**British Association of Perinatal Medicine**
**Consultation Response Form**

Document Title: **Optimal arrangements for Local Neonatal Units and Special Care Units in the UK: A Framework for Practice**
Closing date: **22nd August 2018**
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| Page number/ heading / general comments | Line number/ 'general' for comments | Comments<br><br>Please insert each new comment in a new row. | BAPM LNU SCU Working Group Response to Consultation Comments |
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| Dr Katherine Pain, Consultant Paediatrician with Neonatal Interest, Hampshire Hospitals NHS Foundation Trust | | | |
| 6 | | Is there any evidence for where these criteria come from? Why does 25 babies mean you are safe? If isolated units can demonstrate safety and then continue, why can other LNUs not also do this? How would this be demonstrated? | The LNU SCU working group does not support infrequent isolated practice in any unit regardless of location. Rural units being requested to remain as care providers at their current designation, despite lower activity levels, would need to enhance the activity exposure of their staff at another neonatal unit within the ODN to enable them to fulfil the minimum activity exposure e.g. by joint appointments, rotation of staff.<br><br>**Action agreed by working group:** include a statement supporting the need for parents and families to be provided with appropriate support with facilities and accommodation if they have to travel to a neonatal unit remote from their home to support their baby. |
| 6 | | There is no other mention of assessing quality/outcomes which surely is important. Larger units aren't automatically better. There are references but they are not linked to the cut off values. | The LNU SCU working group carefully considered the data available to them that were accurate and reproducible enough to be appropriate to inform consensus opinion given the lack of available evidence specifically |

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| | | | for LNUs and SCUs in the UK currently. Respiratory care days and admission weight (not birthweight) <1.5kg were two such measures.<br><br>Attempts were made to obtain birth rate data from MBRRACE-UK but these are not collected by MBRRACE-UK for each individual neonatal unit. England birth rate data were shared with us but not all data points could be reproduced. Currently birth rate data are not robust enough to inform the framework. England CRG kindly shared their ITU and HDU data and these have informed the framework where noted.<br><br>Any future research or appropriate, reliable benchmarked data, including agreed outcome measures, can be used to inform further versions of this framework.<br><br>**Action agreed by working group:** no change to document |
| 8 | | We strongly disagree that every consultant who covers neonates out of hours should do 4 ward round weeks per year. In the LNU we run this would mean all consultants doing 4 weeks, and therefore those consultants with a special interest would only do 4 weeks each. There is no doubt in our minds that babies benefit from the consistency provided by fewer consultants doing longer spells on NNU, and that hese consultants have more experience in managing the longer term nuances of neonatal nutrition, doing head scans, discharge planning more complex babies and providing 2 years of neonatal follow up. This would be similar to asking a paediatric diabetes specialist to only do 4 weeks of diabetes clinics per year. It also means any unit with more than 13 consultants could not meet the standards, and given that there is ongoing expansion of consultant numbers in many units to cover middle grade gaps this is likely to be a national problem. We agree some standard for how other consultants demonstrate on-going CPD is important, whether by joint ward round, grand rounds, tertiary unit inreach | The framework does not support the use of on-call Consultants covering the neonatal unit who do not have access to leading the neonatal team to provide care in the weekday. In an individual unit some Consultants may perform more than 4 COW weeks; the working group's opinion was that no Consultant should provide less than 4 weeks as COW.<br><br>**Action agreed by working group:** no change to document |

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| | | etc.Specifying the role of neonatal networks in LNU/SCBUs maintaining skills would be extremely valuable. We have asystem of outreach whereby tertiary consultants visit LNUs but it is often cancelled for clinical pressures, whereas if specified in guidance would be prioritised. | |
| 8 | | The benefit of tier 1 doctors specifically is questionable, these are often the most inexperienced at deliveries and neonatal care. GPs and F2s often form part of tier 1 cover and may not, for example, be able to cannulate a baby.<br><br>In some areas ST3s work on the tier 2 rota once they have finished their membership exams, there is no acknowledgement of this within the document. ANNPs also need recognition on the tier 2 rota. | The framework requires Tier 1 medical/practitioner staff are supported by more senior staff.<br><br>The use of ST3 by Deaneries to provide Tier 2 cover within rotations is outside the scope of this document. The framework supports the use of ANNPs in Tier 1 and Tier 2 roles as assessed by Trusts.<br><br>**Action agreed by working group:** no change to document |
| 8 | | There is mention about separate tier 2 support if there is a requirement for a road journey between sites, but in some cases the time taken to get from paediatrics to neonates is long even without a road journey. It would be more useful to have an expected time of response rather than define the means of transport. | The Tier 2 should be immediately available to the neonatal unit and the labour ward. If the siting of the paediatric unit is away from the neonatal unit separate rotas for Tier 2 are advised.<br><br>**Action agreed by working group:** the Tier 2 should be immediately available at all times to the neonatal unit and the labour ward. If the site of the paediatric unit makes this immediate response impossible separate Tier 2 rotas are required. |
| general | | It could be extremely useful to have clarity about service provision and expectation but it does need to be either evidence based or acknowledged as consensus opinion, the former being clearly preferable when moulding national services. | The LNU SCU working group debated at length the lack of available evidence and have used observational data and consensus as noted in the framework.<br><br>**Action agreed by working group:** no change to document |
| <u>Ms Josie Anderson, Senior Policy and Public Affairs Officer, Bliss – National Charity for the Newborn</u> | | | |

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| P.2 | 1.2 Definitions | Suggest amending this to: 'Intensive care is defined using BAPM 2011 definitions **and** using HRG definitions' for clarity.<br><br>Additionally, a reference needs to be added in here for BAPM 2011, as the statement is only references to the HRG definition. | **Action agreed by working group:** accept comment and update document |
| P.4 | Figure 2 | It would be helpful to have information on how many units do not have immediate dedicated cover at any medical Tier. From the graph, it appears a number of LNUs are currently carrying out RCDs – many a significant amount – without having a dedicated neonatal medical team to provide cover. This raises serious concerns about safety and is contrary to the BAPM *Service Standards*. While the document goes onto recommend that LNUs should 'have immediately available at least one resident Tier 1 practitioner…' there are no recommendations setting out what units who cannot maintain this should do in the interim.<br><br>Bliss' *Baby report 2015: hanging in the balance* found that under 40 per cent of LNUs in England had medical staff which were compliant with BAPM *Service Standards* at all Tier levels, suggesting a significant issues with recruitment and retention across all areas of medical staffing.<br><br>Additionally, the Bliss *Baby report 2016: time for change* found two of the three LNU and four of the five SCU operational in Wales did not have enough medical staff to meet minimum standards. Indeed, at the time of publication only one Welsh LNU had a Tier one rota which was fully dedicated to neonatal care. Similarly, the *Bliss and TinyLife: Northern Ireland Baby Report 2018* two LNUs and both SCBUs were unable to meet BAPM standards for medical Tiers across all three tiers. | The document shares current known staffing levels within the UK in LNUs and SCUs. Local solutions for individual Trust's rotas are outside the scope of this document and best negotiated locally given that they are likely to be influenced by local factors. Where appropriate staffing is not attainable in a Trust, a review of activity provided in that neonatal unit should be undertaken at Trust level and with the ODN.<br><br>**Action agreed by working group:** no change to document<br><br>This comment is in line with the data shared in the framework in Table 2.<br><br>**Action agreed by working group:** inclusion of reference.<br><br>This information is in line with the survey findings from units who responded. The information from Wales is very helpful as this was not always forthcoming in the survey.<br><br>**Action agreed by working group:** inclusion of references. |

