Southern West Midlands
Neonatal Operational Delivery Network

ALLIED HEALTH PROFESSIONALS

REVIEW OF PROVISION WITHIN THE SWMNODN

Report by:

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1 Background

Safe staffing of neonatal units is high on the national agenda. The NHSE Quality Surveillance Team Neonatal Peer Review report will be published as part of the National Critical Care Review (NCCR) for Neonatal Services. It reports that *only 20% of Trusts across the country were compliant with the standards for provision of AHPs (Allied Health Professionals)*. Of 98 serious concerns 7 were for a lack of AHP provision.

In the past neonatal care has concentrated on improving survival. As more babies are surviving we are now striving for high quality outcomes. It is recognised in the NCCR that neonatal units cannot operate with only medical and nursing staff. It states "*Key contributions come from an essential group of allied professionals, many of whom develop special expertise in their discipline as it applies to newborn babies, who are more complex than simply "small children". These disciplines comprise dietitians, occupational therapists, physiotherapists, speech and language therapists, pharmacists and psychologists, among others.*"

Historically, existing documents gave *some* recommendations for AHP input (Toolkit for high quality neonatal services 2009[2], BAPM service standards 2010[3]). In reality, these recommendations are only in practice across a handful of units[1]. In 2018 at the request of the NCCR group, professional bodies collected together their recommendations for appropriate staffing levels, designed to accommodate the structure of local service provision. These can be found online (Appendix 1). These staffing recommendations are supported by professional competency documents to ensure post-holders reach the required standard to practice in neonatology, which are also available online (Appendix 1).

2 Benchmarking

In 2018 a benchmarking survey was undertaken across the England yielding 336 responses from physiotherapists, dietitians, speech and language therapists, occupational therapists, pharmacists and clinical psychologists. 127 out of 158 units were represented in the responses. The results demonstrated:

- **78% of all respondents say current provision is insufficient to run an effective service**
- **37%** of respondents provide a service without funding (average 6.75 hrs per week)
- **39%** of respondents have a funded service. **2/3** of these say funding is insufficient to meet the need

Number of units able to access these services

	PT	Diet	SLT	OT	Pharm	Psych
NICU (47 units)	33	31	26	9	18	11
LNU (74 units)	32	28	20	7	17	2
SCU (37 units)	16	11	6	2	5	1
Total (158 units)	**81**	**70**	**52**	**18**	**40**	**14**
% respondents providing service with no funding	**42**	**45**	**24**	**23**	**53**	**8**

The qualitative responses identified that units seek ad-hoc advice or intervention from local AHP teams who have no or minimal neonatal training or experience to support clinical decision making for the neonatal unit[1]. The specialist input is often absent, untimely and/or inappropriate. The input given is often a gesture of goodwill on behalf of the paediatric and adult AHP teams involved[1]. This risks leaving the least experienced staff to manage the sickest most vulnerable babies.

The exercise concluded that across England there was:

- Significant disparity in the access to, and quality of AHP services.
- Considerable reliance on “goodwill” (especially from paediatrics)
- Un-funded services were less likely to have specialists (not meeting standards required by existing publications[2,3])

Challenges remain:

- How do we develop and meet recommendations to provide quality services?
- It is unlikely that there are enough sufficiently qualified and experienced professionals to meet service needs in every unit.
- **A long-term model that considers succession planning, and up-skilling the workforce is vital.**

3 SWMNODN provision

In SWMNODN, Allied Health Professionals are employed to deliver specialist advice and education to all groups of staff in each unit across the network. The link to the service specification can be found in appendix 1.

SWMNODN have the following AHPs currently in post:

SWMNODN AHP roles	
Speciality	**WTE**
Respiratory Physiotherapist Band 7	0.6
Speech and Language Therapy Band 7	0.3
Dietitian Band 8a	0.5

The network role includes:

- Producing and disseminating standardised guidelines and resources based on current evidence and best clinical practice.
- Troubleshooting *difficult* cases cotside or remotely.
- Embedding new initiatives and participation in network action groups, for example Fi-Care.
- Strategic planning and sharing good practice between units.

These network roles are not designed to take away the need for unit based AHPs, but rather facilitate and enhance the care that these local professionals could offer. *Unit* based AHPs can deliver more timely and responsive advice and intervention that can be planned and integrated with parental and MDT involvement.

The network role supports AHP staff who may have little opportunity to gain experience and confidence in the management of the neonatal population, and can resource local workforce planning to:

- Upskill existing staff in an unfamiliar area.
- Ensure the service is not dependent on a single individual.
- Ensure standardised assessment and intervention across the network and in line with current evidence and best practice.

Southern West Midlands

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Special Care Baby Units

Local Neonatal Unit

The SWMNODN AHPs offer equal access to all units across the network.

Surgical Unit

Neonatal Intensive Care Units

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Friars Gate, Solihull, B90 4BN

4 What is currently provided across SWMNODN

HEREFORD AND WORCESTER LMS		
Speciality	**Hereford**	**Worcester**
Physiotherapist	Community Physiotherapist takes community referrals. 3hrs per week for planned follow-up. No unit cover.	Clinic based community Paediatrics 1 day a week (No unit cover)
Speech and Language Therapy	Reactive - Community unfunded	No Provision
Dietitian	Access to Paediatric Dietitian as required	No Provision

BIRMINGHAM AND SOLIHULL LMS		
Speciality	**BWCH**	**UHB HGS**
Physiotherapist	WTE 1.0 Band 7	WTE 0.8 Band 7 (+?0.2 B7 GH)
Speech and Language Therapy	No provision	WTE 1.0 Band 7
Dietitian	0.1 WTE Band 8a	WTE 0.6 Band 7

COVENTRY AND WARWICKSHIRE LMS			
Speciality	**Coventry**	**Warwickshire**	**Nuneaton**
Physiotherapist	No funded provision. Reactive - covered ad-hoc by Paediatrics as good will	No funded provision. Reactive - covered ad-hoc by Paediatrics as good will	No provision
Speech and Language Therapy	2 days a week split across Paediatrics	Reactive - Community in-reach as needed	Reactive – community in reach as needed
Dietitian	0.1 WTE Ad hoc access via Paediatric Dietitian	0.2 WTE Paediatric Dietitian	Reactive - access via Paediatric Dietitian

5 National Picture

AHP provision is featured strongly in the NCCR. Please refer to appendix 2 for elements taken from the draft report prior to its imminent publication (early 2019).

