Admission of Term Babies to Neonatal Care
1 Background

1.1 National Context

The issue of the admission of term babies to neonatal care has been raised at a national level at a workshop that was held in September 2013 for representatives of Maternity and Children’s Strategic Clinical Networks (SCNs) and Neonatal Operational Delivery Networks (ODNs) organised by Jane Whewey Head of Patient Safety for NHS England, in the context of the NHS Outcomes Framework 5. Domain 5; “Treating and Caring for People in a Safe Environment and Protecting them from Harm”.

The number and reasons for admission of term babies to neonatal care have been included in the NHS Outcomes Framework as a national quality indicator since 2010/2011 and is a key indicator in the 2012/13 Operating Framework.

The key message from the workshop was that some admissions to neonatal care can be avoided by having a more coordinated and integrated approach to the care of babies in the perinatal period.

“If care goes according to plan, babies should not require specialist care where there is not a preplanned need”

It was reported at the workshop that in 2012, nationally, 59% of babies admitted to neonatal care within 28 days of birth were ≥37 gestational age (completed weeks)

The workshop identified that there is a wide variation in the rates of admission of term babies for specialist neonatal care, reason for this variation related to:

• coding
• maternal health
• access to antenatal care
• clinical practice
• admission criteria

The workshop provided information on the approach that had been taken in some parts of England to address this issue.

1.2 Experience elsewhere

1.2.1 East of England

An audit was carried out in the East of England; the aims of the audit were to

• Assess the number of term admissions that could be avoided
• Highlight inconsistencies in admission criteria across the region

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1 The indicator constructor for Outcomes Framework 5.5 Eugine Statnikov; Neonatal Data Analysis Unit, presentation 24.09.13 Neonatal Units in 2012 n= 164
2 Reducing avoidable term and near term admissions to neonatal units in the east of England Elena Cattaneo, Michele Upton, Sarah Davis June 2013 presentation 24.09.13
This study found that 27% of admissions were considered avoidable by either the neonatal unit or the Neonatal Network (see Appendix 1 for more detail).

1.2.2 NW London

An audit was carried out in NW London over one month and assessed 137 term and near term babies admitted to neonatal care. They found that

- 90 babies were admitted needing special care, of these 27% did not require IV fluids or oxygen
- 40% of all babies admitted had a temperature of <36.5°C.

(see Appendix 1 for more detail)

1.2.3 Wessex

All units within the neonatal network were assessed in 2012/13 to look at the proportion of term babies admitted to neonatal care as a proportion of neonatal admissions and as a proportion of live births. It was found that

- the ratio of 1st episode of neonatal admission of >37/40 gestational age as a ratio of all neonatal admissions was between 38% and 68%
- the ratio of 1st episode of neonatal admission of >37/40 gestational age as a ratio of all live births was between 2.4% and 9.2%

One unit was found to be a particular outlier; the following action was taken with this unit

- Multiprofessional case reviews on all term admissions to the neonatal unit.
- Peer review of obstetric, maternity and neonatal policies, procedures and guidelines
- CCG issued CQUIN to reduce term admissions by 30%
- Establishment of more integrated CPD and peer support approach with the local tertiary centre for all disciplines to ensure greater exposure to changing practices

This resulted in

- Term admissions as a proportion of all neonatal admissions falling from 67% to 46%
- Term admissions as a percentage of live births falling from 11% to 4.7%.
- Admission to Live Birth ratio falling from 1:5 to 1:10.

1.3 Is this an issue in Yorkshire and Humber?

An initial analysis of Badgernet data shows that over a 13 month period (01.09.12 – 30.09.13) admission of term babies (37+0) as a percentage of all neonatal care admissions ranges from 36.5% to 77.93%.

If units with Transitional Care (thought to be a factor that influenced this) were excluded from this calculation the range was from 36.5% to 53%.
2 Why do we need to do anything?

Experience from other parts of the country shows that improvements can be made to the care of babies that may prevent their need for neonatal care; initial indications in Yorkshire and Humber are that this is an issue that would benefit from further investigation. Addressing any potential problems would fulfil all of the QIPP imperatives

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<thead>
<tr>
<th>Quality</th>
<th>Innovation</th>
<th>Prevention</th>
<th>Productivity</th>
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<tr>
<td>• Opportunity to improve care to babies</td>
<td>• Spread evidence based practice</td>
<td>• Potential to prevent admissions to neonatal care</td>
<td>• Intervening early to maintain/improve the clinical status of the baby is the most cost effective intervention</td>
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<td>• Improve family experience by keeping mother and baby together</td>
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<td>• Potential to prevent deterioration of babies clinical condition and a cycle of intervention</td>
<td>• Maximises the use of neonatal capacity</td>
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3 What are we aiming to achieve

Within Yorkshire and Humber we need to ensure that babies receive consistently high quality of care in the perinatal period and that admission to neonatal care takes place only when necessary.

