OVERVIEW OF OPERATING THEATRE AND ANAESTHETIC SERVICES

Services in the operating theatre and anaesthetic services carry high risk. It is essential that there is collaboration between the personnel in the theatre, the infection control and health and safety personnel and those responsible for supplying and maintaining equipment.

Anaesthesia, sedation and surgical interventions are common and complex processes in a health care organisation. They require complete and comprehensive patient assessment, integrated care planning, continued patient monitoring and criteria-determined transfer for continuing care, rehabilitation and eventual discharge.

Anaesthesia and sedation are commonly viewed as a continuum from minimal sedation to full anaesthesia. As patient responses may move along that continuum, the use of anaesthesia and sedation is organised in an integrated manner. This chapter includes anaesthesia and moderate and deep sedation, during which the protective reflexes needed by the patient for ventilator functions are at risk.

The anaesthesia and surgery standards are applicable wherever anaesthesia and/or moderate or deep sedation are used and surgical and other invasive procedures requiring consent are performed. Such settings include clinic/healthcare centre operating theatres, day surgery or day clinic/healthcare centre units, dental and other outpatient clinics, emergency services and others. While major surgery is generally not performed in clinics/health centres, a number of minor procedures might be undertaken.

The organisation ensures that an adequate number of suitably qualified and experienced personnel are available at all times to provide a safe operating theatre and anaesthetic service.
Standards

8.1 Management and staffing

8.1.1 The operating theatre and anaesthetic service is managed and staffed to provide a safe and effective service.

Intent of 8.1.1
Theatre management personnel work with organisational leaders to ensure adequate and suitable management processes and staffing of the theatre, anaesthetic service, and recovery room.

The qualifications of those persons who administer anaesthesia in the clinic/healthcare centre are documented in accordance with current professional society standards.

There may not be a formally constituted theatre users’ committee, but the function must be performed at some level. For example, in the private sector there are clinical forums where medical practitioners meet with management. These forums include representatives of the theatre nursing staff.

Privileges assigned to Individuals may not be documented, but the organisation places restrictions on who may administer anaesthetics. In the private sector, privileging is implied by the fact that anaesthetists are allowed to provide services in an organisation only once their credentials have been checked.

Criteria 8.1.1

8.1.1.1 A senior professional, who is suitably qualified and/or experienced, is in charge of the theatre and recovery area.

8.1.1.2 Operating theatre rosters ensure that registered nurses with suitable qualifications and/or experience are present during all shifts, for theatre duties, anaesthetic assistance, and for recovery room duties.

8.1.1.3 Anaesthesia is administered only by qualified practitioners, who are privileged by the organisation to do so.

8.1.1.4 Anaesthesia is commenced and terminated only in the presence of a staff member, whose sole duty it is to assist the anaesthetist, until such time as the latter indicates that assistance is no longer required.

8.1.1.5 There is at least one suitably trained and/or experienced anaesthetic nurse per operating theatre.

8.1.1.6 Nurses, who are trained in recovery room care, are available until the patient has fully recovered.

8.1.1.7 The anaesthetist is responsible for supervising the recovery period and authorising the patient’s discharge.

8.2 Facilities, equipment, supplies and medications

8.2.1 Facilities for safe surgical and anaesthetic care are provided and maintained.

Intent of 8.2.1
The design of the operating theatre provides space for the reception, anaesthesia, surgery, recovery and observation of patients. Access to the operating theatre suite is controlled.
Anyone entering the area is required to change into theatre attire and wash their hands. There are areas for the disposal and collection of used equipment and waste, including contaminated waste and sharps. Safe and adequate storage space for pharmaceutical and surgical supplies is available. This includes separate lockable cupboards for medicines requiring control in accordance with legislation or organisational policy and for inflammable substances.

Theatre personnel are provided with office facilities or a day station, a restroom, washrooms, toilets, changing facilities and a separate space for their personal clothing and theatre clothing. There are facilities for scrubbing-up procedures in each theatre, with hot and cold running water and elbow-operated taps. There is an anaesthetist's chair, an operating table with Trendelenburg position control, at least one lateral padded straight arm support, and an infusion pole. Equipment for patients awaiting surgery includes blood pressure monitoring equipment, vacuum points with ancillary fittings and oxygen points with flowmeters and all ancillary fittings. Space and facilities are available for setting up surgical trays and for autoclaving instruments.

Criteria 8.2.1

8.2.1.1 The design of the operating theatre complex provides space for the reception, anaesthesia, surgery, recovery and observation of patients.

8.2.1.2 Access to the theatre suites is controlled.

8.2.1.3 There is direct access to the operating theatres from the receiving, scrubbing-up and recovery areas.

8.2.1.4 The accommodation for patients awaiting surgery is suitably equipped.

8.2.1.5 There is safe and adequate storage space for pharmaceutical and surgical supplies.

8.2.1.6 There is access to sterilisation and disinfection facilities.

8.2.1.7 There is a system for controlling the environmental temperature and humidity that ensures safe limits for anaesthetised patients (temperature between 22°C and 25°C and relative humidity between 40% and 70%).