6 Recommendations for service development

The current AHP provision within units across SWMNODN is not sustainable and does not meet the national requirements for the delivery of equitable and quality AHP services. There is a significant lack of professionals in the neonatal field with the appropriate qualifications and experience to fully staff an AHP service. Within SWMNODN we are unique and have the resources in our AHP team to provide training, development and on-going support for AHPs in a neonatal role.

It is recommended that LMSs look to fund AHP posts to support service development *across the footprint*. Working across the LMS will ensure the needs of babies are met not only on the NNU but also those babies and families supported by outreach teams. This would provide continuity of care between inpatient, community and outreach teams. Any existing AHPs currently in post should be involved in discussions to identify where additional roles can not only add clinical services with *dedicated* time, but also support on-going education and upskilling the workforce. Consideration of posts as part of a rotational training post, as well as static roles would be encouraged.

This model would be at the forefront of national developments to improve access to specialist AHPs for the neonatal population and would ensure:

- National recommendations are met across the footprint
- Experienced professionals with dedicated hours are available to each unit including outreach services.
- The service would no longer be reliant on an individual, but professionals within the LMS footprint can work together to provide a seamless service with provision for succession planning and cover for periods of leave.
- Specialist Network AHPs will lead on professional competencies, consistent Network guidelines ensuring standardised practice across the Network. (AHP service specification appendix 4)
- Service delivery that is able to keep up to date with future developments in evidence based practice, by working with existing specialists at Network level.
- Consistency of service delivery within the LMS footprint and SWMNODN, with a consistent level of quality.

7 National AHP staffing recommendations per LMS footprint

In order to identify existing gaps in the service current staffing has been collated and compared to the 2018 National AHP Staffing Recommendations from each professional group (Appendix 1). Each professional body has calculated the recommended WTE in a different format. Please see Appendix 2 for calculations.

HEREFORD AND WORCESTER LMS	
Speciality	**Hereford & Worcester (including outreach)** For each specialty, consideration should be given to the geographical distance that the post holder would be expected to cover.
Physiotherapy	**Recommend 1.2-1.95 WTE** **(Suggest B7 1.0 WTE and B6 1.0 rotational)** Consideration should be given to existing follow up clinics in Worcester (WTE not known), and 0.1WTE follow up via Hereford community services.
Speech and Language Therapy	**Recommend 1WTE** **(Suggest B7 1WTE)**
Dietetics	**Recommend 0.8-1.6WTE** **(Suggest B7 1.0 WTE and B6 0.6WTE)**

Cost (see appendix 2 for details):

PT total	85,367.00
SLT total	46,357.00
Dietetics total	69,763.00
AHP total	**£201,487.00**

BIRMINGHAM AND SOLIHULL LMS	
Speciality	**BWCH & UHB HGS** In line with the recommendations, the upper level would be expected for these tertiary units given the specialisms that are covered (e.g. cooling centre, surgical centre). It would be expected that these roles would include outpatient clinics and outreach as well as inpatient caseload.
Physiotherapy	**Recommend: 3.24-5.4 WTE** **(Suggest B8a 0.6 WTE, B7 2.5 WTE, B6 2WTE rotational posts)** Currently there is 0.8WTE UHB HGS and 1.0WTE BWH, although some extra time is given at Heartlands for clinics that are run by other therapists.
Speech and Language Therapy	**Recommend 3.7WTE** **(Suggest B8a 0.6 WTE, B7 2.0 WTE, B6 1WTE)** (Currently 1WTE B7 in post UHB HGS)
Dietetics	**Recommend 2.6WTE – 5 WTE** **(Suggest B8a 0.6 WTE, B7 2.5WTE, B6 2 WTE)** (Currently there is O.8 WTE in post for these units)

Cost (see appendix 2 for details):

Specialty	Total cost	Existing posts (WTE)	Cost of existing posts
PT	£227,735.10	2.0 B7	£92,714.00
SLT	£165,546.60	1.0 B7	£46,357.00
Dietetics	£227,735.10	0.1 B8a. 0.6B7	£33,451.30
Total	**£621,016.80**	**Additional funding required**	**£448,494.50**

COVENTRY & WARWICKSHIRE LMS	
Speciality	**Coventry, Warwick and George Elliott** In line with the recommendations, the mid-level would be expected for these tertiary units given the specialisms that are covered in the NICU (cooling centre). It would be expected that these roles would include outpatient clinics and outreach as well as inpatient caseload.
Physiotherapy	**Recommend 1.65- 2.75 WTE** **(Suggest B7 2WTE, B6 0.75 WTE rotational post)**
Speech and Language Therapy	**Recommend 1.7 WTE** **(Suggest B7 1 WTE, B6 0.7 WTE)**
Dietitian	**Recommend 1.3WTE-2.5WTE** **(Suggest B7 1WTE, B6 1.5WTE)**

Cost (see appendix 2 for details):

PT total	121,971.50
SLT total	73,664.00
Dietetics total	104,872.00
AHP total	**£300,507.50**

