

National Neonatal Audit Programme (NNAP) Summary of Recommendations: Reports on 2022 – 2018

Year of report	No.	Recommendation	Intended audience for recommendation
<u>Report on 2023 data</u>	1	National Health Service England and health departments in the Devolved Governments should: - Ensure that Neonatal Networks with low rates of survival review their mortality data and develop locally prioritised improvement plans. Quality improvement activity should focus on best practices identified from Neonatal Networks exhibiting low mortality with particular attention given to differences in network structure, staffing, clinical governance, and clinical practices. - Review survival rates in very preterm infants and work with The National Institute for Health and Care Research (NIHR) to support future research investigating the reasons for the observed geographical variation in mortality.	All neonatal networks (also involved: neonatal units, Network Boards, LMNS (and equivalent Boards), Trust/Health Board, Governance Boards, Maternity or Neonatal Safety Champions, Integrated Care Boards (ICB) and Specialised Commissioning.
	2	National Health Service England and health departments in the Devolved Governments should ensure that Neonatal Networks work with their constituent units and are: - Regularly reviewing and addressing their rates of missing data for preterm brain injury (intraventricular haemorrhage, cystic periventricular leukomalacia, and post haemorrhagic ventricular dilatation) and necrotising enterocolitis. - Utilising the NNAP restricted access dashboard to validate these data in order that units and networks can develop quality improvement plans based on babies' outcomes.	NHS England and health departments in the Devolved Governments, Neonatology - Getting It Right First Time (GIRFT) and Specialised Commissioning.
	3	In order for perinatal teams to identify and implement the necessary perinatal interventions at the earliest opportunity, the Departments of Health in England, Wales, Scotland, and the Isle of Man should: - Commission public health campaigns aimed at raising public and professional awareness of the nature and importance of the signs and symptoms of preterm labour and the effectiveness of clinical interventions. - Work with relevant manufacturers and distributors to address supply chain challenges in the delivery of quantitative fetal fibronectin testing kits.	The Departments of Health in England, Scotland, Wales, and participating Crown Dependencies.
	4	Neonatal Networks should ensure that their constituent units are using the NNAP restricted access dashboard to review their rates of optimal perinatal care delivery, identifying instances of non-adherence, and implementing quality improvement activities in response to them.	All neonatal networks (also involved: neonatal units, Network Boards, LMNS (and equivalent Boards), Trust/Health Board Governance Boards, Maternity or Neonatal Safety Champions).
	5	Neonatal Networks should work with their constituent units and encourage them to use the monthly data available in the NNAP restricted access dashboard to identify cases where optimal parental partnership in care did not occur. These data will support neonatal units to enhance their delivery of family centred care.	All neonatal networks (also involved: neonatal units, Network Boards, LMNS (and equivalent Boards), Trust/Health

