligation for doctors in the early 1990s. The GMC considers it to be part of good practice.⁶ The Government White Paper, *The New NHS*,²⁶ places great emphasis on clinical governance and 'measuring progress' in six areas: health improvement; fair access to services; effective delivery of appropriate healthcare; efficiency; the experience of patients and their carers; and health outcomes of NHS care. The White Paper also puts in place clear alternative regulatory mechanisms which will be used if the profession fails to regulate itself effectively. At the time of publication, the review *Good Doctors, Safer Patients* was still in consultation.

In order to assist departments in developing appropriate audit programmes, the College has produced an anaesthetic audit recipe book, *Raising the Standard*.²⁷ This document, which is regularly updated, should act as a catalyst to promote local departmental audit. It describes a list of audits which should be undertaken in all branches of anaesthetic, critical care and pain management practice. Clearly, all audits cannot be undertaken simultaneously nor is the list intended to be prescriptive.

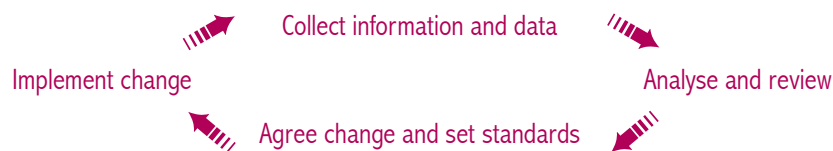
5.1 Local audit

Audit which is properly conducted plays an important part in:

- improving patient care
- improving the provision of anaesthetic services
- continuing medical education.

Traditionally, audit is considered under three headings – the structure, process and outcome of care. The key to effective audit is the audit cycle (Figure 3) whereby information and data are collected, analysed and reviewed; changes are agreed and standards set; the changes are implemented and after a period of time the cycle is repeated. As the process continues, each cycle aspires to a higher level of care.

Figure 3 The audit cycle



Different routes into the cycle include:

- individual case reports of mortality and morbidity
- reviews of critical incidents
- perceptions of patients and other healthcare workers about the anaesthetic service
- complaints about the anaesthetic service
- formal reviews of areas of clinical practice and service provision.

All the above should feed into a departmental audit programme.

5.2 The audit programme

The audit programme of an anaesthetic department should follow a regular pattern and the following is recommended:

Monthly	Review of deaths, complications, unexpected outcomes (e.g. unplanned admission to ICU or HDU), critical incidents
Two to three times a year	Joint audits with other departments, e.g. surgeons, obstetricians, paediatricians
Annually	Review of anaesthetic record keeping
Every two to three years	Review of local guidelines

In addition, departments should review practice against national guidelines as they are published and thereafter every two to three years. It is also good practice for

individual anaesthetists to undertake on going personal audits of particular aspects of their own work.

Departments should keep written summaries of audit meetings as reference documents for subsequent reviews.

The College has developed national audit projects within anaesthesia. These will provide valuable data (first results published in the *BJA* in September 2005) and also provide benchmarks against which a department can compare itself.

Nationally, the specialty of anaesthesia has a long record of effective audit in the *Confidential Enquiries into Maternal Deaths* (now the *Confidential Enquiry into Maternal and Child Health*), *National Confidential Enquiry into Patient Outcome and Death* and *Scottish Audit of Surgical Mortality*. Both the College and the Association encourage anaesthetic departments to contribute to national reporting systems and also implement recommendations which follow review of critical incidents.

5.3 Critical incidents²⁸⁻³¹

The College definition of a critical incident is 'an event which led to harm or could have led to harm if it had been allowed to progress'. It should be preventable by a change of practice. The College has defined two ways of grading critical incidents based on outcome and the degree of preventability.

5.3.1 Outcome

- No effect.
- Transient abnormality unnoticed by the patient, e.g. laryngospasm.
- Transient abnormality with full recovery, e.g. headache.
- Potentially permanent but not disabling damage, e.g. chipped tooth.
- Potentially permanent disabling damage, e.g. stroke.
- Death.

5.3.2 Preventability

- Probably preventable within current resources, e.g. failure to perform a pre-operative machine check.
- Probably preventable with reasonable extra resources, e.g. failure to detect oesophageal intubation (which could be obviated by capnography).
- Possibly preventable within current resources, e.g. pneumothorax during insertion of a central venous line, which might be prevented by better teaching/supervision.
- Possibly preventable with reasonable extra resources, e.g. inability to replace unwell anaesthetist because of inadequate staffing which might be prevented by more cover.
- Not obviously preventable by any change in practice, e.g. idiosyncratic drug reaction.



Each department should have a critical incident co-ordinator whose job it is to receive reports, discuss them confidentially with the reporter and ensure accuracy of reporting. Incidents should be well documented in the patient's notes and reviewed at a department's audit meeting.

While errors are an integral part of everyday life, an error during the giving of an anaesthetic may have serious implications for both the patient and the anaesthetist. Understanding the causes of error is an important way of preventing it from occurring again. Critical analysis of errors has been successfully applied in the aviation industry and has resulted in changes in equipment, recruitment and training policies. This approach has been successfully adapted to anaesthesia.

Anaesthetists are part of a complex system of patient care, and deficiencies in that system may contribute to untoward events during anaesthesia.³² Under Health and Safety Legislation³³ there is a requirement to report certain events to the Health and Safety Executive for review. The Act places upon all staff an obligation to report clinical and non-clinical incidents which are likely to have a bearing on the quality, safety or efficiency of care provided.

Two principal reporting systems should be used. Firstly, the Royal College of Anaesthetists in collaboration with the NPSA have distributed a reporting database to all departments which should be used for all events. From this, reports can be printed for use at department morbidity and mortality meetings. The NPSA was created to implement a mandatory reporting system to detect and learn from data on adverse incidents. The emphasis is on learning and development and not on blame.³⁴ Secondly, many Trusts use a Trust reporting system which should be used additionally for events which have caused harm to the patient, staff or to the reputation of the Trust. Trusts should be encouraged to endorse the use of both systems, as they should complement each other. It is sensible practice for a Trust to have a common reporting system with reports being collated by a risk manager.