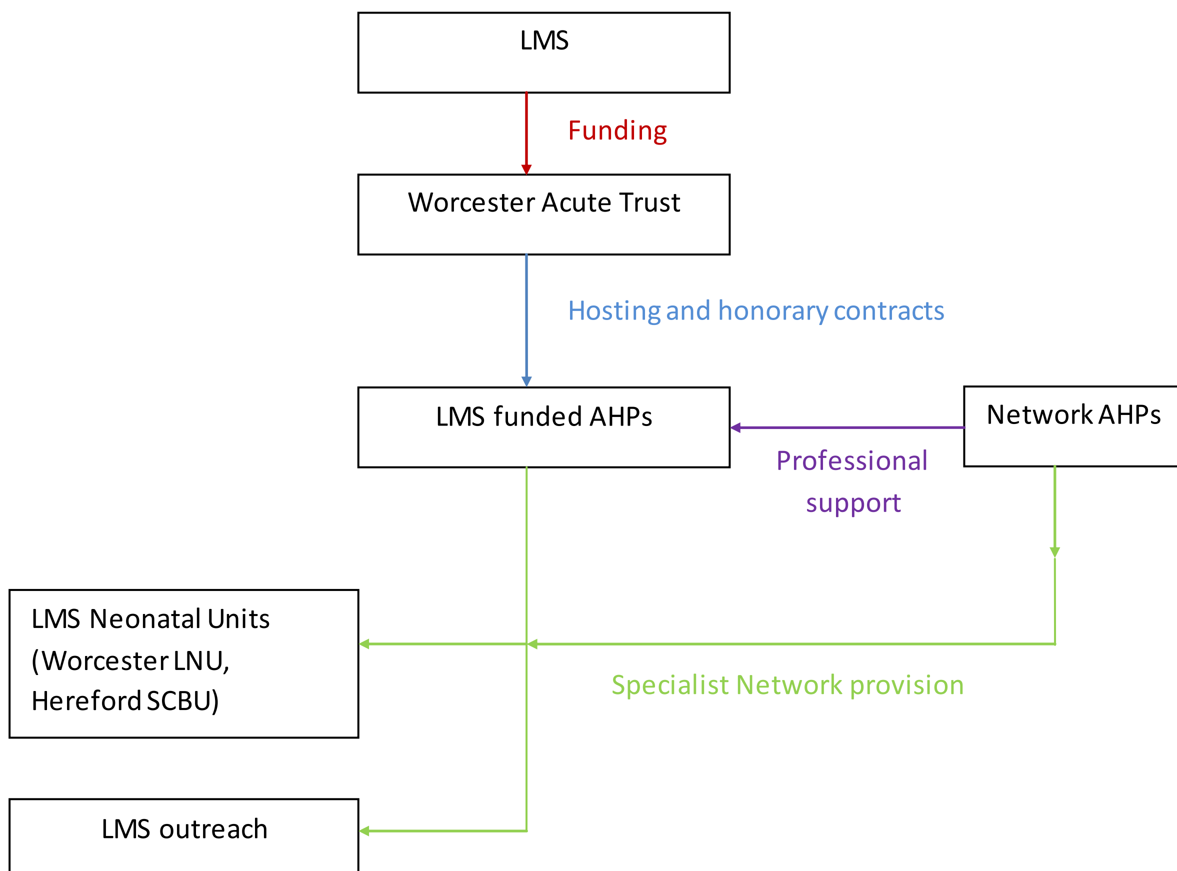
8 Developing a model of implementation

There is no existing model for providing AHP services across a Maternity Service footprint. The following suggestion incorporates funding being used to employ a hosting organisation to ensure professional management is in place for individual health care professionals. Working across institutional boundaries will have its challenges that will require close working relationships to overcome. Within South West Midlands Neonatal Operational Delivery Network this currently works well in practice by the Network AHPs using honorary contracts in each trust.

Individuals are likely to be recruited, managed & hosted by an Acute unit, with clinical training and supervision by Network AHP's where in post or by the Tertiary centre.

Proposed model for funding, hosting and professional management:

Hereford and Worcester



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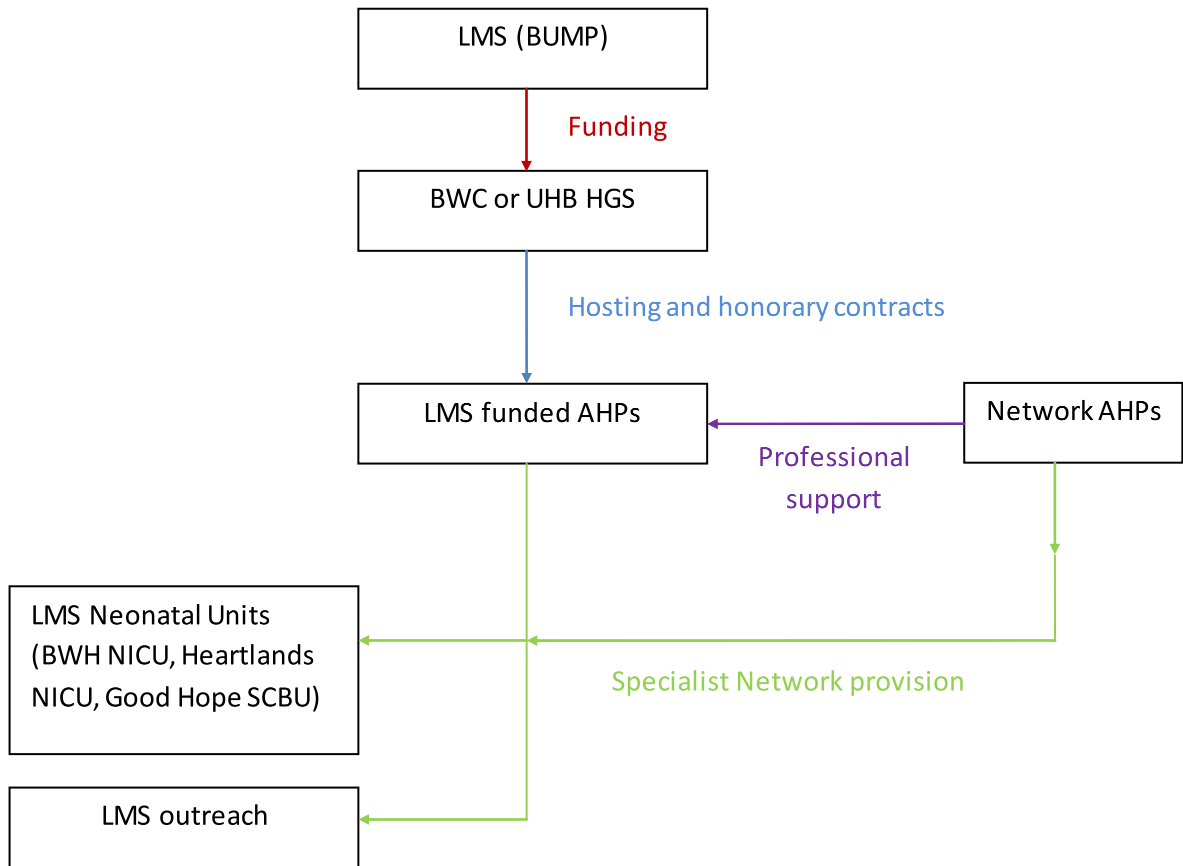

