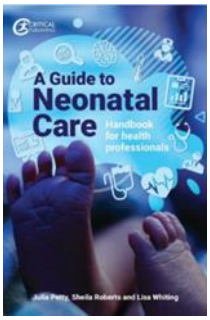
INTRODUCTION: Neonatal Care in context



A Guide to Neonatal Care - Handbook for Health Professionals
Petty J, Whiting L and Roberts S (2024) Critical Publishing

Supplementary information

Neonatal units are designated by three levels of care with different capabilities:

- Level 3 - **Neonatal Intensive Care Unit** - NICU for complex care
- Level 2 - **Local Neonatal Unit** - LNU for high dependency
- Level 1 - **Special Care Baby Unit** - SCBU for initial and short-term care

See: https://www.infantjournal.co.uk/nicu_list.html

In addition, regarding the term 'levels', the British Association of Perinatal Medicine (BAPM, 2022) also outline the four levels of *dependency* within neonatal care; namely, transitional, special, high dependency and intensive care [Figure (i)]. This refers to the level of support a neonate requires as well as the recommended staffing levels (nurse: patient ratio) required. A neonate can move in any direction between levels of dependency – for example from intensive care though to lower dependency when condition is improving until they go home but of course, if they become unwell at any point, then they may move back into a higher dependency level.

Figure (i) **Levels of care (Dependencies) Bases on Categories of care BAPM (2022)**
INTENSIVE CARE - one-to-one ratio (nurse to patient)
A neonate receiving any form of mechanical respiratory support via a tracheal tube. Day of surgery, day of death, any day receiving any of the following: presence of an umbilical arterial or venous line, peripheral arterial line, insulin infusion, chest drain, exchange transfusion, therapeutic hypothermia, Prostaglandin infusion, replogle tube, epidural catheter, silo for gastroschisis, external ventricular drain.

HIGH DEPENDENCY CARE - one-to-two ratio (nurse to patient)

Any of the following apply**: a**ny day receiving any form of non-invasive respiratory support (e.g. nasal CPAP, BIPAP) and/or any day receiving any of the following: parenteral nutrition, continuous infusion of drugs (except prostaglandin &/or insulin), presence of a central venous or long line (PICC), tracheostomy, urethral or suprapubic catheter, trans-anastomotic tube following oesophageal atresia repair, nasal airway/nasal stent, observation of seizures / cerebral Function monitoring, barrier nursing, ventricular tap.

SPECIAL CARE - one-to-four ratio (nurse to patient)

Special care is and requires any of the following: oxygen by nasal cannula, feeding by nasogastric, jejunal tube or gastrostomy, continuous physiological monitoring (excluding apnoea monitors only), care of a stoma, presence of IV cannula, phototherapy, special observation of physiological variables at least 4-hourly.

TRANSITIONAL CARE

General principle- Delivered within a dedicated transitional care ward or within a postnatal ward. In either case the mother must be resident with her neonate and providing care. Care above that needed normally is provided by parents with support from a healthcare professional. Examples include low birth-weight neonates, those who are on a stable Neonatal Abstinence Syndrome and those requiring a specific treatment that can be administered on a post-natal ward, such as antibiotics or phototherapy.

Refer to Chapter 1 by Maxwell & O'Connell-Binns, in, Boxwell, G, Petty J and Kaiser, L (2020). *Neonatal Intensive Care Nursing (3rd edition).* Routledge. [go to the 'Students' tab]

The multi-disciplinary team [MDT]

The neonatal MDT can be seen in Figure (ii). Effective communication and team-working are two vital elements of a MDT that is effective in providing holistic, planned and structured care to a neonate and family. The importance of the principles of effective communication applies to any service user in healthcare including that between health professionals and the neonate and family. Documentation is legally required for all patients within the healthcare system and we have a professional duty to document clearly and maintain patient confidentiality. It is an essential part of care-planning and should comprise family needs, issues and care including for example, any communication barriers and ethnic/cultural considerations to ensure inclusive practice.