Many anaesthetists have taken on the role of clinical governance lead within their Trust or department. It is suggested that this role be clearly defined in their job plan and that adequate time and resource be allocated.³⁵

5.4 Confidentiality¹⁹

The maintenance of confidentiality about complications and critical incidents within the specialty is essential if both national reporting and local audit are to be honest and comprehensive and anonymity assured. Nevertheless, all anaesthetists have a responsibility to monitor the structure, process and outcome of the care which their department provides. Where patterns of poor care emerge or where specific events have implications for the Trust, they have a duty to share that information with other clinicians, healthcare workers and managers. Where actual harm has occurred, patients must always be informed as soon as possible.

5.5 Audit of critical care services

*Comprehensive Critical Care*³⁶ published by the Department of Health in 2000 recommended that 'a data collecting culture promoting an evidence base must be recognised as an integral part of the delivery of critical care and an essential part of the Trust's clinical governance and risk management programme'. Clinicians should, therefore, insist that sufficient clerical and administrative support is provided for data collection in critical care and high dependency units. They should also ensure that their Trust provides details of activity employing the Augmented Care Period (ACP) dataset to the DH for incorporation in hospital episode statistics. Auditing and assessing activity are essential in service planning at Trust level to meet clinical needs as well as nationally to inform future development.

Clinical outcome between critical care units is particularly difficult to compare in view of the varying case mix and severity of illness of the patients involved. It is recommended, therefore, that all units are involved in a system of national comparative audit such as the Intensive Care National Audit and Research Centre (ICNARC) or its Scottish equivalent. This not only requires an efficient system of data collection and enthusiasm from the doctors and nurses involved to ensure data accuracy and completeness, but also a willingness to examine variations in performance from the nationally predicted norms and initiate any change in practice that may be required for improvement.

Regular clinical reviews and morbidity and mortality meetings should be undertaken involving all staff in the unit including medical, nursing, paramedical and other support staff in addition to multidisciplinary involvement of referring clinicians. The number and process of transfers of critically ill patients outwith the critical care unit either within hospital or between hospitals should be audited and any critical incidents recorded and acted upon. This requires not only co-operation between Trusts within the established critical care networks, but also review at a national level.

5.6 Audit of pain management services

Both acute and chronic pain management services should conduct regular audit and critical incident discussion involving all staff members. Patient involvement with service audit is important. Internal audit is essential to monitor service effectiveness, efficiency and deficits and allows services to discuss treatment options fully with patients. Inter-hospital audit allows 'benchmarking' against other pain management services and can be a valuable learning tool. Recommended topics for pain management audit are included in *Raising the Standard*.²⁷

Chapter 6: Continuing professional development (CPD)³⁷

Para 12: *'You must keep your knowledge and skills up-to-date throughout your working life.'*

Para 16: *'If you are involved in teaching, you must develop the skills, attitudes and practices of a competent teacher.'*

CPD is a requirement of good medical practice and an integral part of the maintenance of professional standards. It embraces both theoretical knowledge and the acquisition and development of skills needed in the fields of communication, teaching, management and clinical duties.

CPD is an essential part of the life of all doctors, and is required for appraisal, clinical governance and revalidation. The exact amount and type of CPD activity are a matter for the individual but must be sufficient to satisfy personal and regulatory requirements. A review of CPD activity should be an integral part of the anaesthetist's annual appraisal within the Trust; that review requires not only an accurate record but some indication of the benefit of specific activities. A complete record of CPD activity is an integral part of the process of revalidation by the GMC.

Maintenance of CPD is also required by the College for recognition as a teacher of trainee anaesthetists: it follows that a department cannot be approved for training unless a majority of consultant anaesthetists in that department are up to date with their CPD requirements. The College no longer seeks details of specific CPD but assumes successful annual appraisal to be evidence of appropriate activity.

CPD must be cost effective and undertaken by all grades of medical staff including non-consultant career grades.

6.1 Funding for CPD

Because CPD is a mandatory requirement for appraisal and in the long run revalidation, it follows that employers, Trusts or otherwise, should ensure that adequate funding is available for this purpose. If for some reason it is not available, then pressure must be applied through the management structure, by the professional bodies both within and without the Trust to correct shortfalls in educational and study leave budgets.

6.2 Finding time for CPD

CPD should largely take place during normal working hours. For anaesthetists this may cause considerable problems. Internal CPD, such as departmental audit meetings, may require the cancellation of operating lists but the inevitable requests for exceptions to attendance must be resisted and genuine emergency work provides the only valid reason for absence. Joint meetings with surgical groups can help solve this dilemma. External CPD may also lead to cancellation of clinical activities and, while this is regrettable, unfortunately it may sometimes be necessary.

6.3 Monitoring of CPD

Personal records must be kept of all CPD activity. It is necessary to obtain a certificate of attendance when attending any external courses or meetings, and organisers of meetings which are approved for CPD purposes are required to provide a certificate of attendance for each attendee. Proof of attendance at meetings such as internal audit meetings and journal clubs should also be maintained in the form of CPD diary records/photocopies of departmental diaries or attendance registers.

Deficiencies of individuals, or within a department, should be acknowledged so that attempts can be made to fill or correct them. A list of skills available to train others should also be recorded.

6.4 Directed CPD

Usually, anaesthetists decide for themselves what type of CPD to undertake. However, at each annual appraisal, the appraiser may suggest other forms of CPD in order to train the anaesthetist for new clinical or management activities required for the organisation. This should be welcomed. At the same time, at each annual appraisal, the anaesthetist should raise with the appraiser any area of CPD that they believe is required in order to fill deficiencies in areas within the individual's current scheduled duties.

6.5 Range of activities

CPD embraces a large range of useful activities including:

- visiting other hospitals or centres of excellence
- learning or improving management skills
- improving teaching ability
- use of anaesthetic simulators
- interactive learning.

In the revised 2005 College CPD document (see: www.rcoa.ac.uk/docs/CPD_guidelines.pdf), attention was drawn to the great benefit of spending sessions with consultant colleagues. The anaesthetists undertaking this should be rostered as supernumeraries for such sessions.

6.6 Limitations to CPD

It is unreasonable to expect all consultants to be able to anaesthetise all patients presented to them throughout their career, be they on a routine operating list or as an emergency. It is essential that individuals know their own professional limitations, and act within them. Within an anaesthetic department, it is essential that all necessary skills are present, and that a system is in place so that they can be deployed at the time and place required. The clinical director must ensure that the corporate CPD of the department achieves these targets. An individual, however senior, must never be reluctant to ask for help nor should a colleague refuse to provide it.



