How have recent changes in the NHS affected perinatal audit?

Miranda Mugford, Jean Chapple

In the field of maternity and newborn care there has been a long tradition of monitoring outcomes of care and a growing interest in ensuring that care given to women and their babies is effective and efficient. The methods for achieving this have not, however, been a formal part of national and local health policy and management. Recent changes in the NHS have been accompanied by policy statements placing particular emphasis on the need for effective and efficient health care provision. Clinical audit is one of the mechanisms through which it was envisaged that this would be ensured.1 In this paper, we briefly discuss the meaning of audit and some of the recommendations and corresponding initiatives to encourage audit at national and health authority level. We then review the background to audit in perinatal care, and illustrate from our own work some of the implications of recent changes at unit level. Finally, we consider what further developments may be expected.

What is audit?

Although the Department of Health and NHS management support for audit is of fairly recent origin, it is not a new concept in health care.2 In the early 1980s, the question of medical audit was already being addressed in the fields of epidemiology and public health, and the concept of the 'audit cycle' was introduced into the health services research literature.3 4 The audit cycle is a description of a process of agreeing standards for practice, reviewing information about practice against standards, making changes in practice where necessary, and then repeating the process of review of standards and monitoring practice. At this stage, audit was clearly defined as including a commitment to implementation of findings where practice diverged from ideal standards. The question of relating clinical or medical audit to resource management, however, was not explicitly included in the definition. When audit was recommended within the white paper: Working for Patients, it was defined as: 'the systematic critical analysis of the quality of medical care, including the procedures used for diagnosis and treatment, the use of resources, and the resulting outcome and quality of life for the patient'.1 Although costs of resources used as a result of clinical practice received explicit mention, this definition no longer contains any commitment to implementation of the results of audit. This is now seen as part of the role of continuing education, although it is not clear how the two processes are to be linked.

A report of the Standing Medical Advisory Committee to the Department of Health5 included the following requirements for medical audit:

- Audit should have the objective to improve the quality of care doctors provide for their patients;
- Audit should be systematic and structured;
- Audit should use quantitative methods;
- Audit should result in change, where appropriate, in organisation or care provision; therefore
- Audit should include follow up to ensure implementation of results;
- Audit should include a record of meetings held, with attendance recorded and a note of subjects covered and recommendations made;
- Audit should be undertaken by all doctors, and colleges should consider what actions should be directed towards persistent non-attenders; however
- Audit should be confidential, educational, and not disciplinary.

The important role of professional leaders in setting and maintaining standards for good practice and for education within the profession is acknowledged in research studies of different approaches to quality assurance in clinical care.6 The Department of Health Audit Initiative included an invitation to the medical colleges to bid for funds to develop their role in support of audit within their professions. Working for Patients and other documents from Department of Health have referred specifically to 'doctors' and to 'medical' audit, rather than 'health professionals' and 'clinical audit', thus emphasising the professional boundaries and making more difficult the establishment of an interdisciplinary patient based approach to ensuring quality of care. Overcoming professional boundaries is particularly important for audit in the perinatal field, where midwives, general practitioners, obstetricians, and paediatricians are all responsible for the quality of care of the same women and babies. Department of Health funding has more recently been
How have recent changes in the NHS affected perinatal audit?

How have recent changes in the NHS affected perinatal audit? extended to colleges representing professions allied to medicine.

The fragmentation of responsibilities for quality of care was furthered by the parallel initiatives in quality assurance and the Patients’ Charter, which were interpreted primarily as nursing and general management responsibilities. Resource management, although intended to bring clinical and financial decision making together, has been developed independently of audit.

The separation of the different initiatives concerned with the cost and quality of care and outcomes has been compounded by the failure to develop information systems that could help clinical audit. Emphasis for accounting purposes on counting numbers of finished consultant episodes has resulted in systems that give lower priority to record linkage, and cannot easily provide information about the experience of individual patients, or relate care to final outcomes. The lack of information for audit from routine information systems is in part the result of changes following the review of NHS information needs in the early 1980s. Implementation of the recommendations of this review resulted in the scrapping of old hospital data collection systems, but introduction of new systems was hampered by lack of funding and by the organisational changes following Working for Patients. Until 1985, national statistics were available about maternity care, based on a 10% sample of all births. Since then, national data on maternity care are being collected for all births, but as they are still incomplete they are not published, except in reply to questions in parliament.

Evaluation of the audit initiative is difficult because it was only one part of legislation aimed at radically changing the NHS. Therefore, any changes occurring cannot be considered in isolation from the larger context of the other measures that have been implemented. Most importantly, the separation of the functions of purchasing and providing health care has resulted in, as yet, unclear responsibilities for monitoring outcomes of care.

Developments in clinical audit should also be considered alongside the changing arrangements for research funding and commissioning within the NHS. It is the stated aim of the NHS research initiative that the NHS should become a knowledge based organisation, and this implies that there could be a considerable overlap between audit and research. As well as generating hypotheses to be tested in formal research studies audit may also be a vehicle whereby research evidence is adopted in practice. Every health region in England now has a directorate of research and development, and in some regions audit funds are controlled by the same directorate.