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| | | Three LNUs reported having to share Tier one staff with paediatrics, despite it being a requirement for these to be separate.<br><br>It may be helpful to consider a recommendation which outlines what units should be doing to mitigate this and work towards compliant, safe staffing. | |
| P.6 | 2.1a | ''...with the more preterm babies being transferred to other LNUs or NICUs within the network.''<br><br>It may be helpful to strengthen this statement so it emphasises established protocols that babies born <27 are transferred to a NICU and that babies born at an older gestational age are transferred to an LNU or NICU based on clinical condition of the baby and local procedures. | The LNU SCU group have not included gestational age definitions for placement of babies in NICUs, LNUs & SCUs as these gestations are available within each nation's guidance and this framework seeks to support each nation's recommendations. Furthermore within ODNs, gestational age as a definition for care pathways does vary between units, and there remains the possibility that these gestational age ranges will alter as research informs practice in the near future. For these reasons we have upheld our decision not to include gestational ages in this framework at present.<br><br>**Action agreed by working group:** no change to document |
| P.6 | 2.1b | Bliss agrees that transfers are challenging for families – particularly in areas of the country, which are remote and rural. However, for babies to have the best chance of survival and quality of life, it is important that they are cared for in unit most suited to their needs. We would suggest:<br>• Provide a greater explanation of the parameters of where geography justifies the existence of a small unit, and where it does not.<br>• Expand this section to include the importance of LNUs and SCUs having sufficient overnight accommodation and other facilities which will enable parents to stay with their baby more easily if they are having to travel long-distances, and facilitate their partnership in their baby's care. It is disappointing that this guidance does not specifically reference the | The LNU SCU working group does not support infrequent isolated practice in any unit regardless of location. Rural units being requested to remain as care providers at their current designation, despite lower activity levels, would need to enhance the activity exposure of their staff at another neonatal unit within the ODN to enable them to fulfil the minimum activity exposure e.g. by joint appointments, rotation of staff.<br><br>**Action agreed by working group:** include a statement supporting the need for parents and families to be provided with appropriate support with facilities and accommodation if they have to travel to a neonatal unit remote from their home to support their baby. |

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| | | needs of parents and families, and this appears an ideal section to explore that in more detail. | |
| P.7 | 3.1 | • Need to add a reference to the BAPM Transitional Care Framework<br>• Bliss suggests expanding this section to note that when units are being assessed for safe-staffing as part of this guidance (for example, ensuring that large SCU are safely staffed if they are exceeding recommended activity levels) that compliance with nurse staffing ratios are considered with equal importance as medical staffing requirements. | Action agreed by working group: add reference to BAPM TC document<br><br>Nurse staffing is of immense importance in all levels of neonatal unit. The use of nurse staffing to influence the designation of neonatal units is outside the scope of this framework.<br><br>**Action agreed by working group:** no change to document |
| P.7 | 3.2.1b | • ‘’This person could be shared with a co-located Paediatric Unit out of hours if this does not reduce quality of care delivery and safety to the neonatal unit’’<br><br>How should this be measured to ensure quality of care and safety is not compromised? Is there a suitable document that can be referenced here?<br><br>• ‘’SCUs delivering higher than recommended activity levels should provide a dedicated Tier 1 practitioner as required for LNUs; see 2.1b’’<br><br>While it is important that units are safely staffed for the activity they provide, SCUs are not routinely configured to care for large volumes of babies requiring respiratory care or IC days. As it stands, this recommendation may be slightly contradictory of 2.1b which advocates re-designation. Perhaps it needs to be rephrased to say something like: | **Action agreed by working group:** agreed pointing to available national quality guidance is required – add in reference to NSQI, BAPM and NNAP<br><br>The “see 2.1b” is to refer the reader to that statement, to avoid repetition within the document.<br><br>**Action agreed by working group:** no change to document |

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|  |  | ‘’SCUs consistently delivering higher than recommended activity levels should be reviewed in line with 2.1b to assess suitability for re-designation and to ensure locally agreed guidelines for care and activity are being followed. If it is agreed the SCU should continue to be designated as an SCU, they should provide a dedicated Tier 1 practitioner as required for LNUs.’’ |  |
| P.8 | 3.2.2b | ‘’ SCUs delivering higher than recommended activity levels should provide a Tier 2 practitioner as required for similar activity levels in LNUs; see 2.1b’’<br><br>Please see comment above on 3.2.1b | The “see 2.1b” is to refer the reader to that statement, to avoid repetition within the document.<br><br>**Action agreed by working group:** no change to document |
| P.8 | 3.2.3a | ‘’ This is best delivered by a ‘consultant of the week’ system and no consultant should undertake <4 ‘consultant of the week’ service weeks annually’’<br><br>Is the ‘consultant of the week’ system widely understood by all neonatal unit teams, and is it a consistent definition between them? It may be worth footnoting a definition so it is clear exactly what system is being advocated here. | The group agree that this term is widely understood.<br><br>**Action agreed by working group:** no change to document |
| 10 | Refs: 16, 17, 18, 24, 25, 26, 27, 28, | All the references listed are pre-1990, and several are from the early 1980’s and even the 1970’s. How has this evidence been appraised to ensure it is still relevant and reliable? Would outcomes relating to neonatal mortality and longer term outcomes which are reported within them still be a reliable evidence base given the advances in neonatal medicine since 1990 with the introduction of surfactant? For example, reference 25 found while intrapartum transfer to a tertiary centred led to the reduction of fetal deaths and neonatal morbidity among VLBW babies, neonatal mortality | The LNU SCU working group considered this comment and agree that some of the references are historical. The working group seek to retain all the references as they reflect the evolution of the provision of neonatal care within neonatal networks in the UK.<br><br>**Action agreed by working group:** no change to document |

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| | | rates were not reduced. However, more recent evidence (such as NESCOP) has shown a reduction in neonatal mortality among VLBW who are cared for at a tertiary centre and receiving appropriate 1-1 nursing care. | |
| Dr Una Mac Fadyen, NHS Forth Valley | | | |
| 5 | general | There is potential conflict of criteria using a birth weight cut off for decisions on service demand in Scotland as the Best Start recommendations have <1500 grams as a threshold for Level 3 care and in some cases there may be 'competition' for low birth weight babies to ensure adequate number of admissions to demonstrate viability of the service, also gestation is a more useful criterion for predicted need for ventilator support. | The LNU SCU working group carefully considered the data available to them that were accurate and reproducible enough to be appropriate to inform consensus opinion given the lack of available evidence specifically for LNUs and SCUs in the UK currently. Respiratory care days and admission weight (not birthweight) <1.5kg were two such measures.<br><br>Attempts were made to obtain birth rate data from MBRRACE-UK but these are not collected by MBRRACE-UK for each individual neonatal unit. England birth rate data were shared with us but not all data points could be reproduced. Currently birth rate data are not robust enough to inform the framework. England CRG kindly shared their ITU and HDU data and these have informed the framework where noted.<br><br>Any future research or appropriate, reliable benchmarked data, including agreed outcome measures, can be used to inform further versions of this framework.<br><br>Additional information from Best Start:<br>"However, for that small proportion, the complexity of neonatal intensive care has increased, particularly for those babies born before 26 weeks' gestation or with extremely low birth weights, those babies requiring complex modes of ventilation and nitric oxide and/or extracorporeal life support, and babies requiring complex surgery<br><br>Based on published evidence, the professional consensus is that future models of neonatal care should be designed to ensure that designated neonatal intensive care units care for a minimum of 100 VLBW babies per year (VLBW is defined in this context as less than 1500g) and are suitably experienced in caring for babies who need help with breathing (the latter is measured as respiratory care days per year). Two thousand respiratory care days per year has been proposed as an appropriate volume of practice for a modern neonatal intensive care unit." |

