

Neonatal Care in Scotland: A Quality Framework

Neonatal Expert Advisory Group

“

‘Neonatal Care in Scotland: A Quality Framework’ defines the approach to the provision of high quality care for neonates and their families to which NHSScotland is committed.”

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Ministerial Foreword

The Scottish Government is committed to ensuring that all children in Scotland get the best possible start in life. Nowhere is this commitment demonstrated more effectively than in the care we provide to those babies who need neonatal services. This is where cutting-edge medical techniques and technology, ethics and compassionate care come together. This care has a direct and life-long impact, not only on the future of each vulnerable baby, but also on the lives of those who care for them.

The rate of advances in caring for these most vulnerable patients, and the increasing professional and public expectations which come with each new advance, mean that maintaining excellence requires a reappraisal of our services to ensure they are as safe, sustainable and high quality as possible.

The Scottish Government Maternity Services Action Group (MSAG) made a number of recommendations on the future of neonatal care in Scotland including: the development of clinical standards; the establishment of Managed Clinical Networks at a regional level; the development of consistent pathways of care and transfers and ensuring appropriate staffing. To address these recommendations the Neonatal Expert Advisory Group was tasked by the Scottish Government to develop a Quality Framework for neonatal care.

We have been very fortunate to have the level of expertise available to us round the NEAG table, bringing together key professional and service stakeholders; and in the considerable and extensive stakeholder engagement that took place, including key support from Bliss and SANDS. The three Managed Clinical Networks, which were established as part of the response to MSAG's recommendations, have provided an invaluable dimension which has helped NEAG to think at a strategic level about neonatal services in Scotland.

The ambitions of NHSScotland's Healthcare Quality Strategy underpin this Framework. We know that families want a service which is person centred, safe and effective. They need timely, relevant and easily accessible information to help them make the choices they face and they want care for their baby that is at the right level of quality and safety across Scotland.

The aim of the Framework is to set out the approach NHS Scotland will work towards, over time, to provide high quality care for neonates and their families. It will support the NHS in Scotland in its commitment to deliver evidence based, safe, effective and person-centred neonatal care.

I am very grateful to everyone involved in putting this Framework together, which I understand has been a long and sometimes difficult process, and for the commitment of staff to implement its recommendations and continually improve the quality of care. I know the Framework has the needs of babies and their families at its very heart and will secure the future of neonatal services in Scotland.

Michael Matheson MSP
Minister for Public Health

Background

The Neonatal Expert Advisory Group was tasked by the Scottish Government with the development of a Quality Framework for neonatal care. A working group was formed to take this forward who reviewed existing standards documents, including:

- British Association of Perinatal Medicine standards
- Department of Health Toolkit for High Quality Neonatal Services
- Neonatal Services Review for Scotland
- Bliss Baby Charter
- NICE Guidelines
- Position Paper on Specialist Neonatal Services in Northern Ireland
- All Wales Neonatal Standards for Children and Young People's Specialised Healthcare Services
- Royal College of Obstetricians and Gynaecologists Standards for Maternity Care

Subsequent drafts were based primarily on the Department of Health Toolkit for High Quality Neonatal Services, restructured in line with the NHSScotland Healthcare Quality Strategy.

Acknowledgements

The Scottish Government acknowledges the Department of Health Toolkit for High Quality Neonatal Services and the principles contained therein as the source document for many of the following quality statements. The Scottish Government is grateful to Department of Health colleagues for their support.

1.0 Introduction

The Healthcare Quality Strategy for NHSScotland (2010) aims to ‘...deliver the highest quality healthcare services to people in Scotland and through this to ensure that NHSScotland is recognised by the people of Scotland as amongst the best in the world’.¹

“Neonatal Care in Scotland: A Quality Framework” defines the approach to the provision of high quality care for neonates and their families to which NHSScotland is committed. The following framework will support NHSScotland in the delivery of high quality evidenced-based, safe, effective and person-centred neonatal care.

For the purposes of the Framework, the patient group is taken to be newborn infants who require care at a level greater than standard perinatal care. It is recognised that not all hospitals have a neonatal unit; nevertheless certain elements of the framework included in this document will be applicable in any hospital providing newborn care.