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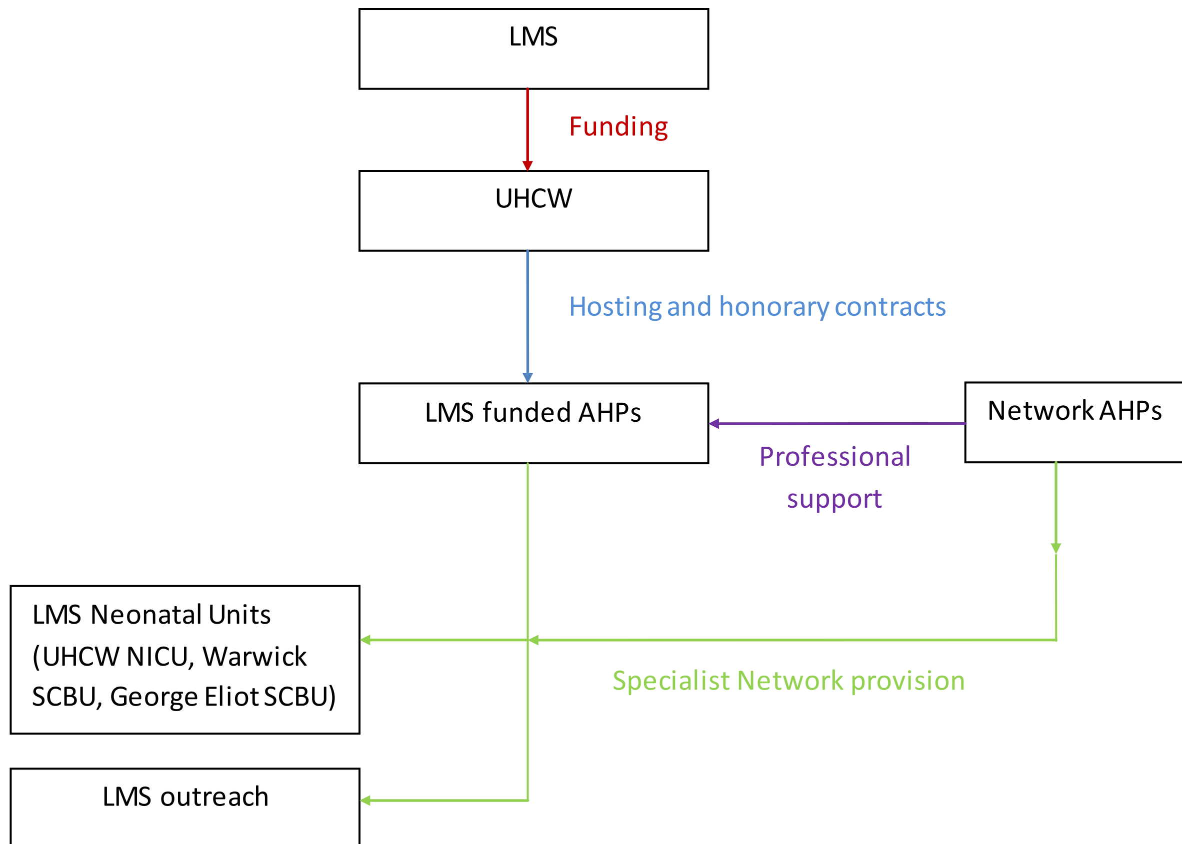

Summary of review:

- Review formal recommendations from the National Critical Care Transformational Review, when published, alongside individual national AHP staffing recommendations (appendix 1).
- Individual LMSs to undertake a gap analysis to look at current local provision of each AHP profession at both unit and community level, including those professions not yet represented at Network level (Psychology, Occupational Therapy, and Pharmacy).
- Individual LMSs implement the recommendations listed above for supplementing provision of Physiotherapy, Dietetics and Speech and Language Therapy within the boundaries of the LMS.
- Work in partnership with Network managers, Network AHP's and managers of local acute/community AHP services to move forward with implementation. This will include advice & support on the role, job descriptions, recruitment and hosting arrangements.

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Appendix 1

Hyperlinks to each professional groups staffing and competencies:

Physiotherapy
Physiotherapy staffing
https://apcp.csp.org.uk/system/files/documents/2018-11/apcp_physiotherapy_staffing_recommendations_for_neonatal_units_in_england_2018_0.pdf

Neurophysiotherapy competency document
https://apcp.csp.org.uk/publications/competence-framework-and-evidence-based-practice-guidance-physiotherapist-working

Respiratory physiotherapy competency document
https://apcp.csp.org.uk/publications/competence-framework-and-evidence-based-practice-guidance-physiotherapists-providing

Dietetics
Dietetics staffing
https://www.bda.uk.com/regionsgroups/groups/paediatric/neonatal/neonatal_dietitian_staffing_recommendations.pdf

Dietetic competencies
https://www.bda.uk.com/regionsgroups/groups/paediatric/neonatal/neonatal_dietitian_competencies.pdf

Speech and Language Therapy
SLT staffing
http://www.londonneonatalnetwork.org.uk/wp-content/uploads/2015/09/Neonatal-Speech-and-Language-Therapy-Staffing-Level-Recommendations-FINAL.pdf

SLT Competencies
Temporarily unavailable online. Please contact KatyParnell@nhs.net

Link to AHP service Spec SWMNODN

http://swmnodn.org.uk/wp-content/uploads/2016/03/AHP_Service_specification_SWMNN_final_version0517-1.pdf

