BAPM Guidance on Cot Capacity and the use of Nurse Staffing standards

This document has been written by BAPM EC and will be further developed in consultation with the BAPM membership and with neonatal networks.

Nurse staffing guidance and the evolution of networks

Current BAPM guidance on optimal nurse staffing (1) was developed through consensus and is supported by evidence that a smaller number of nurses and especially those with a QIS qualification is associated with a poorer outcome for babies (2)(3). The guidance states that the minimum nurse to baby ratio should be 1:1 for babies receiving intensive care and 1:2 for high dependency care (these should be QIS nurses) and 1:4 for special care.

This BAPM guidance was published early in the evolution of the networks in England and warrants some clarification with the maturation in network functioning. Clinical networks have become the model of organisation of neonatal services throughout the UK. They were set up with the realisation that the mothers and babies with the most complex care needs often require care in more than one unit. The ambition was that the formation of regional networks of units with shared governance would ensure the best clinical outcomes with the least disruption for families. There is now evidence that the development of clinical networks has been accompanied by better adherence to optimal care pathways for the highest risk babies (4).

In an ideal situation, all mothers and babies (except those with a requirement for supra-specialist care) should be able to be cared for within their own network and transfers of mothers and babies only undertaken when this is considered part of their ideal pathway of care.

Neonatal care, in common with other forms of unplanned care, varies enormously in workload hour by hour. It was always intended that nurse to baby staffing ratios for individual units should be calculated on an averaged basis; if units are not continuously staffed for the highest possible peaks of activity, or mothers and babies transferred as soon as optimal nurse staffing levels are threatened, nurse to baby ratios will not necessarily comply with BAPM guidance all of the time. This addition to the original BAPM document is intended to allay professional uncertainty as to how to use nurse staffing guidance to inform cot capacity. It should be used in conjunction with Safe, sustainable and productive staffing (5) and the recommendations of the Neonatal Review (to be published) in England, and the recommendations of the Maternity and Neonatal Services Review in Scotland as well as existing standards in each of the UK nations.

Decisions about cot capacity and patient transfer

BAPM recommends that less than optimal nurse staffing levels should not be used as the sole reason for closure of a unit to further admissions. In some cases, a nurse to baby ratio that is less than the BAPM standard might be considered safer overall than transferring a mother with a complex pregnancy or a high-risk baby to a distant unit. Transfer of mothers and babies itself poses clinical risks during a transfer and may impose long travel distances from home for families.

Decisions about transfer of a mother or baby out of a unit based on cot capacity should be preceded by consideration of all the following factors (a) the number of babies receiving different levels of care (b) the staffing of the unit in comparison with BAPM guidance (c) the possibility of more staff-efficient reorganisation of babies within the neonatal unit (d) the possibility of repatriation of babies. Networks should have mechanisms for oversight of decisions about transfer of mothers and babies for reasons of cot capacity and for exception reporting for this.

How nurse staffing guidance should be used

Although many neonatal units regularly struggle to attain recommended nurse to baby ratios, this is not a reason to change professional guidance regarding optimal staffing, which continues to be that contained in Service Standards for Hospitals providing Neonatal Care 2010 (1). Levels of staffing should be monitored and used together with information on transfers as the basis of negotiation with the relevant commissioning body.

A unit's cot numbers and nursing staff establishment should be agreed on at network level as that appropriate for the needs of its own maternity catchment and for its function as a referral unit if it is a NICU. The unit's total nursing establishment should be calculated on the basis of an average 80% cot occupancy (6) with the help of the appropriate staffing tool (e.g. the Dinning tool in England and the Neonatal Workload tool in Scotland).

Neonatal units should make sure that their senior team is aware of mechanisms for accessing clinical advice, and for escalating to the network when an offer of maternal or neonatal transfer into their maternity unit has to be declined.

Networks should have a mechanism for overseeing the optimal management of cot capacity and maternal or neonatal transfer.

Commissioners and service reviewers should expect units and networks to have the above mechanisms in place and for them to be able to provide evidence of their functioning and any quality improvement related to this.

Parents should expect to be told the rationale for any transfer and to receive basic information about the receiving unit prior to the transfer.

References

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2. Hamilton KESC, Redshaw ME, Tarnow-Mordi W. Nurse staffing in relation to risk-adjusted mortality in neonatal care. Arch Dis Child Fetal Neonatal Ed. 2007;92(2):99–103.
3. Milligan DWA, Carruthers P, Mackley B, Ward Platt MP, Collingwood Y, Wooler L, et al. Nursing workload in UK tertiary neonatal units. Arch Dis Child. 2008;93(12):1059–64.
4. Gale C, Santhakumaran S, Nagarajan S, Statnikov Y, Modi N. Impact of managed clinical networks on NHS specialist neonatal services in England: population based

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5. National Quality Board. Safe, sustainable and productive staffing: An improvement resource for neonatal care. London; 2018.

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