

National Neonatal Audit Programme (NNAP): Recommendations, case studies and resources based on 2021 data

Area of care: Outcomes of neonatal care

NNAP National recommendation(s)	NNAP Local recommendation(s)	Case studies	Other resources
All neonatal networks and their constituent neonatal units should, following a review of local mortality results, and relevant national and regional reviews (such as the Getting It Right First Time (GIRFT) neonatal report, the Neonatal Critical Care Review action plan in England, and Independent Maternity Oversight Panel reviews in Wales) take action to:	Trusts providing neonatal services should ensure that they have a structured process and adequate resource for data entry and validation of outcome measure data (late onset infection, necrotising enterocolitis and preterm brain injury) to ensure complete reporting of important outcomes of neonatal care to the NNAP.	Project PEEP: Introduction of a Preterm Respiratory Care Bundle on NICU Lucy Bradley, University Hospitals Coventry and Warwickshire NHS Trust, 2022. Reducing Necrotising Enterocolitis: A Quality Improvement Initiative Dr Sankara Narayanan, Watford General Hospital, West Hertfordshire NHS Trust, 2020.	The Maternity and Neonatal Safety Improvement Programme (MatNeoSIP) supports improvement in the quality and safety of maternity and neonatal units across England. BAPM and NNAP quality improvement toolkits target key NNAP measures with basic QI tools and methods that are quick to learn and easy to apply.
	Neonatal units and neonatal networks with high rates of adverse outcomes (NEC, BPD, late onset infection and pre-term brain injury) should: - Use NNAP Online to identify comparable services with lower rates of adverse outcome to identify opportunities for shared learning.	Using Quality Improvement Methodology to Reduce Central Line Associated Blood Stream Infections Dr Colin Peters, Royal Hospital for Children, Glasgow, 2017.	Neonatology GIRFT Programme National Specialty Report - Getting It Right First Time (GIRFT) is a national programme designed to improve the treatment and care of patients. The report is available to NHS staff by logging into FutureNHS.

- Consider a quality improvement approach to the delivery of evidence-based strategies in the following areas to reduce mortality: timely antenatal steroids, deferred cord clamping, avoidance of hypothermia and management of respiratory disease. Such quality improvement activity should pay due regard to relevant guidance and resources, such as the NICE guidance for specialist respiratory care and the BAPM and NNAP quality improvement toolkits. -Ensure that shared learning from locally delivered, externally supported, multidisciplinary reviews of deaths (including data from the local use of the Perinatal Mortality Review Tool) informs network governance and unit level clinical practice.	-Consider undertaking quality improvement initiatives focussing on known measures to reduce the risk of adverse outcomes, for example breastmilk feeding and the use of probiotics to reduce the chances of a baby developing NEC.		NICE guideline [NG124] Specialist neonatal respiratory care for babies born preterm This guideline covers specific aspects of respiratory support for preterm babies in hospital. The Neonatal Critical Care Review action plan sets out how the NHS will further improve neonatal care with the support of funding set out in the NHS Long Term Plan. Perinatal Mortality Review Tool (PRMT) supports standardised perinatal mortality reviews across NHS maternity and neonatal units in England, Scotland and Wales. Perinatal Excellence to Reduce Injury in Premature Birth (PERIPrem) is a perinatal bundle produced by the West of England Academic Health Sciences Network to support improvement of the outcomes for premature babies.
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			Minimising the impact of late onset infection Dr Jim Gray, NNAP conference presentation, 2022. Prevention of intraventricular haemorrhage Dr Karen Luyt, NNAP conference presentation, 2022.
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Area of care: Optimal perinatal care

