NHS
Quality Improvement Scotland

NHS Greater Glasgow

Local Report ~ *January 2007*

Maternity Services

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Maternity Services

The maternity services standards apply to specific areas of the service. The clinical standards cover the period of time between confirmation of pregnancy, through until the baby is 6–8 weeks old. The project group developed five standards, covering: core principles; pre-conception and very early pregnancy; pregnancy; childbirth; and postnatal and parenthood. This report presents the findings from the peer review of performance against the standards.

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Information contained in this report has been supplied by NHS boards, or taken from current NHS board sources, unless otherwise stated, and is believed to be reliable on publication.

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Contents

1 Setting the scene

NHS Quality Improvement Scotland (NHS QIS) was set up by the Scottish Parliament in 2003 to take the lead in improving the quality of care and treatment delivered by NHSScotland. We do this by setting standards and monitoring performance, and by providing NHSScotland with advice, guidance and support on effective clinical practice and service improvements.

About this report

The 'Clinical standards for maternity services' were published in March 2005. These standards are being used to assess the quality of services provided by NHSScotland nationwide.

This report presents the findings from the peer review of **NHS Greater Glasgow**.[1] This review visit took place on **25 May 2006**, and details of the visit, including membership of the review team, can be found in Appendix 2.

[1] At the time of the review visit there were 14 territorial NHS boards and eight special health boards. Prior to 31 March 2006 and the dissolution of NHS Argyll & Clyde there were 15 territorial boards. As the review programme cut across this date, 15 reports have been presented in order to accurately reflect service provision at the time.

1.1 How the standards were developed

In June 2002, a maternity services project group was established and chaired by Dr Jane Magill, Director, Robert Clark Centre for Technological Education, University of Glasgow. Membership of the maternity services project group includes both healthcare professionals and members of the public (see Appendix 3).

Members of the maternity services project group are involved in the quality assurance process of:

- developing standards
- reviewing performance against the standards throughout Scotland, using self-assessment and external peer review, and
- reporting the findings from the review.

When developing the maternity services standards, a Scotland-wide consultation process was undertaken. The views of health service staff, women (pre and postnatally), and the public were sought, and all the relevant evidence available at the time was taken into account. Draft standards were also piloted in NHS Highland, NHS Lanarkshire and NHS Lothian in June 2004.

1.2 How the review process works

The review process has two key parts: local self-assessment followed by external peer review. First, each NHS board assesses its own performance against the standards. An external peer review team then further assesses performance, both by considering the self-assessment data and visiting the NHS board to validate this information and discuss related issues. The review process is described in more detail below (see also the flow chart on page 9).

Self-assessment by NHS boards

On receiving the standards, each NHS board assesses its own performance using a framework produced by NHS QIS. This framework includes guidance about the type of evidence (eg guidelines and audit reports) required to allow a proper assessment of performance against the standards to be made.

The NHS board submits the data it has collected for this self-assessment exercise to NHS QIS before the on-site visit, and it is this information that constitutes the main source of written evidence considered by the external peer review team.

External peer review

An external peer review team then visits and speaks with local stakeholders (eg staff, patients and carers) about the services provided. Review teams are multidisciplinary, and include both healthcare professionals and members of the public. All reviewers are trained. Each review team is led by an experienced reviewer, who is responsible for guiding the team in its work and ensuring that team members are in agreement about the assessment reached.

The composition of each team varies, and members have no connection with the NHS board they are reviewing. Both of these factors facilitate the sharing of good practice across NHSScotland, and ensure that each review team assesses performance against the standards rather than make comparisons between one NHS board and another.

At the start of the on-site visit, the review team meets key personnel responsible for the service under review. Reviewers then speak with local stakeholders about the services provided. After these meetings, the team assesses performance against the standards, based on the information gathered during both the self-assessment exercise and the on-site visit. The visit concludes with the team providing feedback on its findings to the NHS board. This includes specific examples of local initiatives drawn to the attention of the review team (recognising that other such examples may exist), together with an indication of any particular challenges.

Assessment categories

Each review team assesses performance using the categories 'met', 'not met' and 'not met (insufficient evidence)', as detailed below.

- '**Met**' applies where the evidence demonstrates the standard and/or criterion is being attained.

- '**Not met**' applies where the evidence demonstrates the standard and/or criterion is not being attained.

- '**Not met (insufficient evidence)**' applies where no evidence is available for the review team, or where the evidence available is insufficient to allow an assessment to be made.

A final category '**not applicable**' is used where a standard and/or criterion does not apply to the NHS board under review.

1.3 Reports

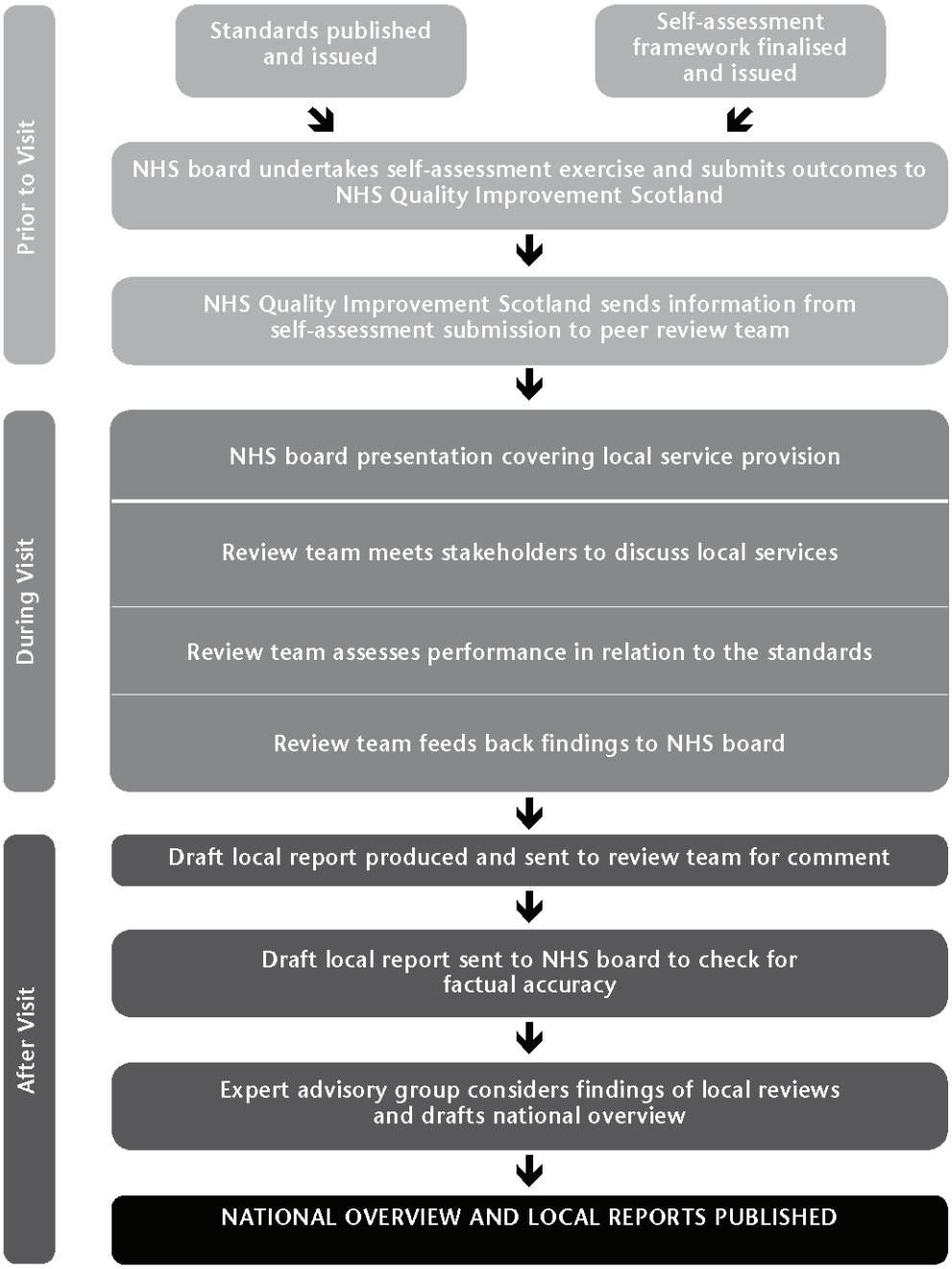
After each review visit, NHS QIS staff, with clinical input as appropriate, draft a local report detailing the findings of the review team. This draft report is sent to the review team for comment, and then to the NHS board to check for factual accuracy. The local report is published only after all the visits for that topic have been undertaken nationwide.

Once a national review cycle is completed, the expert advisory group convenes to examine review findings and make recommendations. The group then oversees the production of a national overview of service provision across Scotland in relation to the standards. This document includes both a summary of the findings (highlighting examples of local initiatives and challenges for the service) and recommendations for improvement.

Part of the remit of NHS QIS is to report whether the services provided by NHSScotland, both nationally and locally, meet the agreed standards. This does not include reviewing the work of individual healthcare professionals. In achieving this aim, variations in practice (and potential quality) within a service will be encountered and subsequently reported.

Please note – all reports published are available in print format and on the NHS QIS website.