			Board Governance Boards, Maternity or Neonatal Safety Champions).
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<u>Report on 2022 data</u>	1.	Neonatal networks should review their rates of adverse outcomes (mortality, BPD, NEC, bloodstream infection and preterm brain injury), and develop locally prioritised action plans to respond to these results with their constituent neonatal units, and: - share these with Neonatal Network Boards, Local Maternity and Neonatal System (LMNS) Boards (and devolved nation equivalents), and with Trust/Health Board Governance Boards via ward-to-board Maternity or Neonatal Safety Champions. - work with their constituent neonatal units to ensure that all services have a plan in place to validate their data entry for outcomes such as necrotising enterocolitis, bloodstream infection, and preterm brain injury.	All neonatal networks (Also involved: neonatal units, Network Boards, LMNS (and equivalent (Boards, Trust/Health Board Governance Boards, Maternity or Neonatal Safety Champions)).
	2.	NHS England, Scottish and Welsh Governments should ensure that maternity data flows describe the administration of antenatal steroids, and other perinatal optimisation interventions, and that maternity and perinatal data are linked nationally in order to: - understand rates of timely exposure of preterm infants to perinatal optimisation interventions in the context of the number of women treated with steroids, magnesium sulphate and who require antenatal transfer, regardless of whether they go on to deliver significantly preterm, - improve reporting of neonatal outcomes of maternity care, in line with the recommendation made in ‘Reading the signals’ and to support national improvement initiatives.	NHS England, Scottish and Welsh Governments.
	3.	NHS England, Scottish and Welsh Governments should ensure that pre-term birth is optimally managed by a multidisciplinary team by: - ensuring that preterm birth lead teams (including an obstetrician, neonatologist, neonatal nurse and midwife) are commissioned at all neonatal services, - requiring that Integrated Care Systems (ICS), Health Boards in Scotland and Local Health Boards in Wales, ensure that all neonatal services take a perinatal team approach to design and delivery of care that includes parents with diverse backgrounds and diverse experience of neonatal care, - ensuring that perinatal teams conduct reviews of preterm birth cases to identify opportunities for improvement to maximise quality of care, and the delivery of the interventions identified by national improvement initiatives.	NHS England, Scottish and Welsh Governments.
	4.	All Royal Colleges associated with preterm perinatal care (the Royal College of Paediatrics and Child Health , the Royal College of Obstetricians and Gynaecologists , the Royal College of Nursing and the Royal College of Midwives) should include a focus on the importance of early breastmilk feeding, and guidance on how to support parents to establish and sustain breastmilk feeding, in training relating to intrapartum care, fetal medicine care and perinatal care.	Royal College of Paediatrics and Child Health, Royal College of Obstetricians and Gynaecologists, Royal College of Nursing, Royal College of Midwives.
	5.	The UK Government, Welsh Government and Scottish Government should consider ways to ensure that the implementation of medium to-long-term NHS-wide workforce plans (such as the NHS Long Term Workforce Plan in England) deliver the recruitment, training, development and retention of neonatal nurses to improve the proportion of shifts with sufficient staffing and therefore improve survival rates and the quality of care in neonatal units.	UK Government, Welsh Government, Scottish Government.

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1.	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: - 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.	All neonatal networks (ODNs in England). All neonatal units.
2.	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. BAPM Building Successful Perinatal Teams Resource (Publication due late 2022) (now published).	All neonatal networks, perinatal networks, Local Maternity Systems (LMS) and Local Maternity and Neonatal Systems (LMNS) in England.
3.	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 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. - 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.	NHS England, Welsh Government.
4.	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.	Commissioners of nursing training in England and Wales. Neonatal Nurses Association.

		Neonatal networks.
5.	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 neonatology supplementary workforce report on nurse career frameworks.	All Health Boards and Trusts providing neonatal services. Neonatal networks.
6.	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.	All neonatal units and networks.

Year of Report	No.	Recommendation	Intended audience for recommendation
Report on 2020 data	1.	Neonatal units and networks with high rates of adverse outcomes (bronchopulmonary dysplasia, necrotising enterocolitis and late onset infection) should: • Identify potentially better practices from neonatal units with lower rates of adverse outcomes. • Implement identified best practice, including any identified from the NICE guideline [NG124] Specialist neonatal respiratory care for babies born preterm.	Neonatal units and obstetric services.
	2.	Neonatal networks and their constituent neonatal units should, following a review of local mortality results, the national neonatal Getting It Right First Time (GIRFT) report and the Neonatal Critical Care Review, take action to: • Consider whether changes to network structure, clinical flows, guidelines or staffing might be helpful in reducing local mortality rates. • 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 guideline 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.	Neonatal networks, units and obstetric services.
	3.	Perinatal teams, neonatal units and Local Maternity and Neonatal Systems (in England) should: • Identify babies who did not receive delivery in the optimal location, antenatal steroids, antenatal magnesium, deferred cord clamping and/or did not achieve post-delivery normothermia, and review records to identify opportunities for improvement. • Adopt evidence-based practices, using the following guidance and methodologies to support improvement: ○ Maternity and Neonatal Safety Improvement Programme (MatNeoSIP). ○ BAPM and NNAP quality improvement toolkits, including; Antenatal Optimisation Toolkit, Normothermia Toolkit, and Optimal Cord Management Toolkit. ○ Prevention of Cerebral Palsy in PreTerm Labour (PRCePT) quality improvement programme. ○ Preterm Perinatal Wellbeing Package, Maternity and Children's QI Collaborative, Scottish Patient Safety Programme. ○ Perinatal Excellence to Reduce Injury in Premature Birth (PERIprem) quality improvement programme	Perinatal teams, neonatal networks, units and obstetric services.
	4.	Neonatal units and networks with low rates of breastmilk feeding at 14 days and/or at discharge should introduce focused quality improvement initiatives in these areas, making use of the following tools and resources: • BAPM and NNAP Maternal Breast Milk Toolkit	Neonatal units and networks.

