The daily capacity huddle: improving NICU patient flow



Kate Holtermann Audit and Patient Experience Lead, Jessica Forknall Clinical Capacity Manager, Precious Nyagumbo Interim Matron, Becky Williams General Manager, Anju Singh Clinical Director, Shree Vishna Rasiah Clinical Lead (SWMMNN)

Neonatal Intensive Care Unit, Birmingham Women's Hospital NHS Foundation Trust

The neonatal intensive care unit (NICU) at Birmingham Women's NHS Foundation Trust (BWNFT) currently comprises 41 cots, a 12-bed transitional care (TC) ward, a regional donor milk bank and supports a neonatal surgical pathway in collaboration with Birmingham Children's Hospital (BCH) within the South West Midlands Maternity and Newborn Network (SWMMNN). The commissioned cot configuration is:

- 12 intensive care unit (ITU) cots
- 9 high dependency unit (HDU) cots
- 20 special care baby unit (SCBU) cots

These declared cots are used to calculate the equipment, nurses and medical staff numbers required in the NICU to run the service.

Last year there were 8,200 live births at BWNFT and the neonatal service has grown in recent years (**FIGURE 1**) due to a number of competing demands including:

- a 16% increase in births at BWNFT since 2012
- the success of the joint BWNFT/BCH pathway for the care of surgical neonates pre- and post-surgery
- a 256% increase by 2014 in surgical cot days against prediction in the 2007 surgery business case
- the regional fetal medicine and cardiology services at BWNFT, which have also seen an increase in activity over the years.

The daily capacity huddle

Occupancy is a daily challenge for the neonatal team (**FIGURE 2**) and in order to improve patient flow through the unit, the team has adopted a 'daily capacity huddle'.

Two dedicated band 7 nurses deal with the neonatal unit capacity 9am to 5pm, Monday to Friday. Daily at 9:00am, following the night team handover (8:30-9:00am) to both the

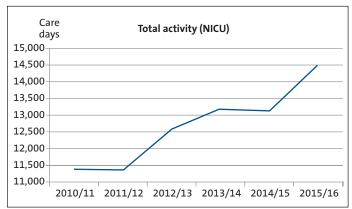


FIGURE 1 Total activity per annum, 2010-2016 (total care days within the NICU; excludes transitional care).

nursing and medical staff, the day team huddles in a dedicated area around a noticeboard (**FIGURE 3**). The huddle is led by the sister-in-charge for the day shift and is attended by the on-call medical teams covering ITU/HDU, special care and the postnatal wards. In addition, the TC nurse consultant, the out-patient clinic nurse lead, capacity nurses, discharge nurses and physiotherapist attend the huddle.

The huddle is an opportunity to address current capacity, expected patient flow within the neonatal unit and the TC ward, and any discharges or repatriations. Potential admissions from the delivery suite are discussed as well as planned fetal medicine cases for delivery that day and the out-of-area infants awaiting repatriation, especially surgical babies from the paediatric intensive care unit. All planned discharges from the unit (whether to home, TC or postnatal wards) are seen as a priority on rounds to ensure they are ready for discharge in a timely manner. Movement to TC and postnatal wards is important to create special care capacity and improve patient flow within the unit.

The respective team members are identified at the huddle, taking into account the nursing and medical staff numbers for the day. When there is a reduced number of medical staff or identified extra tasks (eg transferring a baby for an MRI scan), roles within the team are reallocated at the huddle. It is also important to ensure that the postnatal ward and clinics have appropriate cover.

The daily huddle is used as a forum to highlight the 'lesson of the week', which is identified by the clinical governance group from recent clinical incidents. The lesson is written on the board and read out by the nurse in charge. This reinforces the weekly

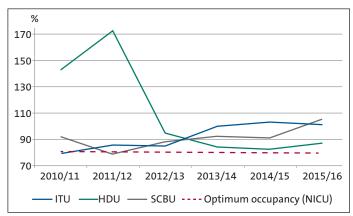


FIGURE 2 Occupancy per annum for each category of care 2010-2016. The peak in occupancy between 2010 and 2012 was due to lack of designated HDU cots. Since then, there has been a slow increase in cot number but the NICU still runs above the 80% occupancy rate recommended by the British Association of Perinatal Medicine.

lesson for the various rotating members of the team over the course of the week.

Finally, any department teaching or meetings planned for the day are brought to the attention of the team, eg a grand round, fetal medicine, journal club, audit or mortality meetings, etc.

Feedback

The huddle takes around 15 minutes each morning. Junior doctor feedback reports that the huddle is a useful exercise in developing experience in managing patient flow, task allocation and responsibilities in a busy NICU setting. It gives greater clarity on what is expected, and the transfers or discharges for the day. Furthermore, the early huddle keeps the network transport team informed so that it can move babies earlier in the day when it is less busy. The format of the huddle is continuously refined following any feedback.

Conclusion

It is challenging to work at 100% occupancy on a daily basis. The huddle ensures that important capacity issues are



FIGURE 3 The daily capacity huddle at BWNFT's neonatal unit addresses capacity, expected patient flow and any discharges or repatriations.

addressed in a timely manner to help in prioritisation and delegation, ensuring a seamless pathway of care for babies and families. Manpower and governance issues are also identified and dealt with during this exercise. Taking this forward, it is hoped that the maternity teams will participate in the huddle to improve the mother-baby pathways and the overall patient experience.