NNAP National recommendation(s)	NNAP Local recommendation(s)	Case studies	Other resources
All neonatal and perinatal networks (including Local Maternity Systems (LMS) and Local Maternity and Neonatal Systems (LMNS) in England) should undertake exception reporting for all cases where a baby of less than 27 weeks' gestation (less than 28 weeks' for multiple births) is not born at a maternity service on the same site as a NICU, and should adopt evidence-based practices, using the following guidance and methodologies to support improvement: -Maternity and Neonatal Safety Improvement Programme -BAPM and NNAP Antenatal Optimisation Toolkit -Healthcare Improvement Scotland, Maternity and Children Quality Improvement Collaborative (MCQIC) Preterm Perinatal Wellbeing Package.	Perinatal teams at unit level should review their data and clinical processes, and use this understanding to establish why they are not achieving high rates of deferred cord clamping and to identify opportunities to improve, learning from other services who are achieving high rates of deferred cord clamping and using the following guidance and methodologies to support improvement: -BAPM and NNAP Optimal Cord Management in Preterm Babies: A Quality Improvement Toolkit -PERIPrem bundle: Optimal Cord Management. -BAPM Building Successful Perinatal Teams Resource (publication due late 2022)	Improving Rates of Optimal Cord Management in Preterm Infants Including Delivery of PEEP During Transition with an Intact Cord, Southmead Hospital, North Bristol NHS Trust. Optimal Cord Management in preterm infants - a Quality Improvement Project, Singleton Hospital, Swansea Bay Health Board. Deferred cord clamping in preterm infants Dr Vennila Ponnusamy, St Peter's Neonatal Unit, St Peter's and Ashford Hospitals NHS Foundation Trust, 2022.	Perinatal Excellence to Reduce Injury in Premature Birth (PERIPrem) is a perinatal bundle produced by the West of England Academic Health Sciences Network to support improvement of the outcomes for premature babies. Antenatal Optimisation Toolkit This BAPM and NNAP toolkit supports implementation of the key elements of antenatal optimisation. Optimal Cord Management Toolkit This BAPM and NNAP toolkit supports implementation of Optimal Cord Management in babies born at less than 34 weeks gestation. Quality Improvement presentation 2 - Optimal cord management Anda Bowring, NNAP conference presentation, 2022.

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-BAPM Building Successful Perinatal Teams Resource (publication due late 2022)		Improving the rate of babies born at less than 27 weeks gestation in a maternity unit with a NICU on site Elizabeth Langham, Network Director, East of England Neonatal Operational Delivery Network, 2020.	Improving Normothermia in Very Preterm Infants This BAPM and NNAP toolkit supports neonatal units to improve their normothermia rate.
	Perinatal services with poor achievement of antenatal steroid administration, magnesium sulphate administration, and normal temperature on admission should: -Use NNAP Online to identify comparable services with lower rates of adverse outcome to identify opportunities for shared learning. -Use quality improvement methodology and available resources to develop and deliver an action plan to improve rates in their hospitals. -Ensure targeting the administration of antenatal steroids and magnesium sulphate in the most effective time window using the best available tools for prediction of imminent preterm birth.		QUIPP App The QUIPP app is a clinical decision-making tool for preterm birth prediction for women with symptoms of threatened preterm labour as well as asymptomatic high-risk women.

Area of care: Parental partnership in care

NNAP National recommendation(s)	NNAP local recommendation(s)	Case studies	Other resources
NHS England and the Welsh Government should require neonatal networks to work with their constituent neonatal units to ensure they: -identify an infant feeding lead to train and support staff, with protected time within their job plan for this role. -use the following tools and resources to support their maternal breastmilk focussed quality improvement initiatives: - BAPM and NNAP Maternal Breast Milk Toolkits - UNICEF Neonatal Baby Friendly Initiative - Bliss resources, including information for families, support services and the Bliss Baby Charter	There are no local recommendations for this area of care.	Optimising Early Maternal Breastmilk for Preterm Infants Dr Kristin Tanney, Manchester University NHS Foundation Trust, 2022. Ward clerks as agents for change: Improving documentation of parental conversations Dr Caitriona Firth, Bradford Teaching Hospitals NHS Foundation Trust, 2022.	Quality Improvement presentation 3 - Optimising early maternal breastmilk for preterm infants Dr Nithya Lakshmiopathy, NNAP conference presentation, 2022. BAPM and NNAP Maternal Breast Milk Toolkit This BAPM and NNAP toolkit supports the optimisation of maternal breast milk supply and breastfeeding for preterm babies. UNICEF Neonatal Baby Friendly Initiative The UNICEF UK Baby Friendly Initiative enables public services to better support families with feeding and developing close and loving relationships. PERIPrem bundle: Maternal Early Breast Milk Resources from the West of England