Figure (ii) The neonatal MDT

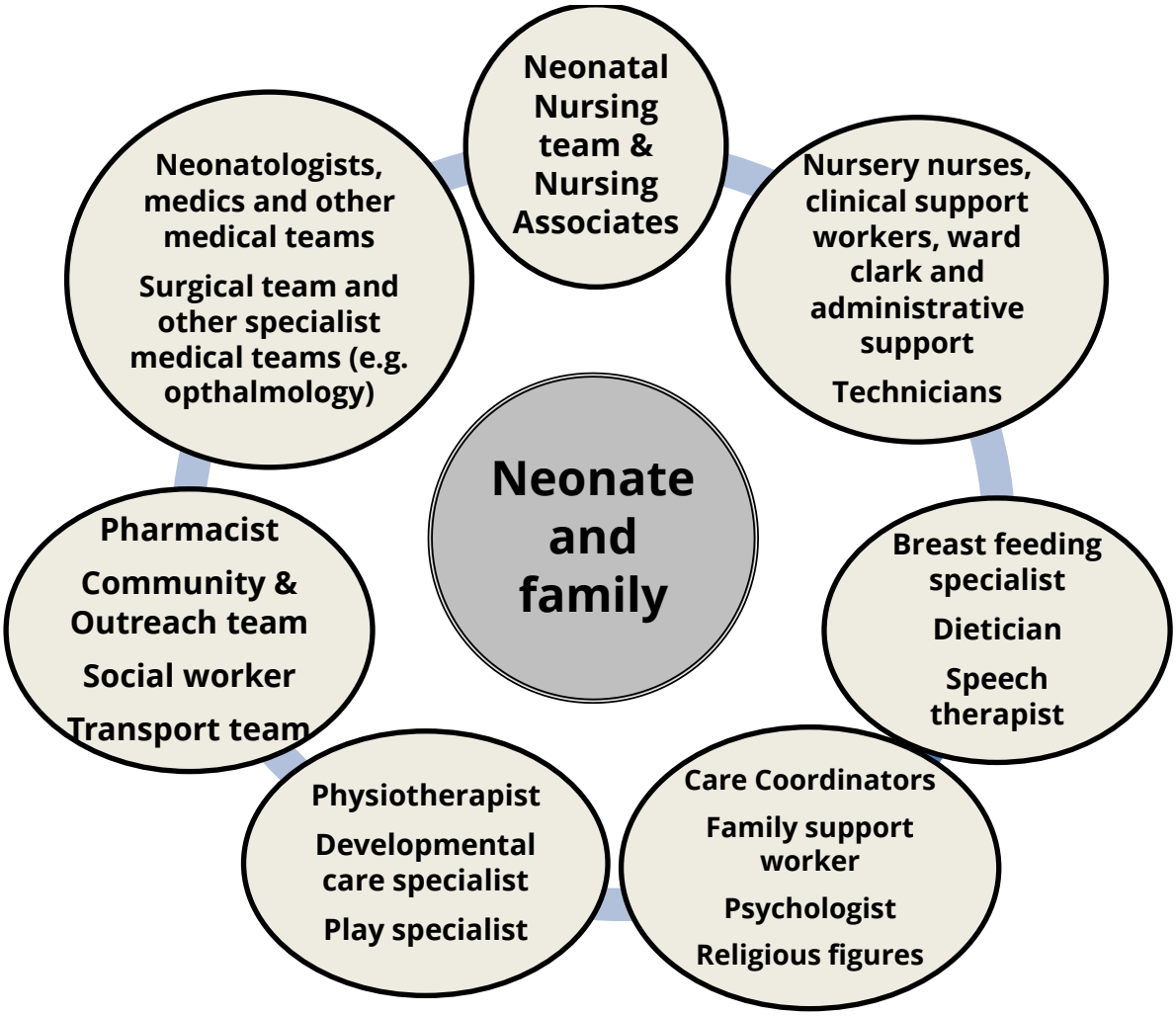
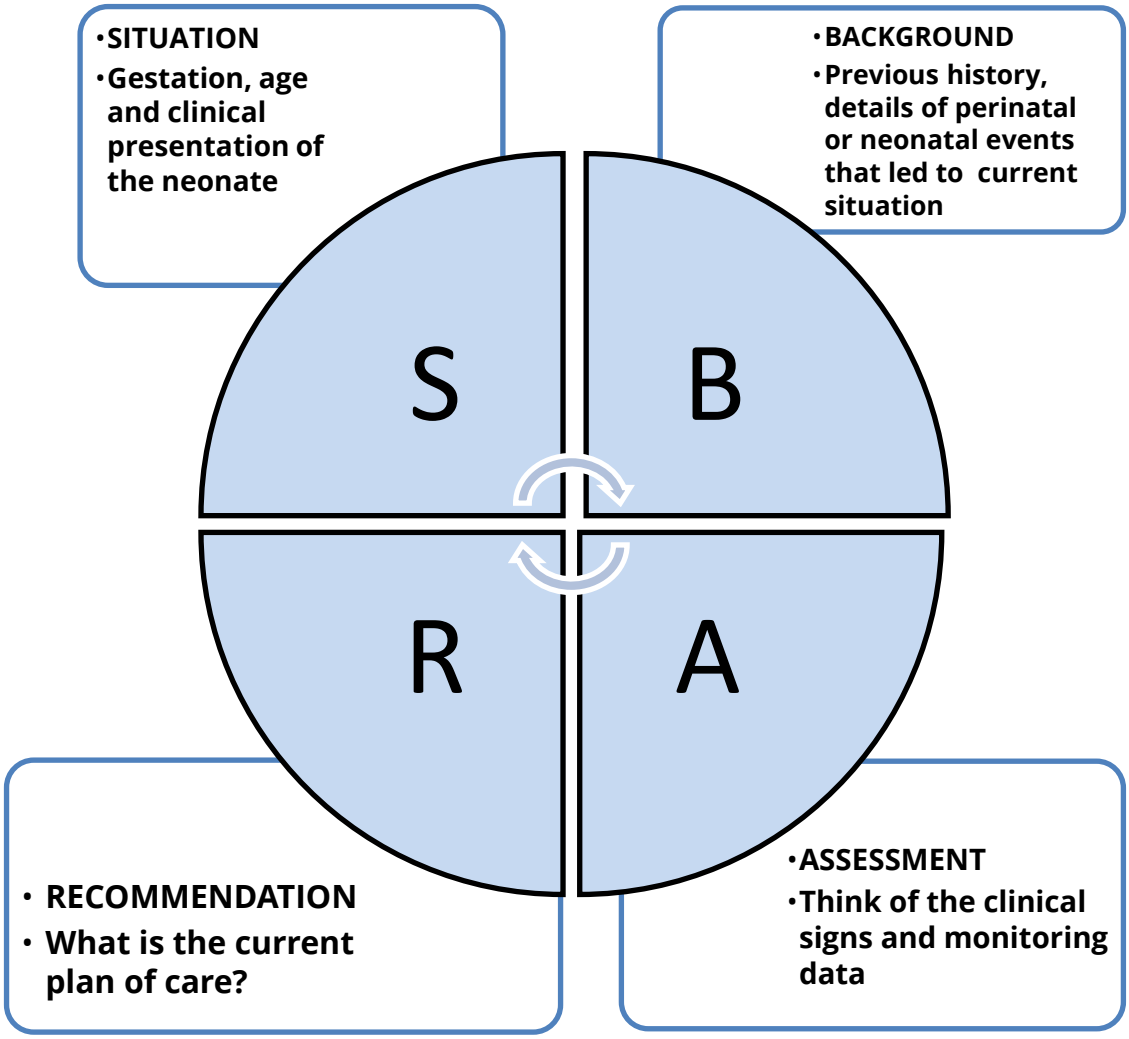