The review process



2 Summary of findings

2.1 Overview of local service provision

Greater Glasgow is a compact and densely populated urban region situated in west-central Scotland and has a population of around 867,083. The proportion of older people in the population is below the national average, whereas levels of illness and deprivation are relatively high.

Local NHS system and services

Greater Glasgow NHS Board is responsible for improving the health of the local population and for the delivery of the healthcare required. It provides strategic leadership and has responsibility for the efficient, effective and accountable performance of the NHS in Greater Glasgow.

At the time of the self-assessment submission, NHS Greater Glasgow contained four NHS operating divisions: North Glasgow University Hospitals Division (acute care services); South Glasgow University Hospitals Division (acute care services); Greater Glasgow Primary Care Division (primary care services); and Yorkhill Division (women and child care services, including Scotland's largest children's hospital).

The NHS Board is accountable for both continuously improving the quality of health services, and safeguarding high standards of care, by creating an environment in which excellence in clinical care will flourish (framework of clinical governance).

Further information about the local NHS system can be accessed via the website of NHS Greater Glasgow (www.nhsgg.org.uk).

Service organisation

Information obtained from a scoping study exercise undertaken in 2005 indicated that there are 15 NHS boards within Scotland that provide maternity services.

In NHS Greater Glasgow, all maternity services are provided across primary and secondary care settings throughout the NHS board area, with specialist/tertiary services being provided by the consultant-led units of The Queen Mother's Hospital (QMH), Yorkhill, Glasgow, and Princess Royal Maternity Hospital (PRMH), Glasgow. Tertiary services are also provided by QMH to women and babies from across Scotland and the tertiary neonatal services at PRMH receive referrals from the west of Scotland. The third consultant-led maternity unit is in the Southern General Hospital (SGH), Glasgow. Integrated hospital and community services provide antenatal and postnatal care and health education in hospitals, local health centres, GP surgeries and in the woman's home.

The number of births over the last 5 years are illustrated in the following table. At QMH, the number has remained stable whilst at PRMH the number has risen. This

is mainly because of an increase in births originating in NHS Lanarkshire. The increase at SGH is due to more births originating in NHS Argyll & Clyde.

NHS Greater Glasgow	Number of births				
	2001	2002	2003	2004	2005
The Queen Mother's Hospital	3,406	3,579	3,959	3,545	3,425
Princess Royal Maternity Hospital	4,725	4,941	5,218	5,405	5,292
Southern General Hospital Maternity Unit	2,896	2,831	2,786	3,169	2,967
Home births	16	12	13	15	12
Other (eg born before arrival)	7	76	60	59	54
Total births	**11,050**	**11,439**	**12,036**	**12,193**	**11,750**

2.2 Summary of findings against the standards

A summary of the findings from the review, including examples of local initiatives drawn to the attention of the review team, is presented in this section. A detailed description of performance against the standards/criteria is included in Section 3.

Core Principles

There are clear lines of responsibility within the women and children's directorate of NHS Greater Glasgow for the planning and delivery of maternity services. Various reviews of maternity service provision have been conducted and the Board has decided to close QMH and co-locate a new children's hospital with adult acute and maternity services on the site of SGH. Maternity services will continue to be provided at PRMH.

At the time of the review visit, public consultation about the development of single system working across maternity services in NHS Greater Glasgow had been completed. A network of recent, past and potential users of maternity services had contributed to this consultation. A formal strategy document for maternity services had yet to be developed.

Healthcare professionals in NHS Greater Glasgow are aware of the importance of clinical risk assessment of pregnant women, and midwives have introduced an additional public health assessment which continues throughout pregnancy. There are robust clinical risk management processes and referral pathways for the care of pregnant women. A wide range of specialist services is available and all women with risk factors for their pregnancy are offered assessment by a consultant obstetrician. The review team noted maternal imaging as a particular strength of the service.

Although the ongoing review of NHS Greater Glasgow maternity services includes liaison with the Scottish Ambulance Service, the Board does not have agreed local guidelines with this service and the review team encouraged the Board to develop these.

Comprehensive clinical IR1 incident reporting practices allow for learning from incidents to be shared widely across the Board area. A perinatal clinical effectiveness committee co-ordinates audit of maternity care across the three maternity units and the Board participates in a number of national multi-centred audits.

Example of a local initiative…

On the Yorkhill intranet site, audit is positively promoted on a clinical effectiveness homepage. This page provides links to continuous audit projects, ideas for audit topics and guidelines on questionnaire design and audit software. An annual audit prize night follows poster and oral presentation sessions which are judged by a peer group. Prizes have been won in the past by staff from QMH and a considerable number of audit projects have been undertaken on important aspects of maternity care.

Resuscitation training for all healthcare professionals involved in delivering maternity care is provided and staff are individually responsible for maintaining their skills. There is no formal mechanism for recognising when staff have not attended relevant annual refresher courses.

The identification of women at risk of domestic abuse has been prioritised by NHS Greater Glasgow and a policy for the support of such women has been developed which was recognised by the review team as a significant achievement.

Example of a local initiative…

NHS Greater Glasgow supports three link midwives who have had specialised training in dealing with gender-based violence. There is one link midwife based in each maternity unit and as they do not have their own patient caseload they concentrate on working closely with midwives to provide a city-wide service offering information, support and guidance in detecting and responding to violence against women. They are developing links with women's organisations and community supports to facilitate referral from midwives and are working towards improving the transfer of care between health services for women who are experiencing abuse. The link midwives are involved in updating the Board domestic abuse policy which will include a routine enquiry of all women at booking.

Clinical complications arising in pregnant women are managed by provision of adult high dependency facilities and clinical expertise in all NHS Greater Glasgow maternity units. Adult intensive care facilities and specialist medical back-up are available on-site at PRMH and SGH and, though QMH does not have such facilities on-site, there is a defined rapid access route for women to the adult intensive care facilities at the Western Infirmary, Glasgow. Women attending QMH who are identified as requiring cardiac intensive care are booked to deliver at the Western Infirmary. However, the review team was informed that women will, in future, be booked for PRMH or SGH where adult intensive care facilities are available.

Neonatal complications are managed in the neonatal intensive care units (NICUs) within each maternity unit. These and the special care baby facilities which are also available in each unit conform to agreed national guidelines.

All pregnant women within NHS Greater Glasgow have a named consultant though in practice it was reported that their care is led by a midwife who supports them in planning their contact with the maternity services. Women are fully informed of the choices available to them and give informed written consent for interventions and investigations. They are given an opportunity to reflect on their birth experience and, if bereaved during pregnancy, are fully supported and informed in a sensitive manner. Information giving is monitored throughout the maternity units and many leaflets are available in a variety of languages and formats.

Information is provided for pregnant women's partners/family/friends which explains how they can be involved in the pregnancy and childbirth. Visiting times in the maternity units take into account the health needs and wishes of the women.

A unified handheld maternity record is not in use in NHS Greater Glasgow though the national version will be implemented as soon as it becomes available.

Pre-conception and Very Early Pregnancy

All women in NHS Greater Glasgow with a poor obstetric/medical history, a previous poor fetal/maternal outcome, or where there is a family history of significant illness, have access to specific pre-conception services. In particular there is a pre-conception service at each of the maternity units for women with diabetes. These services are based on SIGN Guideline 55: Management of Diabetes.

Early pregnancy assessment services (EPAS) are provided in dedicated areas within each maternity unit to which GPs and healthcare professionals can directly refer. Women with previous early pregnancy problems cannot self-refer in all units. Emergency ultrasound scanning is available during normal working hours on weekdays, but is not always available within 24 hours at other times.

Telemedicine is used extensively at PRMH for neonatology, cardiology and paediatrics with links to the Royal Hospital for Sick Children. At QMH, telemedicine links have been established with many of the maternity units throughout Scotland and to date have been used for 'discussion' of fetal anomalies with NHS Lanarkshire and NHS Ayrshire & Arran.

Example of a local initiative…

Princess Royal Maternity Hospital was the first Scottish hospital to use a 'babycam' which lets bed-bound mothers see live pictures of their premature babies. This camera network allows mothers to see what is happening to their baby and this helps relieve the distress of being apart. The emotional reassurance from seeing their baby can help a mother to express breast milk which is important for the nourishment of the premature baby.

Pregnancy

Each maternity unit provides a comprehensive programme of parent education for childbirth which is delivered across NHS Greater Glasgow with specific groups being well targeted and an opportunity for a postnatal reunion provided. The review team, however, encouraged the Board to provide a single service-wide programme with a single programme co-ordinator. The Ready, Steady, Baby book, which is an information resource to assist women's decision-making, is given to women at their booking visit.

All women in NHS Greater Glasgow have access to screening services and antenatal diagnostic testing, though a 20-week fetal anomaly scan is not routinely provided. Women who are found to be rhesus negative are offered routine Anti-D prophylaxis at 28 and 34 weeks gestation.

At booking, a risk assessment and public health assessment are carried out for each woman which determine her lead contact with maternity services and her care plan. The woman is then involved in the development of her birth plan and her determined pattern of care will continue to be re-assessed in line with any change in her pregnancy risk status. The routine pattern of antenatal care in NHS Greater Glasgow is not consistently in line with the recommendations of 'A Framework for Maternity Services in Scotland'. The review team did, however, commend the practice, in one maternity unit, of splitting the booking visit into two visits, due to the large amount of information which is to be given.