Appendix 2

Calculations for staffing recommendations

Hereford and Worcester							
Total number live births Hereford 16/17 1734							
Total number live births Worcester 16/17 5558							
Number of Cots			**ITU**	**HDU**	**SCBU**	**TC**	**Total**
Hereford	**SCBU**		1	2	9	0	12
Worcester	**LNU**		2	4	12	9	27
	Total		3	6	21	9	39
Physiotherapy Recommendation	WTE per cot (min)	WTE per cot (max)	total cots	Min WTE	Max WTE		
NICU/HDU/SC/TC	0.03	0.05	39	**1.17**	**1.95**		
Speech and Language Therapy Recommendation	WTE per cot (min)						
NICU per cot	0.04		0	0			
LNU per cot	0.03		18	0.54			
SCBU per cot	0.02		12	0.24			
TC per cot	0.02		9	0.18			
				0.96			
Dietetic recommendation	WTE per cot (min)	WTE per cot (max)		Min WTE	Max WTE		
NICU per cot	0.05	0.1	0	0	0		
HDU per cot	0.025	0.05	18	0.45	0.9		
SCBU per cot	0.017	0.033	12	0.204	0.396		
TC per cot	0.017	0.033	9	0.153	0.297		
				0.807	**1.593**		

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Costings:

	Banding	WTE	cost midpoint with on costs	Actual cost
Suggest B7 1.0 WTE and B6 1.0 WTE including rotational post	7	1	46,357.00	46,357.00
	6	1	39,010.00	39,010.00
			PT total	**85,367.00**
Suggest B7 1WTE	7	1	46357	46357
			SLT total	**46357**
Suggest B7 1.0 WTE and B6 0.6WTE	7	1	46357	46357
	6	0.6	39010	23406
			Dietetics total	**69763**
			AHP total	**201,487.00**

NHS
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Birmingham United Maternity Service

Total number live births BWH 2016/17 **8253**
Total number live births Good Hope 2016/17 **4371**
Total number live births Heartlands 2016/17 **6858**

Number of Cots		ITU	HDU	SCBU	TC	Total
Birmingham Women's Hospital	**NICU**	12	9	20	12	53
Good Hope	**SCBU**	0	0	16	0	16
Heartlands	**NICU**	6	6	20	7	39
	Total	18	15	56	19	108

Physiotherapy Recommendation	WTE per cot (min)	WTE per cot (max)	total cots	Min WTE	Max WTE
NICU/HDU/SC/TC	0.03	0.05	108	**3.24**	**5.4**

Speech and Language Therapy Recommendation	WTE per cot (min)		total cots	
NICU per cot	0.04		73	2.92
LNU per cot	0.03		0	0
SCBU per cot	0.02		16	0.32
TC per cot	0.02		19	0.38
				3.62

Dietetic recommendation	WTE per cot (min)	WTE per cot (max)	total cots	Min WTE	Max WTE
NICU per cot	0.05	0.1	18	0.9	1.8
HDU per cot	0.025	0.05	15	0.375	0.75
SCBU per cot	0.017	0.033	56	0.952	1.848
TC per cot	0.017	0.033	19	0.323	0.627
				2.55	**5.025**

Costings:

	Banding	WTE	cost midpoint with on costs	Actual cost
Suggest B8a 0.6 WTE, B7 2.5 WTE, B6 2WTE including rotational post	8a	0.6	56,371.00	33,822.60
	7	2.5	46,357.00	115,892.50
	6	2	39,010.00	78,020.00
			PT total	**227,735.10**
Suggest B8a 0.6 WTE, B7 2.0 WTE, B6 1WTE	8a	0.6	56,371.00	33,822.60
	7	2	46,357.00	92,714.00
	6	1	39,010.00	39,010.00
			SLT total	**165,546.60**
Suggest B8a 0.6 WTE, B7 2.5WTE, B6 2 WTE	8a	0.6	56,371.00	33,822.60
	7	2.5	46,357.00	115,892.50
	6	2	39,010.00	78,020.00
			Dietetics total	**227,735.10**
			AHP total	**621,016.80**

Coventry and Warwickshire

Total Number live births Coventry 16/17 not available
Total number live births Warwick 16/17 not available
Total number live births Nuneaton 16/17 not available

Number of Cots		ITU	HDU	SCBU	TC	Total
Coventry	NICU	8	8	14	6	36
Warwickshire	SCBU	0	0	11	0	11
Nuneaton	SCBU	0	0	8	0	8
		8	8	33	6	55

Physiotherapy Recommendation	WTE per cot (min)	WTE per cot (max)	total cots	Min WTE	Max WTE
NICU/HDU/SC/TC	0.03	0.05	55	**1.65**	**2.75**

Speech and Language Therapy Recommendation	WTE per cot (min)		total cots	
NICU per cot	0.04		30	1.2
LNU per cot	0.03		0	0
SCBU per cot	0.02		19	0.38
TC per cot	0.02		6	0.12
				1.7

Dietetic recommendation	WTE per cot (min)	WTE per cot (max)	total cots	Min WTE	Max WTE
NICU per cot	0.05	0.1	8	0.4	0.8
HDU per cot	0.025	0.05	8	0.2	0.4
SCBU per cot	0.017	0.033	33	0.561	1.089
TC per cot	0.017	0.033	6	0.102	0.198
				1.263	**2.487**

Costings:

	Banding	WTE	cost midpoint with on costs	Actual cost
Suggest B7 2WTE, B6 0.75 WTE including rotational post	8a	0	56,371.00	-
	7	2	46,357.00	92,714.00
	6	0.75	39,010.00	29,257.50
			PT total	**121,971.50**
Suggest B7 1 WTE, B6 0.7 WTE	8a	0	56,371.00	-
	7	1	46,357.00	46,357.00
	6	0.7	39,010.00	27,307.00
			SLT total	**73,664.00**
Suggest B7 1WTE, B6 1.5WTE	8a	0	56,371.00	-
	7	1	46,357.00	46,357.00
	6	1.5	39,010.00	58,515.00
			Dietetics total	**104,872.00**
			AHP total	**300,507.50**

Appendix 3

Extract from draft NCCR (2018)

