

Appendix F: Neonatal care system and QI resource map



No.	Project/initiative	Category	Aim/scope	Geographical reach	Time period	Related NNAP measures	Existing relationship with NNAP	Opportunities for the NNAP
1	NHS Choices (Clinical Outcomes Publication)	Parent/public engagement	NHS England initiative, managed by HQIP, to publish quality measures at the level of individual consultant, team and unit level using national clinical audit and administrative data.	England	NA	Antenatal steroids, Antenatal magnesium sulphate, Temperature, Parental partnership in care, ROP screening, Two-year follow-up	NNAP submits six measures for publication annually	Continue to submit with annual review of measures included.
2	CQC dashboard (National Clinical Audit Benchmarking)	Quality assurance	NCAB is an initiative originally created in collaboration between HQIP and CQC, with a vision to enhance the way not just inspectors, but also medical directors, local clinical audit teams and others engage, interact with and share clinical audit data.	England, Wales	NA	Antenatal steroids, Antenatal magnesium sulphate, Birth in a NICU <27 weeks, Temperature, Parental partnership in care, ROP screening, Two-year follow-up	NNAP submits seven measures for publication annually.	Continue to submit with annual review of measures included and guidance to inspectors.
3	Neonatal networks	QI project/resource	Coordinate patient pathways between providers over a wide area to ensure access to specialist resources and expertise.	UK	NA	General	NNAP provides quarterly reports to networks. Networks represented on PB and M&D Group.	Use networks to further encourage and promote data quality checking and quality assurance by neonatal units, i.e. infection and NEC survey. Encourage more network level QI in response to NNAP results. Encourage consistent approach to mortality case review through mortality reporting/recommendations.

4	Scottish Patient Safety Programme - Maternity and Children Quality Improvement Collaborative	QI project/resource	Improve quality and safety, agree and share best practice. https://ihub.scot/media/2403/updated-overarching-neonatal-driver-diagram.pdf https://ihub.scot/media/1405/20180508-neonatal-supplementary-measurement-plan-final.pdf https://ihub.scot/media/1404/20180508-neonatal-core-measurementplan-final.pdf	Scotland	NA	Mortality, Bronchopulmonary dysplasia, Infection rates, Encephalopathy, Temperature, Magnesium sulphate, Antenatal steroids, Feeding with mother's milk, Minimising separation, Birth in a NICU <27 weeks, Necrotising enterocolitis, ROP screening, Parental partnership in care	Link via NNAP Scottish Representative	Promote MCQIC resources to audit participants.
5	BAPM Neonatal Service Quality Indicators	Policy	Define the features of a high-quality neonatal service (structure and delivery).	UK	Published June 2017	General, Feeding with mother's milk, Parental partnership in care		
6	National Neonatal Research Database, Neonatal Data Analysis Unit	Research	Improve the quality of operational clinical data captured at the point of clinical care and promote their best use to support neonatal services and facilitate research.	England, Wales, Scotland	NA	General	Source of data for NNAP analysis.	Inclusion of Northern Ireland in the NNRD. Opportunity to influence the review and update to the NDS currently underway by NDAU.
7	NICE guideline NG72: Developmental follow-up of children and young	Clinical guideline	This guideline covers the developmental follow-up of babies, children and young people under 18 years who were born preterm (before 37+0 weeks of pregnancy). It explains the risk of different developmental problems and disorders and specifies what extra assessments and support	UK	Published August 2017	Two-year follow-up	NNAP measure aligned to two-year follow-up section of the quality standard. NNAP has considered ability to audit four-year follow-up,	Promote adherence to the guideline.