Childbirth

The achievement of one-to-one midwifery care for all women during established labour was commended by the review team. For planned home births, two midwives are present at delivery. Each maternity unit has its own set of policies for key labour practices and the review team encouraged the Board to consider harmonising these into a single set. It was noted that water birth is not offered in NHS Greater Glasgow.

All women in NHS Greater Glasgow are informed about, and offered, a range of pain management techniques during childbirth which include: transcutaneous electrical nerve stimulation (TENS); oral, intramuscular, inhalational and epidural analgesia, and the use of water for pain relief during labour. The review team encouraged the Board to implement a validated pain assessment tool following epidural analgesia or operative deliveries.

During childbirth all women have access to anaesthesia at all times. The anaesthetic services of NHS Greater Glasgow are working towards compliance with NHS QIS and Royal College of Anaesthetists (RCA) standards. Delivery at emergency caesarean section is accomplished as quickly as possible and the time taken from the decision to deliver to the actual delivery are monitored.

Postnatal and Parenthood

All women in NHS Greater Glasgow are assessed immediately after giving birth and prior to discharge when their public health assessment is completed. At time of discharge they also receive information about contraception.

Example of a local initiative…

As part of the discharge procedure, premature, low birth weight and at risk term infants are assessed for their ability to sit in a car seat for 60 minutes without evidence of respiratory difficulties (the car seat challenge). A car seat challenge flow sheet has been designed and printed for use at The Queen Mother's Hospital, Glasgow.

The review team commended NHS Greater Glasgow maternity units for all having achieved and maintained UNICEF/WHO Baby Friendly status. Women are

informed of the benefits of breastfeeding, while being supported in their chosen method of feeding. At the time of the review visit, an infant feeding advisor was being recruited to support the co-ordinators already in post who provide education and training to healthcare professionals who support women in their chosen method of feeding. The review team noted that admission rates for babies due to inadequate nutrition are not monitored across the whole of NHS Greater Glasgow.

Newborn babies all receive appropriate care and assessment and the review team commended the Board on training midwives in the examination of the newborn as this extends the role of the midwife and provides for continuity of midwifery care. Processes are in place to ensure that there is ongoing assessment of babies in the first weeks following their discharge home. There is also an efficient transfer of information on women and their babies which facilitates their continuing effective care in the community.

3 Detailed findings against the standards

Standard 1(a): Standard 1 ~ Core Principles

Standard Statement
Accountability: There are clear lines of responsibility for the planning and delivery of maternity services, with evidence of public involvement.

NHS Greater Glasgow

Essential Criteria

1a.1: There is a named individual at NHS Board director level with responsibility for maternity services.

STATUS: **Met**

The director of the women and children's directorate has responsibility for maternity services within NHS Greater Glasgow. Inpatient maternity services are provided in Princess Royal Maternity Hospital (PRMH), Glasgow; The Queen Mother's Hospital (QMH), Glasgow; and Southern General Hospital (SGH).Maternity Unit, Glasgow. Daycare and ultrasound facilities are also provided at Rutherglen Maternity Care Centre, Glasgow, and Millbrae Antenatal Centre, Glasgow.

1a.2: There is a named clinician at both Primary and Acute NHS Operating Division level with responsibility for maternity services.

STATUS: **Met**

The associate medical director of the women and children's directorate acts as liaison for maternity services between primary and acute care levels, and the clinical director for obstetrics and gynaecology has responsibility for maternity services at Acute NHS Operating Division level.

1a.3: There is a current, dated, documented NHS Board strategy, developed by stakeholders, which sets out how maternity services are planned, developed and implemented, in line with Scottish Executive Health Department (SEHD) policies for women-centred care.

STATUS: **Not met**

In 2003, NHS Greater Glasgow Board commissioned a review (known as the Reid review) of the provision of maternity services which recommended, amongst other things, the closure of QMH. In 2004, the Minister for Health and Community Care announced that the Scottish Executive accepted NHS Greater Glasgow's proposal

for moving from three maternity units to two. To preserve the link between maternity and children's services, it was also announced that a new children's hospital would be provided in the city of Glasgow which would be co-located with adult acute and maternity services. In 2005, the clinical advisory group for Glasgow's children's and maternity services was appointed by the Minister for Health and Community Care and reported in 2006 (known as the Calder report). The group supported the conclusion reached by NHS Greater Glasgow that the Southern General Hospital represented the most suitable site for co-location.

The Reid and Calder reports provide a basis for a strategy for maternity services, and the review team encouraged the Board to develop and document such a strategy which would include single system working, the promotion of normality in pregnancy and childbirth, and community midwife-led care for low risk women.

1a.4: There is evidence of a range of public involvement activities in the planning of all maternity services.

STATUS: **Met**

The maternity services liaison committee (MSLC) for NHS Greater Glasgow set up MatNet, the maternity services consultation network in order to develop and support user involvement in the planning, management and delivery of maternity services. Members of MatNet are potential, recent and past users of maternity services and there are representatives from a range of community groups. MatNet reports directly to a subcommittee of NHS Greater Glasgow Board and two members of MatNet are on the MSLC.

In early 2006, MatNet representatives toured the maternity units in NHS Greater Glasgow with midwifery officers from the local supervising authority and met with staff to discuss user involvement. The Board intend to repeat this visit annually.

Standard 1(b): Standard 1 ~ Core Principles

Standard Statement
Risk Management: All healthcare professionals are aware of the importance of risk assessment and management of pregnant women, and take action to minimise avoidable adverse clinical incidents, including during transfer and access to services.

NHS Greater Glasgow

Essential Criteria

1b.1: Assessment: There is a system to ensure that all critical incidents are reported, investigated and analysed, resulting in changes in practice, where necessary.

STATUS: **Met**

There are comprehensive and robust clinical risk management processes in PRMH, QMH and SGH. There are slight differences between the processes and NHS Greater Glasgow has drafted a Board-wide risk management strategy which sets out clear divisional lines of responsibility. At the time of the review visit, each maternity unit had a named local risk co-ordinator who oversees the process for reviewing clinical incidents and sharing learning from them.

Within each maternity unit, the investigative process is activated by the completion of a clinical incident form which can be completed anonymously if staff prefer. Incidents are classified and those considered to be most serious are reviewed by a local multidisciplinary team who may refer to divisional risk managers as appropriate. There are monthly clinical risk/effectiveness meetings in each of the units at which clinical incidents are discussed and action planning for changes in practice agreed. Staff are made aware of incidents and changes in practice via quarterly newsletters (PRMH and QMH), one-to-one feedback and at staff communication forums. There is also a risk reduction section on the Yorkhill intranet (QMH). Overall, the review team commended the clinical risk management in NHS Greater Glasgow.

1b.2: Assessment: A compliments, comments and complaints procedure is in place to enable women to express views about their pregnancy and childbirth experience.

STATUS: **Met**

Women are encouraged to discuss their experience of pregnancy and childbirth with their community midwife at the 10-day postnatal visit. Comments and complaints are fed back to the service and the emphasis is on trying to resolve any complaints locally and informally. Women and their families are, however, made aware of their right to formally complain and the process is described in various leaflets and posters throughout the maternity units. Some verbal complaints of a general nature, for example about the food on the wards, would be raised at staff meetings.

All formal complaints made to a complaints officer are managed in line with the NHS Greater Glasgow complaints handling policy which is based on guidance from the Scottish Executive. Formal complaints are logged and quarterly reports prepared for NHS Greater Glasgow Board and the Information Services Division, Scotland. Systems are in place in each of the maternity units to review complaints in a manner that can lead to changes in practice.

Compliments received formally would be shared with the staff involved though are not logged. Reviews of compliments also take place during the annual appraisal process.

1b.3: Assessment: There are local guidelines agreed between the NHS Operating Division and the Scottish Ambulance Service, for the safe transfer of women during pregnancy, childbirth and with her newborn baby in the postnatal period.

STATUS: **Not met**

At the time of review visit, there were no specific local guidelines agreed between NHS Greater Glasgow and the Scottish Ambulance Service though there were documented procedures for arranging transport of neonates using the National Neonatal Transport Service (Western Region). Protocols are in place in QMH and SGH for discharge arrangements when air transport is required. Staff reported that there were no issues related to the service received from the Scottish Ambulance Service which follows its own internal protocols for transport of women during pregnancy, childbirth and with her newborn baby in the postnatal period. It was reported that, because of the large distances involved with some journeys to maternity units, Scottish Ambulance Service personnel would determine the immediate medical needs of the woman and take her to the nearest most appropriate hospital (which may not necessarily be a consultant-led maternity unit).

The Scottish Ambulance Service is represented at NHS Greater Glasgow service reviews and it was reported that there is also involvement at multidisciplinary reviews of clinical incidents which were associated with ambulance transfer. These incidents would be investigated under the relevant maternity unit risk management procedure.

The review team recognised the challenge for the Board to agree local guidelines with the Scottish Ambulance Service particularly considering the geography of the new Board area.