The framework is structured in line with NHSScotland’s Healthcare Quality Strategy and is presented under the six quality dimensions:

- Person-centred
- Safe
- Effective
- Efficient
- Equitable
- Timely

Each Neonatal Unit in Scotland is responsible to its NHS Board for the provision of care in line with the quality framework and it is anticipated that each unit will work flexibly with their regional Managed Clinical Network (MCN) in order to do so.

This framework will inform all staff and stakeholders of the requirements to support the delivery of a high quality service.

¹ The Healthcare Quality Strategy for NHSScotland, Scottish Government, May 2010

2.0 Neonatal Care in Scotland: A Quality Framework

The neonatal staff of NHSScotland are committed to delivering a high quality service.

This framework identifies quality dimensions which have been shown to deliver high quality in healthcare. It highlights the journey an existing service will need to travel to ensure a sustainable high quality service. This journey requires the commitment of staff to make a positive difference and the support of stakeholders to achieve the best possible outcomes.

2.1 Person-centred

Neonatal units in Scotland are committed to providing a high-quality service that focuses on the needs of the baby² and family by responding to the families' cultural and religious preferences, needs and values.

This commitment will be demonstrated through ensuring quality of communication; involvement in decision-making and planning of care; ensuring treatment with dignity and respect; access to professional support; and in the level of facilities available.

2.2 Safe

Public assurance regarding the quality and safety of care will be supported through a robust governance structure which is focused on the safety of patients. The service will monitor and act upon data and information gathered from quality outcome measures, clinical outcomes and other audit methodologies. This will demonstrate a culture of continuous service improvement and sustainability. This care will be underpinned by child protection policies and recommendations of patient safety initiatives.

A high quality service will provide care in line with approved patient pathways; ensuring staff with the appropriate skills are available; treating babies in units with facilities appropriate to their needs; undertaking regular audit of practice and ensuring staff have appropriate training.

² The word "baby" is used throughout this document for simplicity however could refer to "babies" in the case of multiple births

2.3 Efficient

A high quality neonatal service in Scotland will provide an efficient service which maximises the resource available to patient care through the avoidance of waste and reducing duplication. This will be demonstrated by regional collaboration to develop service models which maximise the use of available clinical expertise; and supporting units to provide an appropriate level of care. The use of telehealth and e-health solutions wherever possible will also contribute to the improvement of efficiency.

2.4 Effective

A high quality service with an effective governance structure will demonstrate the use of quality indicators to monitor and improve outcomes and will produce an annual report evidencing the planning and delivery of continuous improvement in the service for each regional MCN. This will include information from each unit; the collection and management of data and appropriate leadership and management arrangements the development, implementation and regular review of evidence-based guidelines and quality indicators; benchmarking activity to compare the efficacy of the Scottish service with others; contribution to research work and access to appropriate developmental care. This will be supported by active engagement with staff at all levels.

2.5 Equitable

A high quality neonatal service within Scotland will provide equity of access and equity of care through the development of three regional Managed Clinical Networks (MCNs). Care will be provided to all groups of the population, taking account of all protected characteristic groups covered by the Equality Act 2010.

The Scottish Neonatal MCNs will support an equitable service through service agreements which ensure appropriate care can be accessed by all babies who require it; cross-boundary working between regions to ensure optimal patient care; equitable provision of support to parents and appropriate transfer and transport of babies.

2.6 Timely

Neonates will be cared for in the right place, at the right time and by the right people with the right skills.

A high quality neonatal service will demonstrate timely provision of clinical care, minimised delays in emergency transfer and access to care; effective deployment of teams for planned transfers; a sustainable transport infrastructure to support the service and effective and timely communication with obstetric staff.



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3.1 Person-centred

Neonatal units in Scotland are committed to providing a high quality service that focuses on the needs of the baby and family by responding to the families' cultural and religious preferences, needs and values.

This commitment will be demonstrated through ensuring quality of communication; involvement in decision-making and planning of care; ensuring treatment with dignity and respect; access to professional support; and in the level of facilities available.

3.1.1 Communications

Neonatal services will provide parents with information, in language and formats appropriate to the local community that is accurate, timely and relevant to the current point on the patient journey which also takes into account any past medical history which will impact on the current episode of care.