		• UNICEF Neonatal Baby Friendly Initiative • Bliss Baby Charter • Neonatal network Care Coordinators (England)	
	5.	Neonatal units should look for learning from other units and from adaptations made in response to the COVID-19 pandemic to improve opportunities for parental partnership in care and decision making. This may include: • Using video conference for parental consultation on admission or for attendance on the ward round if it is not possible for parents to attend in person. • Working with local parent groups, parents, staff and other stakeholders to create a culture which actively promotes parent partnership in care, and to manage barriers to change such as concerns about confidentiality and barriers to parents attending the unit. • Ensuring that the service is following the latest guidance on parent and family access to the unit and involvement in care and not inappropriately restricting parents' access to their babies.	Neonatal units, networks and parents.
	6.	Neonatal networks should: • Monitor adherence to recommended nurse staffing standards. • Using findings from Getting It Right First Time (GIRFT) and the Neonatal Critical Care • Review, develop action plans to address any deficits in nurse staffing and skill mix. • In England, work with Health Education England to ensure that recommendations from Neonatal Qualified in Specialty Education and Training Review are implemented.	Neonatal units and networks.

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<u>Report on 2019 data</u>	1.	Work as a perinatal team to: • Optimise the timing and dosing of antenatal steroids for eligible babies. • Avoid the inappropriate use of multiple courses. • Adopt evidence-based practices to predict preterm birth, by using the following guidance and methodologies to guide improvement: ○ BAPM Perinatal Optimisation Care Pathway Toolkit. ○ Prevention of Cerebral Palsy in PreTerm Labour (PReCePT) quality improvement programme. ○ Scottish Patient Safety Programme to help reduce the severity of respiratory disease and other serious complications in preterm babies. The National Maternity and Perinatal Audit (NMPA) should: Consider developing reporting of antenatal steroid use in order to encourage timely exposure of eligible infants to it. (*Please note this is now a measure within the NNAP. Please see the NNAP 2024 audit measures guide).	Neonatal units and obstetric services. National Maternity and Perinatal Audit (NMPA).
	2.	Neonatal networks, units and obstetric services should work as a perinatal team to: • Ensure that all women who may deliver their baby at less than 30 weeks gestational age are offered magnesium sulphate where possible. • Adopt and implement the following guidance and methodologies to guide improvement: ○ BAPM Perinatal Optimisation Care Pathway Toolkit. ○ Prevention of Cerebral Palsy in PreTerm Labour (PReCePT) quality improvement programme. ○ Scottish Patient Safety Programme To help reduce the risk of babies who are born prematurely developing cerebral palsy.	Neonatal networks, units and obstetric services.

3.	Departments of Health in England, Scotland and Wales and Neonatal Networks should: Prioritise structural changes and operational management to ensure that babies who require intensive care are cared for in the unit's best equipped to deliver it. Local Maternity Systems (LMS) and equivalent bodies in devolved nations should: • Ensure that appropriate clinical pathways exist. To enable delivery of intensive care to all infants where this is required, with a minimum of postnatal transfers.	Departments of Health in England, Scotland and Wales and Neonatal Networks. Local Maternity Systems (LMS) and equivalent bodies in devolved nations.
4.	Neonatal units with lower rates of parental consultation, and particularly those with low outlying performance, should: • Reflect on their rates of parental consultation. • Use a quality improvement approach and consider using novel means such as video calls where parents are unable to enter the neonatal unit. In order to improve parental partnership in care.	Neonatal units with lower rates of parental consultation, and particularly those with low outlying performance.
5.	Neonatal units, in collaboration with parents, should: Build relationships and trust between parents, family members and neonatal unit staff by: • Understanding the unique role of parents as partners in care, and involving them in developing and updating care plans and decision making • Empowering parents to feel comfortable and able to contribute to discussions about their baby's care. • Taking the time to explain to parents why decisions about aspects of care are being suggested. • Reflecting on audit results with parents, identifying the reasons for any gaps in parental presence on ward rounds, any lack of consultant wards or documentation or consultant ward rounds, and working with parents to address any barriers to participation identified. So that parents are partners in the care of their baby in the neonatal unit.	Neonatal units, in collaboration with parents.
6.	Neonatal Intensive Care Units (NICUs) with persistently low levels of ROP screening should ensure that: • Babies requiring ROP screening are accurately identified. • Safety systems for appropriate ROP screening are in place. So that babies who are at the highest risk of loss of vision, can be screened and receive timely treatment if required. Neonatal Networks with low rates of ROP screening should: • Implement a mechanism for real time measurement of their unit's adherence to ROP screening guidelines. So that they can identify where related quality improvement activities need to be undertaken.	Neonatal Intensive Care Units (NICUs) Neonatal networks
7.	Neonatal units with higher reported rates of infection should: • Compare practices with units with lower rates of infection, identified via NNAP Online and consider whether their rates of infection could be decreased. • Ensure that their use of evidence-based infection reduction strategies is optimised.	Neonatal units.