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| | | The use of RSDs as the only evidence for decisions assumes that respiratory problems are the only issue demanding skilled neonatal care while much of a Level 1 or 2 NNUs expertise is linked to feeding as much as respiratory care.<br>There should be more specific advice on the service to transitional care which is likely to involve review of infants from the community as well as those in hospital | The LNU SCU working group did discuss the limitations of the activity data at length. Other data were not available.<br>Respiratory care more often requires not only medical/practitioner decision making but also implementation e.g. assessment of baby and intubation if required and organ support. Data for RCDs were made available to assist with the framework. Data for medical/practitioner involvement in the delivery of nutritional and other activity are not well described currently.<br><br>**Action agreed by working group:** no change to document |
| 7 | 3.2.1 | Tier 1 doctors are inexperienced and often unsafe in assessing and treating well and sick babies and promoting that grade as cover for a neonatal service that has limited senior cover is inappropriate unless there is supervision until the doctor has demonstrated required competencies –e.g. has attended at least a neonatal resuscitation training course and passed it. | The framework states that Tier 1 staff are supported by more senior staff.<br><br>**Action agreed by working group:** no change to document |
| | 3.2.2 | Tier 2 doctors often need support for neonatal duties and for a Level 2 NNU there should be a network approved guideline for presence of a senior paediatrician in at risk situations, this relates also to next comment | Noted thank you. We would encourage such a guideline if this is not in existence but this is outside the scope of this document and likely will depend in part on local factors.<br><br>**Action agreed by working group:** no change to document |
| | 3.3.3 | The level of neonatal experience of all senior paediatricians taking responsibility for a neonatal service either as consultant of the week or on call should be clarified as the loss of 'special interest' criteria and reinstatement of SPIN in recent months has left a gap in some general paediatric consultants' specialist skills in this area particularly in relation to follow on care. I would suggest that it would be helpful to include the potential need for rest facilities for senior doctors | This is outside the scope of this document and is defined by RCPCH, CSAC & Deaneries.<br><br>**Action agreed by working group:** no change to document |

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| | | who are expected to be on site to supervise juniors overnight but have duties the following day. | |
| | general | Overall this is a useful documents but would benefit from a focus on required skills rather than definition of grades as there is a need for non medical practitioners to be considered for more roles in neonatal care. | The Tier 1 and Tier 2 roles have been defined using medical and practitioners.<br><br>**Action agreed by working group:** no change to document |
| Dr Aiwyne Foo, Consultant Paediatrician, on behalf of Chesterfield Royal Hospital NHS Foundation Trust | | | |
| 3.2.3a<br>All LNUs should ensure that all Consultants on-call for the unit also have regular weekday commitments to the neonatal service. This is best delivered by a 'consultant of the week' system and no consultant should undertake <4 'consultant of the week' service weeks annually. | | As an LNU which fulfils optimal activity as such, we have an acute consultant rota of 1 in 10 covering neonatal services and general paediatrics. Reviewing this workforce and the variety of work we cover, we currently are not in a position to accomplish this point without at least a further 2 consultants on the acute rota. The size of our department is not practical to split the rota for paediatrics and neonatal at present.<br><br>As part of the South Yorkshire Integrated Care Plans, there are discussions of innovative consultant rotation with tertiary neonatal services, ie within our neonatal network which mat solve the problems of upkeeping skills and expertise. | The framework does not support the use of on-call Consultants covering the neonatal unit who do not have access to leading the neonatal team to provide care in the weekday.<br><br>**Action agreed by working group:** no change to document |
| 3.2.1a<br>Units designated as LNUs should have immediately available at least one resident Tier 1 practitioner dedicated to | | Our tier 1 doctor is shared between paediatrics and neonates between 21:00 and 09:00. We are currently not in the position to increase the number of tier 1 doctors in the dept and accordingly will need another 4 at least to do so. | Noted; thank you for sharing. |

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| providing emergency care for the neonatal service 24/7 | | | |
| Dr Babu Kumararatne, Consultant Neonatologist, The Royal Wolverhampton NHS Trust, on behalf of SSBC Neonatal Network | | | |
| 6/ Recommendations - activity | General | The minimum number of infants <1500g that an LNU should admit and the number of RCDs annually are too low for a safe service to ensure that all staff working there have enough exposure to maintain skills and knowledge - these equate to less than one admission a fortnight and one baby per day receiving respiratory care. It may also be helpful to describe the number of admissions by gestation ie LNUs>28 week and SCUs >32 weeks as per the service specification? | Given the current lack of available evidence to demonstrate that higher activity improves staff competencies and baby outcomes within LNUs and SCUs it is not possible to make recommendations using higher levels of activity. The levels chosen are a fair reflection of the current activity undertaken within the UK and are a consensus opinion of the LNU SCU working group, and have been shared with the BAPM EC & Officers, and national stakeholders who have not recommended an increase in these definitions at this time. This of course will be reviewed with further versions of the framework should further evidence become available.<br><br>**Action agreed by working group:** no change to document |
| 7/ Recommendation - staffing | General | It would be helpful to include a recommendation for staff – medical and nursing, to include the need for routine rotation to different levels of units to maintain skills and knowledge and support safety | Given the variation in activity demonstrated between LNUs/SCUs it has not been possible to provide a general recommendation for routine rotation of staff to different levels of units to maintain skills and knowledge, as many units are able to provide adequate clinical exposure. Where activity levels are below those recommended in the framework the Trust should work with the ODN to determine whether rotation of staff is a viable option to maintain skills for those remote and rural areas where the provision of neonatal care is recommended.<br><br>**Action agreed by working group:** no change to document |
| 7/ Recommendation - staffing | General | It would be helpful to include a recommendation for medical and nursing staff to routinely participate in shared case reviews with other neonatal services in order to learn from identifying both good and poor practices | Shared learning between all levels of neonatal unit for all staff groups is recommended but this detail is outside the scope of this document.<br><br>**Action agreed by working group:** no change to document |