However, when anaesthetists are rostered to cover emergency duties, it is essential that they undertake CPD appropriate to cover every type of emergency likely to be encountered on that particular roster. In order to assist this, the College CPD revised system incorporates a list of core topics.

6.7 Core topics

The expanded list of 'core topics' in anaesthesia (Appendix 1) is based upon the original list agreed by the Union of European Medical Specialists (UEMS) in 1998. Each topic is divided into clinical challenges, knowledge and skills.

These are topics that an individual specialist working in a typical hospital and participating in the emergency on-call rota should have up-to-date knowledge of and proficiency in, but may be modified in the light of their individual responsibilities.



Chapter 7: Record keeping

Para 3 (f): *In providing care you must keep clear, accurate and legible records, reporting the relevant clinical findings, the decisions made, the information given to patients, and any drugs prescribed or other investigation or treatment.*³⁶

The King's Fund Organisation Audit Hospital Accreditation Programme has set a standard for health records in its Organisational Standards criteria,³⁸ which states: *'There is an accurate health record which enables the patient to receive effective continuing care, enables the healthcare team to communicate effectively, allows another doctor or professional members of staff to assume care of the patient at any time, enables the patient to be identified without risk or error, facilitates the collection of data for research, education and audit and can be used in legal proceedings.'*

If this standard of record keeping is not maintained and professional requirements are not being met, patients, and possibly staff, are put at risk. It cannot be emphasised too strongly that in medico-legal cases the outcome is often dependent on the anaesthetic record. An untidy, illegible, scantily completed chart may be taken as indirect evidence of shoddy or inattentive care.³⁹ Furthermore, the examination of medical records forms part of the GMC's fitness to practise procedures (see Chapter 9). The record must be such that if another doctor were required to take over the case, this record would allow systematic and ready access to all the information required.

7.1 The content of the anaesthetic record

There is no standard anaesthetic record in the UK. However, in recent years both the Association and the College have set out what they regard as the minimum data set for an anaesthetic record.⁴⁰ The GMC uses this information for assessment purposes in what it considers to be essential recorded information. While the format of the anaesthetic record is a matter for local preference, the record should contain:

- basic data entry: names of surgeon(s) and anaesthetist(s), date, operation.
Where the anaesthetist is a trainee or SAS grade doctor, the name of the supervising consultant should be recorded (see 8.2.4 for level of supervision)
- patient identification: name, date of birth, gender, hospital number
- pre-operative assessment: relevant history, physical examination, drugs, allergies, ASA grade
- anaesthetic technique: induction and maintenance technique, including anaesthetic agents used, recorded in detail
- intravenous drugs administered: clear record of pre-operative and intra-operative drugs given, doses and time of administration

- equipment monitoring: record of anaesthetic machine and circuit check, relevant equipment monitoring such as FiO_2 (always) and pressure alarms
- patient monitoring used: this should be in accordance with the recommendations of the Association of Anaesthetists⁴¹
- physiological variables recorded: time based chart recordings of relevant parameters **including pre-induction values**
- frequency of record of physiological variables: frequent recording from induction depending on patient stability, but not less frequently than every ten minutes for pulse, blood pressure, oxygen saturation and end-tidal carbon dioxide
- fluid balance: evidence of venous cannulation; record of fluids administered; blood loss where relevant
- postoperative pain relief: clear and appropriate postoperative analgesic orders
- other postoperative instructions: oxygen therapy, immediate postoperative fluids and monitoring to Association standards.⁴²

Any discussions the anaesthetist has with the patient or a responsible adult acting for the patient about anaesthetic techniques, risks, special procedures etc should be documented either on the anaesthetic records or in the body of the clinical notes.

A printed record of each anaesthetic should be included in the patient's case notes, wherever practicable.

In addition:

- it is particularly important that critical incidents and complications are accurately documented
- where it is necessary for a case to be handed over from one anaesthetist to another, this should be noted, as should decisions shared with other clinicians and staff
- if a patient is unexpectedly admitted to ICU or HDU the reasons for doing so should be recorded.

7.2 Other uses for anaesthetic records

Computerised records provide detailed information about both individual and departmental practice. However, they are most valuable for auditing specific areas of anaesthetic care. Records are also a useful tool of personal audit particularly when used with three or four colleagues for case-based discussions.

Patients' notes, including the anaesthetic record, are confidential documents and the GMC, therefore, requires that patients' consent to disclosure of information for research, teaching and audit must be obtained unless the data have been effectively anonymised.¹⁹



7.3 Critical care

Critical care practice requires a full assessment of each patient at least once per 24- hours. This should be documented in full, including abnormal results, changes in treatment and reasons for them, and forward plans. Results should be charted in such a way that trends can be easily identified.

Current trainee work patterns often result in patient care changing hands several times a day. Accordingly, it is vital that medical notes record each change in care and the reasons for it. They should include procedures performed, discussions with relatives, outcomes of investigations and decisions to reduce or withdraw support. The aim is for transparent documentation which allows any other doctor to take over the patient's care at any point.

7.4 Pain management

7.4.1 Outpatient

As in all other out patient clinics, comprehensive records must be kept, detailing history, examination, investigations, treatment and outcomes. Copies of correspondence to general practitioners, consultants and other health professionals should be retained within the hospital notes.

Discussions about treatment options and potential side effects should be documented, along with a record of consent, if required.

7.4.2 Inpatient

7.4.2.1 Acute pain management

There should be a record of the management of acute pain, including pain assessments and treatment, in the hospital notes. These are necessary to foster continuity of care.

7.4.2.2 Chronic and cancer pain

Detailed clinical notes should be made in the patient's clinical record when the pain management service is involved in managing in-patients with chronic pain or cancer pain. The pain service should ensure that colleagues are kept informed when patient care is being shared.

Further to this document, an additional publication is being produced in conjunction with The British Pain Society regarding chronic pain management.



Chapter 8: Leadership, management and administration

Para 42: *If you are responsible for leading a team, you must follow the guidance in Management for Doctors.*⁴³

A department of anaesthesia, critical care and pain management should provide a clinical service of high quality within a defined budget and, where appropriate, training facilities to the standard required by the College. While good administrative arrangements are necessary within a department, the key to achieving these is effective and efficient leadership. This should be provided by a designated head of service who is responsible for all the activities of the department.