This will be evidenced by:

- The offer of a visit to the neonatal unit in the antenatal period for planned admissions.
- Parents³ of new admissions to the unit being orientated appropriately to facilities, routines, staff and equipment. This will be supported by information given in a format appropriate to the individual's needs.
- Availability of information provided to parents in circumstances which require consent.
- Discussion with parents following a diagnosis of their baby's condition and the implications of this diagnosis.
- Discussion with parents regarding the care and treatment of their baby.
- Clear and concise written communication in a format appropriate to the individual's needs being given to parents informing of: admission and discharge procedures, social care and support contacts and contact details for named key worker within the neonatal unit.
- Provision of a photograph of baby for parents within four hours of admission if unable to be with baby. The use of telemedicine, where available, should be explored to provide additional contact.
- All staff being trained in effective methods of communication with parents.

³ The word "parent" is used throughout this document for simplicity; however this refers to parent(s), carer(s) or guardian(s) as appropriate to circumstances

- Parents being offered the opportunity to discuss their baby's diagnosis and care with an experienced clinician within 24 hours of admission, or following a significant change in condition.
 - Parents being offered access to appropriate communication and advocacy services to support them in their participation in ward round discussions, clinical care decision-making, palliative care planning and end-of-life care if required.
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3.1.2 Involvement in Decision-making Within a High Quality Service

Parents will be encouraged and supported to participate in the planning and decision-making about the care and treatment of their baby, taking into account families' cultural and religious preferences, needs and values.

This will be evidenced by:

- Care plans being updated and developed in collaboration with parents.
 - Parental involvement in the provision of care for their baby at the most appropriate time.
 - Support being given to parents in skin-to-skin and physical contact with their baby, if appropriate for clinical condition.
 - Education of parents in handling and positioning of baby.
 - Parents being offered the opportunity to be present when care and other medical interventions are delivered if clinically appropriate.
 - Positive action having been taken to keep a mother and her baby in the same hospital during their respective admissions wherever possible.
 - Parents being encouraged to provide all appropriate personal care to their baby.
 - Parents not being restricted in the time spent with their baby, whilst ensuring parents have time for adequate rest and sleep.
 - Transfers being planned and documented in collaboration with parents.
 - Parents being given the opportunity to see and hold their baby, if clinically appropriate, prior to transfer.
 - Staff providing assistance to parents in making their own transport arrangements.
 - Parents being invited to travel with baby in the ambulance, providing it is in keeping with clinical need and local neonatal transport policy. The final decision on individual cases will be made by the team transporting the baby.
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- Parents being supported and educated appropriately to ensure effective involvement in discharge planning and discussion with community and social care.
- If required, palliative care planning and end-of-life decisions being made in partnership with professionals and parents in an appropriate environment. The available options including hospice and homecare will be discussed if clinically appropriate.
- Parents being offered support if they wish to provide personal care for their baby following death.

3.1.3 Professional Support

Families (including the baby's siblings) will be provided with information and support to access appropriate professional help, in a timely manner, as required.

This will be evidenced by:

- Discussion with parents and staff regarding need for pastoral, religious and/or social support.
- Provision of up-to-date information and how to access these services in formats appropriate to the individual's need on NHS, social care and third sector services, local and national support groups, palliative care services, social services, counselling and bereavement support.
- Referral for counselling and bereavement support following discharge where required.
- The provision of a financial support policy for long-term admission and/or long distance transfer from referring unit.

3.1.4 Facilities

A high quality service will make dedicated facilities available for parents and families of babies receiving neonatal care wherever possible.

Family friendly facilities will include accommodation appropriate for family need.

This will be evidenced by:

- A list of local accommodation with agreed rates being provided.
 - Appropriate access to hot drinks outwith normal hours.
 - Access to a telephone, toilet and washing area including shower.
 - Provision of a parent sitting room.
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- Secure and readily accessible storage being available for parents' personal items.
- Non-secure storage of personal items (e.g. baby clothes) being provided at the cot side.
- A room for counselling or privacy for distressed parents being available as required.
- A minimum of two rooms within or adjacent to the unit (with gas and air supply points to be available) for "rooming in" prior to discharge (level two and three units).
- An area offering privacy to express milk and to feed, if required, being available within the neonatal unit.
- The unit holding enough breast pumps to provide access for each mother if the unit is at full capacity.

