

Speech and Language Therapy Staffing Recommendations for Neonatal Units

Neonatal Speech and Language Therapy Stakeholders group

Version 1, 26th July 2018

Background

Advances in neonatal care have improved the survival of premature infants with infants of lower gestational ages surviving (Moore et al, 2012). Premature infants are at risk of neurodevelopmental problems, but infants born at term age who experience birth asphyxia or hypoxic ischaemic encephalopathy (HIE) are also additionally at risk of developing lifelong complex needs, specifically cerebral palsy (Jacobs et al, 2013). In addition to challenges to infant development, parents and carers who have an infant in a neonatal intensive care unit are more likely to experience significant psychological stress which influence successful parent – child interaction (Shaw et al, 2006). The recent NICE guidelines for Developmental Follow up of children and Young People born preterm, highlight that infants born prematurely are at risk of speech, language and communication problems as well as feeding difficulties, and complex learning needs (NICE guideline NG72; 2017). This complex range of needs early on indicates that this vulnerable caseload requires support and intervention whilst on the neonatal unit.

Essential contributions to care and outcomes are made by Neonatal Allied Health Professionals (AHPs) who have advanced knowledge and skills within their discipline for optimising care and improving outcomes for high risk new born infants. The early involvement and collaboration of key professions in the care plan/management plan enhances clinical effectiveness, impacts on length of stay, enhances therapeutic interventions, helps avoid complications and improves longer term neurodevelopmental outcomes. Speech and language therapists play an important role in the assessment and management of early oral development, specifically feeing and communication (Harding et al, 2014;2015).

Following the Neonatal Critical Care Review (2017), staffing levels on neonatal units have been revised and more specific information regarding AHP staffing ratios has been requested. This aims to move away from previous staffing recommendations of 'access to AHP input' and towards more equitable services for neonatal units nationwide. Such recommendations will assist with the commissioning of new roles and services to ensure we continue to improve services and support for infants in neonatal units. This document aims to address Speech and Language Therapy staffing recommendations for neonatal units. However it is important to consider that the safety and effectiveness of neonatal services and patient care is influenced by more than staffing numbers; patient needs, service delivery models and skill mixing impact on staffing required.

Service planning

Neonatal AHPs work together with neonatal teams to optimise care of babies and their families, using their own unique professional skills to enhance neonatal outcomes. At a service level, collaborative working aims to achieve improved health outcomes, reduced costs and improved patient experiences (Earnest et al, 2014).

A collaborative multi-professional model of service planning strives to improve the infant and families neonatal experience and health outcomes during neonatal care reducing the pressure placed on community services to provide long term support. Effective collaboration between the neonatal team members enables neonatal SLTs to identify infants at risk and trigger necessary services (Dow *et al.* 2017).

When neonatal AHPs are embedded within the neonatal team and roles are clearly defined, each professional is able to reinforce key elements of developmentally supportive care, whilst providing individualised therapeutic input in their specific key areas. This model of transdisciplinary working avoids duplication of effort and efficient use of resources whilst enabling sharing of information, knowledge and skills to support optimal outcomes (Foley, 1990, p.274).

Service planning for high risk infants should be a continuum with the involvement of key services from admission, through to neurodevelopmental follow up with seamless access to early therapeutic and educational interventions in the community (Liper and Huron, 2018).

Role of the Neonatal Speech and Language Therapist

Neonatal SLTs have a specific role in the early identification and management of feeding and swallowing difficulties. They can facilitate positive feeding experiences and support feeding development from the beginning of the parent and infant's feeding journey to reduce the risk of known prolonged feeding difficulties (Hawdon at el, 2000, Migraine et al. 2013, Johnson et al. 2016). They have a role in assessment and management of and in supporting families to promote effective early communication and interactions with their preterm and sick infants, improving early attachment and bonding and maximising speech, language and communication outcomes post discharge and beyond into adolescence (Van Noort-van der Spek et al, 2002, Foster-Cohen et al, 2007, Caskey et al, 2014, Rabie et al, 2016).

Staffing Considerations

National Benchmarking

A national benchmarking survey of SLT provision on neonatal units was carried out between October 2016 to October 2017 by the Royal College of Speech and Language Therapists (RCSLT) Neonatal SLT stakeholders group (RCSLT,2017). A detailed questionnaire was circulated to neonatal units across the United Kingdom with 58 questions covering domains such as the level of care, funding, banding, clinical experience, clinical supervision, training, the multi-disciplinary team, medical specialities and the nature of therapeutic interventions provided. The questionnaire was developed in an electronic format on Survey Monkey.