8.1 Head of department

In many Trusts this is the clinical director. However, in some Trusts, the department of anaesthesia is part of another directorate and the clinical director is not an anaesthetist. Under these circumstances it is necessary to have an anaesthetist who takes responsibility for all aspects of the anaesthetic service. He/she may be the lead clinician in anaesthesia, the head of service or the chairman of the department. In this guidance, the term 'clinical director' refers to the designated anaesthetist with management responsibility for all the activities in which the department of anaesthesia is engaged. To encourage efficient rostering and use of resources it is recommended that the department of anaesthesia, critical care and pain management should have management responsibility for operating departments,³⁹ intensive care and pain relief services, though it is recognised that there are other models which work satisfactorily.

The clinical director is appointed by, and is accountable to, the chief executive for the management of the anaesthetic service. However, the director cannot function without the support of consultant and other colleagues and must therefore be acceptable to them. Some years of consultant experience are usually necessary before being appointed to such a post. In some hospitals there has been a tendency to appoint clinical directors primarily because of their management capability, but it is the qualities of good leadership which are essential. These are fundamentally the ability to provide direction and generate trust. Giving support, guidance, inspiration and confidence to colleagues is the foundation upon which the success of a department is built.

8.2 Role within the department of anaesthesia

8.2.1 Staff management

The clinical director must ensure that there is an equitable distribution of work within the department with efficient rostering to meet all the activities which it undertakes. This includes the proper management of annual, study and professional leave.

All consultants are required to have a job plan specifying their contractual obligations, which should be reviewed and agreed annually. This is a good opportunity, along

with preparation for appraisal, for consultants to assess their own programmes and workloads, professional development and needs, the overall work of the department, their role within it and the resources available to them and their department,⁴⁴ Non-consultant career grade anaesthetists should also have clearly defined programmes of work.⁴⁵ As for consultant staff, adequate arrangements must be in place for their continuing medical education and professional development.

While the day-to-day responsibility for trainees rests with the College tutor, the quality of the clinical work which they undertake is the responsibility of the clinical director. The clinical director also has responsibility for all other staff within the directorate, although they will normally be managed by the appropriate business or nurse manager.

Close liaison between the College tutor and the clinical director is needed to ensure that the training requirements of the College are met. A mentoring system between consultants and trainees is strongly recommended.⁴⁶ This promotes support for and communication with trainees.

Poor performance among anaesthetists is fortunately rare. Nevertheless, the clinical director has a duty to promote high standards, identify poor performance in colleagues and take whatever action is necessary to protect patients from harm. This is discussed in detail in Chapter 9 of this Guidance.

8.2.2 Budgets

The operational control of the directorate's finances normally will be within the remit of the business manager. However, the clinical director has a responsibility to ensure that the anaesthetic service is adequately resourced for the commitments it undertakes but keeps within the agreed budget allocated to it.

8.2.3 Communication

Good communications within the directorate are essential if it is to run efficiently and if all staff are to feel involved in the department and content in their work. Without good communications misunderstandings easily arise and inaccurate perceptions quickly take root. Informal discussions, regular, minuted meetings, letters, memoranda, notice boards and emails form an essential communications network. It should be recognised that emails are disclosable documents and that if emails are sent outside of the NHS system, then this method of communication is not secure and should not be used for patient information. Time given to communication pays considerable dividends in getting things done with the support of colleagues, particularly if it is backed up by a personal concern for people's welfare.

In a directorate which manages the operating theatres, clear lines of communication with surgeons and theatre staff are necessary. A theatre users' group/committee is a useful forum by which this can be achieved.



Anaesthetists who hold out-patient clinics should communicate effectively with the patient's general practitioner and the referring doctor (if this is not the GP). It is now recommended that letters should normally also be copied to the patient.

8.2.4 Guidelines

The College and the Association consider it necessary that, for some areas of the anaesthetic service and clinical practice, departments should have clear guidelines. These should be issued during the induction of every newly appointed anaesthetist to the anaesthetic department. Guidelines should state explicitly how the supervision of trainees and SASGs is implemented.* The clinical director should ensure that agreed guidelines are complied with and regularly reviewed. This is part of the audit cycle which is a key feature of a successful department.²¹

8.2.5 Delegation

The work of a modern anaesthetic department is complex. Effectiveness and efficiency are enhanced when named anaesthetists, with appropriate experience and skills, have responsibility for particular areas for which they are accountable to the clinical director.

Examples are:

- rostering and management of leave
- equipment
- audit
- continuing medical education and professional development
- training
- specialist services including critical care, obstetrics, paediatrics, acute pain and chronic pain
- clinical governance.

8.2.6 Contract discussions

The clinical director or Lead Clinician should undertake contract negotiations with health service commissioners for anaesthetic, critical care and pain management services.

8.3 Role outside the department of anaesthesia

The clinical director of anaesthesia has a key part to play in the overall running of a Trust, in determining and implementing policy, and should be a member of the Trust's operational board. Anaesthetists work in many different departments of a hospital and are therefore well placed to have an overview of the opportunities and problems within it. Good working relationships with other clinical directors are needed if the anaesthetic department is to work well throughout a hospital.

*The principles of supervision are defined in: The CCT in Anaesthesia I: General Principles. A manual for trainees and trainers (www.rcoa.ac.uk/docs/CCTpti.pdf).



It is self-evident that while the work undertaken by anaesthetists – both in nature and volume – is mostly generated by other clinicians, anaesthetists do have a major contribution to make to the successful accomplishment of that work.⁴⁷ Purchasers, therefore, need to understand the full nature and range of functions that a modern anaesthetic service can offer to patients, how it operates and the constraints within which it operates.

8.4 Support⁴⁸⁻⁴⁹

Clinical directors need both time and support to do the job. They should have a separate contract for this part of their work with an agreed job description. Adequate sessional time must be made available. Individual Trusts may make specific financial arrangements with clinical directors but it is not recommended that a clinical director should have a full programme of clinical work.

Clinical directors should be supported by and work closely with business and nurse managers as well as have ready access to specialist managers in such areas as finance and personnel. They must also be provided with adequate personal and secretarial assistance and information technology facilities.