Family friendly outpatient facilities will include:

- An appropriate area to feed baby.
- Changing area.
- Access for prams.
- Consulting room large enough for baby, parents and siblings.
- Play area.
- Appropriate toys available.

Any future design for new Neonatal Units should comply with the Disability and Equality Act (2010). Requirement may vary from one unit to another dependent on factors such as geography. Units should work with MCNs to assess local need and make provision accordingly.

This will include:

- Overnight accommodation for parents. All rooms should be free of charge with bathroom facilities.
 - Several rooms provided in line with predicted need in the region, located within 10-15 minutes' walking distance of the unit.
 - A suitable number of rooms within or adjacent to the unit (with gas and air supply points to be available) for 'rooming in' prior to discharge.
 - A changing area for other young children.
 - A play area for siblings of baby receiving care.
 - A dedicated room set aside and furnished appropriately for counselling and to provide distressed parents with privacy and quiet.
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3.2 Safe

Public assurance regarding the quality and safety of care will be supported through a robust governance structure which is focused on the safety of patients. The service will monitor and act upon data and information gathered from quality outcome measures, clinical outcomes and other audit methodologies. This will demonstrate a culture of continuous service improvement and sustainability. This care will be underpinned by child protection policies and recommendations of patient safety initiatives.

A high quality service will provide care in line with approved patient pathways; ensuring staff with the appropriate skills are available; treating babies in units with facilities appropriate to their needs; undertaking regular audit of practice and ensuring staff have appropriate training.

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A high quality service will provide care in line with approved patient pathways; ensuring staff with the appropriate skills are available; treating babies in units with facilities appropriate to their needs; undertaking regular audit of practice and ensuring staff have appropriate training.

3.2.1 Patient Pathways

Patient pathways will be developed in partnership with staff, parents and key stakeholders to deliver and demonstrate a standardised high quality safe neonatal service across all the regions.

This will be evidenced by:

- A streamlined pathway between obstetric and neonatal care.
 - Babies being managed in the appropriate level of facility, so that when severity of illness increases or decreases, babies are cared for in the safest environment.
 - Support and advice where required, within local services and across the network.
 - Availability of specialist services, on a national and regional level.
 - Availability of surgical services.
 - Community care being provided following discharge if required.
 - Neuro-developmental assessment and follow-up being undertaken, where clinically appropriate to comply with BAPM Standards.
 - Care being provided in line with the recommendations of condition-specific MCNs.
 - Clear referral pathways for specific neonatal conditions not wholly managed within the local unit, e.g. therapeutic hypothermia.
 - Palliative/end-of-life care pathways.
 - Units demonstrating that these pathways are in place, staff have knowledge of same; pathways are universally complied with and, where local guidelines exist, they promote adherence to the agreed pathways.
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3.2.2 Available Skills

A high quality service will have the following availability⁴ of skills:

Medical Care

Three tiers of staff will be available to provide medical care:

Tier 1 – Direct care (foundation or specialist trainee/advance neonatal nurse practitioner (ANNP)).

Tier one staff are available at all levels of neonatal care;

Tier 2 – Resident experienced support (specialist trainee/ANNP);

Tier 3 – Consultant

The availability and experience of tier two and tier three staff are different between the three categories of neonatal services. This is reflected in the complexity of care provided. Nevertheless the competencies and capabilities required to ensure safe practice in these differing models of service delivery are assured through education and training frameworks as agreed by professional bodies.

- Duty rotas will identify the following are in place:

Level One

- » 24-hour availability from a consultant paediatrician (or equivalent non-consultant career grade doctor); out-of-hours cover is provided as part of a general paediatric service; available as part of the general out-of-hours service.
- » 24-hour availability of staff experienced in providing basic airway management; supported by staff experienced in advanced airway management.