67 responded out of a total 190 units (35%). The low response rate may reflect the absence of SLT in many neonatal services and the consequent inequity of access to Speech and Language Therapy support across the country. The data collected provided information about level of unit, funding, staffing levels, access to supervision and the scope of clinical practice.

The results showed significant discrepancies in provision locally and nationally (see Case Study One).

Case Study

Hospital A and B are two similar level three neonatal units based in different parts of the country. The table below shows the number of admissions and bed base for each unit. Although the characteristics of both hospitals are comparable, SLT provision is markedly different in terms of staffing (1.2WTE vs 0.6WTE) and banding (band 8 vs band 7). This is an indication of the national picture.

Hospital	Admissions	ITU cots	HDU cots	SCBU cots	WTE SLT provision
					(amount and level)
A (East of	750	15	15	10	1.2 Band 8a
England)					
B (South	708	12	12	12	0.6 Band 7
London)					

Recommendations

Recommendations are based on the type of neonatal unit (SCBU, LNU, NICU, NICU+) and number of cots using benchmarking and best consensus opinion. A calculation was developed for how much whole time equivalent (WTE) of speech and language therapy provision is required per service. The following process was used to create the calculation:

- 1. Raw data collected from the survey results
- 2. Data formatted to extract the key fields (type of unit, number of cots, and WTE's time)
- 3. Data normalised to take out human interpretation and allow for correlation
- 4. Total number of cots combined with WTE time for each type of unit across all units surveyed

- 5. Total WTE time divided by the total number of cots to give an average WTE per cot (completed separately for each type of neonatal unit)
- 6. Number of cots in a given unit multiplied by the average for that type of unit to calculate the WTE (*see below)

The calculation's viability was tested by member of the Royal College of Speech and Language Therapists Neonatal SLT stakeholders group consisting of neonatal SLTs across the UK. SLTs were asked to compare the recommended calculations of WTE time with the current WTE time in their units, this was generally accepted an appropriate amount of SLT input.

When planning staffing levels for speech and language therapy, the following should be taken into consideration:

- 1. Number and acuity of cots on the unit.
- Specialities involved and likely input from Speech and Language Therapy e.g. cardiac, surgical, neurology, ear, nose and throat (ENT) may require significantly more staffing.
- The positioning of transitional care within services. Transitional care cots may come under neonatal teams in some hospitals and this would influence staffing calculations produced.
- 4. Skill mix of staff to ensure adequate clinical supervision, training and succession planning.
- 5. Operational Delivery Network status and provision of support to other units within that network.
- 6. The ability to provide cross cover for annual and study leave.
- 7. Involvement in developmental care / family integrated care
- 8. Involvement in staff training

The provision of outpatient clinics e.g. Hospital based neurodevelopmental follow-up, complex feeding clinics has not been included in these calculations. Additional funding would be necessary for SLT input.

Neonatal Intensive Care Unit (NICU) 'tertiary centre'

- Band 8 Clinical Lead in Neonatology (working at or towards Consultant level dysphagia practitioner on Royal College of Speech and Language Therapists 'RCSLT' Neonatal competencies).
- 2. Level 3 calculator to help determine WTE SLT provision (based on number of cots, see below).
- 3. WTE calculation needs to prioritise Band 8 time but may include Band 7 and Band 6 when clinically competent.
- 4. Band 6 posts must work alongside a Band 7 or above.
- 5. SLT post holders must have access to appropriate clinical supervision (whether internal or external).

Calculation:

Number of cots X 0.04 = WTE of SLT provision required

*An additional 0.02 per transitional cot would be needed for units where transitional care is included.

Local Neonatal Unit (LNU)

- Band 7 Highly Specialist Speech and Language Therapist in Neonatology/Paediatric Dysphagia (working at/towards Specialist level dysphagia practitioner on the RCSLT Neonatal Competencies).
- Level 2 calculator to help determine WTE SLT provision (based on number of cots, see below).
- 3. Band 6 posts must work alongside a Band 7 or above.

SLT post holders must have access to appropriate clinical supervision (whether internal or external).

Calculation:

Number of cots X 0.03 = WTE of SLT provision required

*An additional 0.02 per transitional cot would be needed for units where transitional care is included.

