

## Accreditation of ambulatory surgery centres utilizing universally acceptable clinical indicators – is it achievable?

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Sophisticated high quality ambulatory surgery is well developed in some countries but minimal in many others. It is essential that quality and safety in day surgery centres be as high as in overnight stay hospitals. Accreditation systems have been developed in some countries with advanced ambulatory surgery services. A universally acceptable accreditation system, based on clinical indicators would be ideal and this may be an appropriate project for the newly formed International Association for Ambulatory Surgery.

Key words: ambulatory surgery, clinical indicators, universal, accreditation

Ambulatory (day) surgery is now recognized as a safe and economic service applicable to approximately 50% of surgical procedures and it is likely that an even higher figure will be achieved in the future. The remarkable development of high technology equipment, both surgical and diagnostic, has so modified many of the more complex operations and interventional diagnostic procedures that they can be carried out on a same-day basis rather than requiring admission into traditional overnight stay hospitals. There is every indication that these technological advances will continue and an even greater number of more major procedures will be treated as ambulatory surgery in the future.

The practice of sophisticated, high quality ambulatory surgery varies widely from one country to another, it being well advanced in the USA, UK, Australia, Canada, Belgium and South Africa, whereas in most other European countries it is in its infancy or nonexistent. There is minimal documentation of the extent of ambulatory surgery in Eastern Europe, Russia, China, Japan, Asia, South America and North Africa.

During 1993 at the 2nd European Congress on Ambulatory Surgery, a group of interested countries took the initiative to form an International Association for Ambulatory Surgery, one of the main objectives of this Association being to promote the development and expansion of ambulatory surgery in those countries

where this important healthcare service has not been established.

It is essential that the safety and quality of service in ambulatory surgery centres be no less than that provided in overnight stay hospitals. There is a body of opinion that the quality of ambulatory surgery is, in fact, higher than for overnight stay surgery, e.g. cross infection and the risk of deep venous thrombosis are minimized, and psychological trauma is reduced, especially for children. Improved surgical and anaesthetic techniques reduce postoperative complications. Several countries have already introduced accreditation of ambulatory surgery centres to ensure safe and high quality service. At the present time these accreditation systems are complex and expensive with emphasis on structure and process rather than on the quality of outcome.

There should be a clear distinction between the licensing of ambulatory surgery centres, which is a function of government health authorities, and accreditation which should be the responsibility of medical professional and allied bodies. Licensing should ensure that standards of structure and safety are acceptable with accreditation being directed to the assessment of quality of outcome.

In Australia, during 1993, the National Day Surgery Committee made an intensive study of clinical indicators which might effectively and economically assess the quality of service in ambulatory surgery centres. The four clinical indicators identified by the Committee are as follows:

### *Cancellation on the day of surgery*

This could be a decision by the patient for a very good reason, however it may be an indication of failure of the

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Accepted: 2 August 1994

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0966-6532/94/040223-04

centre to provide appropriate instructions (e.g. medications), failure of the patient to understand the instructions (e.g. language difficulties) or a general lack of motivation and determination by the patient to have the operation.

Cancellation on the day of surgery may also occur when the patient is found to be unfit for anaesthesia following arrival at the centre. This may be due to an unrecognized concurrent medical problem, failure of the patient to carry out appropriate instructions concerning an unrelated condition or the development of an inter-current illness immediately prior to the operation (e.g. upper respiratory tract infection, gastroenteritis).

In summary, there are a number of reasons for the cancellation of an operation on its planned day and some of these are unavoidable. Nevertheless, both the treating surgeon and the management of the ambulatory surgery centre should develop a simple, precise admission system to assist patients and minimize cancellation on the day of operation. In this context, the treating surgeon has an important role in the selection of appropriate patients for ambulatory surgery with regard to both the procedure and the patient's fitness for anaesthesia.

#### *Return to theatre*

This indicator has universal application to both overnight stay surgery and ambulatory surgery and would reflect the development of complications related to surgical technique or the failure to detect co-existing but possibly unrelated pathology, which would have an immediate adverse affect on the operation (e.g. a bleeding diathesis). The latter should be detected by the treating surgeon before the operation. There will always be the occasional unexpected operative complication, but this should be a rare occurrence and emphasizes the importance of acquiring a surgical technique appropriate for ambulatory surgery. Ambulatory surgery requires a high level of surgical practice and skill, and the appropriate training of surgeons cannot be over-emphasized.

#### *Unplanned overnight admissions*

It is accepted that a very small number of ambulatory surgery patients will require transfer for overnight(s) stay in hospital and the majority of these will be due to a major surgical or anaesthetic complication requiring further surgery or ongoing postoperative management (intensive care).

A significantly increased number of unplanned overnight admissions might be an indicator of inappropriate ambulatory surgery practice. The reasons are multifactorial and include unsatisfactory selection of patients by the surgeon (e.g. major operation and/or inexperienced surgeon), delayed recovery from the anaesthetic (the result of a variety of circumstances including high anaesthetic risk patients and/or inexperienced anaesthetist) and failure of the centre's management (e.g. accepting elderly patients with or without physical/medical infirmities and/or unsatisfactory home care back-up).

