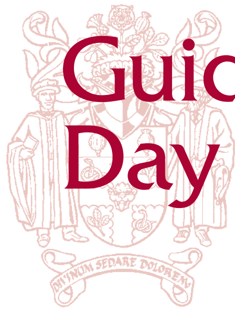

Guidance on the provision of anaesthesia services for Day Surgery

When considering the provision of anaesthesia, the Royal College of Anaesthetists recommends that the following areas should be addressed. The goal is to ensure a comprehensive, quality service dedicated to the care of patients and to the education and professional development of staff. The provision of adequate funding to provide the services described should be considered.

Summary

- Day surgery should have a dedicated clinical lead or clinical director with allocated programmed activities to allow them to lead service development.[1–3]
- Anaesthesia for day surgery should be consultant led. All anaesthetists delivering day surgical care must be trained, experienced and skilled in day surgery practice as high quality anaesthesia is pivotal to successful day surgery.[1]
- Consultant anaesthetic involvement is essential in policies, protocols and guidelines designed to facilitate smooth running of the day surgery unit.[1,4,5]
- The location of day surgery units (DSUs) must be given careful consideration in order to accommodate all of the necessary facilities and access to peri-operative support services.[1]
- Patient selection and pre-assessment of criteria of fitness for general anaesthesia for day surgery must be developed and agreed by anaesthetists.[1,4,5]
- Pre-assessment clinics should be consultant led and delivered by a specifically trained pre-assessment team.[5]
- The recommended standards of monitoring, trained anaesthetic assistance and post-anaesthetic recovery must be met for every patient undergoing day surgery under a general anaesthetic or sedation.[6–10]
- Children experiencing day surgical care require all the facilities and staffing that would be expected in any paediatric unit.[11–16]
- Training in anaesthesia for day surgery is essential so that anaesthetists practising in this area develop techniques that permit the patient to undergo the surgical procedure with minimum stress and maximum comfort and optimise their chance of early discharge.[2,17]
- Effective audit is an essential in the provision of quality anaesthesia for good day surgery.[2,3,18,19]
- Specific instructions and information must be available for patients, their relatives and community services.[3,20]

Introduction: The importance of anaesthesia services for day surgery

- Day surgery encompasses a spectrum of surgical procedures which allows the patient to go home after a few hours.
- Increasing day surgery rates is a key government target.[21] Anaesthetic advancements and the introduction of minimal-access techniques allow a range of surgical procedures to be undertaken on a day case basis which formerly would have required in-patient services.[22]
- 'True day surgery' patients are those undergoing day surgery requiring full operating theatre facilities and/or a general anaesthetic. This chapter

encompasses the anaesthetic service provision to 'true day surgery' patients who are admitted and discharged on the day of their surgical treatment. It does not include 'short-stay', endoscopy or out-patient procedures.

- Some patients may have 'day surgery' in one centre which would be performed as in-patient work in another. The decision will reflect the skills of the medical team, the patient's fitness, the technical ease of the procedure, the post-operative morbidity and the social circumstances of the patient in relation to the available community resources.
- Many hospitals perform a variety of day surgery work, such as dental and ophthalmic surgery, in specialised units. This chapter encompasses standards of provision of anaesthetic services for day surgery in these sites. However, standards of provision of anaesthesia in imaging suites, stand-alone dental departments and psychiatric units will be outlined in a later chapter of this document 'Anaesthesia in a non-theatre environment' (in preparation).
- Outsourcing of surgical activity may mean that day surgery units (DSUs), or 'treatment centres', may be sited in a geographically separate location from the main hospital building. Self-contained units must be sufficiently equipped and have access to all the necessary peri-operative support services.
- Increasing numbers of patients will present to day surgery for more complex surgical procedures. Many will present with significant co-morbidities requiring early anaesthetic input.
- Anaesthetists play a pivotal part in the successful outcomes of day surgery patients. Anaesthetists can and usually do contribute in more ways than providing anaesthesia.
- Roles which must have senior anaesthetic input include:[2,4,19]
    - agreement, development and support of pre-operative assessment and post-operative care guidelines and processes
    - pre-operative assessment of complex patients for suitability for day surgery and for those needing investigation and treatment
    - referral to other specialties
    - liaison with surgical teams.
- The success of a day surgery unit is also determined by the skill and experience of pre-assessment staff. Adequate resources for training, staffing and support services are essential to the pre-assessment service.