	In order to minimise the number of babies infected in their units. Neonatal networks and units with both low and high rates of infection should: - Facilitate invitations for units with higher rates of infection to visit units with lower rates in order to jointly agree whether potentially better practices could be used and consider requiring units to participate in such quality improvement activity. - Ensure that the proposed visits should be multidisciplinary and focussed on identification and implementation of potentially better practices including “infection prevention bundles”. In order to reduce the risk of exposing sick and premature babies to infection.	Neonatal networks and units.
8.	Neonatal units with high treatment effect should: - Seek to identify potentially better practices from neonatal units with lower treatment effect. Neonatal units and networks should - Seek to understand the extent to which care practices explain the differences in rates of BPD. - Implement potentially better care practices, including any identified from NICE guidance about specialist respiratory care. The British Association of Perinatal Medicine (BAPM) should: - Develop a care pathway identifying potentially better practices and the optimal means for their implementation. In order to reduce the proportion of babies affected by bronchopulmonary dysplasia.	Neonatal units. Neonatal units and networks. British Association of Perinatal Medicine (BAPM).
9.	Units with validated NEC data should: - Compare their rates of NEC to those of other comparable units with validated data, and if their rates of NEC are relatively high, seek to identify and implement potentially better practices. In order to reduce the associated higher risk of mortality and, for those babies who survive, the risk of longer term developmental, feeding and bowel problems. All neonatal units should: - Ensure the accurate recording of NEC diagnoses. In order to facilitate valid comparisons of the rates of NEC, and the development of preventative measures based on variations in rates of NEC.	All neonatal units. All neonatal units.
10.	Neonatal networks should: - Review the admission durations of their units, alongside admission rates, as part of planning maximally effective use of neonatal bed days. Neonatal and maternity teams should: - Ensure discharge practices minimise inappropriate separation of mother and baby. - Consider introducing measures to facilitate timely discharge such as criterion-based discharge. - Consider delivering some care as transitional care.	Neonatal networks. Neonatal units.

	So that babies born at term and late pre - term admitted to neonatal units are not separated from their mothers for longer than is necessary.	
11.	Neonatal units and networks should: Focus on both the early initiation and sustainment of breastmilk feeding in conjunction with parents by: • Reviewing data and processes in order to undertake selected quality improvement activities suited to the local context. • Removing barriers to successful breastmilk feeding by ensuring that appropriate and comfortable areas are provided with adequate, regularly cleaned expressing equipment. • Seeking and acting on feedback from local parents on their experience of starting and sustaining breast feeding. • Working to achieve and sustain both UNICEF UK Baby Friendly Initiative Neonatal Unit accreditation and Bliss Baby Charter accreditation. • Implementing the guidance and evidence -based care practises set out in the BAPM Maternal Breastmilk Toolkit. • Working with local parents to review and improve local practices around the early communication of the benefits of breastmilk, ideally prior to birth wherever possible. So that the many health benefits to the preterm baby and the mother of breastfeeding can be realised.	Neonatal networks and units.
12.	Neonatal units should: Produce detailed plans to provide or organise follow up of care for preterm babies in accordance with NICE guidance and consider arrangements for: • Communicating with families about follow up at discharge. • Families who live far from the hospital of care. • Families who do not attend appointments. • Families who move to different areas. • Completing and documenting assessments made. So that very preterm babies can be monitored and checked for any problems with movement, the senses, delays in development or other health problems and so that parents can get reassurance about how their baby is developing, and any support that they might need. The British Association for Neonatal Neurodevelopmental Follow Up (BANNFU) should: • Describe and promote best practice and successful models of delivery of high rates of follow up using appropriate instruments. To improve the long - term outcomes of all babies that have had neonatal care.	Neonatal units. The British Association for Neonatal Neurodevelopmental Follow -Up (BANNFU).
13.	Neonatal networks and their constituent neonatal units should, following a review of local mortality results, take action to: • Consider whether a review of network structure, clinical flows, guidelines and staffing may be helpful in responding to local mortality rates. • 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. • Ensure that shared learning from locally delivered, externally supported, multi-disciplinary reviews of deaths (including data from the local use of the Perinatal Mortality Review Tool) informs network governance and unit level clinical practice. The patient safety team in NHS Improvement and equivalent bodies in the devolved nations should: • Facilitate national dissemination of learning from mortality reviews.	Neonatal networks and constituent neonatal units. The patient safety team in NHS Improvement and