1b.4: Referral: Formal arrangements exist for women and their babies to access a network of specialist services.

STATUS: **Met**

There are referral arrangements throughout NHS Greater Glasgow for a wide range of specialist services which are available in each of the three maternity units: allied health professions (AHPs); anaesthesia and intensive care; imaging; laboratory medicine; medicine; neonatology; obstetrics; surgery; and psychiatry. There are slight differences in accessibility and provision of these specialist services though overall the review team commended the accessibility.

Physiotherapy is available in all maternity units 24 hours every day via an on-call system out-of-hours. Physiotherapy services are also provided at Millbrae Antenatal Centre. Staff reported that the physiotherapy records are not yet integrated into the maternity records. A dietitian is available for consultation every day in each maternity unit though SGH does not have a dedicated dietetics service for maternity.

In PRMH, there is a dedicated imaging service providing obstetric ultrasound, basic maternal imaging, specialist maternal radiological investigations and neonatal radiology. There is also a formal referral system between PRMH and the diagnostic and therapeutic imaging services of Glasgow Royal Infirmary. Neonatal radiology images can be transmitted electronically to the Royal Hospital for Sick Children, Glasgow. PRMH and the Royal Hospital for Sick Children have a reciprocal agreement whereby they back-up each others electronic radiological images.

Interventional maternal radiology is available within SGH with an on-call service out-of-hours. At the time of the review visit, the provision of such an on-call service across all of NHS Greater Glasgow was under review.

QMH provides a full range of maternal imaging and has a referral arrangement with Gartnavel General Hospital, Glasgow, for postpartum interventional radiology. QMH provides a neonatal cardiac referral centre, neonatal MRI service and a fetal MRI scanning service for the assessment of fetal anomalies that cannot be clearly defined from ultrasound. These neonatal services are available to units throughout NHS Greater Glasgow and to other Scottish NHS Boards.

NHS Greater Glasgow perinatal pathology services are based at the Royal Hospital for Sick Children, with skeletal radiographic surveys performed at QMH for all post-mortem examination cases.

All women in NHS Greater Glasgow have an antenatal public health assessment conducted and documented by their midwife which includes a section on mental health. If risk factors are identified the woman would be referred via the NHS Greater Glasgow perinatal care pathway to the Glasgow perinatal mental health team. This team is based at the department of psychiatry, Southern General Hospital, where a named consultant would be identified, though midwifery-led care is maintained. The review team noted the mental health referral form as an example of

good practice. Women with mental health problems can be seen in the perinatal mental health mother and baby unit on the Southern General Hospital site where student midwives gain experience of mental health issues. Staff reported that a perinatal mental health care pathway had been piloted at QMH and would be used across NHS Greater Glasgow.

Imaging services and perinatal mental healthcare within NHS Greater Glasgow were highlighted by the review team as comprehensive.

1b.5: Referral: All women with risk factors for their pregnancy are offered assessment by a consultant obstetrician.

STATUS: **Met**

At the time of the review visit, all pregnant women within NHS Greater Glasgow were booked with a consultant obstetrician and a risk assessment tool used to determine their care pathway. For low risk pregnancies, women proceed to midwife-led care with clear guidelines for continuous risk assessment and subsequent referral to a consultant if risk escalates. All women have the option to choose to have their care led by a consultant obstetrician. Women are also given the option to decline to be seen by a consultant obstetrician at their booking visit.

1b.6: Training and Audit: There is an audit system in place to monitor important aspects of maternity care.

STATUS: **Met**

There is a perinatal clinical effectiveness committee which co-ordinates audit of all important aspects of maternity care across the three maternity units in NHS Greater Glasgow. These audits monitor performance against national guidelines and standards. The three units also participate in a series of national multi-centred audits. Board-wide audit data are shared across the three units to promote best practice.

There is a local clinical effectiveness department within each maternity unit which promotes and supports local audit topics selected from those nominated by individuals or departments. Audit data are published locally and, in QMH, annual prizes are awarded for poster and oral presentations of audit data.

1b.7: Training and Audit: All healthcare professionals directly involved in childbirth are competent in basic adult obstetric, neonatal resuscitation and immediate care.

STATUS: **Not met**

Training courses in basic and advanced adult and neonatal resuscitation are conducted for all healthcare professionals in each maternity unit. At all three units, annual training is described as mandatory with records of attendance maintained. However, there is no formal process to recognise non-attendance. It was reported that staff are individually responsible for ensuring that their resuscitation training skills are up to date if they are to be directly involved in childbirth. The subject of training is raised at annual appraisal for midwives, nursing staff and health visitors and staff reported it was intended to include this in the consultant annual review.

1b.8: Clinical Complications: A clinical risk assessment process for individual women, including a communications strategy, is in place, which addresses escalating risk.

STATUS: **Met**

Each of the maternity units within NHS Greater Glasgow have clear risk assessment criteria applied at booking and throughout the antenatal and postnatal periods. Guidelines are in place for the movement of individual women to the level of care appropriate to their risk assessment.

1b.9: Clinical Complications: A policy is in place for the identification of women who are at risk of domestic abuse, and staff are trained in assessment, communication skills and support of such women.

STATUS: **Met**

NHS Greater Glasgow has a domestic abuse policy which is applied consistently across the three maternity units. NHS Greater Glasgow Board has created three link midwifery posts, one in each maternity unit. The link midwives were trained in issues related to domestic abuse by the NHS Greater Glasgow department of public health. They do not have their own patient caseload and provide dedicated support and training for midwifery staff to respond to women who have experienced or are experiencing domestic abuse. Domestic abuse basic awareness training is made available to all maternity services staff by the link midwives in a half-day course with a specialist full-day course for midwives.

Risk of domestic abuse is initially identified during the public health assessment conducted by the midwife. Clear referral pathways are described which include informing the maternity unit link midwife.

The review team recognised the implementation of a single approach to assessment and support of the women at risk of domestic abuse within maternity as a significant achievement for the Board.

1b.10: Clinical Complications: High dependency facilities and clinical expertise are available within the obstetric unit for all women in level II and level III consultant-led units.

STATUS: **Met**

Each maternity unit has high dependency facilities and clinical expertise available within the obstetric unit. Staff rotas are in use in each unit to ensure that the skill mix of each team on duty is appropriate for a high dependency unit (HDU).

The review team noted that, at the time of the review, there was not a specific obstetric midwife high dependency training course available in the west of Scotland, though staff reported that some midwives had attended the course on midwifery care of critically ill patients provided by the Robert Gordon University, Aberdeen.

1b.11: Clinical Complications: There is a defined rapid access route for women to adult intensive care and expertise in all level II and level III consultant-led units.

STATUS: **Met**

There is a defined rapid access route for women from the level IIc SGH to the intensive care unit (ICU) of Southern General Hospital. The consultant anaesthetist would make the decision to transfer the woman and liaises with the consultant in the ICU.

The consultant anaesthetist and consultant obstetrician discuss the need for intensive care for women in PRMH (level III) and, if a transfer is necessary, the consultant anaesthetist would liaise with the consultant at the ICU in Glasgow Royal Infirmary to which women can be rapidly transferred. If a bed is not available in Glasgow Royal Infirmary a check is made on bed availability and transfer arranged with the 'shock team' based at the Western Infirmary, Glasgow.

A protocol is in place for the consultant-to-consultant transfer of women requiring intensive care from the level III QMH to the Western Infirmary or nearest ICU with bed availability. The transfer also involves the shock team based at the Western Infirmary to ensure rapid access.

1b.12: Clinical Complications: Adult intensive care facilities and specialist medical back-up are available on-site in all level IIc and level III consultant-led units.

STATUS: **Not met**

Adult intensive care facilities and specialist medical back-up are available on-site at PRMH (level III) and SGH (level IIc). Though QMH (level III) does not have such facilities on-site, transfer arrangements are in place, as described above.

1b.13: Clinical Complications: Where full adult intensive care facilities are not currently available on-site in level llc and level III consultant-led units, a strategy is in place outlining the process and timescale to achieve this.

STATUS: **Met**

NHS Greater Glasgow has accepted the recommendations of the Calder report which sets out a strategy and timescale for the closure of QMH and the co-location of children's, adult acute and maternity services.

1b.14: Clinical Complications: Units that do not have adult intensive care facilities, advanced imaging and cardiology on-site, must have protocols in place for the care of women with significant medical or obstetric illness to ensure that they are delivered in a unit that can provide these resources on-site.

STATUS: **Not met**

At the time of the review visit, pregnant women with cardiac disease who are attending QMH and are assessed as requiring cardiac intensive care are delivered in the Western Infirmary. The review team was advised that protocols are being developed to ensure that women with cardiac disease will be booked to deliver in maternity units with intensive care facilities on-site, namely PRMH or SGH.

1b.15: Clinical Complications: Neonatal intensive care unit (NICU) facilities are available on-site in level llc and level lll consultant-led units. Where NICU facilities are not available on-site, a strategy is in place outlining the process and timescale to achieve this.

STATUS: **Met**

Neonatal intensive care unit (NICU) facilities are available in all three maternity units in NHS Greater Glasgow which support their own maternity units and work collaboratively in Glasgow. QMH and PRMH provide a regional neonatal intensive care service to all Scottish NHS Boards.