Level Two

- » 24-hour availability of consultant paediatrician (or equivalent non-consultant career grade doctor) with experience and training in neonatal care; out-of-hours cover is usually provided as part of a general paediatric service.
- » 24-hour cover of resident experienced support with the ability to respond immediately to neonatal emergencies (specialist trainee/ANNP); although out-of-hours cover is usually provided as part of a general paediatric service.
- » 24-hour cover for provision of direct care with sole responsibility for the neonatal service (this could be a member of medical staff or an ANNP or QIS nurse who has undertaken extended training to support taking on additional roles⁵).

⁴ Availability can be taken to mean instant access via a telephone for advice and physical presence within 30 minutes (unless exceptional circumstances prevent this)

⁵ As per BAPM Standards 3rd edition, 2010, paragraphs 4.2 and 4.3

Level Three

- » 24-hour availability of a consultant neonatologist⁶ whose principal duties, including out-of-hours cover, are to the neonatal unit.
- » 24-hour cover of resident experienced support for sole cover of the neonatal service and associated emergencies (specialist trainee/ANNP).
- » 24-hour cover for provision of direct care with sole responsibility to the neonatal service (FY2 – ST3 or ANNP).
- All units will be able to demonstrate:
 - » The availability of a duty level three consultant at all times to provide advice and support by telephone to paediatricians delivering neonatal care at other network units. For networks with more than one neonatal intensive care unit, an agreed system for designating the daily availability of this clinical advice is in place.
 - » Where it is necessary for a consultant to be resident on call, another consultant is available for telephone advice and/or attendance if necessary.
 - » Medical workforce planning takes account of the European Working Time Directive (EWTG) in job planning.
 - » A specialist paediatric surgeon is on call for the neonatal surgical service to provide advice to referring centres at all times.
 - » All services providing surgery to newborn babies have access to a consultant neonatologist, available at all times.
 - » Availability of a pharmacist whose job plan contains identified and protected capacity for providing advice and support in neonatal pharmacy.
 - » Staff with appropriate training, knowledge and skills available to provide support in the community after discharge, where required.
 - » Cardiology advice is available 24-hours a day within Scotland.
 - » Access to the perinatal pathology service.
 - » Access to a multi-disciplinary team specialising in and trained in neuro-developmental assessment and therapy for high-risk infants.

⁶ A Consultant Neonatologist is someone who fits one of the following criteria:

- 1) A medical consultant with a CCT in paediatrics (neonatal medicine)
 - 2) A medical consultant who has a Certificate of Eligibility for Specialist Registration via Article 14, GMC
 - 3) A medical consultant whose appointment as a Consultant Neonatologist preceded the establishment of the RCPCH CCT (above) and who has subsequently practised in a tertiary referral centre and devoted the majority of time to neonatal care.
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- » Access to individuals trained and competent in dealing with child protection issues, which will be managed in line with the latest national child protection guidance.
 - » Access to a radiologist with expertise in reporting neonatal images across the network.
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3.2.3 Nursing Skills

A high quality service will have the following availability of nursing skill:

- Staffing records evidence that units have a minimum of two registered nurses on duty at all times, of which at least one is qualified in specialty (QIS).
 - Babies requiring special care are looked after with a minimum of 1:4 staff-to-baby ratio at all times by either registered nurse or non-registered staff with the appropriate competencies and skills, working under the supervision of a registered nurse (QIS).
 - Babies requiring high dependency care are cared for by staff who have completed accredited training in specialised neonatal care or who, while undertaking this training, are working under the supervision of a registered nurse (QIS). A minimum of a 1:2 staff-to-baby ratio is provided at all times (some babies may require a higher staff-to-baby ratio for a period of time).
 - Babies requiring intensive care are cared for by staff who have completed accredited training in specialised neonatal care or who, while undertaking this training, are working under the supervision of a registered nurse (QIS). A minimum of a 1:1 staff-to-baby ratio is provided at all times (some babies may require a higher staff-to-baby ratio for a period of time).
 - Neonatal nursing establishments in each unit are calculated against activity with an uplift of 22.5% to accommodate expected leave (annual, sick, maternity, paternity, mandatory training and continuous professional development (CPD)), based on an 80% occupancy level.⁷
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3.2.4 Allied Health Professional Skill

A high quality service will ensure all units have access to Allied Health Professionals whose job plans contain sufficient capacity to provide advice and support across the network, to meet BAPM standards.