			equivalent bodies in the devolved nations.
	14.	Departments of Health in England, Scotland and Wales should: • Ensure that sufficient resources are available for the education and employment of suitably trained professionals to meet and maintain nurse staffing ratios described in service specifications. Universities and Health Education England or equivalent bodies in the devolved nations should: • Consider revising, renewing and standardising models of specialist neonatal nursing education. Neonatal Units and Neonatal Networks should: • Prioritise data quality assurance in submitting nurse staffing data. • Monitor adherence to recommended nurse staffing standards. • Develop action plans to address any deficits in nursing staffing and skill mix. So that babies and their parents are cared for at all times by the recommended number of trained professionals.	Departments of Health in England, Scotland and Wales. Universities and Health Education England or equivalent bodies. Neonatal units and networks.

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<u>Report on 2018 data</u>	1.	To optimise preterm perinatal wellbeing, base local quality improvement activity on reviews of cases: • where evidence-based strategies were not used in patient care. • where shared learning from networks is available. Use the following methodologies to guide improvement: • The Prevention of Cerebral Palsy in PreTerm Labour (PReCePT) programme, • The Maternity and Neonatal Health Safety Collaborative and • The Scottish Patient Safety Programme. Action: Perinatal teams, neonatal networks and maternity systems. <i>Related NNAP measures: Antenatal steroids, Antenatal magnesium sulphate, Birth in a centre with a NICU.</i>	Perinatal teams, neonatal networks and maternity systems.
	2.	Review local thermoregulation data to drive quality improvement goals. Use the British Association of Perinatal Medicine Quality Improvement toolkit for Improving Normothermia in Very Preterm Infants to support action in response. Action: Neonatal units	Neonatal units.
	3.	Review practice and documentation processes where rates of parental consultation and parental presence on the ward round need to be increased. Use the Bliss Baby Charter for guidance on improving parental partnership in care. Action: Neonatal units.	Neonatal units.

		<i>Related NNAP measures: Parental consultation within 24 hours of admission, Parental presence on the ward round.</i>	
4.	Ensure that staff: • understand the importance of welcoming parents to the neonatal unit. • communicate to parents the value of their presence on the ward round. • involve them directly in the ward round. • record their presence. Action: Neonatal units. <i>Related NNAP measures: Parental presence on the ward round.</i>	Neonatal units.	
5.	Use evidenced based strategies to lower rates of infection or necrotising enterocolitis (NEC). Consider comparing practice with units with ‘complete’ data who have lower rates of infection or NEC to drive improvement in local rates. Action: Neonatal units. <i>Related NNAP measures: NEC, bloodstream infection, CLABSI.</i>	Neonatal units.	
6.	• Develop processes to ensure that NEC and blood culture data are complete, using NNAP quarterly reports (<i>2023 data can now be accessed by the Restricted Access Dashboard</i>), to provide assurance at the end of the year. Action: Neonatal units with incomplete NEC and blood culture data. <i>Related NNAP measures: NEC, bloodstream infection, CLABSI.</i>	Neonatal units with incomplete NEC and blood culture data.	
7.	Neonatal networks should work with units that do not validate their NEC or Bloodstream infection NNAP data in order to ensure full participation in the audit and maximise compliance with the NHS neonatal service specification in England and other appropriate structures within the devolved administrations and crown dependencies. Action: Neonatal networks. <i>Related NNAP measures: NEC, bloodstream infection, CLABSI.</i>	Neonatal networks.	
8.	Assess practice in the management of early respiratory disease in very preterm infants against NICE guidelines for respiratory care for preterm babies. Consider comparing practice with units with a lower rate of bronchopulmonary dysplasia to identify quality improvement opportunities. Action: Neonatal networks and units with a ‘positive’ treatment effect for BPD where the 95% confidence interval excludes zero. <i>Related NNAP measures: Bronchopulmonary dysplasia.</i>	Neonatal networks and units with a ‘positive’ treatment effect for BPD where the 95% confidence interval excludes zero.	
9.	Use local knowledge of the rates of admission of term and near-term babies, case review (as used in the ATAIN programme), process mapping and Pareto charts to identify and action modifiable factors to address prolonged mother infant separation. Action: Neonatal units.	Neonatal units.	