	people born preterm		children born preterm might need during their growth and development.				however provision sits with community paediatrics.	
8	NHSE NICU Quality Dashboard	Quality assurance	Specialised Services Quality Dashboards (SSQD) are designed to provide assurance on the quality of care by collecting information about outcomes from healthcare providers.	England	2018/2019	Temperature, Infection rates, ROP screening, Birth in a NICU <27 weeks, Antenatal steroids, Antenatal magnesium sulphate	Metrics included in the quality dashboard align closely with NNAP measures.	Opportunity to encourage continued alignment between the SSQD and the NNAP.
9	NICE QS135 Preterm labour and birth	Clinical guideline	This quality standard covers care for pregnant women who may be at risk of, or have symptoms and signs of, starting labour and giving birth early (preterm). It describes high-quality care in priority areas for improvement.	UK	Published Oct 2016	Antenatal steroids, Antenatal magnesium sulphate	NNAP measures are aligned with this guideline.	Promote adherence to the guideline.
10	PReCePT	QI project/resource	To achieve 85% uptake of administration of magnesium sulphate to preterm babies in all maternity units in England, with a stretch target of 95% by 2020.	England	2018-2020	Antenatal magnesium sulphate	Indicator aligned with NNAP measure.	Opportunity to signpost and share PReCePT resources through NNAP reporting.
11	National Maternity and Perinatal Audit (NMPA)	Audit	To evaluate a range of care processes and outcomes in order to identify good practice and areas for improvement in the care of women and babies looked after by NHS maternity services.	England, Wales, Scotland	NA	Antenatal magnesium sulphate, Antenatal steroids, Encephalopathy, Infection rates, Feeding with mother's milk, Nurse staffing	Linkage achieved between NMPA dataset and neonatal data, feasibility of neonatal clinical indicators using NMPA denominator data	Opportunity to transfer measurement of Antenatal magnesium sulphate, Antenatal steroids and encephalopathy rates to NMPA. Opportunity to jointly promote recommendations to neonatal and obstetric communities.

1 2	Infection in Critical Care Quality Improvement Programme	QI project/resource	The ICU surveillance programme aims to characterise and monitor all ICU and CVC (associated and related) blood stream infections across adult, neonatal and paediatric units in England, in order to identify concerns and support actions to reduce the infection rates. Data is collected and analysed on a quarterly basis and unit level reports are generated and sent to respective units.	England		Infection rates		Explore future opportunities for data linkage for improved infection reporting.
1 3	NICE Guidance NG124: Specialist neonatal respiratory care for babies born preterm	Clinical guideline	This guideline covers specific aspects of respiratory support (for example, oxygen supplementation, assisted ventilation, treatment of some respiratory disorders, and aspects of monitoring) for preterm babies in hospital.	UK	Published April 2019	Bronchopulmonary dysplasia		Opportunity to review NNAP measure with forthcoming NICE guidance to ensure alignment.
1 4	Avoiding Term Admission into Neonatal Units (ATAIN)	QI project/resource	Reducing admission of full term babies to neonatal units, focus on; respiratory conditions, hypoglycaemia, jaundice, asphyxia (perinatal hypoxia-ischaemia).	England		Minimising separation, Encephalopathy	Introduced minimising separation of mother and term/late preterm baby which supports objectives of the ATAIN programme.	Signpost and share ATAIN resources through reporting.
1 5	BAPM Neonatal Transitional Care Framework for Practice	Policy	Describes standards for neonatal transitional care in the UK.	UK	Published October 2017	Minimising separation		Signpost and share framework through NNAP reporting.

16	NHSE Maternity Transformation Programme	QI project/resource	Delivering the vision set out in Better Births, for maternity services across England to become safer, more personalised, kinder, professional and more family friendly; where every woman has access to information to enable her to make decisions about her care; and where she and her baby can access support that is centred on their individual needs and circumstances.	England	Launched June 2016	Mortality		
17	Perinatal Mortality Review Tool	QI project/resource	To support standardised perinatal mortality reviews across NHS maternity and neonatal units in England, Scotland and Wales.	England, Wales, Scotland		Mortality		Promote as a resource through mortality reporting.
18	MBRRACE-UK	Audit	<ul style="list-style-type: none"> . Surveillance of all maternal deaths . Confidential enquiries into maternal deaths during and up to one year after the end of the pregnancy . Confidential enquiries into cases of serious maternal morbidity on a rolling basis . Surveillance of perinatal deaths including late fetal losses (22-23 weeks gestation), stillbirths and neonatal deaths . Confidential enquiries into stillbirths, infant deaths and cases of serious infant morbidity on a rolling basis. 	UK	May 2012 - present	Mortality	NNAP Mortality measure developed in consultation with MBRRACE-UK.	<p>Opportunity to collaborate with MBRRACE-UK around mortality reporting messaging.</p> <p>Promote as a resource through mortality reporting.</p>
19	Each Baby Counts	QI project/resource	National quality improvement programme to reduce the number of babies who die or are left severely disabled as a result of incidents occurring during term labour.	UK	Launched 2015	Mortality, Encephalopathy		Promote as a resource through mortality reporting.