Special Care Baby Unit (SCBU)

- Band 7 Highly Specialist Speech and Language Therapist in Neonatology/Paediatric Dysphagia (working at/towards a Specialist level dysphagia Practitioner on the RCSLT Neonatal Competencies).
- Level 1 calculator to help determine WTE SLT provision (based on number of cots, see below).
- 3. Band 6 posts must work alongside a Band 7 or above.

Neonatal SLT post holders must have access to appropriate clinical supervision (whether internal or external).

Calculation:

Number of cots X 0.02 = WTE of SLT provision required

*An additional 0.02 per transitional cot would be needed for units where transitional care is included.

Competencies

Since the recommendations for neonatal AHP provision were produced by the Department of Health's 'Toolkit for High Quality Neonatal Care' (2009) the demand for neonatal speech and language therapy has increased. During this time, specific neonatal SLT competencies have not been available to ensure therapists working on neonatal units were able to provide a consistent standard of care.

A set of competencies for neonatal therapists working within the neonatal setting have been developed in consultation with stakeholders, to ensure all infants receiving SLT input within the neonatal period receive an equal standard of care. They have been developed in conjunction with the RCSLT and are an extension of the current general paediatric dysphagia competencies to reflect the advanced practice level and specialist nature of working with a neonatal population. The competencies are currently undergoing their final edit.

The competencies outline the essential knowledge and skills needed by an SLT working within the neonatal setting and provide a framework of how to achieve these. It also offers valuable guidance on the training of SLTs into the field of neonatal care, an integral part of succession planning within all neonatal units.

According to the national neonatal SLT benchmarking data, the majority of posts were either Band 8 or 7 (90%). There were a minority of Band 6 posts, but all worked alongside a Band 7 or above. The level of banding is a reflection of the specialist field but proves to be limiting when considering the small number of trained neonatal SLTs and the need for succession planning with the band 6 population. In consultation with the neonatal SLT, there is a need for neonatal units to develop clear succession plans with teaching opportunities for Band 6 posts who should work alongside band 7/8 clinicians. This is vital for ensuring the training of specialists for the future.

Supervision

The inclusion of speech and language therapy in the multidisciplinary team is vital in the provision of neonatal care. It is considered an advanced practice sub specialty area within paediatric speech and language therapy (BAPM, 2012). According to the national SLT neonatal benchmarking project, 85% of SLTs who responded receive formal supervision. Band 8 neonatal SLTs currently have fewer options for clinical supervision, particularly in areas of the country with less SLT provision. However, where sought, peer supervision is a possible option. Due to the limited availability of trained neonatal SLTs to provide supervision, SLTs may receive this in-house or seek support externally. Only 3% of responses received supervision funded by neonatal services. Other SLTs self-funded or were covered by paediatric SLT acute or community SLT budgets. This highlights the need for clinical supervision time be written into policies, procedures and future business cases.

There is no national-prescribed frequency or duration of supervision. However, the Care Quality Commission (CQC) requires that supervision should take place regularly and the

frequency and duration should be adequate to ensure safe and complete care for people who use services (CQC, 2013).

The RCSLT recognises that the intensity of supervision can change as the speech and language therapist develops their expertise, goes through transitional periods or extends the demands of their work and roles (RCSLT, 2017).

The following recommendations are based on RCSLT best practice guidance and best consensus opinion:

Banding of SLT	Minimum amount of time	Comments	
	required		
Band 6 (SLT in training)	1 hr/weekly during the first 3	1:1	
	months; 1 hourly/monthly		
	thereafter		
Band 7 (experienced SLT)	1-1.1.5 hrs/every 4-6 weeks	1:1, group; peer;	
		combination. The minimum	
		time requirement for	
		supervision can be	
		distributed across different	
		form and is cumulative.	
Band 8 (experienced SLT)	1-1.1.5 hrs/every 4-6 weeks	1:1, group; peer;	
		combination. Access via	
		telephone, skype or	
		teleconference. The	
		minimum time requirement	
		for supervision can be	
		distributed across different	
		form and is cumulative.	

Education and Training

There are currently a number of short courses that are run in the United Kingdom which provide a basic introduction to SLT assessment and management of swallowing and feeding difficulties in the neonatal population. Alongside the introduction of the competencies, there will be a review of the available courses to ensure that therapists can develop their clinical skills to an advanced level of practice. Currently, when courses are not available, less experienced therapists should be trained in-service by band 7 and 8s. Given the shortage of current SLT coverage in neonatal units, as well as the lack of funded hours, the required training of band 6s would be unachievable. In order to make time for training of new neonatal SLTs, it is anticipated that more funded hours on neonatal units are needed for those already in post and when considering the creation of future posts. Band 6's in training would need to be supernumerary until adequate competencies can be demonstrated.

