

## Comment

# Clinical indicators for quality assurance in ambulatory surgery

L Roberts

National Day Surgery Committee, Darling Point, NSW, Australia

Standards of day surgery services should be as high as traditional overnight-stay hospital services. Accreditation has been developed in some countries as a mechanism for quality assurance. Accreditation systems should centre on outcome rather than structure and process. In 1993 the National Day Surgery Committee of Australia prepared a list of clinical indicators for quality assurance in ambulatory surgery. These indicators have been briefly discussed. It would be ideal if a list of clinical indicators for ambulatory surgery, with worldwide support, could be prepared for universal application.

Key words: Clinical indicators, quality assurance, universal

The concept of ambulatory (day) surgery is now widely established throughout the world and, although it has been developed much more extensively in some countries than in others, it seems that organized, high standard ambulatory surgery is almost non-existent in some countries.

It is essential that the quality of healthcare in ambulatory surgery centres should be the same as that provided in traditional overnight-bed hospitals. There is, in fact, a body of opinion that the quality of healthcare may be higher in ambulatory surgery than in overnight-stay hospital surgery. An important element in the establishment and expansion of ambulatory surgery is the development of appropriate standards for the assurance of high-quality healthcare in these centres.

The design, structure, equipment and safety standards in ambulatory surgery centres are an essential part of the licensing of these centres, which is a responsibility of appropriate Government authorities (health department) and should be separate from any accreditation system. Some countries have introduced accreditation as a mechanism for the assurance of high-quality healthcare in these centres; although it seems that the present system of accreditation in these countries (e.g. USA and Australia) is excessively time consuming and expensive, with overemphasis on structure and process rather than quality of outcome.

During 1993 the National Day Surgery Committee of Australia carried out an intensive study of clinical indicators for quality assurance in ambulatory surgery centres and it would be ideal if some similar system could be developed for universal application. As a most important principle, any such system of clinical indicators should apply to all ambulatory surgery centres whether they be freestanding or within private or public hospitals. The clinical indicators identified by the National Day Surgery Committee are as follows, with some brief comments on their implications:

### **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 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 intercurrent 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

---

*Accepted:* December 1993

*Correspondence and reprint requests to:* L Roberts, Chairman, National Day Surgery Committee, Suite 1, 2a Mona Road, Darling Point, NSW 2027, Australia

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 as well as 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 overemphasized.

#### **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 (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 six hours 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 one hour 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.

Three other clinical indicators were also considered but rejected as being impracticable or unsatisfactory for application to ambulatory surgery and those are as follows:

*Infection requiring antibiotics.* Notwithstanding that this is a classical indicator which is widely used as an important overnight(s)-stay hospital indicator, it was considered that collection of accurate data would be too difficult and time consuming as the patient will be at home and a number of alternative follow-up routes would be necessary – surgeons' rooms, outpatient clinics, casualty departments, general practitioners' rooms etc. In practice, most surgeons would inform the ambulatory surgery centre if there was an unusually high incidence of unanticipated wound infections. In summary, it was considered that collection of accurate and reliable data would be onerous and unreliable.

*Postoperative deaths.* It is highly unlikely that a patient would die in an ambulatory surgery centre. In most instances, postoperative death would occur at a later stage after transfer to a hospital intensive care unit or emergency department. Ambulatory surgery centres would be well aware of such an outcome, however the frequency should be so low as to preclude it as a practical clinical indicator.

*Planned overnight admissions.* This was considered to be incompatible with the concept of ambulatory surgery and should not be included.

The above-mentioned recommended clinical indicators are easy to identify and neither time consuming nor financially onerous. Furthermore, they would appear to be particularly appropriate to assess the quality of service and outcome of ambulatory surgery, having regard to the dominant principle of providing high quality, safe health care to patients.

These clinical indicators have not been introduced into Australia as yet, however they are under consideration by the organization responsible for accreditation (the Australian Council on Health Care Standards). It is not suggested that this is necessarily a complete or final list and other ambulatory surgery organizations may care to examine and identify appropriate indicators with the ultimate aim of producing an acceptable list of clinical indicators for universal application.