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| 7/ Recommendation - staffing | 3.1 Nursing staffing | It would be helpful to include a recommendation on the need for supernumerary shift co-ordinator in LNUs | This framework supports other documents for nursing staffing and does not seek to replicate that work here.<br><br>**Action agreed by working group:** no change to document |
| Dr Rekha Sanghavi, Consultant Paediatrician, on behalf of Wexham Park Hospital and Frimley Park Hospital | | | |
| 6/2.1a | | Agreed. However closure or re-designation will not necessarily mean that redundant staff will be re-employed in other neonatal units or will choose to move. | Designation of LNUs and SCUs is likely to be influenced by available local staffing.<br><br>The LNU SCU group have not included gestational age definitions for placement of babies in NICUs, LNUs & SCUs as these gestations are available within each nation's guidance and this framework seeks to support each nation's recommendations. Furthermore within ODNs, gestational age as a definition for care pathways does vary between units, and there remains the possibility that these gestational age ranges will alter as research informs practice in the near future. For these reasons we have upheld our decision not to include gestational ages in this framework at present.<br><br>**Action agreed by working group:** no change to document |
| 7/3.2.2 | 24X7 Tier 2 | While it is desirable to have a separate Tier 2 doctor 24/7 a significant number of Tier 2 rotas have gaps. With the overwhelming staffing shortages in the UK it is important that where possible we staff units sensibly to have cross cover which will help to support the peaks and troughs in activity seen commonly in paediatric and neonatal units. | We acknowledge that units may find it difficult currently to provide staff in accordance with these aspirational recommendations. The recommendations should be used to inform future workforce planning, care pathways and investment.<br><br>**Action agreed by working group:** no change to document |
| 7/3.2.2 | 24X7 3rd bullet point | We support this. | Noted thank you |
| 8/3.2.3a | 24X7 Tier 3 | Being prescriptive may set units and trusts up for 'failure'. | These recommendations are aspirational and should be used to inform future workforce planning and care pathway provision.<br><br>**Action agreed by working group:** no change to document |

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| General | General | While we recognise and support the need to uphold and improve standards of neonatal care nationally given that the Neonatal Toolkit Standards for nursing and Tier 1 staffing have not been met by units it is surely far too ambitious with the lack of Tier 2 doctors and ANNPs to set the requirements laid out in this document. Quality of care relies on adequate staffing but only up to a limit. Quality of care is already monitored widely and this should be our focus.<br>Closure of small units with very low activity levels is logical. The problem is that staff do not necessarily move to another unit but are more likely to be made redundant or re-employed in another specialty.<br><br>***This is a joint response from all the Paediatric Consultants at Wexham Park and Frimley Park Hospitals which make up Frimley Health NHS FT. Both units are LNUs. Together we are the largest LNU in the country.*** | These recommendations are aspirational and should be used to inform future workforce planning and care pathway provision.<br>Unit designation may change to fit with available staffing in that area.<br><br>**Action agreed by working group:** no change to document |
| Dr Emmanuel Quistherson, West Hertfordshire TR | | | |
| RCD as proxy for complexity of care | | Not so relevant now given widespread use of ANS and general good health of mothers and infants. Given that LNUs are looking after infants from 27 weeks and whose long term outcomes are based on other than RCD decision making this should not be the main determinant of staffing levels at tier 3. | The LNU SCU working group carefully considered the data available to them that were accurate and reproducible enough to be appropriate to inform consensus opinion given the lack of available evidence specifically for LNUs and SCUs in the UK currently. Respiratory care days and admission weight (not birthweight) <1.5kg were two such measures.<br><br>Attempts were made to obtain birth rate data from MBRRACE-UK but these are not collected by MBRRACE-UK for each individual neonatal unit. England birth rate data were shared with us but not all data points could be reproduced. Currently birth rate data are not robust enough to inform the framework. England CRG kindly shared their ITU and HDU data and these have informed the framework where noted.<br><br>The LNU SCU working group did discuss the limitations of the activity data at length. Other data were not available.<br>Respiratory care more often requires not only medical/practitioner decision making but also implementation e.g. assessment of baby and |

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| | | | intubation if required and organ support. Data for RCDs were made available to assist with the framework. Data for medical/practitioner involvement in the delivery of nutritional and other activity are not well described currently.<br><br>Any future research or appropriate, reliable benchmarked data, including agreed outcome measures, can be used to inform further versions of this framework.<br><br>**Action agreed by working group:** no change to document |
| Staffing Tiers and sufficiency | | General agreement that juniors less experienced coming into tier 2 roles and need considerable upskilling. Translates to tier 3 docs also less experienced and learning on the job.<br>Job complexity is increasing not decreasing, aspects of care scrutinised for litigation as never before including timeliness of response to changing clinical state. | Noted thank you; this supports the need for this framework<br><br>**Action agreed by working group:** no change to document |
| Unit designation and staffing | | Above consideration would warrant review of LNU's to 1&2 to take account of geography and specific issues: based on delivery numbers and minimum number of 27-30 week gestation admissions p.a. LNU 1 to maintain separate rotas at all 3 tiers and LNU 2 maintain split at tier 2 and above without losing LNU status. | There are no plans to provide a 4th level of neonatal unit. Any split of LNU activity and staffing into two discrete types of LNUs would demand a review of the care pathways for each of the proposed types of LNU to fit with clinical exposure and availability of support for patient care.<br><br>**Action agreed by working group:** no change to document |
| Dr Steve Brearey, Consultant Paediatrician/Neonatal Lead, Countess of Chester NHS FT | | | |
| P2 | 1.1 | The BAPM framework for practice for NICUs recommendations are based on evidence of improved outcomes in larger units with more activity. There does not seem to be any acknowledgement in the draft that there is very little credible evidence for what is an optimal size for an LNU and whether this leads to better outcomes. I feel there should be a statement at least, firstly acknowledging the lack of knowledge/evidence as to whether the size of an LNU or its level of activity | The LNU SCU working group deliberated this issue at length. Evidence for both LNUs and SCUs were sought. Given the lack of evidence in this area observational data and consensus opinion were required, and this is noted within the document. We await the results of the OPTIPREM study with interest, which looks to compare outcomes in LNUs and NICUs. No current study is underway for SCUs to our knowledge. Any future evidence will inform future versions of this framework.<br><br>**Action agreed by working group:** no change to document |

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| | | correlates with better outcomes. Secondly, a recommendation that research in this area is needed. If the recommendations have been made as a result of the discussions of the working group and are purely consensus based then this should be included. | |
| P3 | 1.5.2 | Please define respiratory care day (RCD). | Defined under Definitions on page 2<br><br>**Action agreed by working group:** no change to document |
| | | Figure 1 graph: The axes seem to be the wrong way around. "Admissions <1.5kg" is the non-dependent variable and should be on the x axis. | Statistical opinion was sought in the preparation of the graphs. The graphs have been presented previously to stakeholders with no prior comment obtained.<br><br>**Action agreed by working group:** no change to document |
| | | Text above Figure 1 states that admissions weight <1.5kg correlates with RCDs. There is no R value given and the data points on the graph are not convincing. For example, for units who admit around 50 babies <1.5kg, the range of RCDs varies from 500 to 1500. This suggests wide variation in practices which might be more important to investigate. If RCDs don't correlate strongly with admission birth weight numbers, the recommendations given later in this paper become weaker. | The LNU SCU group noted the wide variation in respiratory care day provision. The reasons for this variation are outside the scope of this framework. The graph seeks to display visually a message via colour that would be difficult to demonstrate without colour or by using text alone. An $R^2$ value has been calculated (0.7604) and does demonstrate a clear correlation. There is only one SCU providing >500 RCDs annually.<br><br>**Action agreed by working group:** no change to document |
| P6 | | If recommendations are made based on the assumption that units with more low birth weight babies and hence more respiratory care days have better outcomes, this should be clearly stated.<br>If recommendations have been made with the viability of smaller units in mind due to difficulties in staffing smaller units, then this should also be mentioned.<br>It is not very clear how the working group came to their conclusions. | The LNU SCU working group deliberated this issue at length. Evidence for both LNUs and SCUs for outcome were sought. Given the lack of evidence in this area observational data and consensus opinion were required, and this is noted within the document. We await the results of the OPTIPREM study with interest, which looks to compare outcomes in LNUs and NICUs. No current study is underway for SCUs to our knowledge. Any future evidence will inform future versions of this framework.<br><br>**Action agreed by working group:** no change to document |