From Recommendation 15 Notes: Neonatal units cannot operate with only medical and nursing staff. Key contributions come from an essential group of allied professionals, many of whom develop special expertise in their discipline as it applies to new-born babies, who are more complex than simply "small children". *These disciplines comprise dietitians, occupational therapists, physiotherapists, speech and language therapists, pharmacists and psychologists, among others. AHPs have been central to the implementation and embedding of developmentally sensitive care into neonatal practice in many neonatal units, and champion the need to view neonatal care that looks forward to improving longer term outcomes for babies and their families through such strategies.*
Neonatal units told the Review that most, but not all, had some form of input from allied health professionals (AHP) as recommended in the Neonatal Toolkit, but that many had concerns about the provision of these AHP services. More recent evidence is that this level of support was overestimated in our returns, because a chronic lack of AHP support in neonatal services has led to many services developing practices without appreciating the value of this important group. ***It is critical that AHP services that are accessed by neonatal teams have appropriate training and expertise in neonatal practice, and this is not always the case****. Some AHP roles, such as prescribing pharmacists, have developed and proven invaluable to maintain safety,*

Allied Professionals

4.5.30. Neonatal units told us that most, but not all, had some form of input from allied health professionals (AHP) as recommended in the Neonatal Toolkit, but that many had concerns about the provision of these AHP services. However, a chronic lack of AHP support in neonatal services has led to many services developing practices without appreciating the value of this important group. It is critical that the services that are accessed by neonatal teams have appropriate training and expertise in neonatal practice, and this is not always the case. We asked professional representatives for information they had on recommendations for the provision of neonatal services.

4.5.31. **Dietitians:** The National Audit Office report 'Caring for Vulnerable Babies' highlights that better nutrition is one of the improvements associated with the increased survival rate of preterm infants.[27] Recommended nutrient requirements are difficult to achieve particularly in very preterm babies, who are born at a time of massive nutrient accretion, low reserves and a decreased capacity to handle nutrition. The need for optimum nutritional support is paramount as evidence points to neurodevelopmental, cardiovascular and respiratory consequences of poor nutrient intake and growth.[28 29]

4.5.32. As part of the neonatal team, the dietitian has significant impact on the care of sick and premature babies by providing consistent expert nutritional care to each infant, and designing nutrition practice protocols and monitoring tools. By enhancing clinical effectiveness and avoiding complications, the role can lead to a reduced length of hospital stay with associated cost saving implications.[30 31] Introduction of dietitian-led protocols can lead to large cost savings through reduced use of parenteral nutrition.[30] A NICU with embedded dietetic input is more likely to monitor growth and use

early optimum nutrition practices for VLBW infants. One study demonstrated a 20% difference in nutrition score of NICUs who employed a dietitian compared to those that did not.[32]
4.5.33. In a focused survey in two regions, only 60% of units had some dietetic support of varying provision (full time, part time or ad hoc).

4.5.34. The Neonatal Dietitians group has developed staffing recommendations and competencies for neonatal work (Appendix). Training is available as an MSc level Neonatal Nutrition module, developed to allow dietitians to achieve the competencies required for working as part of a multidisciplinary neonatal team. The Competency document recommends a structure for peer support. Education for paediatric dietitians who may provide support to SCBU and HDUs is included in another MSc level module on common paediatric disorders. Both modules are incorporated into an MSc in Paediatric Dietetics in partnership with the University of Plymouth

4.5.35. **Occupational Therapists:** The RCOT has recently published standards for neonatal practice. Occupational therapists focus on neurodevelopment, facilitating the parent infant relationship and ensuring a successful transition from hospital to home. Occupational therapists can support infants and their caregivers to develop successful psychological and practical coping strategies.

4.5.36. Preterm infants may develop sensory processing problems; this is a specialised area of practice for occupational therapy. Early sensory and motor exposures lay the building blocks for development and life-long adaptation as well as for successful parent-child interaction. Occupational therapists provide a specialist role in coaching parents on how to promote developmentally appropriate sensory-motor stimulation and experiences for their babies thereby helping to optimise cognitive and social emotional development.

4.5.37. The Practice Guideline identifies the competencies and standards that we should aspire to in neonatal practice. There are no recommended staffing levels but neonatal services should ensure that they have therapists with the competencies described within their multidisciplinary focus.

4.5.38. **Physiotherapists**: The Association of Paediatric Chartered Physiotherapists(APCP) have published competence frameworks and evidence based practice guidance for physiotherapists working in the neonatal intensive care and special care units from a neurodevelopmental perspective and for respiratory Interventions in preterm infants.

4.5.39. Specialist Neonatal Physiotherapists are able to promote and advise on developmental care practices for all infants. Specialist neonatal physiotherapists are also able to identify and assess infants at risk of neurodevelopmental sequelae and therefore begin early intervention. This optimises the opportunities to maximise the potential of these infants to develop and function alongside their peers, ultimately leading to improved neonatal outcomes, as well as engaging parents in their child's development at the earliest opportunity. Respiratory physiotherapists are able to advise on the management of respiratory secretions and optimise the respiratory function of individuals who have specific needs.

4.5.40. All neonatal units should have access to Specialist Neonatal Physiotherapy services with expert skills in neurodevelopmental assessment and intervention both on the unit and 2 year follow-

up, where time should be dedicated for this purpose. Each NICU should have access to advice from a neonatal respiratory physiotherapist or a paediatric respiratory physiotherapist with experience of the neonatal population.

4.5.41. Specialist neonatal training is available through APCP run courses, international courses and Masters programmes across the UK in the form of targeted lectures. The APCP competence framework helps support and provide structure to Physiotherapists keen to further develop themselves within this specialist field. Relevant specialist assessment and intervention courses are also available in a variety of areas.

4.5.42. **Speech and language therapists:** The RCSLT have published and overview of the SLT role within neonatal care. Neonatal Speech and Language Therapists (SLT) play an important role in supporting and optimising neonatal feeding. This work begins before suck feeding develops through to the establishment of successful oral feeding wherever possible. Through early intervention, the Speech and Language Therapist can positively influence the baby's early sensory and motor development which in turn can positively shape the precursors to a successful oral feeding outcome.

4.5.43. Co-ordination of sucking, swallowing and breathing for effective feeding develops as the infant matures and may not reflect gestational age. This requires awareness and support to establish this safely and effectively. By using specialist infant observation to illustrate and explain infant responses, SLT's can help parents, alongside the wider MDT on the neonatal unit, to interpret infant feeding cues and avoid the chances of developing sensory based aversive feeding difficulties.

