

NHS Ayrshire & Arran



Meeting:	Ayrshire and Arran NHS Board
Meeting date:	Monday 28 November 2022
Title:	Quality paper – Maternity & Children Quality Improvement Collaborative (MCQIC): Neonatal Work stream
Responsible Director:	Jennifer Wilson, Nurse Director
Report Author:	Attica Wheeler, Associate Nurse Director & Head of Midwifery – Women and Children’s Services Jackie Welsh, Improvement Advisor – Women and Children’s Services

1. Purpose

This is presented to the Board for:

- Discussion

This paper relates to:

- Annual Operational Plan

This aligns to the following NHS Scotland quality ambition(s):

- Safe
- Effective

2. Report summary

2.1 Situation

This paper provides an overview of progress in relation to the core Scottish Patient Safety Programme (SPSP) measures and also the Excellence in Care (EiC) measures which apply to the Neonatal service and is presented to members for assurance and discussion.

2.2 Background

NHS Boards report regularly on SPSP performance measures to Healthcare Improvement Scotland (HIS) in order to enable Boards and the national programme team to understand overall progress in relation to the aims of SPSP.

MCQIC was launched in March 2013 and is a programme of quality improvement (QI). The MCQIC collaborative covers three work streams of Maternity, Neonatal and Paediatrics. This paper presents the Neonatal improvement work.

As per the joint Partnership agreement between NHS Ayrshire & Arran (NHSAA) and the SPSP MCQIC Team (2018), we have agreed to undertake the below measures within the Neonatal Unit (NNU). The priority areas of care are as follows:

Core

- Reduce 'term' admissions to the NNU
- To optimise the management of care of pre-term babies

Supplementary

- Central Line Associated Blood Stream Infection (CLABSI)

Within 2022 we adopted a modified approach in the way the service drives the programme of quality improvement. A framework for Transformational Change and Quality Improvement has been produced by the General Manager and Improvement Advisor for the Unit in collaboration with the Clinical Leads for QI and the QI Champions in each service. This has been circulated to all Senior Management and QI Group members with a view to onward distribution to staff within the Service. A new method of scoping work is included in this, which includes the way in which the SPSP is delivered. As a result of implementation, the NNU now has now increased it's QI Champion complement to two. Each Champion provides the equivalent of one session per week and is involved in all aspects of QI. This mitigates against the programme becoming person dependant.

Excellence in Care (EiC), forms part of the government's response to the Vale of Leven Hospital Inquiry Report, and focuses on four key deliverables:

- A nationally agreed (small) set of clearly defined key measures/indicators of high quality nursing and midwifery
- A design of local and national infrastructure, including an agreed national framework and "dashboard"
- A framework document that outlines key principles/guidance to NHS boards and integrated joint boards on development and implementation of local care assurance systems/processes
- A set of NHS Scotland record-keeping standards

Improvement activity is monitored. Current activity and performance is included in the assessment section below.