Figure (iii) S B A R (D) Tool for communication and handover



Accurate verbal and written communication are an integral part of safe, good quality care. Handover is vital for effective verbal communication across shifts and between members of the multi-disciplinary team [Figure (iii)]. Individuals and organisations have a shared responsibility to ensure that safe continuity of information and responsibility between shift changes takes place.

Documentation

- Communication with colleagues, ensuring that they have all the information they need about the neonates and families including an individualised care plan. This includes hand-over [Figure iii].

- Documentation should be contemporaneous, legible, and objective to be effective as a form of communication. It should be signed with name and job title printed with a date and time on all records (Royal College of Nursing, 2023)
- Information should be accurate and meaning clear.
- It should be factual and not include unnecessary abbreviations or jargon
- You should record details of any assessments and reviews undertaken. This should also include details of information given about care and treatment.
- Records should identify any risks or problems that have arisen and show the action taken to deal with them.
- Where appropriate, the person in your care, or their carer, should be involved in the record keeping process.
- The language that you use should be easily understood by the people in your care. It should also be inclusive, recognising ethnic and cultural diversity.
- Confidentiality- You need to be fully aware of the legal requirements and guidance regarding confidentiality, and ensure your practice is in line with national and local policies.
- You have a duty to keep up to date with, and adhere to, relevant legislation, case law, and national and local policies relating to information and record keeping.
- The way you record information and communicate is crucial. Other people will rely on your records at key communication points, especially during handover, referral and in shared care.