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- PERIPrem bundle: Maternal Early Breast Milk - Neonatal Network Care Coordinators (England). -ensure unrestricted access for parents to the neonatal unit and their baby, and as full as possible for the wider family, including a return to pre-Covid visiting policies if not yet achieved. -ensure that parent presence on the consultant ward round is recorded daily. -seek to learn from neonatal units that are achieving high rates of parent involvement, making use of available resources including those provided by Bliss.			Academic Health Sciences PERIPrem programme to support early maternal breastmilk. Bliss feeding resources These resources from the charity for babies born premature or sick cover all aspects of feeding. Bliss Baby Charter The standard for developing, measuring, and improving family-centred care. HUG: Involving families in neonatal care Dr Neil Patel, NNAP conference presentation, 2022.
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-ask parents for their views and suggestions for how to improve parental partnership in care, including how to increase parent involvement in consultant ward rounds and how to best ensure that parents meet a senior member of the neonatal team within 24 hours of admission.			
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Area of care: Neonatal nurse staffing

NNAP National recommendations	NNAP Local recommendations	Case studies	Other resources
Commissioners of nursing training in England and Wales should ensure that the number of neonatal nurses is increased. This will require training by higher education institutions of greater numbers of specialist nurses, and continued support by the Neonatal Nurses Association and neonatal networks to promote neonatal nursing as a positive career choice.	There are no local recommendations for this area of care.	There are no case studies for this area of care.	Neonatology GIRFT Programme National Specialty Report Getting It Right First Time (GIRFT) is a national programme designed to improve the treatment and care of patients. Resources are available to NHS staff by logging into FutureNHS. Neonatal Qualified in Specialty (QIS) Education and Training Review A review of neonatal Qualified in Specialty (QIS) education and training across England. Be A Neonatal Nurse recruitment video, Thames Valley and Wessex Neonatal Network.

All Health Boards and Trusts providing neonatal services should work with neonatal networks to: -develop action plans and workforce strategies, alongside measures to improve recruitment and retention, for the use of Neonatal Critical Care Review funding for nurse staffing (England only). - invest in staff wellbeing, career progression and training opportunities for nursing associate roles and apprenticeship roles, following the guidance in the GIRFT report on nurse career progression.			
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Area of care: Care processes

NNAP National recommendation(s)	NNAP Local recommendation(s)	Case studies	Other resources
All neonatal units and networks should: -ensure that they have safe screening processes that adhere to the updated UK screening of retinopathy of prematurity guideline. -work with their local ophthalmology team to ensure processes are in place to cover staff sickness or absence to ensure that screening can be undertaken 52 weeks per year.	Neonatal units with low rates of two year follow up should: -seek to learn from high achieving units, -ensure that there is a dedicated, named person within the neonatal unit who takes responsibility for ensuring that two year follow up is coordinated, completed, and that data entry is completed. -use British Association of Neonatal Neurodevelopmental Follow Up (BANNFU) resources, including the national parent information leaflet, to support local two year follow up completion.	Multidisciplinary Team Working to Standardise Neurodevelopmental Follow-Up Dr Louise Leven, Royal Hospital for Children, Glasgow, 2020 & Dr Sankara Narayanan, Watford General Hospital, West Hertfordshire NHS Trust, 2017.	RCPCH UK screening of retinopathy of prematurity guideline This evidence-based guideline has been updated by the RCPCH in collaboration with Royal College of Ophthalmologists (RCOphth) and British Association of Perinatal Medicine (BAPM) and published in March 2022. NNAP ROP screening calculator An Excel tool to help services plan the timing of first ROP screening appointment for eligible babies based on the new screening guideline. Quality improvement presentation 1 - On-time ROP screening for eligible babies Dr Yee Mon Aung, NNAP conference presentation, 2022. BANNFU Neonatal Follow-Up Parent Leaflet This resource from the British Association for Neonatal Neurodevelopmental

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			Follow-up outlines what parents can expect at their child's neonatal follow up. Neonatal follow up Dr Anusha Arasu, NNAP conference presentation, 2022.
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