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| | | Why include a number for RCDs at all? Recommendations would be more robust and would encourage better practice if they only stipulated admissions with BW <1.5kg. By including RCDs in the recommendation, this may encourage units to provide more RCDs to maintain their status as a LNU. | The LNU SCU working group discussed the issue of gaming and unanimously agreed that this would be very poor practice. The possibility of gaming should not hinder attempts to provide a framework that seeks to support safe and high-quality care.<br><br>**Action agreed by working group:** no change to document |
| P7 | 3.2.1 | There's no data provided to justify any of the conclusions about staffing recommendations. It seems to be purely consensus based. There's no data provided to show that units with dedicated 24/7 tier 1 cover provide better care. There's no data provided to show that the lack of separate tier 1 cover explains some of the unacceptable variation in outcomes across the country. BAPM recommendations regarding tier 1 cover on LNUs should be reviewed as the financial implications are significant and the influence on quality of care and outcomes is uncertain. | Availability of staffing for emergencies and urgent care is likely to determine designation moving into the future. The LNU SCU working group do not support infrequent practice performed by staff not accustomed to delivering such care. Evidence that exposure to activity and dedicated staffing leads to improved outcomes is challenging to demonstrate currently given the limitation of available data and the wide variation in activity and staffing in the LNUs and SCUs in the UK. Units providing stabilisation and/or resuscitation facilities to very preterm infants should be staffed to be able to provide immediate care.<br><br>**Action agreed by working group:** no change to document |
| Ms Vikki Smith, Ward Sister, York Hospital | | | |
| 7 | Section 3.1 | I agree with the nurse staffing ratios in this section and feel that these should be achievable on this unit. | Noted thank you |
| Dr Peter McEwan, Consultant Neonatologist, Poole NHS Trust | | | |
| 7 | 3.2.2a | We are an LNU (Poole) with 40 deliveries <1500g per year, 600 ICU days according to HRG and 1300 Respiratory care days (2017 figures). We have no dedicated paediatric registrar. Not by day, not at night, not at weekend. (This was "taken away" from us by a deanery who used to provide a trainee for the role and then didn't (2008 approx). Since this time we have operated a "two-tier" rota. Could the document represent the fact that there are other models of care available? I understand that the Royal Free paediatric service used to (maybe still does) operate a "one tier" model for paediatric emergency care, (consultants only) and that although it made for difficult recruitment to | The recommendations are aspirational and should be used to inform future workforce planning, care pathways and investment.<br><br>Bespoke variations on the framework's recommendations should be truly exceptional and shown to provide safe & high-quality care.<br><br>**Action agreed by working group:** no change to document |

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| | | those posts, I don't think there was ever a suggestion that it wasn't safe. The other practitioners on our rota (the other tier from the consultants, who are dedicated neonatal consultants) is the ANNP "grade" all of whom have practiced solely in the role they currently have, acting as registrars, and using buddy-type shifts at the start of their careers. Working alongside them (usually one at any given time, are Clinical Fellow Doctors, whose grade is ST4 equivalent. | |
| 2 | Definitions 1.2 | I'm not sure if the last line makes sense (according to my "Unit Report" on Badger: HRG and BAPM 2011 are different things) | **Action agreed by working group:** accept comment and update document by including "or by" |
| 8 | 3.2.3a local Neonatal units Last bullet point | We have five in a rota (all dedicated neonatal consultants) not six. We feel this is sustainable, but again working pattern here is maybe slightly different | The LNU SCU working group support at least a 1 in 6 Consultant rota.<br><br>**Action agreed by working group:** no change to document |
| Dr Sundeep Sandhu, Consultant Paediatrician/Neonatal Lead, York Teaching Hospital NHS FT | | | |
| 5 | Section 2.1a | Agree that these are reasonable criteria | Noted thank you |
| 7 | Section 3.1a | We try to work to these nursing ratios. This has been a challenge recently due to staff shortages but I agree that the expectation should be to work to these recommendations | Noted, thank you |
| 7 | Section 3.2.2a | We have a tier 2 rota doctor solely for the neonatal unit between 09:00 and 17:00. After this the doctor is responsible for both paediatric admissions as well as any neonatal work. We recognised that this was a problem and have been working on a resident evening consultant rota since February 2018 to support the acute service. This means that there is a tier 2 doctor and consultant available during our busiest hours. At the weekend we are unable to provide resident consultant presence but the consultant will come back | The recommendations are aspirational and should be used to inform future workforce planning, care pathways and investment.<br><br>Bespoke variations on the framework's recommendations should be truly exceptional and shown to provide safe & high-quality care.<br><br>**Action agreed by working group:** no change to document |

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| | | to the hospital in the evening. This will not strictly meet the criteria suggested in the BAPM document but is a safe and sustainable model of care for our service. | |
| 8 | Section 3.2.3a point 3 | Agree that this is reasonable to maintain skills and knowledge | Noted thank you |
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| Dr Una Mac Fadyen NHS Forth Valley | | | |
| Page 2<br>Para 1.2 | | Including invasive respiratory care with non-invasive confuses the clinical risk status of infants and their likely need for urgent intervention at any time. In LNUs care of intubated babies is likely to be short term and this would be helpful to clarify for the reader or even to consider making specific recommendation that flexibility of expert cover as needed would be practical for stretched staffing levels<br>Similarly an infant with a tracheostomy being cared for in a MNC prior to discharge home would not clinically be regarded as requiring intensive care or an indication for senior medical presence 24/7 | The use of respiratory care days and not invasive respiratory days alone was chosen because for LNUs and SCUs invasive respiratory care days are only a small part of the workload; in order to make medical/practitioner staffing recommendations an appropriate and measurable activity was required and RCDs were chosen. RCDs have also been used within NICU research and informed the aligned NICU framework for practice.<br>Within LNUs and SCUs babies supported on non-invasive respiratory support can and do deteriorate and require intubation and ventilation as they do in NICUs. Such babies come from three main groups: in pathway preterm infants in the initial phase of their surfactant deficiency, babies requiring active cooling for hypoxic events, and extremely preterm babies delivered outwith the care pathways due to lack of IUT (prompt delivery, lack of NICU maternity capacity, maternal risk). The long-term babies that have been repatriated from NICUs are the most stable.<br><br>**Action agreed by working group:** no change to document |
| Page 4<br>Figure 2 &3 | | In clinical terms there is a wide range of risk within the <1500Kg group and this might be considered to acknowledge the need for clinical assessment in decisions regarding place of delivery and place of ongoing care<br>I do not think Tier 2 should include ST1 as these doctors may have no paediatric or neonatal experience and are not appropriate to take responsibility for a LNC neonatal unit. I think we should specify that a more senior doctor should be prepared to be resident when | The data used in the framework includes all babies admitted <1.5kg including all illness severity. The care of babies should be in an appropriate unit regardless of weight or gestation which may mandate transfer to an NICU for ongoing or complex ventilation.<br><br>**Action agreed by working group:** no change to document<br><br>The document does not define a Tier 2 as an ST1 and seeks to ensure that all ST1 are supported by more senior staff at all times. |