		<i>Related NNAP measures: Minimising separation of mother and term and late preterm baby.</i>	
	10.	NNAP and the National Maternity and Perinatal Audit (NMPA) should work with NHS Digital to maximise opportunities to report measures of rates and duration of mother and baby separation in a way that is most useful to audit users. <i>Related NNAP measures: Minimising separation of mother and term and late preterm baby.</i>	
	11.	Identify barriers to breastfeeding across the patient pathways using: • parent feedback. • a review of breastmilk feeding rate at discharge. • the early breastmilk feeding measure in the NNAP quarterly reports (<i>2023 data can now be accessed by the Restricted Access Dashboard</i>). Use tools such as the UNICEF Neonatal Unit Baby Friendly Initiative and Bliss Baby Charter to overcome barriers identified and to drive improvement. Action: Neonatal units. <i>Related NNAP measure: Breastmilk feeding at discharge home.</i>	Neonatal units.
	12.	Produce detailed plans to provide or organise follow up of care for babies in accordance with NICE guidance: Developmental follow-up of children and young people born preterm. Consider arrangements for: • communicating with families about follow up at discharge. • families who live far from the hospital of care. • families who do not attend appointments. • families who move to different areas. • completing and documenting assessments made. Action: Neonatal units. <i>Related NNAP measure: Two year follow up.</i>	Neonatal units.
	13.	To reduce mortality, neonatal networks should, following a review of local mortality results, take action to: • consider whether a review of network structure, clinical flows, guidelines and staffing may be helpful in responding to local mortality rates. • consider the extent of the implementation of evidence-based strategies in the following areas to reduce mortality: ○ antenatal steroids. ○ deferred cord clamping. ○ avoidance of hypothermia. ○ management of respiratory disease. • ensure that shared learning from multi-disciplinary reviews of deaths (including data from the local use of the Perinatal Mortality Review Tool) informs: ○ network governance. ○ unit level clinical practice.	Neonatal networks.

	Action: Neonatal networks. <i>Related NNAP measure: Mortality until discharge.</i>	
14.	Use NNAP quarterly reports (2023 data can now be accessed by the <i>Restricted Access Dashboard</i>) to ensure that a mortality outcome is clearly recorded for every baby admitted. For babies discharged to a non NNAP unit before 44 weeks' post menstrual age, units should capture outcome using the 'final neonatal outcome' field. Action: Neonatal units and networks. <i>Related NNAP measure: Mortality until discharge.</i>	Neonatal units and networks.
15.	Ensure that sufficient numbers of neonatal unit nurse staff and nurses with specialist qualifications are trained and retained to reduce current variations in staffing and improve staffing levels. Action: National governments, neonatal networks and individual health trusts or boards. <i>Related NNAP measure: Neonatal nurse staffing.</i>	National governments, neonatal networks and individual health trusts or boards.
16.	Consider the impact of nurse staffing guidelines while taking into account capacity to admit babies to neonatal units. When optimal nurse: baby ratios cannot be met consider: - The staffing situation in other neonatal units. - the balance of risks of admitting more babies against the potential risks and inconveniences of intra-network or inter-network transfer. Action: Neonatal units. <i>Related NNAP measure: Neonatal nurse staffing.</i>	Neonatal units.
17.	Maintain oversight of neonatal unit capacity on a regular basis to support and assist units in balancing capacity against demand. Action: Neonatal networks. <i>Related NNAP measure: Neonatal nurse staffing.</i>	Neonatal networks.
18.	Using the NNAP measures guide, ensure that data entry regarding nurse staffing is complete and entered considering relevant published guidance such as Safe, sustainable and productive staffing: An improvement resource for neonatal care. Action: Neonatal units and networks. <i>Related NNAP measure: Neonatal nurse staffing.</i>	Neonatal units and networks.