Stop and think

Another essential part of documentation and communication in the neonatal unit is the formulation of individualised care-plans. Care plans should document all aspects of care for the neonate and family including evaluation in line with the nursing process or any other model of planning care.

Glossary of neonatal MDT roles

The multi-disciplinary team in neonatal care

Neonates in the neonatal unit (NNU) need constant monitoring and 24-hour care from a variety of health care professionals. Here are some of the staff members (in alphabetical order) that a parent or neonate may encounter:

Administrator: Responsible for a combination of administrative and secretarial roles often providing personal assistant support at meetings and for the lead nurse / NNU consultants.

Advanced Neonatal Nurse Practitioner (ANNP): A registered nurse who has advanced and specialised training in working with premature and sick newborns. They can perform many advanced skills / procedures and work at a higher level of decision making.

Care Coordinator: A healthcare professional who works across a network and range of different neonatal units with the aim of enhancing the family experience, acting as a conduit between parents and health professionals, focusing on facilities, resources and support for families.

Clinical support worker: Health professional who is part of the non-nurse registered workforce who provide clinical support to the team. Health care assistants provide one example and generally work up to band 4.

Dietician: A professional who advises and recommends special feeding regimes.

Neonatal nurse: Registered nurse who may or may not have completed additional post-qualifying neonatal training. Those who have completed such a course are called ‘qualified in specialty’ (QIS) and can then progress to higher bands as part of their career development.

Neonatologist: A paediatrician / consultant with advanced training in the care of premature and sick neonates. There may be several neonatologists in the NNU.

Neonatology fellow / registrar: A fully trained paediatrician who is receiving advanced training in the care of premature and sick neonates and is often the most senior physician in the NNU late at night.

Neonatal senior house officer: A trained doctor who is undertaking a rotation in neonatal care.

Nursery nurse: Part of the non-registered workforce but who have completed nursery nurse training at NVQ level.

Nursing Associate: A registered nursing support role that plays a vital role in bridging the gap between healthcare support workers and registered nurses.

Occupational therapist: A health professional whose work is based on engagement in meaningful activities of daily life, especially to enable or encourage participation in such activities despite impairments or limitations in physical or mental functions. In neonatal care, they aim to improve these functions in the newborn with various interventions to limit any developmental problems caused by neonatal care.

Pharmacist: A professional who is responsible for ensuring correct and safe administration of neonatal drugs and advises on drug indication, dose and availability for all neonates on the NNU.

Physiotherapist: A professional who treats injury or dysfunction with exercises and other physical treatments of the disorder. In the care of the NNU, they may deal with neurological conditions or may be part of the respiratory management of neonates requiring ventilation.

Psychologist: Somone who studies the human mind, emotions and behaviour, and how different situations influence people, in order to help support them emotionally.

Religious figure: A priest, minister, rabbi, imam or other religious advisor, who can provide spiritual support and counselling to help families cope with the stressors of the neonatal unit experience.

Social worker: A professional who is specially trained to help families cope with the social aspects of their baby's NICU stay. They can help parents deal with financial difficulties and make any special arrangements for the neonate's discharge and follow-up care.

Speech and language therapist: A professional who is trained in speech and language problems, but often works with neonates in NNUs to help assist them with feeding problems.

Technicians: Staff members who are responsible for the upkeep, maintenance and often staff training of equipment required for care delivery in the NNU for example; ventilators, syringe pumps, blood gas machines.

Ward clerk: Responsible for the running and manning of the front desk dealing with reception and support tasks to the NNU team. An essential member of the team for efficient communication between team members and families and staff.

NB- the list is not exhaustive and some roles may have not been included above.

EXTRA READING – Read more about the organisation of neonatal care.

BAPM (2022) **Service and Quality Standards for Provision of Neonatal Care in the UK**

National Institute for Health and Care Excellence [NICE] (2024**) Specialist Care of Newborns**