4.5.44. Some babies with complex aetiologies will have more specific swallowing difficulties putting them at increased risk of aspiration. this requires specialist assessment and intervention to support safe feeding and provide positive oral experiences. It requires the SLT to assess these risks and ensure effective transfer for ongoing support from community based SLT services.

4.5.45. The role of the Neonatal Speech and Language Therapist in enabling interaction and communication between the parent and the infant is integral not only to attachment but to later neurodevelopmental outcomes of this vulnerable neonatal population. Premature infants and those with other diagnoses requiring special care are more at risk of later speech and language and communication impairments.

4.5.46. Neonatal units require the regular dedicated presence of a Neonatal Speech and Language Therapist to support staff education and provide assessment and treatment services to infants.

4.5.47. **Pharmacists:** Neonatal pharmacy is a highly specialist area, drug prescription, dispensing, administration and the management of interactions are all important areas that benefit greatly from the support of a pharmacist with training and expertise in neonatal practice. Drug errors are one of the most common adverse events in neonatal care. Neonatal units must have a neonatal pharmacist with sufficient training and enough defined time in their job plan to cover this critical area of practice and is affiliated to the Neonatal and Paediatric Pharmacists Group. This should include the provision of an out of hours service. All units have access to a Clinical pharmacist with experience in the provision of neonatal parenteral nutrition who can demonstrate competence in this area. [6] Pharmacists providing neonatal care should be experienced and must demonstrate evidence in CPD of how they maintain competence, skills

and knowledge with regards to neonatal pharmacy practice.[6] It has been suggested that the job plan of a neonatal pharmacist time should allow for a minimum of 10 minutes per cot each day.[33] Furthermore a named neonatal Pharmacist should be assigned to attend neonatal governance meetings, to ensure involvement in the review of medication incidents and in the development and review of any guidelines written which involve the use of medicines.

4.5.48. **Clinical Psychologists:** The British Psychological Society has published a briefing paper on the role of Perinatal Clinical Psychology.[5] Neonatal units are highly stressful environments, which can have a psychologically negative impact on the babies admitted, as well as their parents, wider family and staff alike. There is a growing evidence base that highlights the need for improved psychosocial support during this time.[34 35]
4.5.49. Families with infants in neonatal care can often experience stress and distress related to their path into the NNU, in addition to the health and on-going care needs of their baby or babies. Parents may have had difficult and traumatic experiences related to the conception, pregnancy or delivery of their baby and some may have experienced the death of a baby in cases of multiple births. In addition, many parents often have to try and juggle everyday life and potentially care for other children at home, during their baby's stay. As a result, it is not surprising that prevalence rates of anxiety, depression and trauma symptoms are much higher in this population of parents, which can impact on the parent-baby relationship, which can further affect both parents and the infant negatively. Therefore, it is essential that families have access to psychological assessment and intervention from admission, throughout their neonatal unit stay and in their transition out of the unit.

4.5.50. Clinical Psychologists, with expertise in Neonatal Care, are well equipped to offer a variety of assessment and intervention work to parents and families, both directly and indirectly, drawing on a range of psychological models. Clinical Psychologists are able to contribute a psychological perspective in MDT meetings to enhance the care of a baby and family. Clinical Psychologists provide support to staff working in the neonatal unit where they are often exposed to high levels of emotion and trauma and are needed to provide high levels of specialised care to infants and families in this context. Clinical Psychologists with training and experience in facilitating reflective practice, staff training, consultation and supervision are able to offer the needed staff support. Clinical Psychologists also benefit from advanced training in social research which means they are well placed to undertake evaluation, audit and research activities. The level of input provided to each unit however is often dependent on the amount of Clinical Psychology time available to an individual unit and optimal psychological care is provided by units that are able to have adequate Clinical Psychology support embedded within the service.

4.5.51. Conclusions: All relevant AHP groups have recently published or updated publications setting out the competencies needed to provide services in a neonatal unit setting. There are yet others where special competence is required, for example Radiology and Pathology Services, but as part of the provision in the hospital. Despite recommendations in Standards and National publications, such as the Toolkit, we are told of areas where such provision is not available or provided by staff without specific competency in neonatal practice. The evaluation of neonatal services must include AHP support and input recognised within the neonatal funding envelope.

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Appendix 4

Service Specification: SWMNN Allied Health Professionals
Speech and Language Therapy, Respiratory Physiotherapy, Dietetics

Staffing Details	**Senior Specialist Neonatal Dietitian** **Highly Specialist Speech and Language Therapist** **Advanced Neonatal Respiratory Physiotherapist**
Service description	The Allied Health Professionals (AHP) within the SWMNN comprise of a specialist speech and language therapist, specialist respiratory physiotherapist and specialist neonatal dietitian. The AHP service exists to: • Develop and disseminate standardised collaborative guidelines that support best practice in neonatal care. This supports colleagues to meet complex needs of newborns and their parents, wherever they may be within the Southern West Midlands Newborn Operational Delivery Network. Guidelines are under continual review to ensure best practice is implemented and standardised across the network. • Support education, identify and resource training needs. Education is provided at many levels locally including induction training, neonatal nursing courses, cotside teaching, ward rounds and up-skilling existing medical, nursing & all NNU staff. AHPs within the network present at Network meetings, national courses and events as requested. Where applicable AHP's will involve parents in relevant teaching. • Provide a clinical expertise on ward rounds and cotside advice where neonates fall outside these guidelines. The therapists are available to provide individualised assessment and specialist advice within the Network. Therapists are also members of national professional groups and are available as a resource of information for peers within SWMNN.
Inclusion criteria	All preterm infants and sick term neonates under the care of a SWMNN neonatologist and resident on a SWMNN neonatal unit.
Main groups treated	Preterm infants and sick term neonates with any of the following: • acute or chronic respiratory dysfunction • neurological, respiratory and/or sensory feeding difficulties