1b.16: Clinical Complications: Special care baby unit (SCBU) facilities are available on-site in all level II and level III consultant-led units and there is a defined rapid access route to NICU in all level II and level III consultant-led units.

STATUS: **Met**

Special care baby cots are available within the neonatal intensive care facilities of each maternity unit. Babies can be observed in these cots for up to 6 hours before a decision is taken to admit to the NICU or to return to the postnatal ward.

1b.17: Clinical Complications: Where there is provision of NICU and SCBU facilities, these conform to agreed national guidelines.

STATUS: **Met**

Each maternity unit conforms to the standards of the British Association of Perinatal Medicine for hospitals providing neonatal intensive and high dependency care. A workforce and workload pilot planning exercise is ongoing to ensure the neonatal nursing standards can be continually monitored. There are dedicated neonatologists in the neonatal units who have a separate rota from the paediatricians.

Standard 1(c): Standard 1 ~ Core Principles

Standard Statement
Information, Communication and Support: All women are fully informed of the different options available to enable them to take an informed and active role in planning their care, and in the decision-making involved in providing this care. Healthcare professionals are skilled in supporting women in the decision-making process.

NHS Greater Glasgow

Essential Criteria

1c.1: There is a named healthcare professional identified for each woman, who leads and plans her contact with maternity services.

STATUS: **Met**

Pregnant women booking at PRMH have a consultant and midwife named on their antenatal appointment card. Those booking at QMH have a consultant, midwife and midwifery team named in their pregnancy care plan and those booking at SGH have a consultant and midwifery team noted in their antenatal information. Staff reported that, in practice, the midwife would lead and plan care for low risk women.

1c.2: Women are provided with information in order to make an informed decision about the chosen place of birth for their baby.

STATUS: **Met**

All pregnant women contacting maternity services within NHS Greater Glasgow are sent an information pack prior to their booking visit. When a woman attends for booking she receives a copy of the Ready, Steady, Baby book, her options for place of birth of her baby are discussed with the midwife and further written information is provided. Options available, which include home birth, midwife-led hospital unit or consultant-led hospital unit are discussed again at antenatal classes.

1c.3: There is evidence that professionals obtain informed consent for interventions and investigations, and this is documented.

STATUS: **Met**

Each maternity unit within NHS Greater Glasgow has its own informed consent policy and its own generic consent form for anaesthesia, operation and investigation or treatment with individualised consents for screening tests.

QMH uses the information leaflets prepared by the Institute of Genetics, Glasgow, for early screening for Down's syndrome and spina bifida and an information leaflet produced by the fetal medicine unit on amniocentesis and chorionic villus sampling.

All units have the NHSScotland information leaflets on screening for spina bifida and Down's syndrome during pregnancy as well as the NHS Greater Glasgow leaflet on routine blood tests for pregnant women for screening for infectious diseases. A Board-wide protocol is followed for screening for infectious diseases in pregnancy. The screening information is available in a range of languages and is given in a timely manner to allow for fully informed consent to be given. Verbal consent is given for interventions during labour though the procedures would have been described to women antenatally.

Consent forms are filed in casenotes, with checklists to prompt their completion. Evidence of informed consent is checked in the annual audit of midwifery records conducted by supervisors of midwives in each unit.

1c.4: All women are given the opportunity to reflect on their birth experience.

STATUS: **Met**

All women are offered the opportunity to reflect on their birth experience within the first or second day after giving birth in a review with their midwife and/or consultant. Community midwives specifically ask women about their antenatal, perinatal and postnatal care. Women who had a complicated or traumatic delivery are offered a review visit with the consultant 6 weeks following the birth and some women are seen by the consultant more than once to discuss their birth experience.

1c.5: Training on how to communicate information in an effective and sensitive manner, is provided to all healthcare professionals.

STATUS: **Met**

Communications skills training, which includes guidance on delivering bad news, is provided to all healthcare professionals in each maternity unit in NHS Greater Glasgow. Attendance is monitored by the relevant departments within each unit.

1c.6: There is a policy for supporting and informing parents bereaved during pregnancy, or soon after giving birth.

STATUS: **Met**

The three maternity units collaborated closely to produce Board-wide information for bereaved parents and all units can access the counselling and support services based at the Yorkhill Family Bereavement Service, Glasgow. Each unit also has links with bereavement support groups such as The Stillbirth and Neonatal Death Society (SANDS) which has monthly meetings in each of the units.

Folders containing resource materials for the staff to use to effectively inform and support families bereaved during pregnancy, or soon after birth, are available in each maternity unit.

In QMH, the clinical psychology service, within maternity and neonatology, has been developed to meet the needs of parents who experienced complications during pregnancy and/or birth.

The review team commended the support available to bereaved parents in NHS Greater Glasgow.

1c.7: Information giving (verbal, written and other media) is monitored and evaluated.

STATUS: **Met**

Patient satisfaction questionnaire surveys are conducted in each of the maternity units, though the actual questions about the quality, volume and usefulness of the information giving is not uniform across NHS Greater Glasgow.

Standard 1(d): Standard 1 ~ Core Principles

Standard Statement
Partner and Family Involvement: All maternity services and healthcare professionals recognise the important role of the partner/family, and ensure that they are encouraged and supported to be involved in pregnancy and childbirth.

NHS Greater Glasgow

Essential Criterion

1d.1: There is evidence that partner/family/friend involvement occurs, (including information provision for partners and families and open/flexible visiting times for partners and children).

STATUS: **Met**

Midwives provide women with information leaflets which include sections specifically directed at partner/family/friend involvement in pregnancy and childbirth. Posters and leaflets are also distributed throughout the maternity units. At SGH, parent education classes include sessions specifically designed to update the skills of new grandparents who may be 'left holding the baby'. The PRMH leaflet, Information for Families, includes a section on important facts for fathers about breastfeeding.

Accommodation for families of those transferred a long distance or unexpectedly is available on each site. There is restricted visiting for friends and children though hours for partners and a woman's own children are extended. The emphasis in the postnatal period is to ensure the woman is adequately rested and she and her baby and the staff are in a secure environment. Staff reported that, in practice, partners can visit at any time if it is the woman's choice.

Standard 1(e): Standard 1 ~ Core Principles

Standard Statement
Record-keeping: A structured and accurate record of all events during the antenatal, childbirth and postnatal periods is maintained for every woman and child (known as a 'unified record').

NHS Greater Glasgow

Essential Criteria

1e.1: All women have a unified handheld record.

STATUS: **Not met**

A unified handheld maternity record is not yet in use in NHS Greater Glasgow though staff reported that there was a commitment to implementing the national record as soon as it becomes available. The review team acknowledged this would be a challenge for the Board.

1e.2: The SMR02, Scottish birth record and birth notification General Register Office for Scotland (GROS), is completed for all women and newborn babies in line with current standards.

STATUS: **Met**

The SMR02 is available electronically on the hospital information system within all three maternity units and the attending midwife will begin its completion in the labour ward following birth. All data fields are validated against national data standards and reference files as prescribed by the Information Services Division. The Scottish birth record (SBR) is prepared by medical records staff and the birth notification (General Register Office for Scotland (GROS)) is generated by the hospital information system. Daily reports of births are generated and checked against the notifications.

Desirable Criterion

1e.3: The national unified handheld record and national electronic record are completed for all women and newborn babies.

STATUS: **Not applicable**

The review visit to NHS Greater Glasgow took place shortly after the official launch of the national unified handheld maternity record. As the review team considered the time between the launch of the national record and this review visit to be insufficient to measure progress in this area, it concluded this criterion was not applicable at this stage of the review process.

Standard 2(a): Standard 2 ~ Pre-conception and Very Early Pregnancy

Standard Statement
Pre-conception Services: All women with a poor obstetric/medical history, a previous poor fetal/maternal outcome, or where there is a family history of significant illness, have access to specific pre-conception services.

NHS Greater Glasgow

Essential Criterion

2a.1: There is a specific pre-conception service for women with diabetes which is based on the SIGN guideline for diabetes.

STATUS: **Met**

Each of the maternity units provides a pre-conception service for women with diabetes which is based on SIGN Guideline 55: Management of Diabetes.

A pre-conception clinic for women with diabetes is held monthly in Glasgow Royal Infirmary. This clinic is attended by a consultant obstetrician, midwife, dietitian, diabetologist and diabetes nurse specialist. Women with known diabetes can self-refer. When women become pregnant, they attend the weekly diabetic clinic within PRMH where a named consultant obstetrician is assigned.

The pre-conception service in QMH is attended by a consultant obstetrician, consultant diabetologist, specialist midwife and diabetes nurse specialist. Women can self-refer to this clinic.

SGH provides a pre-conception service for women with diabetes who, if planning a pregnancy, can be referred by their GP to the early pregnancy assessment service (EPAS) for review and risk assessment. There is also a combined obstetric/diabetic clinic and a clinic led by a diabetes nurse specialist who may see women for up to 3 months pre-pregnancy to ensure diabetic control is optimised. Women can be referred to these clinics by their GP and a consultant diabetologist is available for reviews if required.

Desirable Criterion

2a.2: There are specific pre-conception services for women with a personal or family history of significant illness (eg epilepsy, neural tube defect, chromosomal abnormality).

