South Afr J Anaesth Analg. 2022;28(5 Suppl 1):S110-112
https://doi.org/10.36303/SAJAA.2022.28.5.2903

South Afr J Anaesth Analg
ISSN 2220-1181 EISSN 2220-1173

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Conducting an audit of clinical services

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Keywords: clinical audit, clinical risk management, audit cycle, healthcare quality improvement

Introduction

Clinical errors occur as commonly as in 10% of hospital admissions.[1,2] A clinical error can be defined as a clinical incident that did not follow the intended plan of treatment, intervention or diagnostic plan.[2] The consequence of these errors includes prolonged hospital stay, increased healthcare costs and a loss in confidence for the organisation. A variety of these cases may result in complaints and litigation against the institutions. The potential for an error to occur constitutes clinical risk, which requires both an active error and certain conditions that allow the error to occur. Recommendations to address these clinical errors include a focus on the provision of high-quality care, continuous learning from errors, prioritising patient safety and quality care.[2]

To reduce the occurrence of clinical risks, a focus should be put on minimising error and improving latent conditions. Clinical risk management provides a system to identify, record, analyse and monitor clinical incidents, and ultimately reduce harm to patients. The type of risk while providing clinical services may be clinical, ethical, financial or related to strategy.[2]

It is important to identify what can or may go wrong, prior to developing a risk management strategy. In order to facilitate a strategy, various systems such as incident reports, near-miss reports, patient feedback, complaint processes and clinical audit may be used to collect data.[2]

Clinical audit

An audit of clinical services involves the determination of whether a certain aspect of healthcare is achieving the required standard.[3] It aims to improve the quality of health care and patient outcomes.[3,4] Clinical audits form part of the seven pillars of clinical governance.[3] Its development in the United Kingdom was associated with the clinicians' desire to improve health care.[4] The thought of focusing on the deficiencies in the delivery of health care, would curb the inefficient and ineffective practice.[4] Current patient care and outcomes are measured in comparison to explicit audit criteria or standards of best practice. The expected outcome of a clinical audit is an improvement in practice.[5] The clinical audit process comprises various stages, which occur in a cycle[6] termed the audit cycle (Figure 1).[5] The main stages of the audit process are:

- Identifying a problem
- Defining audit criteria or standards of best practice
- Data collection
- Analysing data against standards
- Results feedback
- Discussing possible changes and implementing agreed changes
- Allowing changes to take effect
- Re-audit
- Collection of a second data set
- Analysing re-audit data
- Re-audit results feedback
- Checking whether practice has improved.[3,5]

Audit cycle

Identifying a problem

A clinical audit usually commences with the audit team meeting, where problems are discussed and prioritised according to

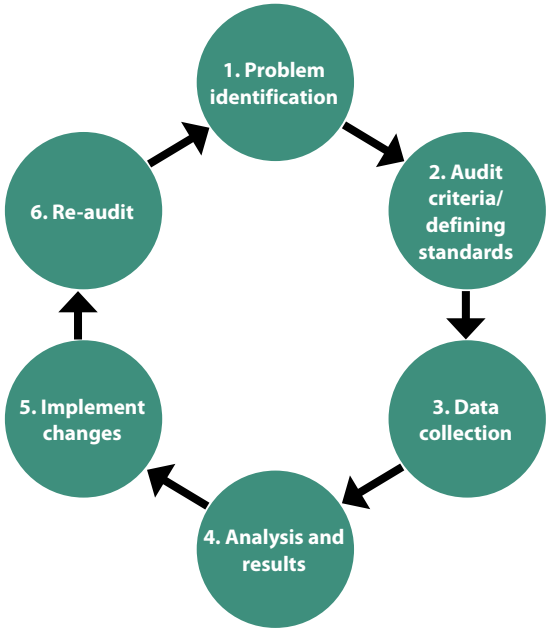

Figure 1: Audit cycle[3]

perceived importance.[6] The problem to be audited may be derived from various resources in the clinical setting, such as morbidity and mortality reports.[7] During this stage, a protocol of the audit process is developed, stating the justification, as well as the aims and objectives of the audit process. Each healthcare facility or department should have performance indicators for its practice activities. For the purpose of a clinical audit, these performance indicators should be more specific and defined as clinical indicators. Examples of indicators in anaesthetic practice include procedure-related deaths, compliance with safety checklists, anaesthetic records, theatre efficiency and theatre cancellations.[7]

Defining audit criteria or standards of best practice

The standard of best practice used for each clinical indicator should be prepared prior to data collection. All members of the audit team should be involved in the setting of such standards. Literature reviews, comparison with other hospitals/countries, benchmarking, clinical judgement and assessment of current practice can be used as evidence for setting standards.[7] When setting standards, the acronym SMART (specific, measurable, achievable, relevant and theoretically sound) is used to develop the criteria.[6]

Data collection

The collection data for a clinical audit can be done prospectively or retrospectively. Depending on the problem being audited, medical records with the required data can be collected. A standard procedure for sample size calculation for research can be used to determine the number of medical records needed.[7]

Analysing data against standards

In this step, data collected is compared with established standards. The comparisons are made in reference to the aims and objectives of the audit.[7]

Results feedback

The results of an audit are presented to individuals who are required to determine and agree on the recommendations and implementation plans.[7]

Discussing possible changes and implementing agreed changes

Once the findings of the clinical audit are discussed by all concerned individuals and recommendations are made, the implementation of those agreed changes should be undertaken. The changes to be made should be aimed at improving clinical