In response to the new staffing level recommendations, an RCSLT Neonatal education and training working group are carrying out a national review of continued professional development opportunities for SLTs moving into neonatal care. In addition to the new neonatal competencies and short courses, therapists are expected to attend the RCSLT Neonatal SLT Clinical Excellence Network and carry out self-directed training.

Neonatal Speech and Language Therapy Operational Delivery Network role

Due to the wide variation of neonatal SLT provision across the UK, there are currently no specific national SLT guidelines regarding how Operational Delivery Network support is offered and how much time should be allocated. This has resulted in many neonatal SLTs using their own clinical time to provide unfunded support to local Speech and Language Therapists in the form of clinical supervision. Additional unfunded time has been offered to support local neonatal SLTs with training and education. Where a specific Neonatal Speech and Language Therapy Operational Delivery Network role exists, the job description has been shaped by the needs of the network. This document endorses this strategy to ensure that support is individualised and beneficial for each ODN.

It is recommended that time allocated to a Neonatal Speech and Language Therapy Operational Delivery Network role is in addition to clinical time allocated per unit. Therapists in this role would ideally have a clinical component in addition to this role.

General requirements of job description

Person specification

Essential elements of person specification:

- Minimum 0.3 WTE neonatal speech and language therapist per 10,000 births.
- Band 8 Consultant neonatal speech and language therapist (as specified in the Speech and Language Therapy Neonatal competencies).

Essential components of job description:

- Develop and disseminate standardised collaborative guidelines that support best practice in neonatal care. Guidelines are under continual review to ensure best practice is implemented and standardised across the network.
- Support colleagues to meet complex needs of newborn infants and their parents wherever they may be within the network. Specifically where the therapist needs additional specialist advice which has not been provided in standardised evidencebased practice guidelines. This may include providing second opinions were requested by the unit neonatal SLT.
- Support education, identify and resource training needs for individual units. Education is provided at many levels locally including support with induction training, neonatal nursing courses, cotside teaching, ward rounds and up-skilling existing medical, nursing & all NNU staff where needed. This would be in collaboration with the individual unit SLTs. The network neonatal SLT will present at network meetings and events, national courses as requested.
- Provide clinical supervision to unit based speech and language therapists across the network as required, to collaborate, support and promote equality and consistency

of service delivery and best practice for the profession in each unit. The network SLT is also a member of national professional groups and they are available as a resource of information for peers within the network.

 In summary the network SLT is a supernumerary role working alongside individual unit SLTs and with the wider MDT. The network SLT will provide teaching and dissemination, reading and imparting good practice, developing guidelines and standardising care.

References

- 1. Browne, J., & Ross, E. (2011). Eating as a neurodevelopmental process for high risk newborns. *Clinics in Perinatology*, 38(4), 731-743. Doi:10.1016/j.clp.2011.08.00.
- Care Quality Commission. (2013). Supporting information and guidance: Supporting effective clinical supervision. Accessed on 23 June from: <u>https://cqc.org.uk/sites/default/files/documents/20130625 800734 v1 00 support ing information-effective clinical supervision for publication.pdf</u>
- 3. Caskey M, Stephens B, Tucker R, et al. (2014). Adult talk in the NICU with preterm infants and developmental outcomes. *Pediatrics*, 133, 578–84.
- Department of Health Toolkit for High Quality Neonatal Services. (2009). http://www.dh.gov.uk/en/Healthcare/Children/Earlyyears/index.htm 2
- Dow, A, Ivey K, C & Shulman, B. (2018). The Future of Pediatric Speech-Language Pathology in a More Collaborative World. *Pediatric Clinics of North America*, 65, 171-177. 10.1016/j.pcl.2017.08.029
- Earnest M, Brandt B. (2014). Aligning practice redesign and interprofessional education to advance triple aim outcomes. *Journal of Interprofessional Care*, 28(6),497–500.
- Foley, G. M. (1990). Portrait of the arena evaluation: Assessment in the transdisciplinary approach. In E. D. Gibbs & D. M. Teti (Eds.), *Interdisciplinary assessment of infants: A guide for early intervention professionals* (271–286). Baltimore: Paul Brooks.