8.2.1.8 There is either an uninterrupted power supply (UPS) or a battery backup system for the theatre lamp, which is regularly tested, with such tests being fully documented.

8.2.1.9 There is a functional operating theatre table, which is regularly tested, with such tests being fully documented.

8.2.1.10 The theatre has a refrigerator for medications, the temperature of which is measured and recorded daily.

8.2.2 The anaesthetic equipment, supplies and medications used comply with the recommendations of professional anaesthetic organisations, or alternate authoritative sources.

Criteria 8.2.2

8.2.2.1 The provision and use of anaesthetic mixture components and other peri-operative medication complies with the guidelines of a professional society or similar reputable professional body.
8.2.2.2 The provision and use of breathing circuits complies with the guidelines of a professional society or similar reputable professional body.

8.2.2.3 The provision and use of ancillary equipment complies with the guidelines of a professional society or similar reputable professional body.

8.2.2.4 The provision and use of monitoring equipment complies with the guidelines of a professional society or similar reputable professional body.

8.2.2.5 An anaesthesia trolley is available for the exclusive use of the anaesthetist in each theatre.

8.2.2.6 Expiry dates of medications are checked regularly, with documented records of such checks.

8.2.2.7 A tracheotomy tray is available.

8.2.2.8 Theatre personnel ensure that all equipment is included in the organisation’s equipment replacement and maintenance programme.

8.2.3 Emergency and protective equipment and supplies are provided in the operating theatre.

Criteria 8.2.3

8.2.3.1 Emergency resuscitation equipment and supplies are available.

8.2.3.2 Emergency and resuscitation equipment and supplies have clearly defined instructions for use.

8.2.3.3 Emergency resuscitation equipment shows evidence of regular checking.

8.2.3.4 There is a mechanism for summoning assistance in the operating theatre.

8.2.3.5 There is appropriate shielding and protective clothing in the presence of biohazards (including lasers) or radiographic equipment.

8.2.3.6 Hazard or warning notices are displayed.

8.2.4 Recovery room facilities and equipment are available to provide safe and effective care.

Intent of 8.2.4
The number of beds/trolley spaces in the recovery room provides sufficient space for at least one patient from each operating theatre that it services, and is sufficient for peak loads. The provision, use and maintenance of recovery room equipment comply with the guidelines for practice of the professional society.
Criteria 8.2.4

8.2.4.1 The recovery area forms part of the operating theatre complex.

8.2.4.2 There is an adequate number of recovery beds for the patients from the operating theatre.

8.2.4.3 There is adequate lighting.

8.2.4.4 The provision, use and maintenance of recovery room equipment comply with the professional society's guidelines.

8.2.5 The sterilising and disinfecting unit is designed to allow for effective sterilising and disinfecting of equipment and supplies.

Intent of 8.2.5

Even in a small one-room unit, the separation of activity sites and the flow of work can be achieved by careful planning. There should be a dedicated area for cleaning equipment and instruments.

There are many methods of sterilising equipment. Whatever methods are used, the personnel need to ensure that the equipment used is effective. There must, therefore, be established systems for ensuring that sterility is obtained through the sterilisation processes.

The number of autoclaves required will depend upon the size of the clinic/healthcare centre and the services provided, how much is processed on site and how much is acquired pre-packed and sterilised and whether the needs of both the operating theatre suite and other departments/services are catered for.

8.2.5 Criteria

8.2.5.1 The design of the sterilising and disinfecting unit, and the layout of equipment, ensures flow of work from the soiled to the clean side of the unit.

8.2.5.2 There is a washing and decontamination area, with stainless steel sinks and running water, and a sanitary sewage system.

8.2.5.3 There is a pre-packing area with storage facilities for clean materials.

8.2.5.4 There is a storage area for sterile packs with racks that allow for an adequate circulation of air.

8.2.5.5 Adequate light and ventilation are available.

8.2.5.6 There are one or more autoclaves or their equivalents that are capable of sterilising porous loads (gowns, drapes and dressings), as well as wrapped and unwrapped instruments.

8.2.5.7 Where ethylene oxide is used as a sterilising agent, the installation complies with relevant safety standards and legislation.

8.2.5.8 Autoclave sterility is tested daily and the test results are recorded.

8.2.5.9 The sterility of each pack is shown on indicator tapes that are suited to the processes used.
8.3 Policies and procedures

8.3.1 Policies and procedures are developed relating to the activities in the operating theatre and anaesthetic service.

Intent of 8.3.1
Policies and procedures are necessary to guide the administration of the operating theatre and anaesthetic services to ensure the smooth operation of those services, and to ensure that personnel act swiftly and in a co-ordinated manner in an emergency. Those policies and procedures are made available to all theatre, recovery room and anaesthetic personnel, and are known and implemented.