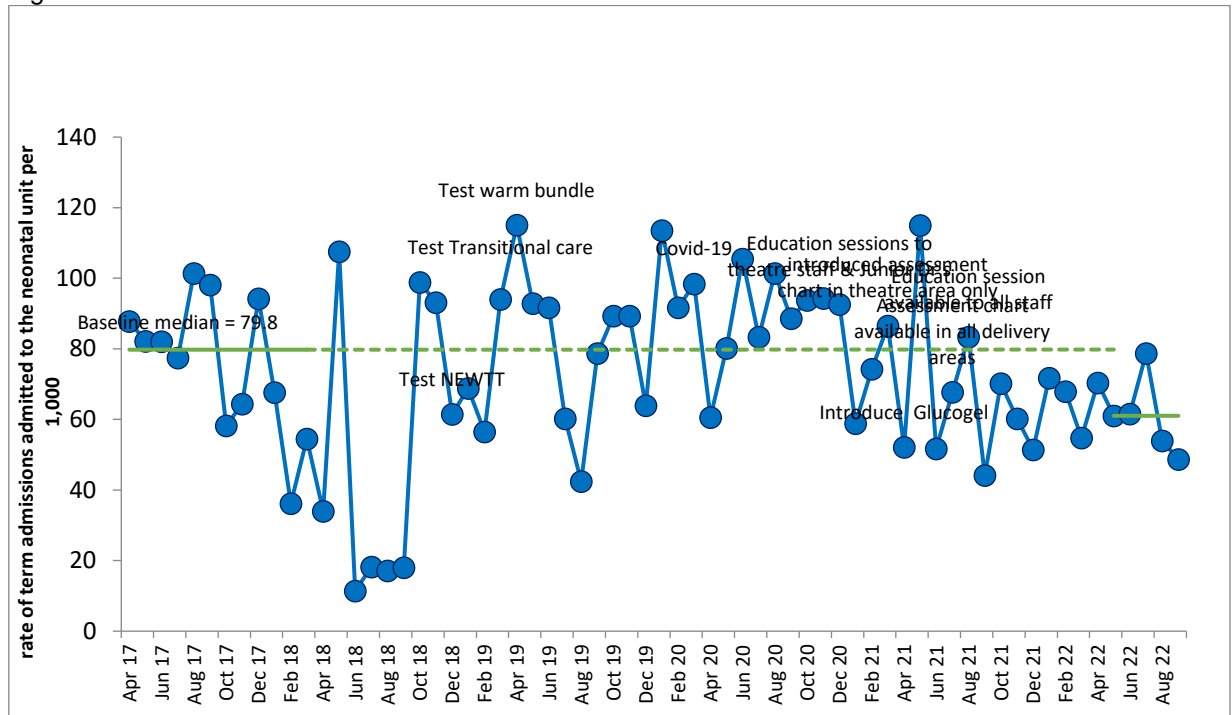
2.3 Assessment

Reduce 'term' admissions to the NNU

All term admissions admitted to the unit for less than 24 hours are reviewed by the Unit Coordinator and Hot Week Consultant. A proforma has been developed to assist in identifying any themes. The data is variable at present with no consistent theme noted. Discussions have taken place with the National Team to identify which babies are included in the data, as some boards do not include all admissions. NHSAA include all admissions, and will continue to do so.

Since 2021, improvement work was focused on the reduction of term admission (as annotated in the below chart), which resulted in the observation of a reduction on the number of term admissions to the Neonatal Unit. In May 2022 the services noted sustained improvement which allowed the median to be adjusted from 80/1000 babies to 61/1000 babies. This is the first observed reduction since the recording of this data in 2017.

Figure 1. Term Admission to the NNU



In 2018, a transitional neonatal care four-bedded area was established within the Maternity in-patient ward; the aim of which is to keep small babies, who may have had longer stays in the NNU, with their mothers 24/7. This area is presently staffed by Maternity Care Assistants who support mums to provide the care for their babies. The Maternity Care Assistants are supported by a designated Neonatal 'Buddy'. Establishment of this area is enabling us to implement 'Best Start' recommendations.

There is guidance and a teaching package for the staff, who report directly to a designated in-patient ward midwife. The Advanced Neonatal Practitioner oversees any medical issues.

Perinatal Wellbeing Package

Prior to the introduction of the national measure, the NNU collected similar information for babies <30 weeks gestation and compliance was favourable. However, since the introduction of the MCQIC package some elements are required for babies of various gestational ages which is reflected in the variable overall compliance.

Clarity has been sought with the national team on some of the aspects of this measurement package, as on occasion it has been noted that compliance with the pre-term wellbeing package is not achievable due to an imminent delivery:

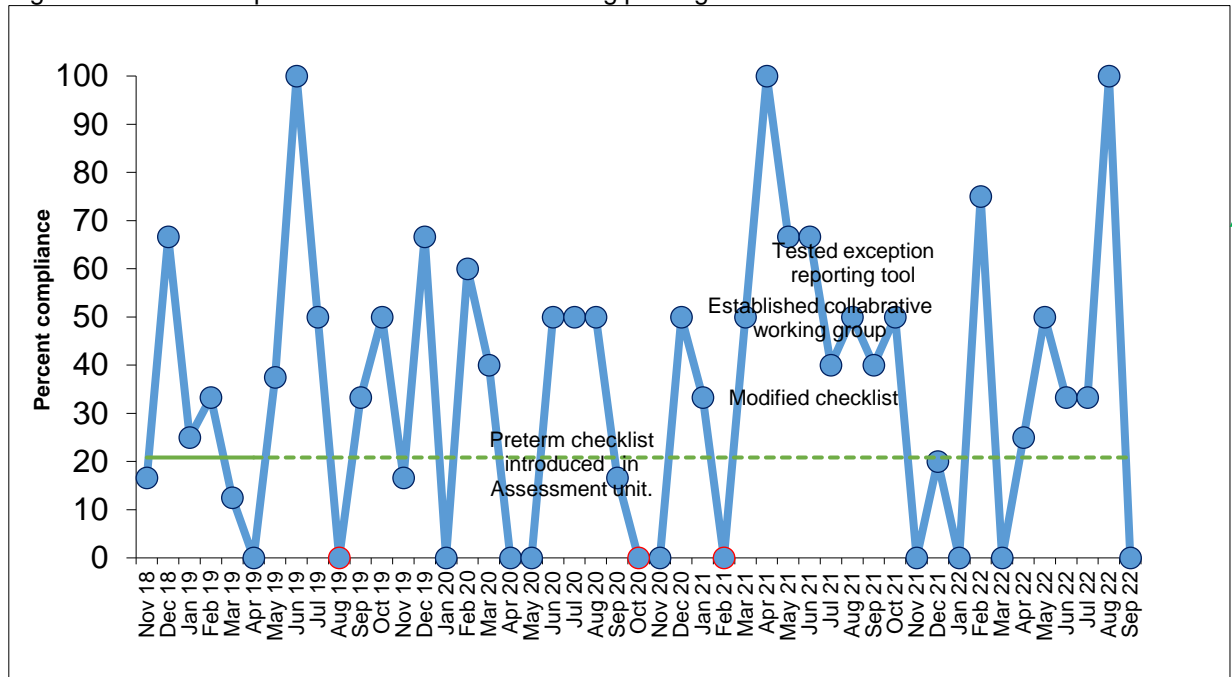
- <27 weeks born in NICU
- <30 weeks magnesium sulphate within 24 hours
- <34 weeks antenatal steroids (within 1 week of birth)

The National team will consider this and feedback to NHSAA in due course.

Benchmarking with national figures, our compliance, although variable, is in keeping with Health Boards of a similar size and reflects the small data set.

Pre-Covid 19 the NNU tested the use of a life start trolley which allows for delayed cord clamping and promotes neonatal resus at the table or bed side. Training was suspended on the use of this trolley due to Covid and staff prioritising clinical work and cover for staff absence. This will be re-commenced in the coming weeks. There is an embedded antenatal counselling pack that promotes early discussion on key topics such as early expression of breast milk. All of this work has been developed in collaboration with our obstetric and maternity colleagues. A dedicated multidisciplinary group has been set up to drive this (Perinatal Wellbeing Group (POG)), which is formed by both Obstetric and Neonatal staff.