	• requirement for specialist nutritional support
Exclusions	Preterm infants and sick term neonates in paediatric centres, preterm infants and sick term neonates within the community
Main services offered	Network wide the AHP's offer guideline development, teaching, and are able to act as a resource to promote best practice in their specialist area. They offer joint working and advice to all staff and undertake research and audit as appropriate. Clinically they can undertake the following roles: Dietetics: • Assessment of nutritional status and analysis of growth trends • Assessment and individualised advice on age/disease appropriate nutritional intake • Support for breast feeding/expressing mothers and infants • Assessment of micronutrient status/ intake, sodium balance and advice on supplementation • Advice on specialist preterm and term formulas and nutritional supplements including breast milk fortifier • Advice on all aspects of enteral & parenteral nutrition • Assessment of tolerance of nutritional treatment including management of malabsorption in surgical neonates • Attendance at ward rounds in Neonatal intensive care and local neonatal units • Nutrition resource for all colleagues Respiratory Physiotherapy: • Training in management of respiratory secretions in both intubated and spontaneously breathing patients, including suction, inline suction, use of saline, positioning, percussion and developmental care. • Advice via telephone, secure email and face to face assessment & treatment of retained secretions/mucus plugging • Cotside assessment and treatment of respiratory compromise Speech Therapy: • Assessment and management of swallow safety to reduce risk of aspiration

	• Support a responsive progression of oral feeding to promote developmentally appropriate cue based feeding in response to the neonate's neurological maturation. • Advice and cotside teaching around evidenced based management strategies for oral feeding, both breast and bottle e.g. elevated side lying feeding, pacing and identification of stress cues • Liaison and referrals to community services to support continuity of care • Attendance at ward rounds
Access	**Referral:** Initial access to the service is via referral from any staff member. This can be via face to face discussion, telephone or secure email (please ensure email correspondence is encrypted in line with trust policy). **Out of hours and weekend service**: Not available
Response times	Normal working week response within 48hours although we will endeavour to reply sooner with first line telephone advice.
Main outcome measures recorded	• Teaching –improved knowledge base across SWMNN units • Guidelines – regularly updated and disseminated, familiarity with and adherence to guidelines is audited. • Developmentally appropriate safe progression of oral feeding • Clinical respiratory outcome measures include: auscultation, sputum clearance, oxygen requirement, saturations, chest x-ray changes and improvement in ventilation parameters • Growth with normal blood profile, timely establishment of appropriate enteral feeds.
Other reported outcomes	• face to face feedback, on line feedback surveys, evaluation forms from education sessions, parent feedback, adverse incidents and near miss events, record of complaints
Audit and Clinical Governance	• Involvement in audit projects relevant to service • All AHP's have personal development plans and annual review • All AHP's undertake relevant continuing professional development • Highlight any risks to appropriate Trust management

	• Concerns or complaints re AHP services directed to Sonia Saxon Director/ Lead Nurse, SWMNN
Research	To participate in relevant & appropriate multicentre and local research projects
Teaching	**Professional Development** AHP's have a professional responsibility to keep up to date with current research in their specialty area and continually update their skills and knowledge to provide the best possible service. • AHP's will participate in regular peer review. • AHP's will attend regular supervision sessions with their peers • AHP's will attend relevant regional, national / international conferences as identified in personal development plan, and should aim to present their work at the conference. • AHP's should demonstrate knowledge of current research within their specialty **Teaching** • On-going training & support is provided for all levels of staff providing neonatal care across the SWMNN • Undergraduate and post graduate teaching • Flexible approach to teaching/training & support of patient specific advice is provided to parents, patients, carers and other professionals
Facilities	SWMNN neonatal units & educational establishments
Standards	Standards are based on the following documents: • 1. Nice Guidance. NICE Quality Standard (QS4) Neonatal Specialist Care. Quality Statement 3b - Skilled and Multidisciplinary Staff Oct 2010 • 2. BAPM. Service Standards for Hospitals providing Neonatal Care. (3rd edition) Section 6 page 13-18 August 2010 • Neonatal Toolkit 2009 principle 2.5 • Bliss Charter standard 3.2 • SWMMNN & SSBCNN Nutrition Guidelines 2013-15, The Bedside Clinical Guidelines Partnership • SWMMNN Shortening the time of transition from tube to full oral feeding (breast or bottle) – a developmental care approach • SWMMNN & SSBCNN Chest Physiotherapy 2013-15, The Bedside Clinical

	Guidelines Partnership • Association of paediatric chartered physiotherapists 2014. A competence framework and evidenced based practiced guidance for physiotherapists providing respiratory interventions in the UK *See Appendix 1*

Ratified by:	
Date ratified:	
Author:	Sara Clarke, Senior Specialist Neonatal Dietitian, Emma Foulerton, Advanced Neonatal Respiratory Physiotherapist, Katy Parnell, Highly Specialist Speech and Language Therapist
Contributors:	
Date issued:	Jan 2016
Review date:	Jan 2018

Standards: Further information

Team staffing

Staffing: 0.5 WTE Senior Specialist Band 8a Dietitian
0.6 WTE Advanced Band 7 Physiotherapist
0.3 WTE Highly Specialist Band 7 Speech Therapist

Please note: Band 7 + 8 AHP's have an in-depth knowledge and wide experience in the area of their specialist area of Neonatology.

Supporting documents related to staffing include:

- Nice Guidance. NICE Quality Standard (QS4) Neonatal Specialist Care. Quality Statement 3b - Skilled and Multidisciplinary Staff Oct 2010
- BAPM. Service Standards for Hospitals providing Neonatal Care. (3rd edition) Section 6 page 13-18 August 2010
- Neonatal Toolkit 2009 principle 2.5
- Bliss Charter standard 3.2

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References:

1 – Foulerton and Jarvis 2018. Would you know who to call? National benchmarking of Neonatal Allied Health Professional Services 2018 Poster Abstract Reason Conference Warwick Arts Centre.

2 – Department of Health. Toolkit for High Quality Neonatal Services (2009) http://webarchive.nationalarchives.gov.uk/20130123200735/http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_107845 (Accessed 15th Sept 2018)

3 – British Association of Perinatal Medicine (2010). Service Standards for Hospitals providing Neonatal Care. (3rd edition) Section 6 page 13-18 https://www.bapm.org/resources/service-standards-hospitals-providing-neonatal-care-3rd-edition-2010 (Accessed 15th Sept 2018)