Provider line of sight table on report recommendations for submission to the funders	
Please can the provider complete the following details to allow for ease of access and rapid review	
Project and Title of report, including HQIP Ref. ***e.g., Ref. XXX, Project and report title***	**Ref 429, National Neonatal Audit Programme, Summary report on 2022 data**
1. What is the report looking at/what is the project measuring?	The audit reports on key measures of the process, outcomes and structure of care delivered to babies admitted to in NHS neonatal units.
2. What countries are covered?	England, Wales and Scotland.
3. The number of previous projects (e.g., whether it is the 4th project or if it is a continuous project)	The audit has been running annually since its inception in 2006. The RCPCH is currently contracted to deliver the audit to March 2025.
4. The date the data is related to (please include the start and end points – e.g., from 1 January 2016 to 1 October 2016)	**England and Wales – 1 January – 31 December 2022** **Scotland – 1 April – 31 December 2022.** **Except for the following measures (England and Wales only):** • Mortality until discharge/44 weeks PMA – 1 July 2019 to 31 June 2022. • Bronchopulmonary dysplasia – 1 January 2020 to 31 December 2022. • Two-year follow up – births between July 2019 and June 2020.
5. Any links to NHS England objectives or professional work-plans (only if you are aware of any)	

Please can the provider complete the below for each recommendation in the report

No.	Recommendation	Intended audience for recommendation	Evidence in the report which underpins the recommendation *(including page number)*	Current national audit benchmarking standard if there is one	Associated NHS payment levers or incentives'	Guidance available (for example, NICE guideline)	% project result if the question previously asked by the project (date asked and result). If not asked before please denote N/A. This is so that there is an indication of whether the result has increased or decreased and over what period of time
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**	All neonatal networks (also involved: neonatal units, Network Boards, LMNS (and equivalent(Boards, Trust/Health Board Governance Boards, Maternity or	• Mortality – 6.5% of babies born at less than 32 weeks (between July 2019 and June 2022) died before discharge home. Network range: 4.8% - 8% • Bronchopulmonary dysplasia – 39.7% of babies born at less than 32 weeks (discharged January 2020 to December 2022) developed BPD or died. Network range: 33.9% to 47.1% • Necrotising enterocolitis – 6.2% of babies born at less than 32 weeks developed necrotising enterocolitis. Network range: 3.4% - 10.1%.	NA	NA	NICE Quality Standard [QS193]. Specialist neonatal respiratory care for babies born preterm.	2021: Mortality – 6.4% Bronchopulmonary dysplasia – 38.8% Necrotising enterocolitis – 5.8% Bloodstream infection – 4.7% IVH 3 or 4 – 6.1% cPVL – 2.3% Note that results for NEC, BSI and preterm brain injury (IVH 3 or 4 and cPVL) did not include Scotland in 2021 but do in 2022, and therefore results may not be directly comparable.

	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.	Neonatal Safety Champions)	• Bloodstream infection – 5.4% of babies born at less than 32 weeks had growth of a clearly pathogenic organism. Network range: 2.1% - 7.2%. • Preterm brain injury – IVH 3 or 4 – 7.5% of babies born at less than 32 weeks experienced IVH. Missing data was high (13.9%). • Preterm brain injury – cPVL – 2.6% of babies born at less than 32 weeks experienced cPVL. Missing data was high (17.2%). ***Results at a glance, p4-5*** Mortality varied between neonatal networks; from 4.8% to 8%. The difference in the proportion of babies born between 24 and 31 weeks gestational age who were admitted to a neonatal unit and die before discharge home represents major unwarranted variation. Differences in the measured background characteristics of babies cared for by networks does not fully explain this variation. ***Section 1, bullet 1, p6*** For other adverse outcomes, such as bronchopulmonary dysplasia (BPD), necrotising enterocolitis (NEC), and bloodstream infection, variation between neonatal units and networks persists from previous years, even when measured background characteristics are accounted for. There is evidence of a significant upward trend ($p < 0.001$) in the overall proportion of babies experiencing BPD or death (2015-2017 – 36.3%, 2020-2022 – 39.7%), rather than the desired decrease over time. ***Section 1, bullet 2, p6***				Methodological changes to NEC reporting also affect comparability.

			In 2022, 71.8% (127/177) of NNAP neonatal unit clinical leads were able to assure their NNAP data on preterm brain injury (intraventricular haemorrhage (IVH) grades 3 and 4, cystic periventricular leukomalacia and post-haemorrhagic ventricular dilatation), an increase from 66.3% in 2021. Proportions of missing 2022 data were high; 13.9% for IVH 3 or 4, and 17.2% for cPVL, and were variable between neonatal networks. Enhanced completeness and quality of data is required so that outcomes of neonatal care can be described more effectively both locally and nationally, and to inform reporting against the national ambition to reduce rates of brain injury during, or soon after, birth. ***Section 1, bullet 3, p6.***				
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	NHS England, Scottish and Welsh Governments	Adherence to timely administration of a full course of antenatal steroids is highly variable, ranging from 45.9% to 58.5% across neonatal networks. Overall, 52% (5,861 of 11,272) of mothers who delivered a baby between 23 and 33 weeks gestational age received a full course of antenatal steroids within one week prior to delivery. This reflects the challenge of delivering antenatal steroids in a timely fashion to maximise clinical benefit. It also illustrates the challenges of measuring timely administration of steroids without concurrent description of the number of women treated with antenatal steroids through maternity data. ***Section 2, bullet 1, p7***		Linked to Maternity Incentive Scheme, safety action 6	NICE guideline [NG25], Preterm Labour and Birth	N/A – significant change to antenatal steroids measure means that previous results are not comparable.

