

Neonatal rapid access clinic: an innovative practice to reduce neonatal readmissions to hospital

This article describes a nurse-led rapid access clinic (RAC) that was established in 2011 to reduce the number of neonatal readmissions to hospital, while also addressing the increasing demand for early postnatal discharge. Review of the service after one year demonstrates that it has been successful in meeting its objectives and improving the delivery of care to babies and their families in the local area.

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Key points

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1. The rapid access clinic (RAC) is an innovative practice that can reduce the need for neonatal readmission and shorten the length of stay post-delivery.
2. Midwifery and neonatal staff collaborate in the clinic to support mothers who are breastfeeding.
3. The new service enables early discharge and optimises the use of neonatal and midwifery resources.
4. Families, community midwives and hospital staff value the RAC.

A rapid access clinic (RAC) was set up in 2011 by a team of advanced neonatal nurse practitioners (ANNPs) working alongside specialist infant feeding midwives and neonatal clinic staff. The setting was a regional maternity hospital and tertiary neonatal unit where there are more than 7,400 deliveries a year and an increasing trend towards early postnatal discharge.

Prior to setting up the RAC, babies with significant weight loss or jaundice in the first week of life were referred back to hospital for a medical review. This frequently led to further investigations, supplementary feeding and readmission to hospital. Addressing the needs of these babies and their families, not only added to the workload of midwifery and neonatal staff, but at times led to a delay in other postnatal ward work such as the discharge of healthy babies. The aim in setting up the RAC was to reduce the need for neonatal readmission while still facilitating early postnatal discharge^{1,2}. As this was achieved by utilising existing resources more efficiently, rather than commissioning a new service, the cost implications were negligible.

The daily RAC, which is run by an ANNP from the neonatal team, offers an easily accessible environment for the review of babies who have been previously discharged from the postnatal ward. Babies are assessed in the clinic by the ANNP and specific breastfeeding support from a specialist midwife is available, if required. Any necessary investigations are carried out and a plan is made for continued management at home or readmission to

hospital, as necessary. The ANNP team also provides a telephone consultation service for community midwives to discuss concerns prior to hospital referral and establish whether a plan for home management might be more appropriate.

A review of the RAC that took place a year after it was established identified a reduction in neonatal readmissions and a shortened length of stay for some groups of babies. The RAC service also provided support for breastfeeding mothers, improved the patient experience and had a positive impact on the community midwifery team and hospital staff.

Setting up the RAC

The RAC was initially set up and managed by an ANNP team with support from a specialist infant feeding midwife, neonatal clinic staff and medical staff, if required. The community midwives could contact an ANNP on weekdays, between 9am and 4pm to discuss the care of babies with jaundice or weight loss and arrange a same day appointment for babies less than seven days' old. Following a clinic assessment, babies were either discharged with a clear feeding plan and follow-up with a community midwife, or admitted to a postnatal ward for hospital-based interventions such as phototherapy or intensive feeding support. The outcome of each clinic visit was communicated to the referring midwife on the same day or following morning.

The referral criteria for the RAC were later extended to facilitate the discharge of well neonates who required further investigations. For example, some babies

Reason for referral	Number of babies seen in clinic	Number of babies readmitted
Jaundice	110	43
Significant weight loss	95	21
Significant weight loss and jaundice	56	23
Blood tests*	67	
Serum bilirubin post phototherapy (SBR)	50	10
Review following newborn examination in the community	33	
BCG vaccination (missed prior to discharge)	19	
Review of feeding following early discharge	5	
Other	13	
Total	448	97

TABLE 1 Activity in the RAC over 12 months, May 2011–2012.

* Full blood count (FBC), thyroid function tests (TFTs), cortisol levels, urea and electrolytes (U&E).

with jaundice were discharged following phototherapy with a plan to return to the clinic for serum bilirubin measurement 12–18 hours later, according to NICE guidelines³. Previously, such babies would have remained in hospital until a satisfactory bilirubin level could be recorded. In addition babies who required further assessment following newborn examination in the community or early review following transitional care discharge, were reviewed in the clinic. **TABLE 1** describes activity in the RAC over twelve months, between May 2011 and 2012.

Reduced readmission and length of stay

Two hundred and sixty-one babies attended the RAC with significant weight loss or jaundice or both (**TABLE 1**). Prior to the establishment of the clinic, almost all of these babies would have been readmitted to the postnatal wards for investigations and medical management, which often included supplementary feeding. During the first year of the clinic however, only 33% of these babies (87 babies) required readmission to hospital.

Fifty babies with jaundice were discharged following phototherapy rather than remaining in hospital for a repeat serum bilirubin measurement 12–18 hours later. A plan was made for them to return to the RAC the following day for bilirubin measurement, which led to the readmission of only 10 of these babies (20%).