Figure 3 Overall Compliance with Perinatal Wellbeing package



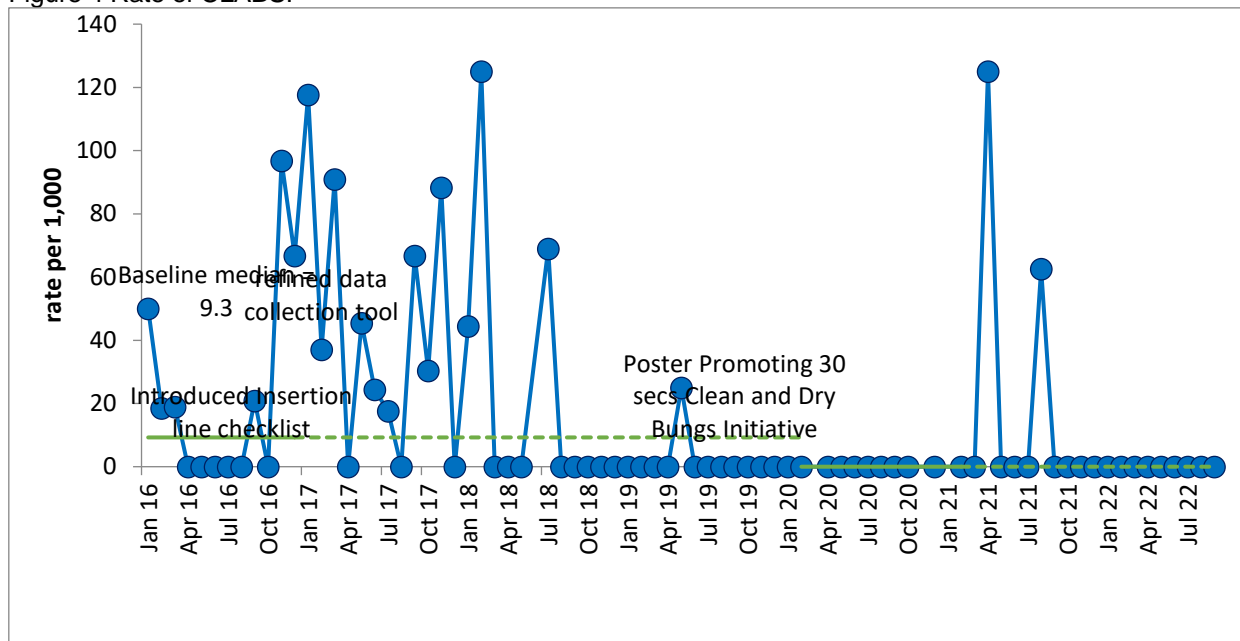
Central Line Associated Blood Stream Infection (CLABSI)

Bloodstream infections can lead to mortality and preterm babies who have infections are more likely to develop neurodevelopmental disability. Taking steps when inserting and looking after a central line (e.g. long line or umbilical line) can prevent some infections.

Two cases of CLABSI acquired within NHSAA have been recorded since June 2019. One case which was recorded in April 2021 was in relation to a baby transferred from another Health Board with cultures sent on the day of admission.

This infection was not attributed to NHSAA NNU; however, the service is required to report this within their data.

Figure 4 Rate of CLABSI



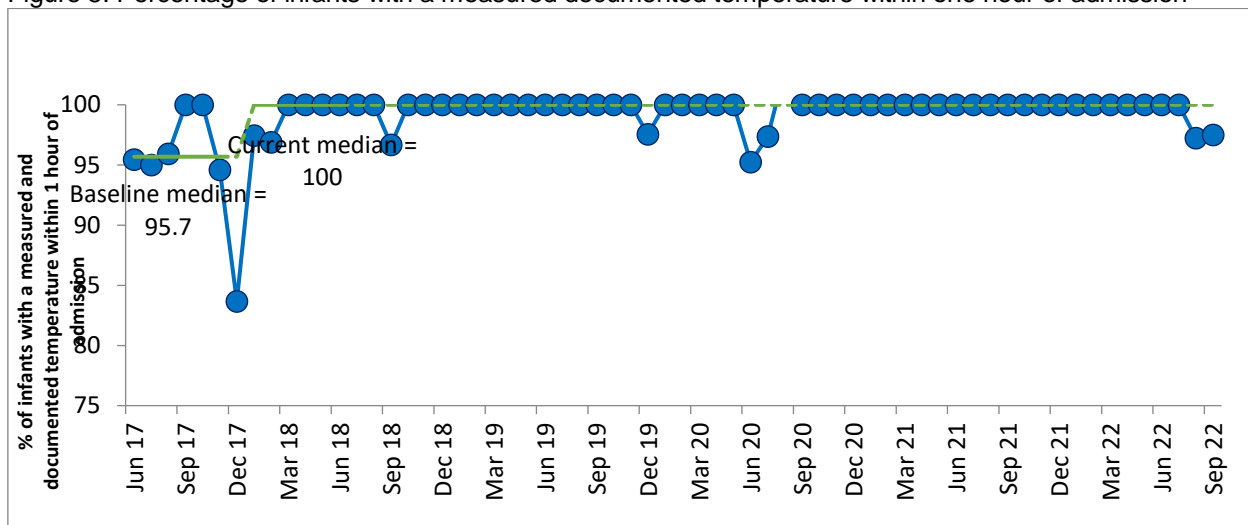
Neonatal Temperature (also included in the EiC measures)

The national SPSP MCQIC measure to improve outcomes and reduce inequalities in outcomes by providing a safe, high quality care experience for all infants and families across neonatal care settings in Scotland, includes reducing harm from unrecognised clinical deterioration including Hypothermia.

