

Improving Standards in Practice Through Medical Audit

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INTRODUCTION

AUDIT is a term that is more commonly associated with accountants than with medical practitioners and the mention of the word 'auditor' often strikes terror in the minds of people because of the general perception of auditors as stern authoritarian figures trained to detect fraud, incompetence or inefficiency and report back to an agency that will punish such errant behaviour. One dictionary actually describes the process of audit as '*a searching examination, especially on the day of judgement*'.¹ Even accountants do not subscribe to such an apocalyptic view anymore and contemporary descriptions of audit convey it to be an examination of records or accounts to check their accuracy and also as an adjustment or correction of accounts², the emphasis being on 'accuracy', 'adjustment' and 'correction'.

In medical practice, audit has been traditionally taken to refer to a procedure carried out by doctors on their own professional activities with the ultimate aim of upgrading the standard of health care.³ Previously, this was conducted on an ad hoc basis, but now a more formal approach is adopted in health care delivery systems that have a serious interest in maintaining and improving the quality of care. In a working paper prepared for the Secretaries of State for Health in Wales, Northern Ireland and Scotland in 1989, medical audit was defined as '*the systematic critical analysis of the quality of medical care, including the procedures used for diagnosis and treatment, use of resources and the resulting outcome, and quality of life for the patient*'.⁴

The reasons why a systematic approach is required are not far-fetched. First of all, advances in medical knowledge proceed at such a fast pace

that doctors need continuing medical education (what is now often described as 'continuous personal development' or CPD). Medical audit provides a means by which those in most urgent need of retraining in certain areas of practice can be identified and 'encouraged' to undergo such retraining. Secondly, ignorance of advances in health care practices is not the sole reason for deficiencies in health care, but rather, failure to apply what had been learnt. Audit, and the expectation of it, provides an incentive for people to apply what they have learnt and allows the detection of those who do not. Thirdly, escalating costs in the face of dwindling health care resources have motivated a re-appraisal of health practices to improve efficiency in the management of available resources. Fourthly, in the current era of evidence-based medicine, the data acquired from systematic medical audit makes an indispensable contribution to the body of evidence used to build a case for best practices in a given clinical situation.

Objectives of Medical Audit

The purpose of medical audit, ultimately, is to improve the standard of health care delivery. The enabling objectives for achieving this are systematic collection of relevant data, problem analysis of specific clinical conditions or situations to identify root causes, implementation of changes to current practices to improve effectiveness and efficiency, and continuous personal development for personnel.

Structure of Medical Audit

Audit of the healthcare delivery process can take one of two main forms. There is utilisation review, which assesses efficiency (often in quantitative terms); and there is an outcome review that focuses on effectiveness of care and professional performance. Whatever direction the audit may take, a central feature of medical audit is the

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gathering of *objective* evidence of performance. The traditional model of medical audit has been criticised for focusing too much on data collection and not giving due prominence to the implementation of change.⁵ This has led to emphasis being laid on problem-solving in the audit process and the evolution of what is now known as 'criteria based audit'.^{6,7} The concept of criteria-based clinical audits has led to a substantial revision of the components of what could be regarded as an adequate audit and the adoption of a cyclical approach to the process, making it in essence, a continuous one.

The essential elements of a systematic approach to medical audit have been streamlined into five main steps of the 'audit cycle':^{3,6,7,8}

1. Identification of an area of enquiry, interest or concern in healthcare and the outlining of specific criteria of what is regarded as good quality or outcome.
2. Measurement of current practice by devising appropriate and reliable mechanisms of data collection, specification of the period to be covered and analysis tailored to meet the previously set criteria.
3. Feedback of findings and setting of targets for improvement.
4. Introduction of new measures to correct any deficiencies identified.
5. Evaluation of the effectiveness of the new measures through further targeted data collection.

For someone familiar with the tenets of clinical operations research, this is familiar ground and it makes it quite obvious that medical audit is not really a novel concept. What is required now is a systematic approach to it so that as many aspects of health care as are possible get included, a prerequisite for an overall improvement in standards of care and the quality of life of the population being served.

Medical Audit in the Developing World

It is sometimes believed that criteria based audit is applicable only in countries with well-developed basic infrastructure and advanced healthcare systems that cover the needs of the overwhelming majority of the population. Recent experiences from Africa however tend to suggest otherwise.^{8,9} It seems, based on the findings of these investigators, that criteria based audit can be effective even in much poorer areas with very limited resources.

Weeks and his co-investigators⁹ carried out an

audit of maternity care at all three major levels of health care, primary, secondary and tertiary, in Uganda. They noted that in spite of the safe motherhood initiative, maternal mortality ratios had remained unchanged in Uganda in the preceding decade, especially in the rural areas where the staff tended to be isolated, poorly remunerated, disempowered, lacking in morale, and having few skills to bring about change. As a pilot project, they designed a training programme in criteria-based audit for maternity care workers in a rural district with linkage to a tertiary care University hospital followed by application of the principles learnt in the trainees' healthcare centres. The results were dramatic: *'Improvements were seen in many standards of care. Staff showed universal enthusiasm for the training. It can empower grassroots health workers to look for their own solutions to common problems, thus producing sustainable and cost effective changes in the standard of health care.'*⁹ One important element of their approach was the focus on problem analysis and implementation of change and this proved to be highly effective in stimulating health workers to analyse their own situations and provide creative solutions to problems.

