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	
1. What is the report looking at/what is the project measuring?	National Neonatal Audit Programme The audit reports on key measures of the process and outcomes of care delivered to babies admitted to neonatal units in England, Scotland and Wales.
2. What countries are covered?	England, Scotland, Wales.
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 from 1 April 20017 to 31 March 2021. This is the third annual report due to be published during this contract period.
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)	1 January 2018 to 31 December 2018, which the exception of the following measures: Mortality until discharge/44 weeks PMA – 1 July 2015 to 31 June 2018 Bronchopulmonary dysplasia – 1 January 2016 to 31 December 2018 Encephalopathy – 1 January 2015 to 31 December 2017.
5. Any links to NHS England/NHS Improvement objectives or professional work-plans (only if you are aware of any)	PReCePT: Reducing cerebral palsy through improving uptake of magnesium sulphate in preterm deliveries, https://www.ahsnnetwork.com/case-study/precept-reducing-cerebral-palsy-through-improving-uptake-of-magnesium-sulphate-in-preterm-deliveries

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

No.	Recommendation	Evidence in the report which underpins the recommendation	Current national 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.	**(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** *Related NNAP measures: Antenatal steroids, Antenatal magnesium sulphate, Birth in a centre with a*	• Figures 1 and 2; neonatal unit and neonatal network variation (page 14). • 90.5% (11,590 of 12,814) of women whose baby born between 23 and 33 weeks gestational age received at least one dose of antenatal steroids (key findings, page 15). • 72.0% (2,886 of 4,007) of women who delivered a baby at less than 30 weeks gestational age received antenatal magnesium sulphate. • Networks vary greatly in their recorded success in administering magnesium to women delivering babies born at less than 30 weeks gestation in accordance with NICE guidance (65 – 82%). All networks improved on this measure when compared to their 2017 results. • There is marked inter-unit variation in recorded magnesium sulphate administration, but four units are identified as positive outliers at two standard	NNAP developmental standards: • 85% of mothers should receive at least one dose of antenatal steroids. • 85% of mothers should be given magnesium sulphate in the 24 hours prior to delivery. • 85% of babies born at less than 27 weeks gestational age should be delivered in a maternity service on the same site as a NICU.	None	NICE guideline [NG25], Preterm Labour and Birth NHS England, Neonatal Critical Care Service Specification Developmental standards set by clinical consensus.	Antenatal steroids: Reported since 2008, 2017 result: 88.6% Antenatal magnesium sulphate: Reported since 2016, 2017 result: 64.1% Birth in a centre with a NICU at < 27 weeks: Reported since 2017, result: 73.9%

	NICU.	deviations (see NNAP Online). (Key findings, page 19) • Figure 7; neonatal network variation (page 21). • 74.3% (1,204 of 1,620) of babies born at less than 27 weeks were delivered in a hospital with a NICU on site. (Key findings, page 22).				
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**	• 67.4% (5,149 of 7,636) of very preterm babies had a normal temperature taken within an hour of birth. • There is striking variation between units' performance. Larger hospitals (those with more than 50 very preterm babies per year) admitted from 30% to 100% of eligible babies with normal temperature (see NNAP Online). Key findings, page 25.	NNAP developmental standard: • The composite measure of timeliness and normal temperature should be met for at least 90% of babies.	None	NHS England, Neonatal Critical Care Service Specification. Developmental standard set by clinical consensus.	Reported in the NNAP since 2013, 2017 result: 64.4%
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** *Related NNAP measures: Parental consultation within 24 hours of*	• For 95.9% (53,833 of 56,141) of eligible babies, a senior member of the neonatal team consulted parents or carers within 24 hours of admission. • Networks varied in the performance of their units on this measure, with network level performance varying from 92 – 99%. All but three neonatal networks improved on their 2017 performance.	NNAP developmental standards: • A consultation should take place within 24 hours of first admission for every baby. No standard currently set for parental presence on the ward round.	None	Scottish Government, Neonatal Care in Scotland: A Quality Framework NHS Wales. All Wales Neonatal Standards – 2nd Edition. DH. Toolkit for high quality neonatal	Parental consultation within 24 hours of admission: Reported since 2013, 2017 result: 94.6% Parental presence on the ward round: Reported since 2017, result: 74.3%.