Biohazards that need to be monitored and notified include radiation, laser and electrical hazards. Policies and procedures are available to ensure that informed consent is documented, the patient is correctly identified, and the nature of and the site for surgery are correctly documented. Processes during the surgery, such as the use of instruments and counting procedures, are documented to ensure co-ordination and safety.

The implementation of policies will be assessed on site. For example, the assessor will require the person in charge to describe their performance step by step, while showing where and when/how to get the required equipment. At the same time, expiry dates, functioning of equipment and sterilisation issues will be checked.

Criteria 8.3.1

8.3.1.1 There are written policies and procedures to guide the activities of the theatre and the anaesthetic service.

8.3.1.2 Policies and procedures are developed relating to the preparation of patients for surgery.

8.3.1.3 Policies and procedures are developed relating to intra-operative recording.

8.3.1.4 Policies and procedures are developed relating to the anaesthetic service.

8.3.1.5 There are guidelines relating to the administration of major regional anaesthesia.

8.3.1.6 There are guidelines relating to the use of conscious sedation, where applicable.

8.3.1.7 Policies and procedures comply with current guidelines of the professional society.

8.4 Pre-operative and operative care

8.4.1 A pre-anaesthetic assessment is conducted and recorded.

Intent of 8.4.1
Because anaesthesia carries a high level of risk, its administration is carefully planned. The patient's pre-anaesthetic assessment is the basis for that plan and for the use of post-operative analgesia. The pre-anaesthetic assessment provides information needed to:
- select the type of anaesthesia to be administered and plan anaesthetic care;
- identify any drug sensitivities;
- safely administer the appropriate anaesthetic; and
- interpret the findings of patient monitoring.
An anaesthesiologist or other qualified individual conducts the pre-anaesthetic assessment. Anaesthetic care is carefully planned and documented in the anaesthetic record. The plan considers information from other patient assessments and identifies the anaesthetic to be used, the method of administration, other medications and fluids, monitoring procedures, and the anticipated post-anaesthetic care. The anaesthetic planning process includes educating the patient and his or her family or decision-maker regarding the risks, potential complications, and options related to the planned anaesthesia and postoperative analgesia. This discussion occurs as part of the process of obtaining consent for anaesthesia. The anaesthesiologist or the qualified individual who will administer the anaesthetic provides this education.

### 8.4.1 Criteria

**8.4.1.1** An anaesthetic assessment of the patient is performed before the anaesthesia is administered.

**8.4.1.2** The medical assessment of surgical patients is documented before the start of the anaesthesia.

**8.4.2** Each patient's physiological status is monitored and recorded during anaesthesia and surgery.

**Intent of 8.4.2**
The anaesthetist monitors and records the physiological status of the patient during anaesthesia, and enters the anaesthetic, drugs and intravenous fluids used in the patient's anaesthetic record. The anaesthetist has access to the patient care notes, and is familiarised with the findings of the medical examination. It is important that each health professional has access to the records of other care providers, in accordance with organisational policy.

**Criteria 8.4.2**

**8.4.2.1** The patient's physiological status is continuously monitored and recorded during anaesthesia and surgery.

**8.4.2.2** The anaesthesia used is entered in the patient's anaesthetic record.

**8.4.3** Each patient's post-anaesthetic status is monitored, and the patient is discharged from the recovery area in accordance with accepted guidelines.

**Intent of 8.4.3**
Physiological monitoring provides reliable information about the patient's status during the administration of anaesthesia and the recovery period. Monitoring methods depend on the patient's pre-anaesthetic status, anaesthetic choice, and the complexity of the surgical or other procedure performed during anaesthesia. In all cases, however, the monitoring process is continuous, and the results are entered into the patient's record. Monitoring during anaesthesia provides the basis for monitoring during the post-anaesthetic recovery period. The ongoing, systematic collection and analysis of data on the patient's status in recovery may support decisions about moving the patient to other settings and less intensive services. Only a suitably qualified and experienced registered nurse or designated member of the medical staff may carry out monitoring in the recovery area. Recording of monitoring data provides the documentation to support discharge decisions. The anaesthetist or other qualified individual decides whether the patient can be discharged from the recovery area to another level of care or from the organisation (as in the case of ambulatory anaesthesia). Standardised criteria developed by medical personnel are used to
make discharge decisions. The decision to discharge the patient from the recovery area is entered into the patient's record. The time of arrival in, and discharge from, the recovery area are recorded. The signatures of those who handed over and those who received the patient are recorded.

8.4.3 Criteria

8.4.3.1 During the post-anaesthetic recovery period, patients receive monitoring appropriate to their condition.

8.4.3.2 Monitoring findings are entered in the patient’s record.

8.4.3.3 Established criteria are used to make decisions regarding the patient’s discharge from the recovery room.

8.4.3.4 The decision to discharge the patient is recorded.

8.4.3.5 Recovery area arrival and discharge times are recorded.

8.4.3.6 The signatures of those handing over and those receiving the patient are recorded.