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. These recommendations form the basis of the standard expected for departmental accreditation.
Summary

Day surgery should have a dedicated clinical lead or clinical director with allocated programmed activities to allow them to lead service development.1,2,3

Anaesthesia for day surgery should be consultant led. All anaesthetists delivering day surgical care must be trained, experienced and skilled in the practice of day surgery because high-quality anaesthesia is pivotal to a successful outcome.1,3

Consultant anaesthetic involvement is essential in policies, protocols and guidelines designed to facilitate smooth running of the day surgery unit (DSU).1,3,4,5

The location of the DSU 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.1,2,5,6

Pre-assessment clinics should be consultant led and delivered by a specifically trained pre-assessment team.5,7

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.8,9,10,11,12

Children experiencing day surgical care require all the facilities and staffing that would be expected in any paediatric unit.13,14,15,16,17,18,19

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.2,20

Effective audit is essential in the provision of quality anaesthesia for good day surgery.2,3,21,22

Specific instructions and information must be available for patients, their relatives and community services.5,23
Guidelines for the Provision of Anaesthesia Services (GPAS) 2016

Introduction: the importance of anaesthesia services for day surgery

- Day surgery encompasses a spectrum of surgical procedures that allows the patient to go home on the day of surgery, usually after a few hours.
- Day surgery represents high-quality patient care with reduced tissue trauma, enhanced recovery, effective analgesia, minimal adverse events, provision of appropriate information and post-operative support.
- Improvements in the provision of anaesthesia and analgesia 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 inpatient services.24,25
- ‘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 outpatient procedures.
- Some patients may not be appropriate for smaller or isolated day units but can still be managed as day cases through larger centres. The decision will reflect the available facilities, 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 are outlined in a later chapter of this document, Chapter 7: Guidance on the Provision of Anaesthetic Care in the Non-theatre Environment.26
- 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. Patient selection should consider the availability of additional help in an emergency, and ease of overnight admissions if needed. Patients deemed unsuitable for anaesthesia or surgery at these isolated locations may very well still be appropriate for a day surgery pathway through the main hospital facilities.
- Increasing numbers of patients will present to day surgery for more complex surgical procedures.24 Many will present with significant co-morbidities requiring early anaesthetic input.
- Anaesthetists play a pivotal part in the successful outcomes of day surgery patients. Working as part of the multidisciplinary team, anaesthetists can and should contribute in more ways than providing anaesthesia.
- Roles that must have senior anaesthetic input include:2,3,4,22
  - agreement, development and support of pre-operative assessment and post-operative care guidelines and processes
  - pre-operative assessment of complex patients to ensure as many as possible are managed as day cases and for those needing investigation and treatment
  - referral to other specialties
  - liaison with surgical teams.
- The success of a DSU is also determined by the skill and experience of pre-assessment staff.27 Adequate resources for training, staffing and support services are essential to the pre-assessment service.7
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 allocated to their job plan.1,2,3

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 the practice of day surgery.1,3 The majority of anaesthesia for day surgery should be delivered by consultant anaesthetists.28 Consultant anaesthetists must have been trained in this field to the standards required by the Royal College of Anaesthetists.20 Staff or associate specialist grades and experienced trainee anaesthetists may also provide anaesthesia for day surgery. However, these doctors must have undertaken suitable training in the provision of anaesthesia for day surgery.20 Departments of anaesthesia must ensure that a named supervisory consultant is available to all non-consultant anaesthetists, except those non-consultant non-trainee anaesthetists that local governance arrangements have agreed in advance are able to work in those circumstances without consultant supervision, based on the training and experience of the individual doctor and the range and scope of their clinical practice.29

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.8,9,12

1.5 Pre-assessment clinics should be consultant led and delivered by a specifically trained pre-assessment team.5,7

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 the criteria for discharge to the ward.8,9,12

Physicians’ assistants (anaesthesia)

1.7 It remains the responsibility of those leading departments of anaesthesia, together with their constituent consultants, to ensure that physicians’ assistants (anaesthesia) work under the supervision of a consultant anaesthetist at all times as required by the RCoA.30 A named consultant must have overall responsibility for the care of the patient at all times.

1.8 It is recommended that physicians’ assistants (anaesthesia) have a period of induction and a programme of continuing professional development led by a local clinical lead.31

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 inpatient or critical care facilities, or it may be a freestanding unit remote from the main hospital site.

2.3 A viable alternative is for patients to be admitted to and discharged from a dedicated day surgery ward, with surgery undertaken in the main theatre suite. This arrangement may be more flexible for complex work and avoids duplicating theatre skills and equipment. Every effort should be made to avoid mixing day cases and inpatients on the same operating list, and day case patients should never be managed through inpatient wards, as this greatly increases their chance of an unnecessary overnight stay.1,27

2.4 Facilities for privacy and confidentiality during pre-operative discussion and examination must be provided.3 Pre-operative discussions with patients in the middle of crowded waiting rooms are not appropriate, as they do not allow patient confidentiality.27
Guidelines for the Provision of Anaesthesia Services (GPAS) 2016

Equipment

2.5 Theatre and anaesthetic-related equipment must always be equivalent to that for inpatient surgery and be regularly maintained.1

2.6 The recommended standards of monitoring must be met for every patient.8

2.7 Full resuscitation equipment and drugs must be provided as outlined by up-to-date resuscitation guidelines and hospital policy.1,32 Staff should be trained to advanced life support standards.