- Foster-Cohen S, Edgin JO, Champion PR, Woodward LJ. (2007). Early delayed language development in very preterm infants: evidence from the MacArthur-Bates CDI. Journal of Child Language, 34(3), 655–675.
- 9. Harding, C., Frank, L., Botting, N., & Hilari, K. (2015). Assessment and management of infant feeding. *Infant*, *11*(3), 85-89.
- Harding, C., Frank, L., Van Someren, V., Hilari, K., & Botting, N. (2014). How does non-nutritive sucking support infant feeding? *Infant Behavior and Development*, 37(4), 457-464.
- 11. Hawdon JM, Beauregard N, Slattery J, Kennedy G (2007) Identification of Neonates at Risk of Developing Feeding Problems in Infancy. Developmental Medicine and Child Neurology,42(4),235-239.
- Jacobs, S. E., Berg, M., Hunt, R., Tarnow-Mordi, W. O., Inder, T. E., & Davis, P. G. (2013). Cooling for newborns with hypoxic ischaemic encephalopathy. *The Cochrane Library*.
- Johnson S., Matthews R., Draper ES., Field DJ., Manktelow B., Marlow N., Smith LK., Boyle EM.(2016). Eating difficulties in children born late and moderately preterm at 2 years of age: a prospective population-based cohort study. *The American Journal of Clinical Nutrition*, 103(2), 406-414, <u>https://doi.org/10.3945/ajcn.115.121061</u>
- 14. Kirk, A.T., Alder, S.C., & King, J.D. (2007). Cue-based oral feeding clinical pathway results in earlier attainment of full oral feeding in premature infants. *Journal of Perinatology*, *27*(9), 572-278.
- 15. Lipner H, Huron R. (2017). Developmental care of the pre-term infant: from NICU through high-risk infant follow-up. *Pediatric Clinics of North America*, 65(1),135-141.
- 16. Migraine A., Nicklaus SA., Parnet P., Lange C., Monnery-Patris R., Sandrine., Clotilde Des R., Darmaun D., Flamant DC., Amarger V., Roze, C-J. (2013). Effect of preterm birth and birth weight on eating behavior at 2 years of age. *American Journal of Clinical Nutrition*, 97(6), 1270–1277. doi: 10.3945/ajcn.112.051151
- Moore T., Hennessy E.M., Myles J., Johnson S., Draper E.S., Costeloe K. & Marlow N. (2012). Neurological and developmental outcome in extremely preterm children born in England in 1995 and 2006: the EPICure studies. *British Medical Journal*, 345:e7961.

- National Institute of Health Care and Excellence. (2017). Developmental follow-up of children and young people born preterm (NICE guideline NG72).
 www.nice.org.uk/guidance/ng72.
- Rabie NZ, Bird TM, Magann EF, Hall RW, McKelvey SS.(2015). ADHD and developmental speech/language disorders in late preterm, early term and term infants. *Journal of Perinatology*,35(8):660–4. doi: 10.1038/jp.2015.28. [PubMed: 25836321]
- 20. Royal College of Speech & Language Therapists. (2017). *Information on Supervision*. Accessed on 23 June from: <u>https://www.rcslt.org/cq_live/resources_a_z/supervision/information0317</u>
- 21. Royal College of Speech & Language Therapists National Benchmarking Survey of Provision to Neonatal Units in the UK, 2017.
- 22. Service Standards for Hospitals Providing Neonatal Care (3rd edition) (2010). British Association of Perinatal Medicine.
- 23. Shaw, R. J., Wamboldt, M., Bursch, B., & Stuber, M. (2006). Practice patterns in pediatric consultation–liaison psychiatry: a national survey. *Psychosomatics*, 47(1), pp 43-49.
- 24. Van Noort-van der Spek IL, Franken MC, Weisglas-Kuperus N. (2012). Language functions in preterm-born children: a systematic review and meta-analysis. *Pediatrics*, 129(4),745–754

Authors

Alexandra Connolly, Highly Specialist Neonatal Speech and Language Therapist, Imperial College Healthcare NHS Trust & Barts Health NHS Trust

Michelle Sweeting, Highly Specialist Neonatal Speech and Language Therapist, Mid Essex Hospital Services NHS Trust

Rebecca Murphy, Highly Specialist Neonatal Speech and Language Therapist, Evelina London Children's Hospital

Nicoll Bell, Highly Specialist Neonatal Speech and Language Therapist, Barking, Redbridge and Havering University Hospitals NHS Trust Katy Parnell, Highly Specialist Neonatal Speech and Language Therapist, Birmingham Women and Children's Foundation Trust

Emma Foulerton, Advanced Neonatal Respiratory Physiotherapist Southern West Midlands Neonatal Operational Delivery Network