To date it has been estimated that over £100m has been spent on audit in the UK. Earmarked money was made available to royal colleges, and to regions and districts to fund pilot projects and then to institutionalise audit within the NHS management structure. Informal and formal networks for discussion of audit projects have grown up within some regions, and the King’s Fund has established an Audit Information Unit. Publications devoted to the subject are increasing in number.

Background to perinatal audit

Current approaches to monitoring the health of childbearing women and their babies have their origins in nineteenth century concerns about public health and the insanitary living conditions of the poor. The availability of statistics of perinatal deaths, resulting from Acts of Parliament in 1836 for England and Wales, 1855 in Scotland, and 1864 in Ireland, made this exercise much easier, and publication of annual statistics about births and infant and maternal deaths has for many years been a central part of the role of the General Register Office, now incorporated into the Office of Population Censuses and Surveys (OPCS), who also supply data to district health authorities. Because management data are all now based on financial years, whereas registration data are collated by calendar year, comparisons of data from different systems causes difficulties for district information departments and others wishing to use routinely collected data to monitor health provision and outcomes.

Concerns about failure of mortality rates to fall or wide geographical differences in mortality rates have from time to time sparked off national initiatives to investigate the causes. In the 1920s and 1930s, maternal mortality was the subject of specific inquiries. From 1932 medical officers of health monitored maternal deaths, and in 1952 the lead passed to clinicians in the system of Confidential Enquiries into Maternal Deaths begun in England and Wales. In the early 1980s the possibility of similar inquiries on the very much larger numbers of infant or perinatal deaths was on the agenda. Some health districts and regions began to establish local surveys and inquiries into stillbirths and infant deaths, although many of these were one off exercises.

In 1980, a working party met under the auspices of the Royal College of Obstetricians and Gynaecologists (RCOG) to discuss perinatal audit and surveillance. At this stage, ‘audit’ was not exclusively concerned with the quality of clinical care, but with determining the factors that might influence mortality rates, including access to and quality of care. The RCOG working party drew from the disciplines of public health, statistics, and epidemiology, as well as midwifery, obstetrics, and paediatrics, and provided examples for better population monitoring at district level. The report also raised important questions about the effectiveness of clinical care, and the mechanisms to monitor this, including seeking the views of the women who use the maternity services. The practice in many hospitals of holding meetings to review cases followed by perinatal death was not held to be the best approach to audit, especially if conducted in a
negative atmosphere or where the exercise was
dedicated to finding ‘avoidable’ factors, in the
absence of evidence about what happened in
similar cases where babies did not die.
Nevertheless, perinatal mortality meetings
have become a tradition in most maternity and
neonatal units, and are held by some to
demonstrate that the specialties of obstetrics
and gynaecology and paediatrics are well ahead
in the field of medical audit.

Two recent national initiatives were set up to
make fetal and infant deaths the subject of
formal inquiry: regional surveys of stillbirths
and infant deaths and the Confidential
Enquiry into Stillbirth and Deaths in Infancy
(CESDI). These were set up to satisfy
Department of Health requirements after the
government’s reply to the House of Commons
Social Services Committee report on stillbirth
and neonatal and infant mortality.21 CESDI
might yield detailed information about individ-
ual deaths that is not available from health ser-
dvice data systems or from civil registration.
There has been and still is concern, however,
that inquiries into individual deaths may not be
the best approach to finding the causes of and
preventing stillbirths and infant deaths.22 23
Data about the whole population of births will
still need to be derived from routine systems,
but attention will be diverted from the quality
of these data. A current example of such a
problem is that the proportion of births in
England and Wales where no birth weight was
recorded on the birth record increased in 1989.

As mortality rates have fallen, the relative
importance of the health status of survivors has
increased. The relationship between perinatal
care and long term disability has been debated
for many years, but statistics have not routinely
and consistently been collected at national
level that could inform the debate. In Scotland,
England and Wales, the establishment of
regional and more local studies are beginning
to provide important data.24 Health authorities
are meeting considerable costs as courts make
awards to families of disabled children; they
may thus be motivated not only to be aware of
the quality of care given at the time of birth,
but to support more comprehensive long term
population based follow up of births to their
residents. A recent report from the Audit
Commission lends weight to the need to move
from use of mortality indicators and to include
long term outcome data in assessment of care
in the perinatal period.15

The NHS management executive has
encouraged local health authorities to take
account of the views of service users.8 26 This
had already been advocated for maternity ser-
dices,20 and methods for surveying women’s
views about their care have been developed by
OPCS.27 The health of women during preg-
nancy and after childbirth has received little
attention in routine audit of care, although
caesarean section is a common topic for audit
in obstetrics. Individual studies show that there
is scope for audit to be developed to assess
effects of care on women’s health,28 but there
are considerable problems to be overcome in
collecting adequate data. Routine data from
community and hospital systems do not pro-
duce much information about women’s health
after childbirth.