Recording the baby’s temperature is one of the processes measured which informs reducing the rate of hypothermic infants. Recording the temperature should be carried out within 1 hour of admission to the neonatal unit.

Since February 2018. The documented recording of the baby’s temperature has always been above the target achievement of $\geq 95\%$. 100% is observed most of the time.

Figure 5. Percentage of infants with a measured documented temperature within one hour of admission



2.3.1 Quality/patient care

The overall aim of the programme is to improve outcomes and reduce inequalities in outcomes by providing a safe, high quality care experience for all women, babies, children and families across all care settings in Scotland.

- The number of reductions in term admissions to the neonatal unit has been enhanced with the development of training and a robust pathway for junior medical staff and midwives to increase confidence in assessing these babies.
- Improvement remains ongoing on the management of pre-term wellbeing babies. The formation of a multidisciplinary group consisting of neonatal and obstetric staff has enhanced the joint-up approach to working between departments. Measurements which have been deemed unachievable due to imminent delivery have been raised with the National SPSP MCQIC team.
- Two central line infections have been recorded since June 2019, one baby who tested positive on admission was from another Health Board.
- Sustained improvement continues to be observed with the number of babies temperature being recorded within one hour of admission to the Neonatal Unit >95% compliant since February 2018

2.3.2 Workforce

There are currently issues with reduced staffing due to sickness and staff self-isolating due to Covid19. This results in staff, (including the MCQIC Champion) requiring to support other clinical duties, which may have an impact on ongoing improvement work/data submission.

2.3.3 Financial

There may be financial implications identified as new National Standards of care are identified. This will be discussed as the programme progresses.

2.3.4 Risk assessment/management

Delivery of the programme is aimed at reducing harm within Women & Children's services. Non delivery of the programme could impact on the provision of a safe service and reputation of the organisation if timely effective implementation does not happen.

2.3.5 Equality and diversity, including health inequalities

By working toward compliance with each of the measures as agreed with the MCQIC Partnership, we aim to protect and improve the health and wellbeing of the population and reduce inequalities, including through advocacy, prevention and anticipatory care.

No impact assessment has been completed as the operational definitions as outlined by the MCQIC programme set out the inclusion of the population to be included in any measurement and this is a national programme of work.

2.3.6 Other impacts

The delivery of the elements contained within the MCQIC programme and the SPSP programme will support the Board's commitment to safe, effective and person centred care.

We aim to provide compassionate partnerships between patients, their families and those delivering health and care services which respect individual needs and values, and result in the people using our services having a positive experience of care to get the outcome they expect.

We will protect and improve the health and wellbeing of the population and reduce inequalities, including through advocacy, prevention and anticipatory care.

2.3.7 Communication, involvement, engagement and consultation

The Board has carried out its duties to involve and engage external stakeholders where appropriate:

- A partnership agreement between MCQIC and NHSAA in relation to the way forward with new measurements was signed off and sent to all relevant parties on 21 December 2018. This has yet to be reviewed with the national team.
- The work contained within these measures is discussed at the Neonatal Quality Improvement Group meetings. A full programme of meetings has been set up for the remainder of 2022.
- Any issues arising are taken forward at the Paediatric/Maternity Clinical Governance meetings (where the Neonatal Unit is represented).

2.3.8 Route to the meeting

As above the work detailed in this paper is discussed at the Neonatal Quality Improvement Meetings and the Paediatric/Maternity Clinical Governance meetings as required. A version of this paper was submitted to Healthcare Governance Committee on 7 November 2022.

2.4 Recommendation

For discussion. The Board are asked to note and discuss the quality improvement and safety activity in Neonatal Services as part of the Maternity and Children Quality Improvement Collaborative (MCQIC) programme.

3. List of appendices

Nil