20	Saving Babies' Lives Care Bundle	QI project/resource	Saving Babies' Lives is designed to tackle stillbirth and early neonatal death and a significant driver to deliver the ambition to reduce the number of stillbirths, bringing four elements of care together: <ol style="list-style-type: none"> 1. Reducing smoking in pregnancy 2. Risk assessment and surveillance for fetal growth restriction 3. Raising awareness of reduced fetal movement 4. Effective fetal monitoring during labour 	England		Mortality		Promote as a resource through mortality reporting.
21	Parent representatives/ Parent representative charities	Parent/public engagement				General, Parental partnership in care	Measure development. Designing communications about the audit.	
22	Bliss Baby Charter	Policy	The Bliss Baby Charter was designed to standardise high quality family-centred care across the UK. It is a practical framework for neonatal units to self-assess the quality of family-centred care they deliver against a set of seven core principles. It enables units to audit their practices and develop meaningful plans to achieve changes that benefit babies and their families.	UK		Parental partnership in care, Minimising separation, Feeding with mother's milk	Recommended as a resource to support local QI to improve breastmilk feeding rates.	Continue to promote as a resource, continue to involve Bliss in recommendation development.
23	NHSE QST Peer Reviews, NHSE Quality Surveillance	Quality assurance	The role of the QST is to improve the quality and outcomes of clinical services by delivering a sustainable and embedded quality assurance framework for all cancer services and	England		Parental partnership in care, General	NNAP unit level results used to inform peer reviews.	

	Team Peer Reviews		specialised commissioned services within NHS England.					
24	Guideline for the Screening and Treatment of Retinopathy of Prematurity	Clinical guideline	Evidence-based guideline for the screening and treatment of ROP. Developed by RCPCH, RCOphth, BAPM and Bliss.	UK	Published May 2008	ROP screening	RCPCH developed guideline. NNAP measure based on an adapted version of the recommendations.	Opportunity to influence the development of a future guideline to include deployment of on time post discharge screening.
25	Neonatal critical care service specification	Policy	Service specification for Neonatal Critical Care (Intensive Care, HDU and Special Care). Under the scope of the NCC Clinical Reference Group.	England		Birth in a NICU <27 weeks, Nurse staffing	Measures aligned with specification.	
26	BAPM Service Standards for Hospitals Providing Neonatal Care	Policy	Best practice recommendations for the delivery of neonatal care.	UK	Published 2010	Nurse staffing	Nurse staffing measure aligned with standards.	
27	NHS Improvement Safer Staffing Tools	QI project/resource	Improvement resource for the safe, sustainable and productive staffing for sick and premature newborn babies admitted to an acute inpatient neonatal service.	England	Edition 1, June 2018	Nurse staffing		Promote as a resource through reporting.
28	European Standards of Care for Newborn Health	Policy	European standards of care for neonatal care across the following topics; birth and transfer, ethical decisions, NICU design, care procedures, follow-up and continuing care, nutrition, data collection & documentation, infant and family		Published Nov 2018	Two-year follow-up, Temperature, Feeding with mother's milk, Infection rates, Minimising separation, Birth in a NICU < 27 weeks,		

			centred care, patient safety and hygiene practice, education and training, medical care and clinical practice.			Encephalopathy, Bronchopulmonary dysplasia, Necrotising enterocolitis, ROP screening, Parental partnership in care		
29	Maternal and neonatal health safety collaborative , NHS Improvement	QI project/resource	A three-year programme to support improvement in the quality and safety of maternity and neonatal units across England.	England		Mortality, Encephalopathy		
30	Maternity Services Data Set , NHS Digital	Dataset	MSDS is a patient-level data set that captures key information at each stage of the maternity care pathway including mother's demographics, booking appointments, admissions and re-admissions, screening tests, labour and delivery along with baby's demographics, admissions, diagnoses and screening tests.	England		Antenatal steroids, Antenatal magnesium sulphate		Advocate for the inclusion of magnesium sulphate and antenatal steroids administration in future iterations of the MSDS.
31	Scottish Birth Record	Dataset	Source of Scottish birth data.	Scotland				
32	UNICEF UK Baby Friendly Initiative	QI project/resource	Best practice standards and accreditation programme.	UK		Feeding with mother's milk	Recommended as a resource to support local QI to improve breastmilk feeding rates.	Continue to promote as a resource through breastfeeding reporting.
33	SIGNEC		Necrotising enterocolitis special interest group.	UK		Necrotising enterocolitis		