2.8 Peripheral nerve blocks, spinal/epidural blocks and intravenous regional anaesthesia often provide excellent conditions for day surgery.33,34 Equipment to facilitate these blocks, such as nerve stimulators and ultrasound, should be available.

2.9 Equipment and drugs to deliver suitable short-acting anaesthesia should be available in day surgery.

Support services

Pre-assessment services

2.10 Effective pre-assessment and patient preparation, performed as early as possible in the planned patient pathway, is essential to the safety and success of day surgery.2,27

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 and to assist with optimisation.

2.13 Clinical investigations rarely inform the suitability for day surgery or influence subsequent management or outcome.2,35 Those that are appropriate should be ordered at pre-assessment, according to a robust locally agreed protocol. A mechanism for review and interpretation of the results of tests ordered before the day of surgery must be developed.

2.14 Written information should be provided, outlining the patient pathway, planned procedure and anaesthetic and expectation of post-operative recovery.

Services on the day of surgery

2.15 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 a patient information leaflet)
- document any relevant discussion and findings on an anaesthetic record
- ensure consent is understood and signed, and laterality of the operation site confirmed.

2.16 The support services of radiology, pharmacy and investigative laboratories must be available. The facility to perform a 12-lead electrocardiogram and other point-of-care tests, such as international normalised ratio, should be available within the DSU itself.

Post-operative support services and facilities

2.17 Each DSU must have a fully equipped recovery area, staffed by recovery personnel trained to defined standards.8,9,12 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.8,9,12

2.18 The secondary recovery area must provide essential close and continued supervision of all patients, who should be visible to the nursing staff while maintaining privacy and dignity.
2.19 There must be easy access to inpatient beds for peri-operative complications. If a patient requires overnight admission, an inpatient bed must be found. Some DSUs have additional short-stay overnight capacity that can sometimes be used for this purpose.

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

2.21 Locally agreed written discharge criteria must be established. Discharge is usually 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.

2.22 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 and 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.

2.23 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.

2.24 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. Other important information should also be backed up in writing.

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

2.26 Following procedures under general anaesthesia, a responsible adult should escort the patient home and provide support for the first 24 hours after surgery. A carer at home may not be essential if there has been good recovery after brief or non-invasive procedures and where any post-operative haemorrhage is likely to be obvious and controllable with simple pressure.

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

2.28 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. Ideally, the patient should be given a copy in case emergency treatment is needed overnight.

Information technology

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

3 Areas of special requirement

Children

3.1 Day surgery is particularly appropriate for children.

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.

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 DSUs 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.¹⁴

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 continuing professional development 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.¹³

3.8 There must be access to a paediatrician. Where the DSU does not have inpatient 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 inpatient 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.²⁰

4.2 Training needs to emphasise the following aspects:

- patient selection and optimisation for day surgery
- effective post-operative pain relief
- strategies for preventing post-operative nausea and vomiting
- the necessity of a multidisciplinary 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 for maintaining safe day surgery.
5 Research, audit and quality improvement

5.1 Each DSU should have a system in place for the routine audit of important basic parameters such as unexpected admissions following surgery, non-attendance (DNA) rates and patients cancelled on the day of operation.2,3

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 audits in day surgery.22

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 newsletter.

5.7 Traditionally, much anaesthetic research (particularly the development of anaesthetic agents) has been conducted in the day surgery setting. The swift transit through first- and second-stage recovery is an ideal testing ground for new anaesthetic and analgesic agents.

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 inpatient and day surgery lists may increase flexibility, but this practice should be minimised, as conflicting priorities can compromise the care of both groups.27

6.6 Day case patients should always be managed on dedicated day case ward areas, to ensure safe and timely discharge.3, 27, 37

6.7 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.

6.8 For commissioning purposes, suggested indicators of quality of a DSU include: day surgery existing as a separate and ‘ring-fenced’ administrative care pathway, a senior manager directly responsible for day surgery, pre-operative assessment undertaken by staff familiar with the day surgery pathway, provision of timely written information, appropriate staffing levels, nurse-led discharge, provision for appropriate post-operative support including follow-up and outreach after home discharge, and involvement and feedback from 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 complication and readmission rates – are also important quality indicators that should be audited regularly.
6.9 A number of unplanned surgical operations (for example abscess drainage, superficial lacerations or hand trauma) can be managed on a day case basis, with semi-elective admission to day surgery facilities on the day of operation and discharge later the same day. In contrast, the accommodation of emergency inpatients within the ward environment of day surgery facilities, without alteration of the surgical pathway, represents a failure of bed-capacity planning and causes disruption of effective ambulatory care.

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 a 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.

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

- the 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.

7.5 Patients must also be made aware at the pre-admission visit that conversion to inpatient care is always a possibility.

Further reading


References

Chapter 6
Guidance on the Provision of Anaesthesia Services for Day Surgery 2016


20 Curriculum for a CCT in Anaesthetics. RCoA, London 2010 [www.rcoa.ac.uk/node/230].


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