Initially we need to

- Carry out a more detailed analysis of the current position on admission of term babies to neonatal care (aiming to address data accuracy issues).
- Assess current policy and practice within Yorkshire and Humber for admission to neonatal care
- Carry out a prospective audit to assess current practice and reasons for admission of term babies to neonatal care (recognising that reasons may not always be clinical e.g. place of safety)
- Assess the impact of local circumstances on use of neonatal care e.g. transitional care availability, local clinical practice

Depending on the outcome of this we may need to

- Agree and implement Yorkshire and Humber wide criteria for admission for neonatal care.
- Develop (or adopt) and implement Yorkshire and Humber wide evidence based clinical guidelines for management of specific clinical problems e.g. on the management of hypoglycaemia, antibiotic policy.

3.1 Interfaces

Assessing whether this issue needs to be addressed, and implementing any change will involves all organisations and professional groups involved in the provision and
commissioning of maternity and neonatal services in Yorkshire and Humber i.e. maternity and neonatal units; CCG's and NHS England

4 Proposal

It is proposed that a project group is set up with the following membership

- Helen Brown - Yorkshire & Humber Neonatal Network Manager
- Hilary Farrow - lead for Maternity Services Maternity & Children’s SCN
- Clare Hillitt - SCN Manager for Maternity & Children’s Services for Y&H
- Lisa Marriott - NHS England (commissioner for Neonatal Services in Y&H)
- Midwife - nominee to be sought
- Obstetrician - nominee to be sought
- Neonatologist - nominee to be sought
- CCG commissioner representative - nominee to be sought

The project group will then work up a more detailed project proposal to include, project aims, scope, deliverables, timescales etc.

Support for this proposal will be sought from

- The Yorkshire and Humber Maternity Network
- The Yorkshire and Humber Neonatal Network

5 Recommendation

The Maternity network is asked to support

- the aims of the project
- the proposal to establish a project group
- nominate a midwife and obstetrician to join the project group

A further update will be provided when the scoping phase has been completed

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29 November 2013
SUMMARY OF THE EAST OF ENGLAND AUDIT PRESENTATION (presented on 24.09.13)

17 Units were included in the audit with 464 admissions in total
- Improve the parent and patient experience (keep mother and baby together)
- Improve patient safety
- Understand what constitutes Normal Care (HRG 05)
- Assess current and future capacity for neonatal care
- Assess interventions to support mothers and babies staying together and avoid admission to neonatal care

Standards aimed for
- 100% of avoidable admissions should not be admitted to NNU
- 100% of babies only requiring routine observation (even when on IV antibiotics) should be care for in the post natal facility

Findings
- Mean number of admissions per unit 27.29
- Mean age at admission varied 36±5 to 39 weeks
- No correlation between delivery denominator data and admissions
- No correlation between neonatal unit threshold criteria and number of admissions
- Most babies day 0 or 1, one outlier who had a policy to readmit to NICU
- Weights very similar across the patch and mostly >3 kg
- 129 (27%) of admissions were considered avoidable
- 18 admissions would have been avoidable if transitional care in place

Limitations
- Data highly dependent on the subjective view of person collecting it
- Definitions sometimes open to interpretation (e.g. “respiratory distress”)
- Inaccuracy/quality of data on neonatal database
- Not cross checking of admissions deemed avoidable by local units
- Scale of audit, small numbers

Issues identified
- Transitional care provision
- Admission criteria (policies)
- Competency / training for post natal ward staff
- Confidence to keep on PN / pick up deterioration
- Intra partum management strategies
- Capacity on Paeds to readmit
- Recording of activity as neonatal (HRG04/05)

Recommendations
- Regional policy about term/near term admissions
- Improve SEND data quality (compare like for like)
- Definition of admission (what's in and what's out)
- Community outreach in all neonatal units (reduce LOS)
- Transitional care facilities in every hospital
- Review of intra partum policies
- NEWS – national validated tool = confidence
- Management/prevention of hypoglycemia policy
- Training for post natal ward staff
Reduce [tariff] perverse incentives

SUMMARY OF NW LONDON AUDIT PRESENTATION (presented on 24.09.13)

All inborn admissions to the Neonatal Units

- The audit represents a snapshot for 1 month and may not be truly representative
- 137 term and near term babies admitted in NWLPN
- 90 babies admitted requiring SC only, of these 37 did not require IV fluids or oxygen, therefore potentially some of these babies could have stayed with their mothers
- 40% babies admitted with a temperature of <36.5. Hypothermia may escalate hypoglycaemia and respiratory symptoms therefore necessitating admission
- Hypothermia on admission varies between units but may be a preventable cause of admission
- Ensuring hypoglycaemia guidelines are in place and being followed may also contribute
- There were many ward attenders during this time taking up much valuable nursing time. Most of these were for IV antibiotics.