STATUS: **Met**

Pre-conception services for couples with predisposing disorders are provided in each of the maternity units. Genetic screening and counselling is available at QMH which also provides a regional pre-conception service to women with metabolic disorders which is attended by a consultant metabolic physician, a dietitian and a midwife.

The pre-conception services provided by NHS Greater Glasgow were commended by the review team and the team encouraged the Board to raise awareness of the services throughout the Board region.

Standard 2(b): Standard 2 ~ Pre-conception and Very Early Pregnancy

Standard Statement
Early Pregnancy Complications: All women who experience complications in early pregnancy have access to an early pregnancy assessment service.

NHS Greater Glasgow

Essential Criteria

2b.1: There are formal arrangements in place for referral to the early pregnancy assessment service, which allows any healthcare professional to access the service directly.

STATUS: **Met**

Guidelines for referral to the EPAS in each maternity unit are available to all GPs and healthcare professionals. Each clinic is open from Monday–Friday during working hours and contacts made with the service out-of-hours are directed according to the urgency of the case.

2b.2: There are formal arrangements in place for referral to the early pregnancy assessment service, which allows women with previous early pregnancy problems to self-refer.

STATUS: **Not met**

There are formal arrangements for referral to the EPAS though these do not allow self-referral of all women who have had early pregnancy problems in previous pregnancies. Women with a history of recurrent miscarriage who attend the pre-pregnancy clinics are given emergency contact details for the EPAS.

2b.3: Women who experience early pregnancy complications are cared for in a dedicated area distinct from the general gynaecology or antenatal ward.

STATUS: **Met**

The early pregnancy assessment facilities in each of the maternity units are in a dedicated area, open from Monday–Friday during working hours. Women admitted out-of-hours would be cared for in a single room within the gynaecology ward (PRMH and SGH) or antenatal ward (QMH).

2b.4: Women who miscarry have access to a choice of management options (surgical/medical/expectant).

STATUS: **Met**

Women who experience a miscarriage receive a verbal explanation of the options available to them as well as written information leaflets. Surgical, medical and expectant options are available in QMH and SGH. For women attending PRMH, surgical, medical and expectant options are offered with surgical and medical management provided in the gynaecology department of either Stobhill Hospital, Glasgow, or Glasgow Royal Infirmary. Staff reported that the Board plans to provide a gynaecology ward within PRMH.

2b.5: There is prompt access (within 24 hours) to ultrasound facilities with trained staff in secondary and tertiary services.

STATUS: **Not met**

The EPAS in each maternity unit provide emergency ultrasound scanning, however, they are only open during normal working hours on weekdays.

Women referred out-of-hours are assessed and those who are deemed clinically well are usually asked to wait until the next working day which can mean a wait of more than 24 hours. Out-of-hours access to ultrasound facilities is available in the gynaecology departments of Glasgow Royal Infirmary and SGH which aim to provide scanning within 24 hours. In QMH, during weekends, ultrasound is available in the admissions area, however, trained staff are not always available.

Staff reported that they recognised the challenge of providing a 7-day ultrasound scanning service and the review team encouraged the Board to incorporate this into their strategy.

Desirable Criterion

2b.6: Telemedicine is used to promote regional networking, and to expedite the reporting of results.

STATUS: **Met**

The use of telemedicine in PRMH is well established as part of various West of Scotland telemedicine projects. These projects include cardiology, neonatology and paediatric links with the Royal Hospital for Sick Children which allow two-way discussion of topics and a pioneering journal club for neonatologists. Telemedicine links also allow participation in the Scottish neonatal consultants group meetings.

By adapting the telemedicine system a 'babycam' has been developed in PRMH. This provides a video and audio link from the NICU to a bed-bound mother to enable her to 'keep in touch'.

QMH has established telemedicine links with several maternity units across Scotland for holding fetal anomalies group meetings.

Standard 3(a): Standard 3 ~ Pregnancy

Standard Statement
Education Programme: All maternity services provide comprehensive programmes of education for childbirth and parenthood to women and their partners and families.

NHS Greater Glasgow

Essential Criteria

3a.1: There is a written syllabus of education that targets specific groups, and is in a user-friendly format. The syllabus outlines the aims, themes and outcomes of the education programme.

STATUS: **Not met**

Each maternity unit conducts a comprehensive programme of parent education for childbirth to women and their partners and families. The classes are midwife- and/or physiotherapist-led and are usually adapted to the needs of the groups. Each unit has aims and themes for the programme, however, there is no formal written syllabus and the review team encouraged the Board to document these aims and themes, and develop measurable outcomes.

PRMH education programme is also run at five community settings. The QMH programme is also run at three community settings and the SGH programme is also provided in a satellite centre.

Women with specific educational needs are identified at booking and one-to-one sessions arranged accordingly. Classes for predominantly non-English speaking women and their families are staffed from the SGH by team midwives who have an increased knowledge of culturally specific needs and are supported by a multi-lingual midwife. An interpreter can also be made available as needed. Midwives specialised in dealing with refugees and asylum seekers are also working with women across Glasgow on an education and resources project.

Overall, the provision of parent education for specific groups was noted by the review team as a strength of NHS Greater Glasgow maternity services.

3a.2: There is a lead named co-ordinator, with recognised training and development to undertake the role, who takes responsibility for the programme on a service-wide basis.

STATUS: **Not met**

There are named individuals in each of the three maternity units and the review team encouraged the Board to nominate one lead co-ordinator to take responsibility for a single service-wide programme.

Desirable Criteria

3a.3: The Ready, Steady, Baby book is provided to all women on confirmation of pregnancy.

STATUS: **Not met**

The Ready, Steady, Baby book is provided to all women at their booking visit and this is documented in the woman's record. The timing of the booking visit varies across the units and can not always be considered to be at confirmation of pregnancy. In light of this, the review team judged that this criterion was not met and highlighted the importance of this to the Board.

3a.4: Parent education programmes include a postnatal reunion.

STATUS: **Met**

Within each maternity unit there is a postnatal reunion scheduled as 'Shape-up' classes from 6–16 weeks postnatally. The classes are tailored to the preference of the women attending and will include an element of emotional support.

Standard 3(b): Standard 3 ~ Pregnancy

Standard Statement
Screening Services: All women have access to screening services and antenatal diagnostic testing.

NHS Greater Glasgow

Essential Criteria

3b.1: All women who are identified in the screening programme as at risk of rhesus disease are managed and treated according to an agreed protocol.

STATUS: **Met**

All pregnant women in NHS Greater Glasgow identified as rhesus negative are offered routine Anti-D prophylaxis at 28 and 34 weeks gestation. Women at risk are provided with the national information leaflet.

3b.2: The antenatal care and investigation of women conforms to the guidance set out in Table 14, page 40 of A Framework for Maternity Services in Scotland.

STATUS: **Not met**

Within NHS Greater Glasgow there is no consistent pattern for the routine antenatal care of pregnant women and no provision for routine 20-week fetal anomaly screening as set out in 'A Framework for Maternity Services in Scotland'. The review team was informed that the Board recognised this as a challenge.

Standard 3(c): Standard 3 ~ Pregnancy

Standard Statement
Antenatal Care: All maternity services provide antenatal care delivered by a network of professionals, such that each woman is managed by a midwife, GP or obstetrician according to her level of risk, and as locally as possible.

NHS Greater Glasgow

Essential Criteria

3c.1: Each maternity service has an explicit plan for antenatal care for all women, taking account of risk, which acknowledges that women can move in either direction between different levels of care and lead professionals.

STATUS: **Met**

Within NHS Greater Glasgow there are antenatal care plans which are risk based with clear referral pathways, allowing for movement in either direction between levels of care should the risk increase or decrease.

3c.2: Women are offered the opportunity to be involved in the development of their birth plan, including the chosen place of birth of their baby.

STATUS: **Met**

When a woman attends for booking within NHS Greater Glasgow, her options for care during birth, including place of birth of her baby, are discussed with the midwife and written information is provided. Options available include home birth, birth in a midwife-led hospital unit or in a consultant-led hospital unit. These options are discussed again at parent education sessions and the development of a written birth plan is encouraged.

Women are advised that home birth can only be recommended for low risk pregnancies. If the midwife deems a home birth inappropriate then referral to the woman's named consultant may take place. The review team was informed that GPs may also be involved in discussions with women who choose a home birth. The review team was made aware of examples of high risk women who were fully informed of the risks of home delivery, but chose to go ahead to deliver at home. The role of the supervisor of midwives was reported by staff as important for the support of midwives involved with such cases.

3c.3: The routine pattern of antenatal care for pregnant women is no more than nine visits for a primigravida and eight visits for a multigravida.

STATUS: **Not met**

A booking visit may be split over two visits in order to accommodate the large amount of information giving which is necessary. Allowing for these first two antenatal visits to be 'counted' as one visit, the routine pattern of antenatal care for pregnant women varies across NHS Greater Glasgow and does not always comply with this criterion as the total number of visits for a primigravida can be up to ten.

The splitting of the booking visit was, however, commended by the review team.

Standard 4(a): Standard 4 ~ Childbirth

Standard Statement
Care Planning and Birth: All women receive an agreed plan of care throughout labour in line with current professional standards consistent with their risk assessment and their chosen place for childbirth.