Chapter 9: The poorly performing anaesthetist

Para 43: *'You must protect patients from risk of harm posed by another colleague's conduct, performance or health.'*

In its guidance to doctors on *Good Medical Practice* the GMC sets out the standards of performance it expects from medical practitioners. These include the provision of good clinical care for patients, maintaining a proper professional relationship with patients and working constructively within medical and multidisciplinary teams. Evidence of departure from the standards described under these general headings may be used to support a complaint to the GMC of impaired fitness to practise. Every doctor when aware of bad practice by another doctor, especially where this may lead to harm to patients, has a duty to take appropriate action.

The management of the poorly performing anaesthetist is governed by a complex set of arrangements. It is also a very sensitive issue and there is considerable scope for the problem to be mishandled. This Chapter therefore summarises:

- methods within departments of anaesthesia for preventing the performance of its members from falling below an acceptable standard
- objectives in managing the poorly performing anaesthetist
- the terms used in Department of Health and GMC documents.

It also provides guidance on how clinical directors should proceed in the event of concerns arising about an anaesthetist's performance.

Concerns about a doctor's conduct or capability can come to light in a wide variety of ways, for example:

- concerns expressed by other clinical or non-clinical staff
- review of performance against job plans
- concerns raised at appraisal
- clinical governance or clinical audit
- complaints by patients or relatives
- information from regulatory bodies
- litigation following allegations of negligence
- information from the police or coroner.

If inadequate performance has been suspected or detected it can be dealt with at three different levels:

- Locally where it is apparent that some improvement in skills, knowledge or behaviour is required, the clinical director may recommend that further training or other action is required and this may be arranged by the local department.
- Where more serious concerns are evident regarding a doctor's performance, the Trust (in England, Wales and Northern Ireland) should contact the National Clinical Assessment Service (NCAS) at the earliest opportunity. The number of doctors who have been suspended from work for long periods is a cause for concern, and the issue was investigated in detail by the National Audit Office.⁵⁰ (The phrase 'exclusion from work' is now used to avoid confusion with 'suspension' of the right to practise which may be imposed by the GMC). Trusts are now required to discuss the case fully with the chief executive, medical director, Director/Head of Human Resources, NCAS and other interested parties (such as the police where there are serious criminal allegations) whenever exclusion is being considered.⁵¹
- Where a very serious problem has occurred, a doctor may be immediately excluded and referred directly to the GMC. In these cases the above parties must discuss the case at the earliest opportunity following the exclusion.

9.1 Prevention of poor performance

The aim of clinical governance, which is now widely implemented in the NHS, is to secure better quality care, and observance of its key principles should help in the maintenance of professional standards.⁵²

Although designed to support improvements in practice, the introduction of a mandatory system of annual appraisal within the NHS should help to identify poorly performing individuals at an early stage. Appraisal, a formative process in which both appraiser and appraised agree a professional development plan based on identified and agreed areas of need, should be seen as quite different from assessment, in which identified strengths and weaknesses may have implications for an individual's career. Although assessments are important elements of the RITA process for trainees, they will not be used for non-training grades until the time comes for the five-yearly revalidation of their medical registration. However, if potentially serious performance issues arise in the appraisal process, the appraisal should be suspended whilst the appraising doctor ensures that they are addressed urgently, especially if they pose a threat to patient safety.

The culture within an anaesthetic department is central in maintaining high standards of anaesthetic practice. Where little attention is paid to efficient running of the department, record keeping, agreement on clinical guidelines, audit and local and central programmes of continuing education, standards are likely to fall. The local implementation of the recommendations already made in this Good Practice Guide will go a long way to maintain the standards of performance of individual anaesthetists. The recommendations provide the framework set by the Association and the College within which anaesthetists are expected to practise and hence the benchmarks by which they may be assessed. Anaesthetists should concentrate on maintaining



overall standards within their department and take appropriate steps to prevent any individual's performance from becoming seriously deficient. However, anaesthetists in general and clinical directors in particular also need to understand the procedures to be followed if seriously deficient performance in a colleague is suspected.

9.2 Objectives in managing the poorly performing anaesthetist

Identifying and managing the poorly performing anaesthetist is always difficult. The person concerned will be a colleague, and often a friend, sometimes of long standing. It is not easy to view the situation objectively and it helps, therefore, to have clear objectives. Fundamentally there are always three:

- To protect patients from harm. This is the primary objective which must always be uppermost.
- To ensure that the anaesthetist is treated justly. Procedures should be fair and open.
- To provide opportunities for the anaesthetist to improve their performance.⁵³

9.3 Terminology

A poorly performing anaesthetist is one whose performance is outside the accepted limits of practice. Within these limits an anaesthetist may adopt practices which are different from those of other departmental colleagues provided that there is a reasonable body of anaesthetists who would practise in a similar way.

9.3.1 Department of Health terminology

In its publications *Supporting doctors, protecting patients*⁵⁴ and *Assuring the Quality of Medical Practice*,⁵⁵ the Government indicated its intention to introduce a new approach to the way in which poor clinical performance is dealt with in the NHS, complementing the reforms proposed by the GMC, Medical Royal Colleges and other professional bodies. It proposed a change from the traditional approach using disciplinary solutions applied late in the day to one that attempts to identify problems early so that doctors can be helped by educational measures.

In December 2003 the Department of Health issued the document *High Professional Standards in the Modern NHS; a framework for the initial handling of concerns about doctors and dentists in the NHS*, under cover of HSC 2003/012. This framework has now been completed.⁵¹ All NHS bodies were required by 1 June 2005 to implement the framework, and it has been agreed with Monitor that it should be issued to NHS Foundation Trusts as advice. The framework replaces the previous disciplinary procedures for doctors as set out in circular HC(90)9 as well as the 'three wise men' panels provided for in HC(82)13. It abolishes the right of appeal to the Secretary of State held by certain doctors under Para 190 of the Terms and Conditions of Service.

The framework, which has been drafted in close association with NHS Employers and the NCAS and agreed with the British Medical Association and the British Dental Association, consists of five parts:



- Part I: Action when a concern arises
- Part II: Restriction of practice and exclusion
- Part III: Conduct hearings and disciplinary matters
- Part IV: Procedures for dealing with issues of capability
- Part V: Handling concerns about a practitioner's health

The key changes are that:

- the distinction between personal and professional misconduct is abolished. Doctors and dentists employed in the NHS will be disciplined for misconduct under the same locally based procedures as any other staff member
- there is a single process for handling capability issues about the practitioner's professional competence closely tied in with the work of the NCAS
- health issues are routinely dealt with through the occupational health service
- the employing Trust is squarely responsible for the disciplining of its medical and dental staff – not outsiders
- there is scope to bring in expert advice for panels considering capability issues
- the capability panel will be handled by an independent chair
- the same disciplinary procedures will apply to all doctors and dentists employed in the NHS.