Diagnostic imaging services will be provided by professionals with expertise in paediatric and neonatal imaging.

⁷ As per annual activity

This will be evidenced by:

- The availability within the neonatal team of specialist neonatal dietitian, physiotherapist and/or occupational therapist, speech and language therapist and clinical psychologist.
 - Compliance with IRMER (2000) and IRMER Amendment (2006) and ALARP principle.
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3.2.5 Facilities

A high quality service will ensure babies will be treated in a facility that promotes patient safety and is appropriate to the clinical need.

This will be evidenced by:

- Suitable equipment being available in any location where neonatal resuscitation maybe required.
 - Centres providing neonatal surgery have an emergency theatre available at all times to provide neonatal surgery as close to the neonatal unit as possible. This theatre has equipment appropriate for very small babies and appropriately skilled operating theatre staff are available. Future builds will ensure this theatre is adjacent to the neonatal unit.
 - Specialist neonatal surgery services being located in the same hospital site as specialist paediatric (including surgery and anaesthesia), maternity and neonatal intensive care services.
 - NHS Boards working towards centralising the care of babies requiring surgery into a combined medical and surgical neonatal unit, where this is not currently in place.
 - All medical equipment in the neonatal unit being of a safe standard and being routinely maintained, including laboratory/near patient testing equipment.
 - The provision of suitable facilities for diagnostic imaging and reporting services, including access to national PACS.
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3.2.6 Measurement

A high quality neonatal service will promote an improvement-focused culture through a commitment to patient safety and the delivery of quality improvement and sustainable services.

This will be evidenced by:

- Participation within local, regional and national audit programmes.
 - Provision of data to support and demonstrate clinical quality and service improvement.
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3.2.7 Staff Training

Staff within a high quality neonatal service will have a high standard of knowledge and skills.

This will be evidenced by:

- All staff involved in the clinical care of the newborn immediately following delivery being competent in newborn life support and other key clinical skills as identified by BAPM. This can be evidenced by appropriate staff demonstrating current accredited certification in newborn life support.
- All staff caring for babies within neonatal services undergoing and maintaining appropriate training in neonatal resuscitation for the level of care they are expected to provide, and a record of training being maintained.
- All staff caring for babies within neonatal services undergoing training and maintaining competence in the management of child protection issues, in line with NHS Education for Scotland's Core Competency Framework for the Protection of Children.
- All staff caring for babies within neonatal services complying with the local Equality and Diversity policies.

Nursing Staff

- Registered staff achieving the competencies identified within the Career and Developmental Framework for Neonatal Nurses in Scotland (2010) within the recognised timescale.
 - Non-registered staff providing direct nursing care undertaking appropriate training and achieving set competencies identified for their clinical support worker role within the recognised timescale.
 - All staff providing direct nursing care being supported to participate in continuing professional development of relevance to their role on the neonatal unit.
 - Robust training records being maintained for all levels of staff within the neonatal unit.
 - Nurses providing care for babies requiring surgery being competent in both neonatal medical and surgical care.
 - A **minimum** of 70% (in level one units) and 80% (level two and three units) of the workforce establishment holding a current Nursing and Midwifery Council (NMC) registration.
 - A **minimum** of 70% of the registered nursing workforce establishment holding an accredited post-registration qualification in specialised neonatal care (qualified in specialty (QIS)).
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- All staff being supported to maintain appropriate skills and performance being formally reviewed on an annual basis through appraisal and e-KSF or other appropriate performance management process.

Consultant Paediatricians/Neonatologists

- Consultants who supervise neonatal care being able to demonstrate continuing professional development in neonatal care as part of their job planning and appraisal process.
- New consultant appointments to neonatal intensive care units having a Certificate of Completion of Training (CCT) in Paediatrics (Neonatal Medicine) or equivalent.

Paediatric Surgeons:

- Specialist paediatric surgeons being appropriately skilled and trained to care for babies. These skills will be maintained via continuing professional development. This will include all relevant specialties.
- New consultant specialist paediatric surgeon appointments holding a CCT in Paediatric Surgery or equivalent.