3 4	National Bereavement Care Pathway, Sands	QI project/resource	Sands is leading the National Bereavement Care Pathway (NBCP) project in collaboration with other charities and with the support of the Department of Health and the All-Party Parliamentary Group on Baby Loss.	England		Mortality		Promote as a resource through mortality reporting.
3 5	National Child Mortality Database	Audit/registry	Will collect information about all children in England who die before their 18th birthday. The NCMD will drive improvement in the quality of health and social care for children in England to help reduce potentially avoidable deaths. It will collect a minimum dataset from the Child Death Overview Panel (CDOP) reviews of all child deaths in England. The collection, analysis and public reporting of information from all child deaths across England will facilitate learning to reduce preventable child mortality.	England	Live from 1 April 2019	Mortality		Opportunity to collaborate with NCMD around mortality reporting messaging. Reference/promote as a resource through mortality reporting.
3 6	Matching Knowledge and Skills for Qualified in Specialty (QIS) Neonatal Nurses: a core syllabus for clinical competency	Policy	Syllabus for neonatal nurse qualified in specialty.	UK	2012	Nurse staffing		Promote as a resource.

37	Healthcare Safety Investigation Branch - Maternity Investigations	QI project/resource	<p>HSIB will investigate cases of intrapartum stillbirth, early neonatal deaths and severe brain injury diagnosed in the first seven days of life, when the baby:</p> <ul style="list-style-type: none"> * was diagnosed with grade III hypoxic ischaemic encephalopathy (HIE); or * was therapeutically cooled (active cooling only); or * had decreased central tone and was comatose and had seizures of any kind. <p>Also investigate direct or indirect maternal deaths in the perinatal period.</p>	England		Mortality; encephalopathy		Reference/promote as a resource through mortality reporting.
38	NHS Resolution Maternity Incentive Scheme	Quality assurance	Incentive scheme comprising of 10 safety actions that trusts must have in place to receive the incentive.	England		Mortality		Reference/promote as a resource through mortality reporting.
39	DRAFT - BAPM Guidance on Cot Capacity and the use of Nurse Staffing standards	Policy	Supports BAPM guidance on optimal nurse staffing.	UK	Draft - June 2018	Nurse staffing		Reference/promote as a resource through nurse staffing reporting.
40	Vermont Oxford Network (VON)	QI project/resource	Global neonatal QI collaborative. Extremely low birthweight follow-up.	Global		General, two-year follow-up		Opportunity to learn from Von methodology, outputs and QI support
41	The Infant Mortality and Morbidity	Research	Collaborative multi-disciplinary group of researchers undertaking international, national and international research with expertise in epidemiology, statistics, neonatology,			General		

	Studies (TIMMS)		psychology, sociology and database application development.					
4 2	Neonatal Intensive Care Outcomes Research and Evaluation (NICORE)	Research	Neonatal Intensive Care Outcomes Research and Evaluation (NICORE) has been routinely collecting data on neonatal units in Northern Ireland since 1994. Data used to monitor a number of key quality markers and to ensure consistently high standards of care so that all babies admitted to a neonatal unit in Northern Ireland will benefit.	Northern Ireland	Since 1994	General		Flow of NI data to NDAU will provide the opportunity to benchmark NI units against the rest of the UK.
4 3	BAPM/ NNAP Thermoregulation Toolkit	QI project/resource	DRAFT – due to be published September 2019.	UK		Temperature		Promote as a QI resource.
4 4	Getting it Right First Time (GIRFT)	QI project/resource	National programme designed to improve medical care within the NHS by reducing unwarranted variations. By tackling variations in the way services are delivered across the NHS, and by sharing best practice between trusts, GIRFT identifies changes that will help improve care and patient outcomes, as well as delivering efficiencies such as the reduction of unnecessary procedures and cost savings.	England	Neonatal works stream starting March 2019	General		Opportunity to promote use of the NNAP through GIRFT reviews and to use NNAP data to inform reviews.
4 5	The Best Start	Policy	A Five-Year Forward Plan for Maternity and Neonatal Care in Scotland	Scotland	Published January 2017	Birth in a NICU <27 weeks, Minimising separation, Parental partnership in care, Nurse staffing		

4 6	NeonIN	Research	Neonatal Infection Surveillance Network with 31 UK neonatal units included in membership. Collects and stores data about the organisms (bacterial and fungal) causing neonatal infections and their antibiotic/antifungal resistance patterns. It matches anonymised demographic and clinical data to the microbiology information. These data allow the monitoring of infections and clinical practice over time.	UK and international	Since 2014	Infection rates		
4 7	BANNFU					Clinical follow-up at two years		