#### *Delayed discharge*

This indicator applies specifically to ambulatory surgery. For administrative purposes, it can be defined as a period of more than 6 h from the time of leaving the operating theatre and may be an indicator of unsuitable choice of procedure, unsuitable anaesthetic and/or inappropriate choice of patient.

Since 'street fitness' after many procedures may be reached in as little as 1 h or be considerably longer for other procedures, delayed discharge relates to the anticipated recovery time for each patient and procedure. It is essential to ensure a rapid recovery from the anaesthetic so that patients are fit for discharge in an acceptable period of time from the operation. Any significant number of delayed discharges would seriously affect the throughput of patients in ambulatory surgery centres. The training of anaesthetists to develop appropriate anaesthetic techniques for ambulatory surgery is essential.

#### **Comment**

The organization responsible for accreditation in Australia is the Australian Council on Health Care Standards Clinical Evaluation Programme and, in conjunction with the National Day Surgery Committee, it is conducting a 12-month field test of these clinical indicators at a selected number of ambulatory surgery centres (approx. nine), both free-standing and hospital located, private and public. The format of this field test is very simple and the appropriate details are included for information (see Appendix).

Standards of medical practice and healthcare services vary from one country to another and their economic resources have a major bearing on the development of hospitals and the availability of high technology procedural/diagnostic equipment and services. Ambulatory surgery centres are markedly less costly to build and administer than modern highly sophisticated acute bed hospitals, the latter requiring an extensive administrative structure, ward accommodation, hotel services (catering, laundry, cleaning, waste disposal etc.), nursing accommodation with support services and a wide range of paramedical services.

The establishment of ambulatory surgery centres, in which approximately 50% (or more) of the most common surgical procedures can be carried out, should be attractive to those countries with limited economic resources.

It would be ideal if a worldwide acceptable accreditation system based on clinical indicators could be developed which is simple, economic and effective, yet adaptable to healthcare systems of varying standards and sophistication. The International Association for Ambulatory Surgery might consider a worldwide trial of clinical indicators for quality assurance as the first stage of establishing universal standards for high quality and safe ambulatory surgery practice in all countries, regardless of their socioeconomic status and resources.

## Appendix

The following is an extract from The National Day Surgery Committee and the Australian Council on Health Care Standards Care Evaluation Programme Field Test of Clinical Indicators for Day Procedure Facilities. If field testing proves to be successful as an assessment of the quality of day surgery/procedure care, clinical indicators may form the central focus for the future accreditation of day surgery facilities.

### Rationale

The choice of these four indicators was made on the basis that they may:

- Provide evidence of the appropriateness of selection of patients for management in a day procedure facility and the appropriateness of the booking system.
- Reflect possible problems in the administration of anaesthesia or sedation.
- Reflect possible problems in the performance of a procedure.

### Indicator 1: Cancellation of booked procedures

Indicator topics:

- Failure to arrive
- Cancellation of the procedure after arrival

Definition of terms:

- Arrival Sighted by staff
- Cancellation Non-performance of procedure

Type of indicator:

These are comparative rate indicators addressing the process of patient care.

Indicator data format:

- Clinical indicator no. 1.1
 

Numerator	Number of patients who fail to arrive
Denominator	Number of patients booked
- Clinical indicator no. 1.2
 

Numerator	Number of patients whose procedure is cancelled after arrival
Denominator	Number of patients who arrive for procedure

### Indicator 2: Returns to theatre

Definition of terms:

- Return to theatre Re-entry to operating/procedure room for a further procedure

Type of indicator\*:

This is a comparative rate indicator addressing patient outcomes.

Indicator data format:

- Clinical indicator no. 2
 

Numerator	Number of patients returned to the operating/procedure room on the same day
Denominator	The number of patients in the time period under study

\*This is expected to be an episode of low occurrence, i.e. a sentinel event. It would be expected that the facility would review each occurrence in its Quality Assurance Programme and provide evidence of that review.

### Indicator 3: Unplanned overnight admission

Indicator topics:

- Transfer from the day procedure facility to an overnight facility
- Admission to another health facility within 24 h of discharge from the day procedure facility

Type of indicator:

These are comparative rate indicators addressing patient outcomes.

Indicator data format:

- Clinical indicator no. 3.1
 

Numerator	Number of unplanned transfers of patients directly from the day procedure facility on the same day
Denominator	Number of patients treated in the day procedure facility in the time period under study
- Clinical indicator no. 3.2
 

Numerator	Number of patients admitted to another facility within 24 h of discharge from day procedure facility providing the initial care
Denominator	Number of patients treated in the day procedure facility in the time period under study

\*This numerator should include those patients admitted to another facility and not kept overnight, and those returning to the same facility within 24 h. Problems in relation to data collection for this indicator are anticipated.

### Indicator 4: Delayed patient discharge

Definition of terms:

- Delay Greater than 6 h from the time of leaving the operating/procedure room to the time of discharge from the facility

Type of indicator:

This is a comparative rate indicator addressing patient outcomes.

Indicator data format:

- Clinical indicator no. 4

Numerator Number of patients who fail to be discharged from the day procedure facility more than 6 h after leaving the operating/procedure room

Denominator Number of patients having a procedure in the time period under study

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