Levels of provision of service

1 Staffing requirements

1.1 Day surgery must be a consultant-led service with a dedicated clinical lead or clinical director who has programmed activities (PAs) allocated to their job plan.[1–3]

1.2 High quality anaesthesia is pivotal to successful outcomes in day surgery. All anaesthetists delivering anaesthesia for day surgery must be experienced and skilled in techniques appropriate to day surgery practice.[1] The majority of anaesthesia for day surgery should be delivered by consultant anaesthetists.[23] Consultant anaesthetists must have been trained in this field to the Royal College of Anaesthetists standards.[17] Staff or associate specialist grades may also provide anaesthesia for day surgery, as can sufficiently experienced trainee anaesthetists. However, these doctors must have undertaken suitable training in the provision of anaesthesia for day surgery, and must have unimpeded access to a consultant anaesthetist for advice and supervision.[17]

1.3 All patients undergoing surgery with anaesthesia must be seen by an anaesthetist on the day of operation.[5]

1.4 Trained anaesthetic assistance and post-anaesthetic recovery staff must be provided for every patient undergoing general anaesthesia.[7–9]

1.5 Pre-assessment clinics should be consultant led and delivered by a specifically trained pre-assessment team.[5]

1.6 Adequate levels of trained nursing staff must be provided in recovery for the numbers of patients and their needs. No fewer than two staff should be present when there is a patient in the recovery room who does not fulfil criteria for discharge to the ward.[7,8]

2 Equipment, support services and facilities

Facilities

2.1 The minimum operating facility required is a dedicated operating session in a properly equipped operating theatre.

2.2 The ideal day surgery facility is a purpose-built, self-contained DSU with its own ward, recovery areas and dedicated operating theatre(s). This may be contained within a main hospital or in its grounds to facilitate access to in-patient or critical care facilities, or it may be a freestanding unit remote from the main hospital site.

2.3 If a purpose-built unit does not exist and surgery is undertaken in the main theatre suite then patients should be admitted to a dedicated day surgery ward.

2.4 Facilities for privacy and confidentiality during pre-operative discussion and examination must be provided. Pre-operative discussions with patients in the middle of crowded waiting rooms are not appropriate as they do not allow patient confidentiality.[24]

Equipment

2.5 Theatre and anaesthetic-related equipment must always be equivalent to in-patient surgery and be regularly maintained.[1,25]

2.6 The recommended standards of monitoring must be met for every patient.[6]

2.7 Full resuscitation equipment and drugs must be provided as outlined by up-to-date resuscitation guidelines and hospital policy.[1,26]

2.8 Peripheral nerve blocks, spinal/epidural blocks and intravenous regional anaesthesia often provide excellent conditions for day surgery. Equipment to facilitate these blocks, such as nerve stimulators and ultrasound, should be available.

2.9 Equipment and drugs to deliver total intravenous anaesthesia should be available in day surgery.

Support services

Pre-operative services

2.10 Adequate time and facilities should be provided within the DSU to allow:

- review of pre-assessment and laboratory investigations
- elicit any further clinical information
- undertake any relevant clinical examination, including airway assessment
- discuss anaesthetic technique to be used
- provide post-operative instructions (reinforced by patient information leaflet)
- document any relevant discussion and findings on an anaesthetic record
- ensure consent is understood and signed, and laterality of operation site confirmed.

2.11 Local pre-assessment guidelines and protocols should be established, and effective training organised under the direction of named consultant anaesthetists.

2.12 Consultant anaesthetic advice should be available to comment on an individual patient's suitability for day surgery.

2.13 Appropriate clinical investigations should be ordered at pre-assessment according to a robust locally agreed protocol. A mechanism for the review and interpretation of the results of tests ordered before the day of surgery must be developed.

2.14 The support services of radiology, pharmacy and investigative laboratories must be available. The facility to perform a 12 lead electrocardiogram (ECG) should be available within the DSU itself.

Post-operative support services and facilities

2.15 Each DSU must have a fully equipped recovery area, staffed by recovery personnel trained to defined standards.[7,8] Transfer from the immediate recovery area to a second (ambulatory) recovery area may take place when the patient is awake, in control of their airway, oriented and without continuing haemorrhage.[7,8]

2.16 The secondary recovery area must provide essential close and continued supervision of all patients who should be visible to the nursing staff.