Where there are concerns about a doctor's clinical performance that cannot be resolved locally, the employer will refer the doctor to NCAS. This may initiate an assessment of the doctor's clinical performance and give advice on any action to be taken. It is, however, an advisory body, and the employer will remain responsible for dealing with the problem, either by local resolution in accordance with the framework or by referral to the GMC.

9.3.2 GMC terminology⁵⁶

The law governing the way in which the GMC handles complaints about doctors changed on 1 November 2004.

Under the new procedures, complaints about doctors no longer follow separate streams for health, performance and conduct. Instead, the GMC looks at the doctor's fitness to practise in the round, assesses whether it is impaired, and determines if any impairment requires action on the doctor's registration.

For anaesthetists this encompasses the whole spectrum of peri-operative care, critical care and pain management which they are trained to provide. Failure in one area may be regarded as evidence of poor performance, as would failure to seek help from a colleague if an anaesthetist's knowledge and skill were inadequate for the level of care required for a given patient. In practice, repeated patterns of poor performance rather than a single episode are more likely to lead to concern.



Fitness to practise may be impaired by reason of misconduct, criminal conviction or caution, determination by another regulatory body, deficient performance or ill health. When dealing with performance or health issues, the GMC tries to identify areas where remedial action such as retraining or medical treatment is possible, whilst protecting patients from harm. It is also well known, for example, that the practice of anaesthesia is very stressful and there is continuing concern about the suicide rate among anaesthetists.

The GMC has power to impose conditions on a doctor's registration, to suspend it or to erase the doctor from the register. In future, only doctors with a licence will be allowed to practise clinically, and apart from erasure the above sanctions will be applied to the licence rather than to registration. Under the new regulations the GMC also has the power to issue a warning where a doctor's fitness to practise is not impaired but there has been a significant departure from the principles set out in *Good Medical Practice*. Warnings will be disclosed to the doctor's employer and any enquirer for a period of five years.

9.4 Which procedure should be followed?

Most performance, health and conduct problems in doctors are best handled locally, using the Trust's agreed procedures. This is the responsibility of a Trust's medical director. Clinical directors must ensure that appropriate informal and formal procedures are in place within a directorate to monitor the quality of clinical practice and discuss any performance issues with the medical director at the earliest possible stage. In cases involving trainees, responsibility will be shared with the postgraduate dean.

The procedure to be followed depends on the nature of the concerns about the poorly performing anaesthetist.

9.4.1 Local procedures to be followed within a Trust

9.4.1.1 Concerns which are initially non-specific and where patients may or may not be immediately at risk

Gather discreetly as much information as possible. Ignore hearsay evidence and try to establish the facts. Anyone making an allegation against a colleague must be prepared to support it in writing. It is almost always helpful to consult trusted, senior colleagues before deciding how to proceed. If concerns appear to be well-founded but not serious, it may be sufficient for one or two colleagues to bring them informally to the doctor's attention, together with appropriate advice. If the concerns are serious, or if the anaesthetist has no insight into the problem, he/she should be informed that the clinical director must be involved at an early stage. This enables the clinical director to see the issues in perspective and for a range of options to be considered about how best to proceed. It may also be helpful later should the clinical director be criticised by the anaesthetist concerned or by other colleagues.

Advice can also be obtained from the College and the Association. clinical directors may find the Association's document on *Stress in Anaesthetists* particularly helpful.⁵⁷ The details of the Association's Sick Doctor Scheme are also set out in this publication. The GMC has an advisory service for medical directors.



9.4.1.2 Concerns where patients are clearly at risk or informal discussions have failed to resolve issues under the previous section (9.4.1.1)

The clinical director and medical director should be contacted urgently. NCAS should also be contacted, especially when exclusion is being considered.

The medical director, who is responsible for deciding which particular procedure should be followed, may wish to seek help from the Association and the College in providing impartial advice. The clinical director, however, may be asked to be the investigating officer. This is appropriate as the clinical director is thoroughly familiar with accepted standards of practice and the day-to-day running of the department of anaesthesia and understands how anaesthesia is practised locally. The clinical director's responsibility is to provide the medical director with the facts and such information and advice as are required for the medical director to decide how to proceed.

9.4.2 Procedures outside a Trust

9.4.2.1 National Clinical Assessment Service (formerly Authority) (NCAS)

NCAS (formerly Authority) was established to improve arrangements for dealing with the poor clinical performance of doctors, and its advisory and assessment services are aimed at enabling NHS Trusts in England, Wales and Northern Ireland to handle cases quickly and fairly, reducing the need to use disciplinary procedures to resolve problems. A similar scheme is being developed in Scotland. It has helped to avoid formal or informal suspension, including the so-called 'gardening leave' in 85% of cases referred to it where this was being considered by the Trust.

A Trust in England can seek advice from NCAS about a doctor whom it thinks is poorly performing at any stage in the handling of the case. NCAS has developed a staged approach to the services it provides NHS Trusts and practitioners. This involves:

- immediate telephoned advice, available 24 hours
- advice, then detailed supported local case management
- advice, then detailed NCAS clinical performance assessment
- support with planning and implementing recommendations arising from assessment.

9.4.2.2 Ombudsman

Where the issues are not clear or where there is doubt as to the case to be answered, referral can be made to the NHS Ombudsman for assistance in resolving the problem.

9.4.2.3 Referral to the GMC

The criteria for referral to the GMC's Fitness to Practise procedures include:

- where local action by the Trust, with or without advice from NCAS, would be impractical or has been tried but has failed to resolve the problem
- where local action has resolved the immediate local issue but the matter has wider implications
- where the problems are so serious that immediate referral to the GMC is clearly required regardless of whether or not local action may also be appropriate.



Referral should be considered if the anaesthetist fails to display appropriate insight into the problems, has left the district but may have taken those problems to another area of the country or has moved exclusively into private practice. In particular the GMC may be the only body able to take effective action where serious problems arise in relation to a doctor working as a transient locum or working solely in non-NHS practice.