Anaesthetists:

- Anaesthetists who are expected to undertake neonatal anaesthesia and resuscitation being appropriately trained as recommended by the Royal College of Anaesthetists' competency-based higher and advanced training documents (ST 5, 6, 7) or equivalent.
- Units providing neonatal surgery having a consultant anaesthetist designated to provide anaesthesia for newborn babies available at all times. Each of these consultant anaesthetists will have regular involvement in emergency and elective neonatal surgery.

Sonography

- Any member of staff providing ultrasound within the neonatal unit must have appropriate training and competence relevant to their role.

Allied Health Professionals:

All AHP staff involved in neonatal care will be trained effectively, supported to maintain skills and will have their performance formally reviewed on an annual basis via appraisal and e-KSF within their own professional departments. They will have access to appropriate specialised post-graduate training and education and will be supported to participate in continuous professional development of relevance to their role. The following list identifies some of the specific requirements for the individual AHP professions to provide a high quality service:

Dietitians

Dietitians providing neonatal care will have completed the British Dietetic Association Paediatric masters module two or have equivalent levels of knowledge and skills with achieved competencies.

Specialist neonatal dietitians will have completed the British Dietetic Association Paediatric masters module five neonatal nutrition training course or have equivalent levels of knowledge and skills and achieved competencies.

Speech and Language Therapists

Speech and language therapists providing neonatal care will undergo accredited post-registration training or training appropriate to the neonatal unit. This will include paediatric dysphagia training or equivalent skills, knowledge and competencies.

Physiotherapists

Physiotherapists will have access to training in line with the requirements of the Association of Paediatric Chartered Physiotherapists competence framework.

Radiographers

Radiographers working within neonatal units will comply with the College of Radiographers Practice Standards for the imaging of children and young people (2009) and the "Child and the Law; The roles and responsibilities of the radiographer" (2005).

Pharmacists

Pharmacists will be experienced in neonatal care and as a minimum will have successfully completed the Centre of Postgraduate Pharmacy Education paediatric distance learning pack or have equivalent levels of skills, knowledge and competence.



3.3 Efficient

A high quality neonatal service in Scotland will provide an efficient service which maximises the resource available to patient care through the avoidance of waste and reducing duplication. This will be demonstrated by regional collaboration to develop service models which maximise the use of available clinical expertise; and supporting units to provide an appropriate level of care. The use of telehealth and e-health solutions wherever possible will also contribute to the improvement of efficiency.

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A high quality neonatal service in Scotland will provide an efficient service which maximises the resource available to patient care through the avoidance of waste and reducing duplication. This will be demonstrated by regional collaboration to develop service models which maximise the use of available clinical expertise; and supporting units to provide an appropriate level of care. The use of telehealth and e-health solutions wherever possible will also contribute to the improvement of efficiency.

3.3.1 Service Model

A high quality neonatal service will be delivered through a service model which takes account of the need for differing levels of care across the region and ensures the appropriate level of resource is available in the right location.

This will be evidenced by:

- Participation in the implementation of regional collaborative working to implement agreed pathways.⁸
- Compliance with national, regional and local guidelines.⁹
- Provision of care in line with the designated level of service. This includes provision of appropriate facilities.
- Supporting the availability of clinical staff with appropriate skills.

⁸ As per 3.2.1

⁹ As per 3.4.4

3.3.2 Levels of Care

A high quality neonatal service will provide care according to the needs of the patient and resources available.

The exact number of each type of unit and the precise definition of their role will vary between networks but each network will have at least one Neonatal Intensive Care Unit. A neonatal service will have access to a specialised transport service. The transport service will facilitate not only the transfer of babies needing urgent specialist support but also enable the timely return of babies to their “home” unit as soon as clinically possible.

This will be evidenced by care being categorised into the following levels of service delivery:

- **Special Care/Level One Units (SCU):**
The provision of special care for the local population. High dependency services may also be provided through agreement with the regional neonatal network.
- **Local Neonatal/Level Two Units (LNU):**
The provision of special care and high dependency care and a restricted volume of intensive care (as agreed locally). Babies who require complex or longer-term intensive care¹⁰ will be expected to transfer to a Neonatal Intensive Care Unit.
- **Neonatal Intensive Care/Level Three Units (NICU):**
The provision of the whole range of medical (and sometimes surgical) neonatal care for the local population from a larger intensive care unit. Additional care will be provided for babies and their families referred from the neonatal network in which they are based. Admission of babies from other networks may occur to deal with peaks of demand or requests for specialist care not available elsewhere. Many will be sited within perinatal centres that are able to offer similarly complex obstetric care. These units will also require close working arrangements with all of the relevant paediatric sub-specialties.