2.17 There must be easy access to in-patient beds for peri-operative complications. If a patient requires overnight admission, an in-patient bed must be found.

2.18 If day surgery is being undertaken on an isolated site, protocols must define finding an in-patient bed and mechanism of transport for a patient needing an overnight stay.

2.19 Locally agreed written discharge criteria must be established. Discharge may be delegated to senior nursing staff according to protocols. If a patient does not satisfy the agreed discharge criteria they must be referred to the anaesthetist or surgeon concerned (or their deputies) for assessment.[27]

2.20 Locally agreed policies must be in place for the management of post-operative pain after day surgery. This should include pain scoring systems in recovery, prescription of pain relief medication on discharge with written and verbal instructions on how to take medications and what to take when the medications have finished.

2.21 Patients may be discharged home with residual sensory or motor effects after nerve blocks or regional anaesthesia. The duration of the effects must be explained and the patient must receive written instructions as to their conduct until normal sensation returns.

2.22 Post-operative short-term memory loss may prevent verbal information being assimilated by the patient. If post-operative analgesia has been provided, clear, written instructions on how and when to take it and the maximum safe dose should normally be provided.

2.23 A 24-hour telephone number must be supplied so that every patient knows whom to contact in case of post-operative complications. This should not be an answer-phone.

2.24 Patients who have undergone procedures under general anaesthesia must be accompanied home by a responsible adult who remains available for 24 hours after surgery.

2.25 Transport home should be by private car or taxi; public transport is not normally appropriate.

2.26 The general practitioner (GP) must have been notified of the patient's proposed treatment in advance. Where the patient's GP may need to provide post-operative care within a short time of discharge, arrangements for this should have been made in advance of the patient's admission. The patient's GP should be informed of the patient's discharge as soon as possible, either by telephone call or fax/email. A discharge summary should be written for each patient by the surgeon concerned.

Information technology

2.27 Information technology systems in the DSU should provide appropriate information but must not burden staff.

3 Areas of special requirement

Management of children

3.1 Day surgery is particularly appropriate for children, provided that the proposed operations are neither too complex nor prolonged, and individuals have no significant co-existing medical disease.

3.2 The lower age limit for day surgery depends on the facilities and experience of staff and the medical condition of the infant. Ex-preterm neonates should not be considered for day surgery unless medically fit and beyond 60 weeks post-conceptual age. Infants with a history of chronic lung disease or apnoeas should be managed in a centre equipped with facilities for post-operative ventilation.[9]

3.3 The specific needs of children must be considered at all stages of day care. Children experiencing day surgical care require all the facilities and staffing that would be expected in any paediatric unit. This may be achieved by providing separate paediatric day surgery units in larger institutions, separate areas for children in a single unit, or closing the unit to adults on particular days when only paediatric surgery is undertaken. It is particularly important that children are recovered in separate areas by appropriately trained and qualified staff.

3.4 The management and care of children undergoing day surgery should comply with standards of care irrespective of whether children are managed in a specialist paediatric unit or an adult unit adapted for children.[11]

3.5 Nursing staff caring for children must be skilled in paediatric and day surgical care and trained in child protection.

3.6 Anaesthetists who anaesthetise children must have received appropriate training. Their competency in anaesthesia, resuscitation and child protection must remain current. If they do not undertake regular paediatric sessions then a mechanism should be found using CPD time to maintain skills, often by attachment to a local paediatric unit.

3.7 There must be clear discharge criteria for children following day care surgery.

3.8 There must be access to a paediatrician. Where the DSU does not have in-patient paediatric services, robust arrangements should be in place for access to a paediatrician and transfer to a paediatric unit if necessary.

3.9 Other safeguards must be in place when providing day surgery for children in DSUs that are not in hospitals with in-patient paediatric care.

3.10 The provision of good quality information to parents and children is essential. This should include:

- fasting guidelines
- clear instructions for use of drugs for pain relief
- what to do if the child becomes unwell before or after the operation.

3.11 A pre-admission programme for children should be considered to decrease the impact and stress of admission to the DSU on the day of surgery.