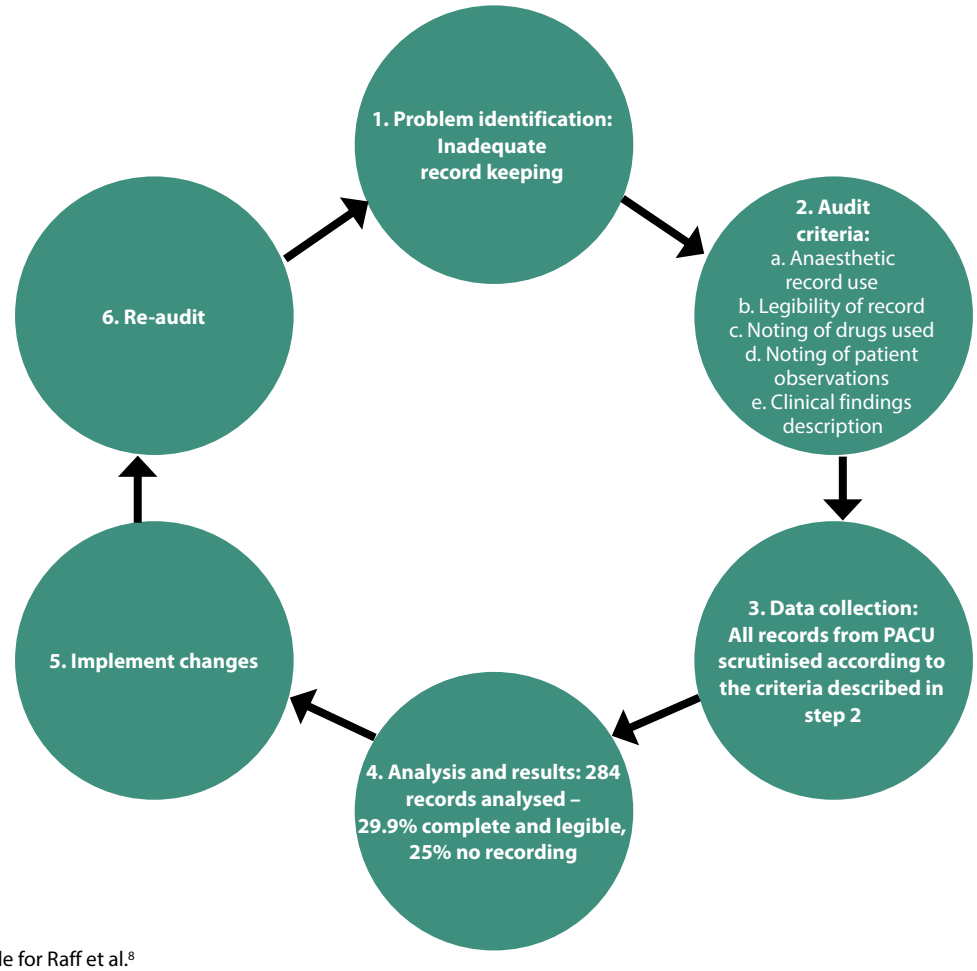

Figure 2: Audit cycle for Raff et al.[8]
PACU – postanaesthesia care unit

practice. The audit team should observe the changes and provide suggestions during the implementation process.[7]

Re-audit

This forms part of the final stage of the audit cycle. It should be carried out at the appropriate time after implementing changes. Every step of the audit cycle is repeated using the same methodology, to ensure the replication of comparison. The re-audit should reveal that the changes needed have been implemented and that there is improvement in the clinical indicators. If the quality of care is sustained, the re-audit process can be replaced by a form of monitoring process.[7]

Advantages of a clinical audit

- Improves care
- Likely to produce change
- A way of improving quality
- Raises awareness and problems[4]

Disadvantages of a clinical audit

- Spending time on audit-related activities at the expense of clinical activities
- Difficult to establish common goals
- Can be perceived as witch-hunting[4]

Example of a published audit in anaesthetic practice

An audit of anaesthetic record keeping

This audit by Raff et al. was performed to determine the rate of completion and adequacy of such records.[8] Applying the audit cycle to this clinical audit is depicted in Figure 2.

The problem identified in this study was inadequate record keeping. The audit criteria were determined by applying the recommendations by the South African Society of Anaesthesiologists regarding anaesthetic records. A questionnaire was constructed using five questions constructed from the set criteria and all records of patients passing through the postanaesthesia care unit (PACU) were scrutinised. The audit analysed a total of 284 records and reported 29.9% of those records to be complete and legible. A quarter of the audited records were not completed at all by anaesthesiologists.[8]

The example described above outlined an example of how a clinical audit can be conducted. The last two steps of the audit cycle (change implementation and re-audit) were not described in the study. The reasons for the exclusion of those two steps could be that they did not form part of the objectives of this publication. However, if one was to add those steps in this study, the recommended changes may be to develop a strict protocol about record keeping. In addition to the protocol, an awareness campaign to educate anaesthesiologists about the importance of record keeping and adherence to the recording protocol could be implemented. The re-audit would then include the application of a similar audit at a later stage to determine if the recommendations yielded an improvement in anaesthetic record keeping.

Conclusion

Clinical audit is an important element of clinical governance that has proven to be an effective and systematic way to improve healthcare quality. The use of the audit cycle described above ensures an organised approach to identifying problems in clinical services, setting acceptable standards, and investigating and implementing changes to address such problems.[7]

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