

# Routine examination of the newborn – development of a fully midwifery-led service

Routine examination of the newborn continues to be a core element in child health surveillance. Extension of the midwifery role to provide holistic maternity care has long been proposed. This article describes the authors' experiences in developing this service with the aim of providing seamless maternity care.

## Julie Hempstock

RM, Midwifery Matron, Department of Midwifery

## Srabani Samanta

MBBS, MRCPC, Consultant Neonatologist, Newborn Intensive Care Unit  
email: [srabani.samanta@cmft.nhs.uk](mailto:srabani.samanta@cmft.nhs.uk)

St Mary's Hospital, Manchester

A detailed physical examination of the newborn infant early in the neonatal period is recommended as a core component of Child Health Surveillance and is ideally performed within 24 hours<sup>1</sup> and certainly within 72 hours after birth<sup>2</sup> to meet national standards. The examination aims to identify conditions which may need monitoring, investigation or treatment. It is also recommended that this examination is repeated at six to eight weeks (called the infant examination) as some conditions can develop later. The recommended components of the examination include history taking, detailed general physical examination including screening for congenital cardiac defects, some ocular disorders (including congenital cataract), undescended testes and developmental dysplasia of hips as well as provision of necessary health education and parental assurance<sup>3-5</sup>.

Traditionally this service has been delivered by a junior paediatrician in training mostly at a senior house officer (SHO) level, though recent evidence shows that the professional qualification of the person(s) delivering the various aspects of this programme is less important than the quality of their initial and continuing training, audit and self-monitoring<sup>1</sup>. The value and necessity of the examination has been questioned by several authors as the detection rate for congenital heart defects or hip abnormality is less than 30%<sup>6,7</sup> though it is widely accepted as good practice and is expected by parents<sup>8</sup>.

Maternity care provision within the UK has undergone a lot of changes over the last decade in response to the Maternity Services Report *Changing Childbirth*, which advocates an extension of the role of

midwives<sup>9</sup>. A major recommendation from this report involved midwives undertaking the 'routine' examination of the newborn. The aims of this role for midwives include provision of continuity of care to women in the true sense and a more realistic and practical delivery of holistic care to the mother and infant, which would be seamless. The NHS plan 2000 advocated the need to develop a consumer orientation and provide a patient-centred service<sup>10</sup>. The focus is on providing midwifery-led care and early discharge<sup>11</sup>. This, along with the reduction in junior doctors' hours has led to some midwives taking on the responsibility of performing the routine examination of the newborn<sup>12,13</sup>.

In 1995 introduction of the post-registration course (ENB N96) in the neurobehavioral physiological assessment of the newborn, as defined by the now defunct English National Board for nurses, midwives or health visitors, facilitated adequate specific training for midwives to undertake this responsibility<sup>14</sup>.

The Newborn and Infant Physical Examination Programme (NIPE) was established to improve the quality, timeliness and consistency of the newborn and infant examinations. In 2008 it published the standards and competencies for this screening programme (available on NIPE website: <http://newbornphysical.screening.nhs.uk/cms.php?Folder=2365>) and has advocated that these examinations should be performed by a suitably trained and competent healthcare professional who has appropriate levels of ongoing clinical experience<sup>15</sup>.

There is evidence in the literature that, provided they receive adequate training, midwives are well placed to undertake the

## Keywords

routine examination of the newborn; child health surveillance; midwifery-led service; Newborn and Infant Physical Examination programme

## Key points

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1. Midwifery-led routine examination of the newborn is safe and provides high quality care.
2. Successful implementation of a fully midwifery-led service can be achieved.
3. The system reduces time to discharge of patients and saves one junior doctors' post, providing financial savings to the Trust.
4. The system fulfils the ultimate goal of providing seamless holistic care for mother and infant.

examination of the newborn<sup>1,3,14-17</sup>.

Bloomfield et al reported that the quality of midwife examination exceeded that of SHOs in a randomised controlled trial using video recordings of the examination and analysing the technical and communication components<sup>18</sup>.

Furthermore, mothers have been shown to be more satisfied with midwife examinations than those carried out by SHOs<sup>19,20</sup>. The reason for this is attributed to the fact that midwives were more likely to discuss healthcare issues during the examination and were able to provide continuity of care. The EMREN study further demonstrated that examination of the newborn performed by a suitably trained midwife was safe, valuable and cost effective<sup>21</sup>.

A midwifery-led routine examination of the newborn service has been developed and implemented at St Mary's Hospital, Manchester since August 2009. Details of how the service was implemented are given below.