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| | | there are infants requiring intensive care or anticipated deliveries of such infants<br>Most Level 3 NNUs will expect tot transfer back to LNU babies of under 1500 grams when they are deemed stable so this cut of weight alone is not appropriate, accepting that most research has reported outcomes in that way. | **Action agreed by working group:** no change to document<br><br>The data for number of babies admitted <1.5kg includes those babies admitted from birth and those babies repatriated from NICUs and LNUs.<br><br>**Action agreed by working group:** no change to document |
| 2.1b | | The recommendation for minimum number of admissions within specified ranges suggests that there may need to be transfer out of appropriate babies from Level 3 NNUs including of families local to the Level 3 Unit, it may be helpful for networks to have this recognised in this document as such decisions can be challenging for staff and for obstetric colleagues<br>I would suggest that in this section there should be specific recognition of the importance of 24 hour access to specialist advice by telephone or telemedicine etc from a Level 3 service consultant neonatologist for all LNUs and SCUs | A BAPM statement regarding unacceptable neonatal transfers written by Dr Alan Fenton is given below.<br><br>**Action agreed by working group:** no change to document<br><br>Unacceptable Perinatal Transfers<br>Background:<br><br>Neonatal care in England is now delivered by a series of networks with intensive care provision concentrated in specialist centres within each network. This approach often involves antenatal and postnatal transfers so that pregnant mothers and babies may access the appropriate level of care they require. There are approximately 9000 emergency postnatal transfers of infants in England annually (<2% total births; source TIG annual dataset). Most individual neonatal intensive care units and local neonatal units run at high levels of occupancy and to accommodate an individual infant for intensive or high dependency care it may be necessary to move other infants (within agreed clinical pathways) to ‘free up’ an appropriate cot. Where this is not possible an alternative cot will need to be found, possibly some distance from the ‘home’ hospital. It is assumed that each neonatal network will have its own pathway for infants within their population to access high dependency and intensive care. The transfers of pregnant women (antenatal transfers, ref BAPM doc) often present difficult logistical issues - many of these women do not deliver immediately, an appropriate neonatal cot may be unavailable in the receiving centre either at the time of a transfer request or by the time delivery occurs there may not be maternity capacity to accept the transfer. This document aims to provide general guidance for these pathways and |

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| | | | for exception reporting. Transfers for supra-regional services (e.g. ECMO) do not fall into this remit.<br><br>General principles:<br><br>• Networks will have clearly defined acute referral pathways for both antenatal and postnatal transfers<br>• Networks will provide appropriate levels of care for their entire perinatal population (pregnant women and infants) requiring transfer<br>• Out of region transfers may be deemed appropriate if more geographically convenient for the patient<br>• Networks will audit both acute antenatal and postnatal transfers to assess adequate provision of resource (ref: NICE Specialist Neonatal Quality Standard)<br>• Acute antenatal and postnatal transfers should be to the nearest within-network centre able to provide the required level of care for the mother and infant<br>• Acute antenatal and postnatal transfers should be coordinated by the most senior clinical staff involved with the case<br>• For acute antenatal transfers the projected timeline for delivery needs to be considered. Unless delivery is imminent the absence of a neonatal intensive care cot at the time of referral should not be an absolute barrier to accepting the transfer. Maternity staff should take into account short term projected delivery suite throughput before declining a transfer<br><br>We recommend that the following situations be exception reported, investigated and where confirmed as inappropriate transfers be reported centrally:<br><br>Potential inappropriate transfers – acute antenatal transfers:<br><br>• Outside the region for non-clinical reasons (eg lack of staffed cots)<br>• Outside the agreed network pathway (unless geographically appropriate) |

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| | | | • Past the nearest within-region unit able to provide the required level of care for both mother and infant when delivery is not imminent<br>• To a unit providing a lower level of neonatal care than the referring centre and a lower level of care than the baby is expected to require<br>• Failed antenatal transfer resulting in postnatal transfer<br><br>Inappropriate transfers – postnatal:<br><br>• Failed transfer such that the baby remains at a unit providing a lower level of care than baby is expected to require<br>• Outside the region for non-clinical reasons (eg lack of staffed cots)<br>• Outside the normal network pathway (unless geographically appropriate)<br>• Past the nearest within-region unit able to provide the required level of care for the infant when an appropriate cot is vacant and staffed at that unit<br>• Where transfer results in twins or higher order births being located in different units<br>• Out of the mother's 'home' unit to accommodate another infant who requires a higher level of care<br>Author: Dr Alan Fenton, 2010 |
| 3.1 | | Nursing staffing should include the need for CPD that ensures skill maintenance and updating for all LNU and SCU nursing staff and possible role of rotation or secondment as required within a regional network structure | This framework supports other documents for nursing staffing and does not seek to replicate that work here.<br><br>**Action agreed by working group:** no change to document |
| 3.2.1a | | The wording of this paragraph might indicate that the Tier 1 doctor should not be responsible for newborn examination but this is an important aspect of basic paediatric training – especially for an ST1 if they are in this role, accepting not their sole duty it should be included and a minimum number of supervised and observed examinations might be recommended | Routine newborn examinations are part of the normal care pathway and thus fall within the scope of the continuity of carer described in Better Births. The Tier 1 neonatal team continue to have significant exposure to newborn examinations in transitional care, where antenatal care plans require a medical/practitioner review and in those babies where staff have identified anomalies or raised concerns after birth including the need for IV antibiotics. |

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| | | Again the supervision of a ST1 in this role should be clarified especially as the out of hours duties are likely to include attendance at emergencies in the NNU and high risk deliveries. | **Action agreed by working group:** no change to document |
| 3.2.2a | | Is there evidence that a Tier 2 doctor is more likely to be needed up till 22.00 than overnight? If the daytime cover is assumed to involve ore management decisions this would likely involve a consultant and most practical procedures could be planned for 9-5. So long as LNC experience is not regarded as relevant for the e portfolio for paediatrics trainees may not regard this level of commitment as appropriate for their educational needs. | RCPCH publications have determined the high activity levels within paediatric departments.<br><br>**Action agreed by working group:** no change to document |
| 3.2.3a | | This section should specify 'consultant or senior specialty doctor. 'There would be scope to advise that these senior doctors have am identified link to their regional Level 3 Unit with opportunity for secondment or shadowing as part of their CPD.<br>I would suggest that availability for overnight accommodation is recommended for senior paediatricians who have to be immediately available to support their team when required | There is a pathway for senior specialty doctors to convert to Consultants and they should be supported to do so.<br><br>**Action agreed by working group:** no change to document |
| Dr Ryan Watkins, Consultant Neonatologist/Honorary Clinical Senior Lecturer/Chief of Service W&C Division, BSUH NST Trust | | | |
| General | General | I appreciate that the document is entitled 'Optimal arrangements'. However, the document does not provide a framework for standalone SCUs other than reference to the presence of a tier 1 member of staff. It would be useful if BAPM could provide more detailed guidance in support of such units. Our experience would suggest that such a unit can be safely provided with a resident member of staff functioning at tier 2 level with consultant support provided on an on call basis. Or more simply to reference that other models of service delivery are possible. | Bespoke variations on the framework's recommendations should be truly exceptional and shown to provide safe & high-quality care.<br><br>**Action agreed by working group:** no change to document |