NHS Greater Glasgow

Essential Criteria

4a.1: Each woman receives one-to-one midwifery care during established labour and childbirth by a trained midwife, or trainee midwife under supervision.

STATUS: **Met**

All women in NHS Greater Glasgow who are in established labour receive one-to-one midwifery care which continues throughout childbirth. Trainee midwives are supervised at all times.

The achievement of one-to-one midwifery care was commended by the review team.

4a.2: For planned home births there is a minimum of two trained professionals present, one of whom is a midwife.

STATUS: **Met**

Each of the maternity units provides for planned home births using a rota, whereby, once called out, a midwife is present throughout labour and will call for a second midwife to be present during delivery.

4a.3: There are agreed multidisciplinary, evidence-based policies for the management of all key labour practices, when care deviates from the norm.

STATUS: **Met**

Each maternity unit has a set of guidelines for the management of key labour practices. The guidelines are reviewed by a multidisciplinary group and updated at least annually. The SGH guidelines are available in a pocket-sized booklet (guidelines for obstetrics and gynaecology) as well as in A4 format on the labour ward. In PRMH and QMH, A4 versions are available on the labour wards and on the hospitals' intranet.

The guidelines include: induction of labour; breech presentation; perineal repair; caesarean section; prophylactic antibiotics for caesarean section; placenta praevia; prostaglandins and oxytocin use; management of thromboembolism and thromboprophylaxis; epidural analgesia; fetal monitoring; management of multiple

pregnancy; diabetes; pre-eclampsia and eclampsia; declination of blood products; haemorrhage; prolapsed cord; rupture of the uterus; shoulder dystocia; neonatal resuscitation; adult resuscitation; retained placenta; and intrauterine death. The review team encouraged the Board to standardise the guidelines into one set for the whole Board area.

A multidisciplinary review group was set up to prepare a paper for the Board on the provision of a water birth service across Glasgow and reported in December 2005. At the time of the review visit, no decision had been taken by the Board on how to provide the service.

Standard 4(b): Standard 4 ~ Childbirth

Standard Statement
Pain Management: All women, regardless of their specific location, are informed about, and offered the range of pain management techniques during childbirth, and are supported in their choice of pain control.

NHS Greater Glasgow

Essential Criteria

4b.1: All women receive information about, and have access to, a range of pain management techniques which include: transcutaneous electrical nerve stimulation (TENS); oral and intramuscular analgesia; inhalational analgesia; and the use of water for pain relief. Epidural analgesia is available in consultant-led units.

STATUS: **Met**

All women in NHS Greater Glasgow receive verbal and written information on labour pain management techniques at various times antenatally and during one-to-one midwifery care in labour and the antepartum period. Oral, intramuscular and inhalation (Entonox) analgesia, transcutaneous electrical nerve stimulation (TENS), the use of water for pain relief and epidural analgesia are provided within all NHS Greater Glasgow maternity units. SGH also has a bank of qualified midwives who provide complementary therapies such as aromatherapy and homeopathy.

4b.2: All women, who have epidural analgesia or an operative delivery, have their pain assessed using a pain assessment tool.

STATUS: **Not met**

Pain assessment tools are not in use in any maternity unit within NHS Greater Glasgow either for epidural analgesia or operative deliveries. The review team encouraged the Board to implement a validated pain assessment tool in maternity services.

Desirable Criterion

4b.3: Epidural analgesia is available at all times in consultant-led units.

STATUS: **Met**

PRMH, QMH and SGH are all consultant-led units and all provide epidural analgesia at all times with on-call rotas out-of-hours.

Standard 4(c): Standard 4 ~ Childbirth

Standard Statement
Anaesthesia: During childbirth all women have access to anaesthesia that conforms to current professional standards.

NHS Greater Glasgow

Essential Criteria

4c.1: There is a lead consultant obstetric anaesthetist with responsibility for the organisation and management of the specialist anaesthetics service within consultant-led units.

STATUS: **Met**

The clinical director for anaesthesia services has overall responsibility for the organisation and management of the anaesthetics service. Within each consultant-led maternity unit, there is a named lead consultant obstetric anaesthetist who shares this responsibility.

4c.2: Arrangements are in place in consultant-led units, to ensure that a specialist anaesthetic service is available at all times during childbirth.

STATUS: **Met**

Each unit has dedicated consultant cover on-site during working hours with out-of-hours specialist registrar or consultant cover available on a rota system. QMH shares the senior anaesthetic/consultant cover rota with the Western Infirmary. The review team was informed that there is adequate resident cover for contingencies and commended the Board on the level of specialist cover which was available.

4c.3: All specialist anaesthetic services comply with NHS QIS anaesthesia standards and Royal College of Anaesthetists (RCA) guidelines.

STATUS: **Met**

The review team acknowledged the Board's commitment to comply with the NHS QIS anaesthesia standards and the guidelines issued by the Royal College of Anaesthetists (RCA). The Board has an action plan to follow-up on the NHS QIS anaesthesia review visit in July 2004 (PRMH), January 2005 (QMH) and March 2005 (SGH). The review team confirmed from observation of this plan that the Board is meeting this criterion.

4c.4: There is a system in place to ensure that anaesthetic and theatre services respond rapidly to obstetric emergencies and expedite delivery in the event of maternal or fetal compromise.

STATUS: **Met**

Within each maternity unit there are dedicated theatre facilities, anaesthesia and support staff and a system to respond rapidly to obstetric emergencies.

4c.5: There is a system in place to ensure that 'decision to delivery' intervals and perceived urgency are monitored.

STATUS: **Met**

The perinatal effectiveness committee conducted an audit of the management of caesarean section in 2005 which included data from all three maternity units on the 'decision to delivery' intervals and perceived urgency. The committee recommended a standard proforma for the documentation of operative details and classification of urgency definitions which has been adopted by SGH. Each maternity unit monitors decision to delivery intervals which are over 30 minutes as these cases are reported via the clinical IR1 incident reporting system.

The review team encouraged the Board to consider continuous audit of 'decision to delivery' intervals.

Desirable Criterion

4c.6: The time from informing the anaesthetist to the start of an emergency operative delivery should not normally exceed 30 minutes except if there is a risk to maternal health.

STATUS: **Not met (insufficient evidence)**

Specific data on time from informing the anaesthetist to the start of an emergency operative delivery are not available across NHS Greater Glasgow. In practice, there is minimal delay between the obstetrician's decision to perform an operative delivery and informing the anaesthetist.

Standard 5(a): Standard 5 ~ Postnatal and Parenthood

Standard Statement
Care of Women: All women receive appropriate care and assessment from giving birth to the 6-week postnatal check.

NHS Greater Glasgow

Essential Criteria

5a.1: All women are assessed immediately after giving birth by a suitably qualified member of the birth team.

STATUS: **Met**

Midwives complete the postnatal check on women delivering in NHS Greater Glasgow and record their findings in the maternity record. If a multidisciplinary team was involved for the delivery then the most appropriate member of the team will conduct the postnatal check. Documentation of the assessment is checked as part of the supervisor of midwives audit of the records.

Each maternity unit collects different data at this postnatal check and the review team was informed that, in the future, similar forms would be used in the different units for consistency.

5a.2: All women are assessed prior to transfer to community care and/or within 24 hours of giving birth, by a midwife.

STATUS: **Met**

All women are assessed by a named midwife on their admission to the postnatal ward and again on discharge prior to their transfer to community care. The discharge letter is copied to the woman's GP. As the community midwives are based in the maternity units the transfer can generally be from midwife to midwife.

5a.3: There is ongoing assessment for the recognition of complications, eg infection, haemorrhage, thromboembolism and anaesthetic problems.

STATUS: **Met**

There are guidelines in each maternity unit for the ongoing recognition of risk factors and complications in women who have given birth.

5a.4: Women receive information on contraception within 2 weeks of childbirth.

STATUS: **Met**

Women have a one-to-one discussion about contraception with their midwife prior to discharge and again during the first home visit. Printed written information leaflets are also provided. Community midwives will review contraception at the time of a woman's discharge from their care.

Standard 5(b): Standard 5 ~ Postnatal and Parenthood

Standard Statement
Infant Feeding: Maternity services promote, support and sustain breastfeeding. Women are informed of its benefits, while being supported in their chosen mode of feeding.

NHS Greater Glasgow

Essential Criteria

5b.1: There is evidence that the maternity service adheres to the principles of, or is working towards, the UNICEF/WHO Baby Friendly status.

STATUS: **Met**

The review team commended NHS Greater Glasgow Board for having achieved and maintained the UNICEF/WHO Baby Friendly status at all three maternity units.

5b.2: Women are provided with readily accessible information and support in their chosen method of feeding, including access to peer support groups.

STATUS: **Met**

All women are provided with a range of national booklets on breastfeeding and written information is available for formula feeding mothers on preparing a bottle feed and sterilising equipment. This information is available in a number of languages as well as in an easy-read format. The leaflets are kept up to date across the maternity units by the members of a Board-wide breastfeeding group. Parents who have special needs can be supported in their chosen method of feeding with one-to-one midwifery sessions.