## Service implementation

There was willingness between directorates to work together and establish the midwifery aspect to this role and initial discussions began in February 2009 when a multidisciplinary steering group was set up consisting of senior midwives and neonatologists who met at regular intervals to facilitate the safe and successful implementation of the service. By April 2009 it was obvious that the process needed to be streamlined and so the Examination of the Newborn Rota was developed, allocating a named midwife to the role on a daily basis.

While the prime aim of the development of this role for the midwives was to enable them to give holistic care to the mother and baby, with so few midwives trained in the skill the development of the rota was the most robust way to manage and develop staff. There was a gradual withdrawal of neonatal input from May 2009 when all midwifery-led care cases had the examination of the newborn undertaken by midwives and this was extended to include all babies over 36 completed weeks' gestation by August 2009.

It was felt important to give consideration to the following:

- Ensuring proper education and training of midwives
- Robust assessment. Midwives who were

undergoing their training required their assessments to be undertaken in a timely manner and to facilitate this, senior midwives were trained in the role of assessor with support from the consultant neonatologists who also assisted in the assessment procedure. There were at least two hours of neonatal consultant time devoted every week, shared between various neonatal consultants.

- Guidelines and a clear referral system.

These were prepared to ensure that referrals were appropriate and provided safe delivery of care to the infants and supported the midwives performing the examination.

- Adequate staffing. Midwifery staffing was reviewed along with the cost of implementing the service and initial requirements were for three whole time equivalent midwives providing cover on the rota from 07:30-21:30, seven days a week.

The development of this service has enabled the provision of an effective service to the mother and baby as well as addressing the issue with recruitment of junior doctors, which has been a national challenge faced by the NHS over the last few years. Although reduction in junior doctors' hours is not the primary driver for this initiative, development of this service has resulted in reducing one junior doctor's post and has provided a financial saving to the Trust.

## Education and training

Service level agreements were secured with Manchester and Salford Universities as this training was recognised as a priority for the midwifery service, the course being the Examination of the Newborn – single module (level 6, 20 credits). Formative and summative assessments were completed in the clinical areas overseen by consultant neonatologists along with midwives who had successfully completed the Examination of the Newborn module and gone on to be trained in the assessment process. To date the service has 30 midwives successfully trained in the Examination of the Newborn module and eight in training to enable a smooth running of the rota with the aim of training every midwife in performing routine examination of the newborn.

## Challenges and benefits experienced

There was initially reluctance from the

midwives to be part of the rota as they considered it took them away from the philosophy of providing holistic care to mother and baby, but over time the role has developed and been accepted as an efficient use of their time and skills and something they enjoy.

As with everything staffing has an impact but this role is a protected part of the daily staffing within the unit and has the added benefit of ensuring a prompt examination is undertaken. For those women who are resident in Central Manchester and who are deemed suitable for midwifery-led care, the examination can be undertaken at home by the community midwifery team. It was important for the service to be audited. Initially a register was used to input each completed examination, which has now progressed to the implementation of a database for the sole use of inputting specific data for each examination, to help keep an audit trail.

The success of implementing this service and the positive result has enabled the service to be extended further to include midwives administering intravenous antibiotics on the postnatal ward to selected babies since August 2010. Historically at St Mary's intravenous antibiotics were administered by SHOs on the postnatal ward to babies who required treatment for sepsis or as part of prevention from Group B Streptococcus infection. It was acknowledged by both directorates that this was not an efficient use of junior doctors' skills and also contrary to the principle of providing holistic care. With the introduction and successful implementation of midwife-led examination of newborn, it was felt that it would be best practice if the antibiotics were also administered by midwives on completion of appropriate training.

Initially this was facilitated by the neonatal nursing education team but the midwifery practice educators and ward managers have adapted the training package to be specific to midwifery practice. Work is ongoing with the neonatal pharmacist to ensure ease of administration, and to improve patient safety in line with clinical governance. This includes a change in the regimen from benzylpenicillin and gentamicin to cefotaxime, to avoid undertaking antibiotic levels and a change in the times of administration to coincide better with midwifery responsibilities in the postnatal

area. The midwives are still being supported by the neonatologists and this will continue until early 2012. So far results are positive, including an audit check for medication errors for clinical governance purpose.

### Future direction

The final aim is to provide a seamless flow of care between midwife, mother and infant as proposed by Walker et al<sup>22</sup>. Midwives are continuing to attend training courses with the ultimate aim of having all qualified staff competent in the examination of the newborn in order to provide holistic care for mother and baby. There is still some way to go but currently the rota continues to be an effective way of managing an increasing birthrate with an efficient and very successful service.

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