Recognition of the value of statistics about
hospital care in monitoring quality has a long
tradition. In England, however, routine statis-
tics collected nationally on maternity and neo-
natal care have been subject to the many
changes in NHS policy and organisation, and
as a result are still not routinely available.31
This contrasts with the picture in Scotland,
and at least five of the 14 English health
regions where systems have been set up to col-
lect, analyse, and feed back such data for the
purpose of monitoring and improving the
maternity and/or neonatal services. There are
now many examples of the use of routinely col-
lected hospital data for audit within a single
maternity unit.29

The professional colleges have taken on a
role in audit of care. A survey in 1986 reported
several initiatives by different colleges in set-
ting standards and guidelines, and monitoring
safety and quality of care.30 The RCOG has an
audit committee, previously the statistics and
epidemiology subcommittee, and has set up an
audit unit in Manchester under the director-
ship of Michael Maresh that produces occa-
sional bulletins. Both the RCOG and the
British Paediatric Association have published
guidelines to good practice on specific topics.31
The Royal College of Midwives has also
recently announced plans for an audit unit,
and has been granted funds by the Department
of Health for an audit of independent mid-
wifery.

Audit requires not only information about
practice, but knowledge about what practices
are effective. In the field of maternity and neo-
natal care, the results of regularly updated sys-
tematic review of research evidence have now
been available to professionals in both book
and electronic form since 1989.32 33 Evidence
that this source is sometimes used in setting
standards is illustrated in quotation of the
relevant reviews in the college guidelines for
practice.

Perinatal audit in one English NHS
region
In research funded under the audit initiative,
we have had the opportunity to observe audit
practice within maternity units in the North
West Thames region of England between 1990
and 1992. The region is unusual in that all its
maternity units have the same computerised
maternity information system, the St Mary’s
Maternity Information System (SMMIS).34
Although the installation of the system has pro-
vided a useful management function at unit
level, as well as an excellent database for
research, it is not clear whether it was also used
in audit at unit level.

During an eight month period in 1990, our
colleagues, Philip Banfield, an obstetric
research fellow, and Moira O’Hanlon, a sociol-
ogist, visited the maternity units in the region,
observed audit meetings, and interviewed
senior staff about local audit practice and the
How have recent changes in the NHS affected perinatal audit?

They conclude that although the infrastructure for audit is in place in the form of audit committees and support staff, it is still a ‘frail plant’, championed by enthusiasts, but considered by most to be marginal in importance to the work of the unit. Audit projects were, on the whole, self contained and small; they did not, or could not, make use of routine data sources; meetings were not in general attended by senior staff, and were not usually followed by management action to implement change. The authors also found that the audit is confined within specialties and tends not to cross professional boundaries. They observed that questions about resource implications of care policies have not yet been addressed in the audit process. In conclusion, they emphasised the lack of clarity about the purpose of audit and asked whether it is a process to monitor the provision of quality care to satisfy ‘purchasers’; a professional education exercise to improve standards of practice by individuals; or a management process to ensure cost effective use of resources in a hospital. They suggest that the easy availability of money for audit has allowed audit to be introduced without addressing this question.

Whether or not the frail plant of critical evaluation of practice takes root in the NHS is of paramount importance. Unless it does, it is unlikely that the services provided will be the best. There are several factors that may influence the development of clinical audit. Firstly, the culture within units providing health care will determine the priority given to audit; but this may be helped by adequate back up from audit staff and from well supported routine information systems. Secondly, and more important, purchasers may begin to specify the need for audit results in their contracts with providing units. Even if at first this is ignored as being only a minor irritation, general managers will not see it as such if lack of audit activity could lead to the loss of a contract.

Thirdly, and perhaps most fundamentally, unless good quality statistical information is easily available, audit cannot advance from the isolated one off studies where it is usually confined at present. It is difficult for such studies to be the basis for repeated re-evaluation of practice, or for comparisons between different settings for care. There are many barriers to the development of the sort of information that would help audit to flourish. The new financial arrangements for NHS trusts and fundholding general practices are often associated with the development of ‘in-house’ systems, which for both technical and commercial reasons stand in the way of comprehensive maternity information, including care at both primary and hospital levels.

We acknowledge and thank those at the department of obstetrics and gynaecology at St Mary’s Hospital and Medical School with whom we have collaborated, and especially Philip Banfield, Richard Beard, and Moira O’Hanlon and many colleagues for their comments on drafts of this paper. Our work is funded by the Department of Health (MM) and the North West Thames Regional Health Authority (JK).
30 Shaw CD. Quality assurance – what the colleges are doing. (Quality Assurance Project Reports KFC 86/63.) London: King’s Fund Centre, 1986.
How have recent changes in the NHS affected perinatal audit?

M Mugford and J Chapple

Arch Dis Child 1993 69: 322-326
doi: 10.1136/adc.69.3_Spec_No.322

Updated information and services can be found at:
http://adc.bmj.com/content/69/3_Spec_No/322.citation

Email alerting service

These include:
Receive free email alerts when new articles cite this article. Sign up in the box at the top right corner of the online article.

Notes

To request permissions go to:
http://group.bmj.com/group/rights-licensing/permissions

To order reprints go to:
http://journals.bmj.com/cgi/reprintform

To subscribe to BMJ go to:
http://group.bmj.com/subscribe/