	admission, Parental presence on the ward round.	• Performance at unit level varied similarly (80-100%), with 42 units identified as having low outlying performance (at two and three Standard Deviations). Lower rates may result from poorer documentation or from differences in practice (see NNAP Online). Key findings, page 29. • Parents were documented as having attended a consultant ward round at least once during their baby's stay for only 79.1% (48,297 of 61,083) of admissions. Key findings, page 31.			services	
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** *Related NNAP measures: Parental presence on the ward round.*	• Parents were documented as having attended a consultant ward round at least once during their baby's stay for only 79.1% (48,297 of 61,083) of admissions. Key findings, page 31.	No standard currently set for parental presence on the ward round.	None	Scottish Government, Neonatal Care in Scotland: A Quality Framework NHS Wales. All Wales Neonatal Standards – 2nd Edition. Bliss. Bliss Family Friendly Accreditation Scheme	Parental presence on the ward round: Reported since 2017, result: 74.3%.
5.	Use evidence-based strategies to	• 10.6% of very preterm babies	No standard set.	None	No guidance	NEC reported since

	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** *Related NNAP measures: NEC, bloodstream infection, CLABSI.*	had a positive blood culture for a clearly pathogenic organism. Overall, for admitted babies of all gestations, 1.6% had such an infection, reflecting the known higher incidence of infections in less mature babies. (Key findings, page 38) • 6.3 very preterm babies experienced bloodstream infection per 1000 central line days (5.1 over all gestations). (key findings, page 39), • Approximately one in twenty (5.5%, 410 of 7,389) very preterm babies developed necrotising enterocolitis (NEC). This rate is unchanged from 2017 (5.6%, 428 of 7,628). (key findings, page 48).			available.	2017, result: 5.6%. Change in infection measures since previous year.
6.	Develop processes to ensure that NEC and blood culture data are complete, using NNAP quarterly reports, to provide assurance at the end of the year. **Action: Neonatal units with incomplete NEC and blood culture data** *Related NNAP measures: NEC, bloodstream infection, CLABSI.*	• 119 neonatal units (65.7%) have provided assurance that 100% of positive blood cultures reported in their unit have been submitted to the audit, and can therefore compare their units infection rates with some other units. (key findings, page 38). • 129 neonatal units (71.3%) have provided assurance that 100% of their NEC diagnosis data was submitted to the audit. (key findings, page 48).	No standard set.	None	No guidance available.	In 2017, 74 neonatal units (41%) were able to provide assurance that all their positive blood cultures were submitted to the audit. In 2017, 78 neonatal units were able to provide assurance that all of their NEC diagnosis data was submitted to the audit.

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** *Related NNAP measures: NEC, bloodstream infection, CLABSI.*	• 119 neonatal units (65.7%) have provided assurance that 100% of positive blood cultures reported in their unit have been submitted to the audit, and can therefore compare their units infection rates with some other units. (key findings, page 38). • 129 neonatal units (71.3%) have provided assurance that 100% of their NEC diagnosis data was submitted to the audit. (key findings, page 48).	No standard set	NHS England, Neonatal Critical Care Service Specification	No guidance available.	In 2017, 74 neonatal units (41%) were able to provide assurance that all their positive blood cultures were submitted to the audit. In 2017, 78 neonatal units were able to provide assurance that all of their NEC diagnosis data was submitted to the audit.
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.** *Related NNAP measures: Bronchopulmonary dysplasia*	• Between 2016 and 2018, 36.5% (8,671 of 23,773) of very preterm babies had significant BPD or died before they reached 36 weeks corrected gestational age. • BPD rates attributed to neonatal unit of birth appear to vary importantly, but the analysis of treatment effect is more meaningful. Treatment effect describes the difference between a rate of BPD seen in a unit or network and that seen in a comparable group of babies cared for in the whole country. Key findings, page 45.	No standard set	None	NICE guideline; [NG124] Specialist neonatal respiratory care for babies born preterm.	Between 2015 and 2017, 36.2% had significant BPD, or died before they reached 36 weeks corrected gestational age.