4 Training and education

4.1 As day surgery will form a substantial proportion of most consultant anaesthetists' workload, appropriate and comprehensive training in this sub-specialty must be given according to current standards.[17]

4.2 Training needs to emphasise the following aspects:

- effective post-operative pain relief
- post-operative nausea and vomiting prevention strategies
- the necessity of a team approach in day surgery care
- the requirement for 'street fitness' on discharge
- the post-operative management of patients in the community.

4.3 Appropriate continuing professional development programmes are also essential to maintaining safe day surgery.

5 Research and audit

5.1 Each DSU should have a system in place for the routine audit of important basic parameters such as unexpected admissions following surgery, DNA rates and patients cancelled on day of operation.

5.2 Audits should rely only on procedure-specific data and not on overall percentages. Auditors can compare activity by procedure and unit.

5.3 The Royal College of Anaesthetists has also issued guidance for audit in day surgery.[19]

5.4 Audit should be co-ordinated and led by designated staff members.

5.5 Audit should be integrated in wider areas of anaesthetic and surgical practice.

5.6 Audit in clinical practice and patient care in day surgery should involve all staff. A system should exist for the regular feedback of audit information to staff to reinforce good practice and help to effect change. This feedback may take the form of regular meetings or updates, or a local news-sheet.

5.7 Traditionally, much anaesthetic research (particularly the development of anaesthetic agents) has been conducted in the day surgery setting. This setting is likely to be an area used for further research and development in the future.

6 Organisation and administration

6.1 Each DSU should have a clinical director or specialty lead. This will often, but not always, be an anaesthetist. The role of the clinical director is to champion the cause of day surgery and ensure that best practice is followed. This role should be recognised by adequate programmed activity allocation and provided with appropriate administrative support.[1–3]

6.2 There should be a senior nurse manager who, with the clinical director, can provide the day-to-day management of the unit.

6.3 Many larger units, especially those that are freestanding, may find it helpful to have a separate business manager to support the clinical director and senior nurse.

6.4 The clinical director should chair a management group and liaise with all those involved in day care. This will include representatives from surgery, anaesthesia, nursing, pharmacy, management, finance, community care (both nursing and medical), audit, professions allied to medicine, and representatives of patient groups.

6.5 Mixed in-patient and day surgery lists, while common, can lead to substandard care. In-patient nursing documentation is often used and in-patient nurses may not have been trained to put the same emphasis on ensuring that the patient is fit for discharge as those trained in day surgery nursing.

6.6 The surgeon involved in the case must remain responsible for the patient, and he/she or a suitable deputy must be available to deal with any problems that arise.

6.7 For commissioning purposes, suggested indicators of quality of a DSU include: day surgery existing as a separate directorate within the trust, appointment of a senior manager directly and solely responsible for day surgery, dedicated day surgery pre-operative assessment staff, timely information, appropriate staffing levels, appropriate follow-up and outreach, and involvement of patients, the public and community practitioners.[3] This list, however, is not exhaustive and other factors – such as theatre utilisation, levels of unplanned overnight admissions after day surgery, management of pain relief and post-operative nausea and vomiting, and patient information and satisfaction – are also important quality indicators which should be audited regularly.

7 Patient information

7.1 Clear and concise information given to patients at the right time and in the correct format is essential to facilitate good day surgery practice. Much of this information may be given to patients at pre-assessment. Verbal information should always be reinforced with printed material. Alternative means of communication with patients, including the internet and text messaging, should be considered.

7.2 Information must be arranged in such in way that it is comprehensive and comprehensible and should be available in a format suitable for the

visually impaired. It may be necessary to provide information leaflets in a number of different languages to accommodate the needs of the local population.

7.3 Whatever form the information takes it must be sufficient to allow informed consent.[20]

7.4 At a minimum, information provided to patients should include:

- Date and time of admission to the unit.
- Location of the unit, and travel instructions.
- Details of the surgery to be undertaken, and any relevant pre-operative preparations required of the patient.
- Information on the anaesthetic to be provided, including clear instruction for pre-operative fasting, and the way in which patients will manage their medication.
- Post-operative discharge information, including details of follow-up appointments, management of drugs, pain relief and dressings, and clear instruction on whom to contact in the event of post-operative problems.
- Patients must also be made aware at the pre-admission visit that conversion to inpatient care is always a possibility.

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