Performance and health issues are unlikely to require immediate referral to the GMC if the anaesthetist has insight into the problem and is willing to co-operate with local initiatives to help resolve the concerns.

Finally, remember in any investigation into a colleague's performance:

- keep records of everything: conversations, telephone calls, meetings and interviews. These may be needed at a later stage
- do not jump to conclusions about the outcome of the investigation. Patient and persistent investigation to establish the facts and openness with the colleague concerned are the only ways to protect patients, maintain standards and act justly.

It is very difficult to maintain confidentiality during an investigation of a colleague's performance. Inevitably, rumours spread and colleagues worry about what is happening. It is important, therefore, to keep colleagues informed in general terms only but at the same time keeping confidential the details of the enquiry until it has been completed.

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Appendix 1: core topics

Airways

Clinical challenges

- 1 Anticipated or predicted difficult airway (cervical spondylosis, micrognathia, dental abscess patient).
- 2 Unexpected difficult airway (normal airway assessment, difficulty first revealed at attempt at intubation).
- 3 Failed intubation – this will include the use of airway adjuncts to through cricothyroid puncture techniques.
- 4 Foreign body in the airway.
- 5 Management of a patient for elective tracheostomy (e.g. major head and neck surgery, patients in ITU).
- 6 Management of a patient for emergency tracheostomy (trauma, acute upper airway obstruction).
- 7 Surgery for emergency conditions affecting the upper airway – bleeding, infection, tumour etc.
- 8 Shared airway management – types of devices available, how to use them.
- 9 Safe extubation and management of unanticipated airway obstruction in the recovery period.

Knowledge

- 1 Knowledge of anatomy of upper and lower airways.
- 2 Advances in understanding of physiology of airway obstruction.
- 3 Methods of assessment of likely difficulty in airway management.
- 4 Airway adjunct devices available (and their relative strengths and weaknesses).
- 5 Difficult airway strategies and protocols.
- 6 Failed intubation algorithms.
- 7 Causes and management of postoperative airway obstruction.

Skills

- 1 Use of airway adjuncts.
- 2 Advanced techniques, especially fiberoptic intubation.
- 3 Practice in the use of failed intubation algorithms including surgical airway access.

Emergency and major surgery

Clinical challenges

- 1 Major trauma – multiple systems (principles of ATLS for non-ATLS card carrying members).
- 2 Chest trauma for the non-cardiothoracic anaesthetist. Blunt chest trauma (as part of major trauma and as an isolated event).
- 3 Leaking and ruptured abdominal aortic aneurysm.
- 4 Critically ill patient from ITU going to theatre.
- 5 Perforated viscus in the medically compromised patient (e.g. elderly patient with ischaemic heart disease and perforated caecum or sigmoid).
- 6 Maintenance of body homeostasis during prolonged surgical procedures.



Knowledge

- 1 Developments and advances in the overall management of these patients – better understanding of the role of temperature control, fluid management, intra-operative renal support, permissive hypotension.
- 2 Principles of management of the physiological insults from the disease processes.
- 3 Principles of massive blood transfusion.
- 4 Advances in surgical management and the implications for the anaesthetist.
- 5 Chest drain management principles – insertion, transport etc.
- 6 Advances in management of techniques such as one-lung ventilation.
- 7 The role of the relevant non-technical skills, e.g. limitations on human performance and the techniques to help compensate for this.
- 8 Principles surrounding choice of monitoring techniques.

Skills

- 1 Application of ATLS principles (rather than obtaining ATLS certification).
- 2 Chest Drain Management skills where relevant.
- 3 Management of one lung ventilation.
- 4 Non-technical skills – opportunity to apply the knowledge.
- 5 Insertion and use of invasive and non-invasive monitoring.

Fluid management

Clinical challenges

- 1 Major haemorrhage.
- 2 Major fluid loss (burns, sequestration).
- 3 Blood transfusion policies.
- 4 Diagnosis and management of coagulopathies.
- 5 Advances in oxygen carrying substances/blood substitutes.

Knowledge

- 1 Advances in understanding of physiology of fluid therapy – types of fluids, aggressive *vs* non-aggressive therapy etc.
- 2 Principles of massive blood replacement.
- 3 Principles of fluid therapy for major burns.
- 4 Practice from recognised expert centres, e.g. organisation of major haemorrhage packs.
- 5 Coagulopathy – monitoring of coagulopathy, role of different type of factor replacements, relevant risks of infection etc.
- 6 Advances in new fluid therapies.
- 7 Awareness of relevant guidelines, e.g. SIGN.

Skills

- 1 Use of associated equipment, e.g. rapid infusing and warming devices, bedside measurement devices.



Intensive care medicine

Clinical challenges

- 1 Current uses of inotropes and other vaso-active drugs.
- 2 Methods of ventilation for different types of pulmonary disorder.
- 3 Management of the septic patient.
- 4 Multi-organ failure.
- 5 Discontinuation of treatment and organ donation.

Knowledge

- 1 Update on pathophysiology of relevant condition, e.g. sepsis, multi-organ failure etc.
- 2 Update on cardiovascular pharmacology – specific drugs including relative indications and contra-indications.
- 3 Update on renal support and implications for peri-operative management.
- 4 Update on antimicrobial therapy.
- 5 Update on respiratory support – types of ventilation, weaning etc.
- 6 Severity scoring and assessment of brain function.
- 7 Procedures for organ donation.

Skills

- 1 Familiarisation with ventilators and infusion devices.

Invasive monitoring

Clinical challenges

- 1 Inserting the devices (what devices are currently available).
- 2 Using the information from the devices.
- 3 Trouble-shooting problems.

Knowledge

- 1 The current position on the relevant indications and contra-indications.
- 2 What devices are available along with their relative advantages and disadvantages.
- 3 How to deal with common problems.
- 4 Knowledge of current guidelines (NICE).

Skills

- 1 The use of ultrasonic location devices.
- 2 Setting up the devices (anaesthetists who do not routinely use such devices in elective work may be using them in very ill emergency patients and not be familiar with how to configure monitors etc).
- 3 Techniques for challenging cases, e.g. approaches other than internal jugular and subclavian.