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** *Related NNAP measures: Minimising separation of mother and term and late preterm baby.*	• On average three special care or normal care days were given for each term (greater than or equal to 37 weeks) baby admitted to a neonatal unit. • On average 6.6 special care or normal care days for each late preterm (34-36 weeks gestational age) baby admitted to a neonatal unit. Key findings, page 50.	No standard set	None	No guidance available.	In 2017, an average of 3.2 days of special or normal care was given to term babies. In 2017, an average of 6.8 days of special or normal care was given to late preterm babies.
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. *Related NNAP measures: Minimising separation of mother and term and late preterm baby.*	• Measures of separation days should be interpreted alongside gestation specific admission rates, which are presented by the National Maternity and Perinatal Audit. Key findings, page 50.	No standard set	None.	No guidance available	Not applicable.
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.	• 59.6% (3,652 of 6,128) of eligible babies were receiving their own mother's milk, either exclusively or with another form of feeding, at the time of their discharge from neonatal care. (2017 - 60.5%; 2016 – 59%; 2015 – 58%).	No standard set.		No guidance available	Reported since 2013, 2017 result: 60.5%.

	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** *Related NNAP measure: Breastmilk feeding at discharge home.*	Key findings, page 53.				
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** *Related NNAP measure: Two year follow up*	• 69.9% (2,910 of 4,161) of eligible babies had documented clinical follow up at two years of age. Key findings, page 56.	NNAP developmental standard: • 90% of babies with two-year follow-up data entered.	NHS England, Neonatal Critical Care Service Specification	NICE guideline [NG72] Developmental follow-up of children and young people born preterm. Developmental standard for documented follow up is set by clinical consensus.	Reported since 2012, 2017 result: 62.6%.
13.	To reduce mortality, neonatal	• Rates of mortality until	None.	None.	No guidance	Not applicable, new

	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. **Action: Neonatal networks** *Related NNAP measure: Mortality until discharge*	discharge home, or 44 weeks post menstrual age, vary widely by network of care, from 4.9 to 9.8% (adjusted rates – unadjusted rates range from 4.9 to 10.2%). Adjustment for these background variables does little to explain variation. Key findings, page 59.			available. No standard set.	measure.
14.	Use NNAP quarterly reports to ensure that a mortality outcome is clearly recorded for every baby admitted. For babies discharged to	• 1.4% of babies (330 of 22,937) had an unknown survival status. Additional precision can be expected in future measures	None	None	No guidance available. No standard set.	Not applicable, new measure.

	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** *Related NNAP measure: Mortality until discharge*	of mortality with lower rates of missing data. Key findings, page 59.				
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** *Related NNAP measure: Neonatal nurse staffing*	• Nurse staffing on neonatal units across the UK is below nationally recommended levels. Overall, 63.9% of shifts (80,642 of 126,240) are numerically staffed according to national guidelines; and 44.1% (37,985 of 86,139) of all nursing shifts have sufficient staff qualified in specialty to care for the babies present. • At least 605 nurses (78,916 additional nursing shifts, 5.6 WTE nurses required per nurse shift based on two shifts a day) would be needed in order for full neonatal unit staffing to occur. This would be in addition to existing bank and agency staff. • There is clear network variation in adherence to neonatal nurse staffing guidelines. Among networks, the proportion of shifts numerically staffed to	Direct caring staffing ratios of one nurse per intensive care baby, one nurse to two high dependency babies, and one nurse for four special care babies with an additional shift coordinator are mandated. Further, at least 70% of registered nursing staff on duty should have a neonatal specialist qualification.	None	NHS England. Neonatal Critical Care Service Specification Department of Health. Toolkit for high quality neonatal services BAPM. Service Standards for Hospitals Providing Neonatal Care	

		guidelines ranges from 42.8% to 77.7%, and the proportion of shifts with sufficient staff qualified in specialty ranges from 23.3% to 72%. The reasons for this variation are likely to be multifactorial. Key findings, page 63.				
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** *Related NNAP measure: Neonatal nurse staffing*	*As above for recommendation 15.*	*As above for recommendation 15.*	None	*As above for recommendation 15.*	Not applicable, new measure.
17.	Maintain oversight of neonatal unit capacity on a regular basis to support and assist units in balancing capacity against demand. **Action: Neonatal networks**	*As above for recommendation 15.*	*As above for recommendation 15.*	None	*As above for recommendation 15.*	Not applicable, new measure.

	Related NNAP measure: Neonatal nurse staffing					
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** *Related NNAP measure: Neonatal nurse staffing*	*As above for recommendation 15.*	*As above for recommendation 15.*	None	*As above for recommendation 15.*	Not applicable, new measure.