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| Dr Martin Ward Platt, Consultant Paediatrician (Neonatal Medicine) Royal Victoria Infirmary, Newcastle | | | |
| General | General | This seems a sensible and well constructed document, but I am puzzled as to why weight rather than gestational age criteria are used in analysing LNU and SCU workloads.<br><br>I accept that both maturity (GA) and birth weight have relevance but generally GA trumps weight in relation to outcome, and other cutoffs (for example, for level 3 care) use GA.<br><br>On one level it does not matter very much because the recommendations focus on annual baby numbers and RCDs in relation to safe staffing, but the use of weight in the data presentation gives the document a curiously dated feel. | The LNU SCU group have not included gestational age definitions for placement of babies in NICUs, LNUs & SCUs as these gestations are available within each nations' guidance and this framework seeks to support each nations' recommendations. Furthermore within ODNs, gestational age as a definition for care pathways does vary between units, and there remains the possibility that these gestational age ranges will alter as research informs practice in the near future. For these reasons we have upheld our decision not to include gestational ages in this framework currently.<br><br>**Action agreed by working group:** no change to document |
| Title | Title | The document's title gives little clue as to its content: "Optimal arrangements for Local Neonatal Units and Special Care Units in the UK: A Framework for practice". What about 'Medical staffing arrangements for Local Neonatal Units and Special Care Units in the UK: A Framework for practice'? The document makes very clear early on that 'medical' means either doctors or those doing work traditionally considered to be the province of doctors. The companion document on NICU had 'medical staffing' in the title: "Optimal Arrangements for Neonatal Intensive Care Units in the UK including guidance on their Medical Staffing: A Framework for Practice" | The framework supports existing nursing staffing standards and expands on available medical staffing standards.<br><br>**Action agreed by working group:** change title to Optimal Arrangements for LNUs and SCUs units in the UK including guidance on their Staffing: A Framework for Practice" |
| Dr Janet Berrington, Consultant Neonatal Paediatrician, Newcastle Neonatal Services, Royal Victoria Infirmary, Newcastle | | | |
| | | I notice that the document moves between a birth weight cut off of <1500g and a gestation cut –off of 32 weeks | Admission weight, not birthweight, and Respiratory care days are used to define activity. Birth weight and gestation have not been used. Birthweight is challenging to use as an admission weight for LNUs and |

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| | | It might help to be fully consistent throughout, or state that the two are considered fully synonymous, or state either <32 weeks or <1500g | SCUs given their provision of repatriated care from NICUs. Gestational age recommendations are given within each nation's publications and are not repeated here as they are readily available currently, have the potential to change over time, and the working group were aware of variations in gestational age definitions for a unit's care pathways within ODNs for different Trusts.<br><br>**Action agreed by working group:** no change to document |
| Ms Anne-marie White, Divisional Nurse Director (Acting), Bolton NHS Foundation Trust | | | |
| 6 | General | I feel these activity recommendations are appropriate. I welcome these recommendations as I feel they will support managers in their endeavours to maintain safety and provide quality care | Noted thank you |
| 6 | General | In general terms the neonatal transport teams struggle to cope with the current demand on service, this is not simply about teams but also about ambulances and kit– many teams do not have dedicated ambulances, those who have 1 need 2, etc.<br>In order for these recommendations to be achieved there will need to be investment and training in neonatal transport | Noted, thank you an important issue; transport services to support the designation of neonatal services in the UK are outside the scope of this framework.<br><br>**Action agreed by working group:** no change to document |
| 7 | 3.2.1a | "midwives should be trained" BAPM should identify type of training here and within similar docs . Lack of clarity gives scope for interpretation which is usually determined by financial availability | Midwifery training is outside the scope of this document and determined by national bodies including the Royal College of Midwives.<br><br>**Action agreed by working group:** no change to document |
| 7 | General | I note with interest the "tier 1 practitioner " "tier 2 practitioner" . I appreciate the opportunity provided here for multi disciplinary care provision. | Noted thank you |
| Dr Rebecca Mann, Consultant Paediatrician, Special Interest Neonatal Intensive Care, Musgrove Park Hospital, Taunton and Somerset NHS FT | | | |

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| | General | I think this is an outstandingly good document – it covers the issues well and includes important areas such as the overlap with general paeds services, geography etc. well,<br>I think the staffing suggestions are reasonable and logical.<br><br>You may have chosen not to be prescriptive, but you could consider other approaches: for example including a sentence that SCUs with workload below a certain level could consider converting to transitional care units, so that babies are nursed and cared for routinely with their mothers? Might show some consistency with other approaches nationally and within BAPM<br><br>I am interested in the variability in the Resp care days - my own unit is an LNU with relatively high numbers of admissions of <1.5kg babies, but low resp care support days compared to <1500g activity, and also low resp care days vs BAPM 2011 ITU days. I would be interested in seeing a graph comparing <1500g admissions vs ITU days and wonder whether this would be a tighter correlation than resp care days? I presume we just tend to take babies off CPAP and hi flow quicker than others, or that the relatively low resp care days rates reflect some other variance in clinical practise - so it made me wonder about which is the best measure of activity / less well babies it is best to use/<br>nonetheless, this does not have a big impact on the headlines of the Framework which I think is good. | Noted, thank you.<br><br>The designation of units with low activity would be the responsibility of the Trust with the ODNs to ensure that arrangements were safe and able to provide high-quality care.<br><br>**Action agreed by working group:** no change to document<br><br>The variability between units is noted. Each unit will be sent their graph in relation to others and can use this opportunity to explore why they may vary, if indeed they do, from the majority.<br><br>**Action agreed by working group:** no change to document |
| Dr Poornima Pandey, Neonatal Lead, Kettering General Hospital | | | |
| Page 8 | 3.2.3a | Weekday commitments to the neonatal service specifications could be made clearer as modifications to the rota across regions even on a "consultant of the week" rota is variable e.g. sharing between consultants 3days/2days... | Weekday as Consultant of the week providing leadership for the neonatal team and directing care.<br><br>**Action agreed by working group:** no change to document |

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| Page 8 | 3.2.3a | It would be helpful to provide some guidance on out-of-hours Tier 3 cover | A minimum 1 in 6 on-call rota is recommended<br><br>**Action agreed by working group:** no change to document |
| Ms Vanessa Attrell, Network Manager, South East Neonatal Operational delivery Network | | | |
| Page 6<br>2.1a | Line 2 | Include gestation as per NHSE service spec: ≥25 infants of 26+6 weeks(singleton) or 27+6 weeks(multiples). Overall opinion of network consultants was birthweight below 1500g not helpful. | The LNU SCU group have not included gestational age definitions for placement of babies in NICUs, LNUs & SCUs as these gestations are available within each nation's guidance and this framework seeks to support each nation's recommendations. Furthermore within ODNs, gestational age as a definition for care pathways does vary between units, and there remains the possibility that these gestational age ranges will alter as research informs practice in the near future. For these reasons we have upheld our decision not to include gestational ages in this framework at present.<br><br>Please note that <1.5kg is admission weight not birthweight<br><br>**Action agreed by working group:** include <1.5kg admission weight definition under Definition section. |
| Page 6<br>2.1b | Line 2 | The birthweight could be misinterpreted as acceptable to deliver below 1500g at any gestation. Overall opinion of network consultants was gestation 31+6 weeks and minimum weight 1000g. Could change to minimum no of infants 1000g – 1500g but maybe proposing volume of HD activity would be better than RCD. | The LNU SCU working group support gestational age definitions for each level of neonatal unit as defined by each nation and do not seek to repeat them here. The 1.5kg refers to admission weight and not birthweight alone (please see amended definition section).<br><br>The LNU SCU working group considered carefully the data available to them that were accurate and reproducible enough to be appropriate to inform consensus opinion given the lack of available evidence specifically for LNUs and SCUs in the UK currently. Respiratory care days and admission weight (not birthweight) <1.5kg were two such measures and are applicable to all nations within the UK.<br><br>**Action agreed by working group:** no change to document |
| Page 7<br>3.2.1b | Line 6 | Not clear staffing required by level of activity; should this relate to IC days & HD days not weight & RCD. | The LNU SCU working group carefully considered the data available to them that were accurate and reproducible enough to be appropriate to inform consensus opinion given the lack of available evidence specifically |