Major trauma

Clinical challenges

- 1 The role of the anaesthetist in major incidents (general principles of triage, immediate care etc).
- 2 Current practices in individual major trauma cases. Available techniques, indications for use etc. (pelvic fracture fixation, diagnosis and management of blunt abdominal trauma in cases of suspected bleeding, e.g. ruptured spleen).
- 3 The patient with a head injury and/or other potential life-threatening injuries.
- 4 Anaesthesia for investigation of the major trauma patient (CT scanning).



Knowledge

- 1 Advanced Life Support & Advanced Trauma Life Support principles.
- 2 Updates on advances in surgical management, e.g. pelvic fractures, gun shot wounds.
- 3 Updates in the management of the head injured patient.
- 4 Updates in the management of the patient with spinal column and spinal cord injury.
- 5 Major incident management, including triage and the role of the anaesthetist.

Skills

- 1 The key skills for ALS and ATLS.

Obstetrics

Clinical challenges

- 1 Non-obstetric surgery for the parturient.
- 2 Resuscitation of the parturient. For those covering obstetric rotas but not practising regularly.
- 3 General anaesthesia for emergency Caesarean section.
- 4 Regional anaesthesia for emergency Caesarean section.
- 5 Management of major haemorrhage (ante-partum, intra-partum or post partum) and coagulopathies.
- 6 Neonatal resuscitation.
- 7 Analgesia and anaesthesia for labour and delivery.
- 8 Difficult or failed intubation.
- 9 Post dural puncture headache.

Knowledge

- 1 Update on current management of the parturient.
- 2 Update on eclampsia and pre-eclampsia.
- 3 Update on pharmacology in relation to the parturient and foetus.
- 4 Principles of management of mothers with cardiac disease.
- 5 Management of major haemorrhage and coagulopathy.
- 6 Failed intubation protocols for obstetric practice.
- 7 Management of post dural puncture headache.

Skills

- 1 Basic Neonatal Life Support for those with an emergency obstetric commitment – the needs will vary depending on local resources.
- 2 Those providing emergency rota cover should also be familiar with the equipment available and relevant for emergencies – infusion systems, invasive monitoring equipment etc.

Occasional emergencies

Clinical challenges

- 1 Serious medical conditions (endocrine, neurological, cardiorespiratory).
- 2 Accidental injuries (drowning, burns).
- 3 Anaphylaxis.
- 4 Advanced Life Support (adults).
- 5 Paediatric Life Support.

**Knowledge**

- 1 Updates in treatment and management of the various medical conditions.
- 2 Update on treatment of drowning and burns.
- 3 Familiarisation with current protocols for emergency conditions.

Skills

- 1 Ability to apply the relevant protocols.
- 2 Those skills necessary for the relevant protocols.

Paediatrics**Clinical challenges**

- 1 Resuscitation of the neonate.
- 2 Management of paediatric emergencies that may present at A&E (upper airway problems, trauma, acute infections with major cardiorespiratory components).
- 3 Transfer of sick children.
- 4 Provision of analgesia.

Knowledge

- 1 Updates in current management principles.
- 2 Current equipment and its indications and contra-indications.
- 3 Principles of fluid balance in children.
- 4 Management options for pain.
- 5 Principles of stabilisation and transfer.

Skills

- 1 Relevant airway skills and use of airway adjuncts.
- 2 Current approaches to cardiovascular access and stability.

Pain management**Clinical challenges**

- 1 Management of the adult postoperative patient.
- 2 Management of the patient with acute pain pre-operatively.
- 3 Management of acute pain from non-surgical causes (fractured ribs, pancreatitis, acute myocardial infarction, sickle cell etc).
- 4 Trouble shooting of problems with regional block (unilateral block, missed segment etc).
- 5 Management of patients with chronic pain conditions.

Knowledge

- 1 Update in physiology of pain and pharmacology of relevant drugs.
- 2 Update in non-pharmacological methods.
- 3 Update in management strategies for specific conditions.
- 4 Challenges and how to deal with them.
- 5 Current protocols and guidelines for managing infusion devices, PCA, epidural infusions etc.

Skills

- 1 The ability to use the relevant equipment.
- 2 (The ability to site regional blocks is dealt with in regional techniques below).
- 3 Ability to apply relevant protocols.



Postoperative complications

Clinical challenges

- 1 The patient who cannot breathe adequately postoperatively.
- 2 The patient who is bleeding and requires to go back to theatre.
- 3 Recognition and management of complications in the early postoperative period (airway obstruction, shivering, nausea and vomiting, pain).
- 4 Sudden collapse from cardiovascular event.

Knowledge

- 1 Factors causing reduced respiratory capacity.
- 2 Investigation of patient who cannot breathe adequately.
- 3 Principles of fluid and blood therapy (see fluid management).
- 4 Options for management of shivering, PONV and pain.
- 5 Management of airway problems (see airways section above, knowledge 7).
- 6 Update of theoretical knowledge of causes of sudden collapse and resuscitation.

Skills

- 1 Maintenance of appropriate level of resuscitation skills.

Regional techniques

Clinical challenges

- 1 Identification and management of problems (intra-operative unilateral block, missed segment etc), hypotension, total spinal block, extensive block.
- 2 Identification and management of local anaesthetic toxicity.
- 3 Management of non-obstetric patient with dural puncture headache (post spinal or post epidural).
- 4 Neurological damage.

Knowledge

- 1 Relevant anatomy of blocks.
- 2 Update on pharmacology of local anaesthetic drugs.
- 3 Indications and contra-indications.
- 4 Management of complications of local anaesthetic blocks.
- 5 Investigation of neurological damage.

Skills

- 1 Ability to perform blocks.
- 2 Ability to use relevant equipment (nerve location devices, infusion pumps etc).

Transfer of the critically ill patient

Clinical challenges

- 1 Critically ill patients to ITU in other centres.
- 2 Transfer of head injured patients.
- 3 Transfer of burned patients.
- 4 Stabilisation of child prior to transfer.
- 5 Air transfer.



Knowledge

- 1 Update of impact on pathophysiology of transfer.
- 2 The logistical and practical aspects – what equipment to have available, what drugs to take etc.
- 3 The challenges presented by different groups – the burned patient, the head injured patient, the patient in single or multiple organ failure being taken to ITU.
- 4 Familiarisation with existing protocols.
- 5 Additional problems of air transfer.

Skills

- 1 Most of the challenges are organisational, which includes familiarity with the relevant equipment in addition to the key non-technical skills.

NOTES

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