



# Guidelines on Quality Assurance

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## **1. INTRODUCTION**

1.1 Quality assurance can be defined as “an organised process that assesses and evaluates health services to improve practice or quality of care”. Quality improvement is a term often used to encapsulate the concept of a “cycle of quality” described in section 2.

1.2 The objective of quality assurance programmes is to ensure that high standards of clinical practice are maintained through regular assessments. The results of such assessments should be evaluated and acted on as necessary.

1.3 All anaesthesiologists and trainees should participate in quality assurance programmes, including regular attendance at quality assurance meetings.

1.4 Quality assurance programmes must evaluate clinical care to ensure consistency with accepted professional standards, including relevant professional documents issued by the College.

## **2. PROCESS OF QUALITY ASSURANCE PROGRAMMES**

Steps in a quality assurance programme can be considered as planning, implementation, review, and setting standards. The steps are repeated continually or at appropriate intervals for on-going quality assurance programmes.

2.1 Planning involves careful design and preparation of a project, such as defining the topic to be evaluated and the data to be collected, and methods to collect and analyse data.

2.2 Implementation involves data collection and data analysis, review of results, and determining action to be taken, that is, to:

2.2.1 Monitor and evaluate the quality and appropriateness of patient care.

2.2.2 Identify areas of deficiency or risk (risk is defined as a chance of injury or adverse consequence).

2.2.3 Implement changes where necessary and monitor any changes made, including the safe implementation of new methods of treatment.

2.3 Review involves monitoring the outcome of changes introduced from 2.2.3 to “close the loop”. Showing the outcome or impact of a quality assurance programme on health care is an important component of the programme.



2.4 Setting standards involves writing the improvements achieved into new official regulations, guidelines, or standards.

### **3. QUALITY ASSURANCE PROGRAMMES**

Quality assurance programmes may include:

3.1 Anaesthesia service structure and performance: the overall performance and resources of the service in comparison with accepted criteria (such as HKCA guidelines) and those of other equivalent services in the region. These include:

#### 3.1.1 Staff

3.1.1.1 Numbers and qualifications.

3.1.1.2 Criteria and process in selection and appointment.

3.1.1.3 Workload, allocation of work and supervision.

3.1.1.4 Participation in educational activities including teaching, research and quality assurance.

#### 3.1.2 Physical facilities

3.1.2.1 Equipment; including compliance with standards, maintenance and replacement.

3.1.2.2 Service space.

3.1.2.3 Facilities for teaching, education, and research.

#### 3.1.3 Management, including budgets, expenditure, and cost effectiveness.

3.2 Criteria-based audit: performance evaluation according to predetermined criteria (usually reported outcomes of peer groups). In areas without published criteria, new criteria can be established by original study or a consensus of peers. Performance in relation to clinical indicators is an example of a criteria based audit. Example of indicators:

- a. Percentage of patients admitted for elective surgery having a preoperative visit
- b. Injuries attributable to anaesthesia
- c. Postoperative pain scores and nausea/vomiting
- d. Postoperative temperature



- e. Mortality within 24 hours of administration of an anaesthetic
- f. Failure to be discharged from the post-anaesthesia care unit within two hours of an anaesthetic
- g. Unplanned admission to an intensive care unit within 24 hours of an anaesthetic

3.3 Clinical guidelines, policies, or protocols: recommended methods of clinical practice.

Anaesthesiologists should check for compliance with guidelines, policies, or protocols and regularly review them (e.g. informed consent, timeout procedure).

3.4 Critical incidents and near misses: voluntary reports by staff on events that led to, or could have led to an adverse outcome in patients or staff members. There must be a programme to analyse the incidence, causes, contributing and mitigating factors, and outcome of critical incidents (see item 3.8). Strategies for improvement should be recommended. An evaluation of outcome from implementing changes is expected.

3.5 Risk management: actions to reduce risks to patients and staff in anaesthesia. A risk management programme undertakes identification of risks, assessment of risk factors, and control of risks.

3.6 Peer review: evaluation of clinical performance by peers. Areas to review include communication with patients and relatives, patient selection, anaesthesia techniques, monitoring and investigations used, record keeping, perioperative care, and patient follow up and outcome. Main methods are:

3.6.1 Participation in mortality and morbidity meetings.

3.6.2 Reviews of randomly selected cases.

3.6.3 Practice review of an anaesthesiologist by a peer.

3.7 Patient surveys: satisfaction surveys of patients. A programme could survey satisfaction with communication, managing relatives, anxiety alleviation, informed consent, pain management, and anaesthesia procedures rendered. Issues such as confidentiality and patient anonymity should be addressed.

3.8 Root cause analysis: analysis of system errors associated with anaesthesia and perioperative care including pain management.



3.9 Audit of quality assurance programmes: quality assurance programmes should be reviewed extensively from time to time to ensure that remedial steps are taken wherever problems are identified and that subsequent review follows.

#### **4. QUALITY ASSURANCE RESOURCES**

4.1 Formally constituted departments of anaesthesiology should appoint a quality assurance co-ordinator who will be responsible for the implementation and supervision of the quality assurance programmes. Appropriate time and secretarial and other support should be allocated to this co-ordinator.

4.2 The quality assurance co-ordinator should ensure that College guidelines are implemented within the limits of the size of the department.

4.3 Anaesthesiologists who work outside a formally constituted department of anaesthesiology should participate in an appropriate quality assurance programme.

4.4 Sufficient resources of people, time and support should be available for all anaesthesiologists and trainees to participate fully in quality assurance programmes.

#### **5. REFERENCE**

Guidelines on Quality Assurance in Anaesthesia, PS58 (2012), Australian and New Zealand College of Anaesthetists