	deliver significantly preterm, • improve reporting of neonatal outcomes of maternity care, in line with the recommendation made in 'Reading the signals'[1] and to support national improvement initiatives.[2,3,4]						
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	NHS England, Scottish and Welsh Governments	Adherence to timely administration of a full course of antenatal steroids is highly variable, ranging from 45.9% to 58.5% across neonatal networks. Overall, 52% (5,861 of 11,272) of mothers who delivered a baby between 23 and 33 weeks gestational age received a full course of antenatal steroids within one week prior to delivery. This reflects the challenge of delivering antenatal steroids in a timely fashion to maximise clinical benefit. It also illustrates the challenges of measuring timely administration of steroids without concurrent description of the number of women treated with antenatal steroids through maternity data. ***Section 2, bullet 1, p7*** In 2022, 76.3% (5,157 of 6,755) of babies had a temperature measured on time which was within the normal range. There has been a sustained year on year improvement in the	Timeliness and normal temperature should be met for at least ninety percent (90%) of babies. Sixty percent (60%) of babies born at less than 34 weeks' should have deferred cord clamping.	Linked to Maternity Incentive Scheme, safety action 6, Saving Babies Lives v3	NICE guideline [NG25], Preterm Labour and Birth NHS England, Neonatal Critical Care Service Specification	Antenatal steroids: N/A – significant change to antenatal steroids measure means that previous results are not comparable. Temperature (2021): 73.2% (did not include Scotland) DCC (2021): 43% (did not include Scotland, change in gestational age criteria).

[1] Kirkup, B. Reading the Signals: Maternity and neonatal services in East Kent – the Report of the Independent Investigation

[2] NHS England. Saving Babies Lives Care Bundle version 3 (England).

[3] Scottish Patient Safety Programme, Maternity and Children Quality Improvement Collaborative. Preterm Perinatal Wellbeing Package.

[4] Wales Maternity & Neonatal Network. PERIPrem Cymru.

	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. [5],[6],[7]		proportion of babies admitted with a normal temperature, from 58.1% in 2015. There has been no significant increase in the proportion of babies admitted with hyperthermia. ***Section 2, bullet 2, p7*** In 2022, 60.4% (7,768 of 12,871) of babies born at less than 34 weeks gestation had deferred cord clamping (DCC). In 2021 the proportion was 43%, although the 2021 DCC measure only included babies at less than 32 weeks' gestation. When 2022 data is analysed only including babies born at less than 32 weeks' gestation in line with the 2021 analysis, the proportion for 2022 is 55.4% compared to 43% in 2021; indicating a 12% improvement in the delivery of DCC over the past year. Variation between neonatal networks remains wide – from 42.2% to 76.1%. ***Section 2, bullet 3, p7***				
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	Royal College of Paediatrics and Child Health, Royal College of Obstetricians and Gynaecologists, Royal College of Nursing, Royal College of Midwives	In 2022, the proportion of babies receiving breastmilk feeding at discharge home ranged from 48.6% to 79.3% between neonatal networks. Over time, there has been no overall change in this measure. For the first time in 2022, the NNAP also reports the proportion of babies receiving breastmilk within the first two days of life; this ranges from 34% to 76.7% between neonatal networks. Improving rates of initiation of breastmilk feeding may maximise the early benefits of breastmilk and increase the	Eighty percent (80%) of babies born at less than 34 weeks' gestational age should receive at least some of their mother's milk at discharge home from the neonatal unit.		UNICEF UK. The Baby Friendly Initiative	2021: Breastmilk feeding at discharge – 60.6% (did not include Scotland, change in gestational age criteria) Breastmilk feeding within 2 days – N/A, not previously reported.

[5] NHS England. Saving Babies Lives Care Bundle version 3 (England).

[6] Scottish Patient Safety Programme, Maternity and Children Quality Improvement Collaborative. Preterm Perinatal Wellbeing Package.

[7] Wales Maternity & Neonatal Network. PERIPrem Cymru.

	feeding, in training relating to intrapartum care, fetal medicine care and perinatal care.		chances of establishing longer term breastmilk feeding. ***Section 3, bullet 1, p8***				
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[8]) 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	The proportion of neonatal nurse shifts staffed according to recommended levels in 2022 across England, Wales and Scotland is 71.1% - 86,118 of 121,203 (England and Wales only – 71.1%), having fallen for a second year in a row (2021 – 73.9%, 2020 – 78.6% - England and Wales only). The continuing decline in neonatal nurse staffing levels is a matter of serious concern to those providing and commissioning neonatal services, given its association with increased mortality[9]. ***Section 4, bullet 1, p9***	100% of shifts staffed according to guidelines and service specification.		NHS Wales. All Wales Neonatal Standards – 3rd Edition. NHS England. Neonatal Critical Care Service Specification BAPM. Service Standards for Hospitals Providing Neonatal Care	2021: 73.9% (did not include Scotland, however England and Wales only result for 2022 is also 71.1%).

[8] NHS England. NHS Long Term Workforce Plan. 30 June 2023. Available at: https://www.england.nhs.uk/long-read/accessible-nhs-long-term-workforce-plan/

[9] Hamilton KE, Redshaw ME, Tarnow-Mordi W. Nurse staffing in relation to risk-adjusted mortality in neonatal care. Arch Dis Child Fetal Neonatal Ed. 2007. Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2675478/