A study following similar principles, but limited to a tertiary care centre, was recently concluded in Nigeria.⁸ The investigators studied patients over two periods, using the first two steps of the audit cycle (setting criteria and measuring current practice) for the first set of patients and applying the last three steps (target setting, implementing change and evaluation of the effects) to a second set of subjects in a latter period. Efforts were concentrated on five clinical conditions that were identified as contributing the most to maternal mortality – obstetric haemorrhage, eclampsia, obstructed labour, genital sepsis and uterine rupture. Statistically significant improvements were noticed in the standard of care of the first four and other aspects of care such as clinical monitoring and rational drug use were also noticed to have improved considerably. In fact, in the first period drug use in the institution (by the set criteria) was scored zero percent. By the second period, the score had improved to nearly 90%.

The major lessons to learn from these two examples are that criteria based clinical audit is feasible in a developing country setting and that its application brings about an improvement in the standard of care.

Introducing Systematic Medical Audit in Nigeria

The introduction of a systematic programme of

medical audit into health care practices in Nigeria is long overdue. Some of the advantages to be derived from this have been highlighted above such as improved efficiency and effectiveness of care. There are also other potential benefits related to our peculiar socio-cultural environment. Properly conducted audits demonstrating the kind of improvement in care described in the examples mentioned above, with results being widely circulated among opinion leaders in the community and other influential members of the civil society, will encourage a greater proportion of the population to use orthodox healthcare facilities rather than going to alternative practitioners, religious or traditional healers many of whom now dominate our airwaves and the pages of the print media with all kinds of bogus and unverifiable claims about curing the incurable. The onus is on the medical profession to seize the bull by the horns and provide the much needed leadership in this area. If the profession abdicates the leadership role that rightfully belongs to it by virtue of the nature of the training received and responsibilities entrusted to its members, externally derived proposals that may be detrimental to the profession may well be imposed on it.

Organisation of a Programme of Medical Audit in Nigeria

Drawing on the lessons learnt from the Ugandan project⁹, it is important that all levels of health care workers be involved in clinical audit and, possibly, utilisation review as well. The scope would differ based on the level of training, but will include every healthcare provider working at the three major levels of healthcare. It is also important to involve administrators and politicians in the process because many of the changes to be made will require financial or organisational changes that can be made only by those who have authority within the system.

As much as possible, where judgement of competence is one of the set criteria of a particular audit programme, such should be conducted by the peers of those whose work is being reviewed. Those who understand the circumstances under which a professional is practising are the best judges of the quality of the work done by that professional. These are his/her peers. A situation where patients control the process may not engender the full co-operation of doctors as the suspicion or fear of possible litigation may becloud the atmosphere. Certainly, if there is suspicion of egregious conduct, then it is important that the normal mechanisms put in

place to deal with such situations should be allowed to take their full course.

It is also important to take local variations in circumstances into account in designing audit processes. Centrally imposed structures and controls may ultimately prove to be unworkable because of disparities in health care practices and standards from locality to locality. It is however essential to ensure that local control does not result in excessive rigidity or over-restriction of clinical freedom by those at the top of the local medical hierarchy.

A multistage approach may be required in some situations so that problems at both the micro- and macro-systemic levels can be tackled simultaneously. For instance, audit committees in a group of local institutions may review data about treatment methods and outcome in patients over a period of time. Another committee may then be set up at the zonal or central level to review the data from these institutions to assess the efficiency of resource utilisation, adherence to policy guidelines and effectiveness in achieving institutional objectives.

Constraints to Implementation

For audit to be effective, a system of adequate and meticulously kept medical records is indispensable. Accurate records remain the only means by which objective evidence of performance can be collected. Structured proforma, problem-oriented medical record (POMR) or computer-based record keeping should replace the current narrative random jottings that is the hallmark of medical notes taken in Nigeria.

Provision of resources for the audit process and for implementing required changes is another potential problem in a resource-poor setting like most Nigerian health institutions. However, as the findings from the Uganda and Nigerian criteria-based audits^{8,9} showed, a lot can be achieved in terms of improvements in outcome without significant additional financial input just by rekindling the interest of health care workers in the care of their patients and boosting their morale.

The other major problem is that of sustaining enthusiasm once the process begins to bring about the desired improvement in the standards of care. A mechanism must be put in place to institutionalise regular audit meetings, possibly incorporating incentives for those who are most consistent in conducting audits.

Conclusion

Audit is an effective means of monitoring and improving standards in healthcare delivery. The trend now is toward having an audit cycle where the implementation of desired changes and evaluation of effectiveness are integrated with the traditional norm of data collection. A structured programme of medical audit in Nigeria is long overdue and the medical profession must take the lead in ensuring that this programme is commenced.

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