In addition to the babies attending the RAC, the care of many other babies was

discussed between an ANNP and community midwife by telephone, resulting in a plan to manage the baby at home. At least 110 such telephone referrals were documented. There was therefore an additional group of babies who not only avoided hospital readmission, but also clinic attendance.

Support for breastfeeding

Although breastfeeding rates within the UK have increased from 62% in 1990, to 81% in 2010⁴, it is apparent that many women find breastfeeding difficult during the first week of their baby's life^{5,6}. Prior to the establishment of the RAC, babies with weight loss or jaundice were likely to have the additional challenge of receiving supplementary formula feeds as part of their management plan, while also trying to establish breastfeeding. In the RAC however, 134 breastfeeding mothers were encouraged and supported to continue exclusive breastfeeding by a member of the specialist infant feeding team. Supplementary feeding was only introduced if the baby appeared to be dehydrated on clinical examination, which was confirmed by a raised serum sodium level, or if there was an obvious problem with lactation.

In addition to the specialist infant feeding midwives, all ANNPs attended a two-day 'Baby Friendly' accredited course. They were therefore able to provide breastfeeding support such as help to refine the latch position or technique improvements for hand expression. During telephone discussions, they also utilised a breastfeeding assessment chart, which was

developed by the infant feeding team, to help identify which babies could be safely managed at home.

Improved patient/family experience

Almost all babies were weighed by a clinic nurse and then seen by an ANNP within a few minutes of their arrival at the clinic. Investigations were normally followed up within 1–2 hours and parents were offered the choice to wait for results or return home to be contacted later by phone. If readmission was necessary, the ANNP and the ward midwife arranged it quickly and directly. One parent expressed satisfaction with the RAC during an interview for a hospital news magazine:

"An appointment was made for us to attend clinic later that day and once we were there we were in and out with no waiting around. It was a major positive not to be readmitted to the ward. As well as freeing up ward space, it meant that no other arrangements had to be made to look after our other child".

A community midwife highlighted the value of the RAC for families during a meeting to evaluate the progress of the clinic:

"I think the clinic is a huge improvement on referring babies to the wards. Psychologically, it is generally more positive to be checked over in a clinic environment rather than being reviewed on the ward".

Impact on community midwives

The RAC offered a simple direct method of referral for community midwives, who previously needed to contact both midwifery and neonatal hospital staff to discuss the referral and arrange a postnatal bed. In addition, the outcome of each clinic visit, for example a feeding plan, weight measurement, follow-up visit, or the need for readmission, was reported directly back to the referring midwife. One community midwife highlighted the impact of this simple process of referral and feedback:

"...it is significantly quicker and easier for us to refer and it has been good to get verbal feedback".

Impact on hospital staff

As anticipated, the establishment of the RAC had a positive impact on the

workload of both midwifery and neonatal staff. Previously, all babies were directed to a postnatal ward for review by the medical team who were also responsible for the labour ward. This sometimes meant a long wait for the family and increased pressure on busy midwives to support families waiting for a review or investigation results. The allocation of one ANNP to deal with telephone referrals, clinic reviews and readmissions led to a reduction in the number of babies returning to the postnatal ward and provided a more efficient review process as described by the postnatal ward matron:

"It is now much easier to manage patient flow as it was often difficult finding a bed and the family were left sitting in a day room. Now the babies that are admitted are easily accommodated and are seen more quickly as the process has already started".

Future plans

Following the service evaluation, it was agreed by all stakeholders that the RAC should not only continue, but also expand. An ANNP will now be available for clinic referrals and discussions between 9am and 6pm every day, including weekends. This extended service will be reviewed again at the next stakeholder meeting.

In order to provide support to mothers who are breastfeeding throughout the extended clinic hours, a wider group of specialist midwives will be utilised. Around 90% of hospital midwives are

already trained in breastfeeding management: a small group will be identified to work alongside a member of the specialist infant feeding team to support parents in the RAC.

Since the start of the RAC, data relating to the reason for referral, method of feeding and outcome of visit have been recorded. This was particularly useful when reviewing the service. The database will now be expanded to include the exact time of discharge, mode of delivery and previous breastfeeding history. This information will be helpful in identifying potential risk factors for neonatal readmission and informing further practice development initiatives.

Parents' comments about the clinic have been valuable in developing the service so far and further assessment of parent experience is planned. Comments from the healthcare professionals and administrative staff supporting the clinic are also provided on a regular basis and will continue to inform any future developments.

Conclusion

Overall, the RAC has achieved its initial objectives and is clearly valued by families, community midwives and hospital staff alike. It has reduced the postnatal ward workload associated with potential newborn readmission by approximately 60% and reduced the length of stay for babies with jaundice who require phototherapy. It has also facilitated the early discharge of babies from transitional

care, supported mothers who are breastfeeding and helped to optimise the use of neonatal and midwifery resources.

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