A booklet on community support for breastfeeding with local peer support, counsellor groups, contacts and professional clinics across Glasgow is given to all breastfeeding women. This includes details of the breastfeeding advisors (one in each maternity unit) who have received specialist training and can also be accessed by community midwives.

Desirable Criteria

5b.3: Each NHS Board area has an infant feeding advisor to provide education and training to healthcare professionals who support women in their chosen method of feeding.

STATUS: **Met**

At the time of the review visit, NHS Greater Glasgow was in the process of recruiting an infant feeding advisor. QMH and SGH each have co-ordinators who

provide specific breastfeeding education courses for all healthcare professionals involved in supporting women in their chosen method of feeding.

5b.4: Admission rates for babies due to inadequate nutrition are monitored.

STATUS: **Not met**

Audit data on admission rates for babies due to inadequate nutrition are not routinely monitored across NHS Greater Glasgow. Regular monitoring of baby weight takes place and a Board-wide policy is to be implemented with agreed interventions if a baby loses specific percentages of their birthweight.

Standard 5(c): Standard 5 ~ Postnatal and Parenthood

Standard Statement
Care of Babies: All babies receive appropriate care and assessment from birth until 6 weeks post birth.

NHS Greater Glasgow

Essential Criteria

5c.1: Steps are taken to minimise the number of infants who require re-warming or avoidable admission to SCBU.

STATUS: **Not met**

Babies are dried at birth, 'skin to skin' contact is initiated promptly, and hats and cardigans are available if required.

Each maternity unit has clear guidelines for attendance of paediatric staff at deliveries which help ensure prompt resuscitation is provided when required. All midwives receive a component on neonatal heat loss as part of their annual resuscitation update.

Guidelines for observation in the neonatal unit reduce unnecessary admissions to the special care baby unit (SCBU), however, this does require the unnecessary separation of mother and baby.

5c.2: All babies are clinically examined immediately following birth by a suitably qualified member of the birth team.

STATUS: **Met**

Routinely, all babies born in NHS Greater Glasgow are clinically examined by a midwife in the delivery suite or at home immediately following birth. If a paediatrician was involved at the birth then they would conduct the examination.

5c.3: All babies are clinically examined prior to discharge from hospital and/or within 72 hours of birth, by a suitably qualified healthcare professional.

STATUS: **Met**

Prior to their discharge from hospital, all babies born in NHS Greater Glasgow are clinically examined by a paediatrician, advanced neonatal nurse practitioner or a midwife trained in the examination of the newborn. If babies are discharged before 24 hours old, their mothers are asked to return with them to the hospital for a newborn examination or arrange for a visit to their GP.

The review team commended the Board's approach to continuing to train midwives in the examination of the newborn which will extend their role and provide for continuity of midwifery care.

5c.4: There is ongoing assessment, including recognition of group B streptococcal infection and jaundice.

STATUS: **Met**

There are protocols in each maternity unit for the identification of mothers with risk factors for neonatal group B streptococcal infection and for the identification of jaundice. All babies have a daily check by their named midwife and the examination of the newborn is conducted prior to discharge from hospital. The review team was informed that a specific chart with supporting guidelines for plotting bilirubin levels will be introduced in all units from June 2006 which will help standardise care of jaundiced babies across the Board area.

The review team commended the Board for recognising the need for single system working and for establishing a multidisciplinary group to bring together the various neonatal care protocols.

Standard 5(d): Standard 5 ~ Postnatal and Parenthood

Standard Statement
Transfer Standard: The transfer of women and their newborn babies into the community is planned to facilitate continuing effective care.

NHS Greater Glasgow

Essential Criteria

5d.1: A system is established to ensure that information on women and their babies in the postnatal period is collated and transferred between secondary and primary care in a reliable, timely and secure manner.

STATUS: **Met**

Each maternity unit prepares a postnatal discharge letter for mother and baby which is copied to the GP (by fax or post) and this, together with any supporting report from a consultant, would be brought to the attention of the woman's health visitor. The health visitor also receives a copy (by post or hand) of the woman's public health assessment which is completed postnatally by the woman's midwife prior to the woman's discharge from midwifery care.

The transfer of information to community midwives is direct as the midwives are based in the maternity units and women carry a completed copy of their pregnancy record for reference by their community midwife and health visitor. Telephone contact to the GP and health visitor would also be made for specific cases such as stillbirth.

5d.2: Guidelines for transfer and post transfer care are in place.

STATUS: **Met**

The public health assessment which is completed for all women in NHS Greater Glasgow postnatally includes a prompt for provision of additional support and advice on a healthy lifestyle following pregnancy. The care plan devised by the midwife for postnatal visits is flexible to reflect the needs of the family.

Appendix 1 – Glossary of abbreviations

Abbreviation	
AHP	allied health profession
EPAS	early pregnancy assessment service
GP	general practitioner
GROS	General Register Office for Scotland
HDU	high dependency unit
ICU	intensive care unit
IR1	incident reporting form
MSLC	maternity services liaison committee
NHS QIS	NHS Quality Improvement Scotland
NICU	neonatal intensive care unit
PRMH	Princess Royal Maternity Hospital
QMH	The Queen Mother's Hospital
RCA	Royal College of Anaesthetists
SANDS	Stillbirth and Neonatal Death Society
SBR	Scottish birth record
SCBU	special care baby unit
SEHD	Scottish Executive Health Department
SGH	Southern General Hospital
SIGN	Scottish Intercollegiate Guidelines Network
SMR02	Scottish Morbidity Record 2
TENS	transcutaneous electrical nerve stimulation

UNICEF/WHO United Nations Children's Fund/World Health Organisation

Appendix 2 – Details of review visit

The review visit to NHS Greater Glasgow was conducted on 25 May 2006.

Review team members

Dr Gillian Penney (Team Leader)
Clinical Senior Lecturer and Programme Director, NHS Grampian

Ms Heather Allan
Health Visitor, NHS Lanarkshire

Ms Fiona Greig
Consultant Midwife, NHS Tayside

Dr Olive Leitch
General Practitioner, NHS Lanarkshire

Ms Annette Lobo
Professional Development Nurse/Midwife, NHS Fife

Mrs Jinty Moffett
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Dr Justine Nanson
Consultant Anaesthetist, NHS Tayside

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Consultant Obstetrics & Gynaecology, NHS Grampian

Dr Laura Stewart
Consultant Neonatologist, NHS Fife

Mrs Maureen Summers
Public Partner, Tayside

NHS Quality Improvement Scotland Staff

Dr Avril MacLennan
Project Officer

Mr Steven Wilson
Team Manager

Mrs Fiona Dagge-Bell (Observer)
Professional Practice Development Officer

During the visit, members of the review team met with local health service personnel including anaesthetists, health visitors, midwives, neonatologists, obstetricians, paediatricians, paramedics, AHPs and GPs.

Appendix 3 – Maternity services project group members

Chair

Dr Jane Magill
Director, Robert Clark Centre for Technological Education, University of Glasgow

Project group members

Ms Gill Allan
Sister Midwife, NHS Tayside

Mrs Frances Arnott
Health Visitor, NHS Forth Valley

Ms Irene Barkby
LSA Midwifery Officer/Divisional Nurse Director – Acute, NHS Lanarkshire

Dr Ian Bashford
Senior Medical Officer, Scottish Executive Health Department

Dr Jennifer Bennison
Deputy Chair (Policy), Royal College of General Practitioners (Scotland)

Professor Andrew Calder
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Ms Cynthia Clarkson
Lay Representative, National Childbirth Trust

Dr Corinne Love
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Consultant Anaesthetist, Royal College of Anaesthetists, NHS Lothian

Ms Dahrlene McMahon
Paramedic, Scottish Ambulance Service

Mrs Mathilde Peace
Lay Representative, Lothian Health Council

Dr Gillian Penney
Clinical Senior Lecturer & Programme Director, Scottish Programme for Clinical Effectiveness in Reproductive Health, NHS Grampian

Ms Nancy Robson
Public Partner, Grampian

Ms Joanne Thorpe
Midwifery Team Leader, NHS Argyll & Clyde

Dr Tom L Turner
Consultant Paediatrician, NHS Greater Glasgow

Support from NHS QIS was provided by **Ms Jan Warner** (Director of Performance Assessment and Practice Development), **Mr Steven Wilson** (Team Manager), **Mrs Morag Kasmi** (Senior Project Officer), **Ms Sharon Keane** (Project Officer), **Dr Avril MacLennan** (Project Officer) and **Mrs Lorraine Inglis** (Project Administrator).

Appendix 4 – Timetable of review visits

Organisation reviewed	Visit date(s)
NHS Argyll & Clyde	20 June 2006
NHS Ayrshire & Arran	7 June 2006
NHS Borders	19 April 2006
NHS Dumfries & Galloway	29 March 2006
NHS Fife	10 May 2006
NHS Forth Valley	17 January 2006
NHS Grampian	27 April 2006
NHS Greater Glasgow	25 May 2006
NHS Highland	16 March 2006
NHS Lanarkshire	2 February 2006
NHS Lothian	1 March 2006
NHS Tayside	16 February 2006
NHS Orkney	22 November 2005
NHS Shetland	8 November 2005
NHS Western Isles	6 December 2005

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