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| | | | for LNUs and SCUs in the UK currently. Respiratory care days and admission weight (not birthweight) <1.5kg were two such measures and are able to be benchmarked across all nations in the UK. IC days and HD days are used in England HRG codes.<br><br>**Action agreed by working group:** no change to document |
| Page 7<br>3.2.2a | Line 4 | The RCD or IC days are not helpful, at least one unit is above in IC days but below in RCD so they are likely to not comply with the proposed staffing as they will chose which data item suits them. Please can this be IC days as it relates to NHSE service spec compliance more easily. | The LNU SCU working group did discuss the limitations of the activity data at length. Data for RCDs were made available to assist with the framework by UK LNUs and SCUs. IC days are available in England-only units and are shared within the document to demonstrate the correlation that exists between these two measures. The framework seeks to support all of the UK including England and has given activity definitions using RCDs to be able to do so. Given that England utilises IC days these have been given to assist colleagues in the majority of LNUs and SCUs in the UK. Variation is noted and individual neonatal units should seek to understand their benchmarked activity and their variation from the majority where this exists (activity graphs will be sent to each participating unit separately).<br><br>**Action agreed by working group:** no change to document |
| Page 7<br>3.2.2a | Line 6 | As above, | As above |
| Page 8<br>3.2.3a | Lines 1 & 3 | Potential controversy with the RCD & IC days, under HRG 2016 one of our LNUs will be in the >1500 RCD but below 600 IC days; asking them to 'strongly consider ' will not lead to any change. | The LNU SCU working group did discuss the limitations of the activity data at length. Data for RCDs were made available to assist with the framework by UK LNUs and SCUs. IC days are available in England-only units and are shared within the document to demonstrate the correlation that exists between these two measures. The framework seeks to support all of the UK including England and has given activity definitions using RCDs to be able to do so. Given that England utilises IC days these have been given to assist colleagues in the majority of LNUs and SCUs in the UK. Variation is noted and individual neonatal units should seek to understand their benchmarked activity and their variation from the majority where this exists (activity graphs will be sent to each participating unit separately).<br><br>**Action agreed by working group:** no change to document |

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| Dr Ngozi Edi-Osagie, Consultant Neonatologist,/Group Associate Medical Director/Clinical Lead/Clinical Head of Division, Manchester University FT | | | |
| Page 6 | 2 | At MFT we feel that the recommendations on activity are appropriate. | Noted thank you |
| Page 7 | 3.1 | As has been demonstrated by many units across the UK, achieving the recommended nursing:patient ratio continues to prove challenging. We are pleased the document reiterates the need for appropriate staffing of LNUs | Noted thank you |
| Page 7 | 3.2.1a | We feel the responsibility of newborn physical examination should lie with midwives with tier 1 staff providing support. It is known that the quality of midwife examinations exceeded that of SHOs (*Journal of medical screening 2003;10: 176-180*) | **Action agreed by working group:** to provide an additional appropriate reference if available in addition to Better Births. |
| Page 7 | 3.2.2a | We welcome the recommendations which also take activity into account and we feel this is an important part of the document which will enable providers to have appropriate discussions with relevant commissioners<br>However due to the national lack of availability of tier 2 staff, many units will find this recommendation difficult to implement as it would require significant expansion of tier 2 teams, which would be challenging both financially and with regards to recruitment. Your survey shows that only 21% of LNUs currently have dedicated tier 2 staffing. | We acknowledge that units may find it difficult currently to provide staff in accordance with these aspirational recommendations. The recommendations should be used to inform future workforce planning, care pathways and investment.<br><br>**Action agreed by working group:** no change to document |
| Ms Alison Cowie, Matron Children's Acute and Complex Care, The Rotherham NHS FT | | | |
| 7 | LNUs undertaking either >1000 RCDs or >400 IC | Whilst appreciating the need for aspirational goals, this particular goal appears to be an unrealistic objective for the majority of district general hospitals which potentially result in the destabilisation of some local neonatal units. | We acknowledge that units may find it difficult currently to provide staff in accordance with these aspirational recommendations. The recommendations should be used to inform future workforce planning, care pathways and investment. The recommendation for >1000 RCDs or >400 IC days includes an option where a separate dedicated Tier 2 is not |

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| | days annually should strongly consider providing a 24/7 resident Tier 2 dedicated | | available that a risk analysis is performed to demonstrate safe care provision.<br><br>**Action agreed by working group:** no change to document |
| Mr Martin McColgan, Workforce Information Manager, RCPCH | | | |
| 3 | Text relating to figure 1 | 1) Work intensity is vastly different between LNUs and SCUs – be better if this brought out more in the text.<br>2) Wonder if the obvious should be stated that this means different arrangement are need for SCUs and LNU – if this is for service and workforce planners (non-clinical), I don't think it harms to spell things out to show what they mean. | **Accept and change document.** Add in 'Only one SCU is currently delivering more than 500 RCD' under fig 1. |
| 4 | Text relating to fig 2 | On similar lines should the conclusions from the data be set out – does this mean having a separate rota increases capacity? Would it reduce transfers? | The data given are observational and describe the activity and staffing in the UK supporting neonatal services within LNUs and SCUs. The data do not claim to show that separating rotas increases capacity or has an effect on transfers.<br><br>**Action agreed by working group:** no change to document |
| 5 | Table 2 | Need to make clear this refers to medical staffing | **Action agreed by working group:** thank you, will amend the Table 2 title to medical/practitioner |
| 6 | 2.1b final paragraph | Does timely antenatal transfer need to be explained? What does this mean in practice, when would transfer not be appropriate? | **Action agreed by working group:** Reference for BAPM guidance "Management of acute in-utero transfers: a framework for practice" included |

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|---|---|---|---|
| 8 | 3.2.3a 3rd bullet point | 1) Rather than weekday commitments, should it say **daytime** commitments. Facing the Future proposes 7 days per week for CoW.<br>2) Is <4 enough. If each did 4, wouldn't you need 13 consultants or am I misunderstanding? | Weekday is required to avoid Consultants only delivering daytime commitments at the weekends.<br><br>You do not require 13 consultants e.g. 4 is a minimum; some units have 4 neonatologists with 11 COW weeks each, and 2 neonatal paediatricians with 4 COW weeks a year each.<br><br>**Action agreed by working group:** no change to document |
| 8 | 3.2.3a last bullet | Is one in 6 a bit low? Could it say 1 in 8 in order to maximise consultants' time for teaching, supervision, CPD etc. Make standard more aspirational. | This is aspirational as there are insufficient NHS staff available in the UK currently to be able to make this recommendation. A 1 in 6 rota should allow time for Supporting Professional Activities.<br><br>**Action agreed by working group:** no change to document |