¹⁰ Babies with complex co-morbidities, rare conditions or of very low birth weight and gestational age would be considered complex. Based on findings of Hospital volume and neonatal mortality among very low birth weight infants, Bartels DB, Wypij D, Wenzlaff P, Dammann O, Poets CF, 2006, <http://www.ncbi.nlm.nih.gov/pubmed/16740866>



3.4 Effective

A high quality service with an effective governance structure will demonstrate the use of quality indicators to monitor and improve outcomes and will produce an annual report evidencing the planning and delivery of continuous improvement in the service for each regional MCN. This will include information from each unit; the collection and management of data and appropriate leadership and management arrangements the development, implementation and regular review of evidence-based guidelines and quality indicators; benchmarking activity to compare the efficacy of the Scottish service with others; contribution to research work and access to appropriate developmental care. This will be supported by active engagement with staff at all levels.

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3.4.1 Leadership and Management

A high quality neonatal service will ensure there is an effective and accountable governance structure with strategic leadership and direction that will support an effective and efficient service.

This will be evidenced by:

- A robust governance framework agreed by each Regional Planning Group identifying lines of accountability and responsibility which protects both patient safety and the clinical staff delivering care in NHS Boards.
- A strategic plan for the development of capacities and skills to improve clinical care which includes leadership development, staff governance and workforce.
- Professional leads at a local and regional level covering:
 - » Surgical services
 - » Education
 - » Service development
 - » Transfer service
 - » Data and audit
 - » Research
 - » Follow-up

It is recognised this may form part of the responsibilities for an existing member of staff.

- A professional lead at a local level interfacing with the MCN. This lead will identify local leads for the following aspects of service:
 - » Service delivery
 - » Breastfeeding
-

- » Developmental needs and care of the baby
- » Emotional and psychological support to families
- » Safeguarding children/child protection issues
- » Infection control
- » Patient safety
- » Palliative care
- » Bereavement support
- » Education and training
- » Community liaison

This individual will have the responsibility for escalating issues in any of these areas to the MCN. It is recognised this may form part of the responsibilities for an existing member of staff.

3.4.2 Quality Indicators

MCNs will support the delivery of a high quality neonatal service by taking a lead in the development and monitoring of Quality Indicators.

This will be evidenced by:

- The MCNs agreeing clinical quality indicators and reviewing these regularly, to monitor the quality outcomes of services within that network.
 - An annual multi-disciplinary meeting involving all key stakeholders being held to monitor trends in outcomes (including mortality and morbidity).
-

3.4.3 MCN Annual Report

The effectiveness of a high quality neonatal service will be highlighted by the production of an annual report from each regional MCN (accountable to respective Regional Planning Groups).

This will include:

- A report from each network subgroup to evidence regional working which incorporates the identification, sharing and learning from the delivery of best practice.
 - Each network meeting or working toward the completion of identified objectives which are aligned with their respective Regional Planning Group objectives.
-

-
- Each network following recommendations as set out in relevant Scottish Government strategic policy documents such as the NHSScotland Quality Strategy.
 - Each network showing added value to healthcare in Scotland through improved outcomes and processes.
-

3.4.4 Evidence-based Guidelines

A high quality neonatal service will show regional collaborative working to agreed guidelines for care, based, wherever possible, on the most up-to-date available evidence.

This will be evidenced by:

- Professionals following agreed professional diagnostic and therapeutic guidelines wherever clinically possible.
-

3.4.5 Benchmarking

A high quality neonatal service will provide access to robust quality data on neonatal care, mortality and morbidity from all units within the region. This will enable contribution to network, national and UK audit in order to provide benchmarking information.

This will be evidenced by:

- Contribution to the Scottish neonatal dataset supported by effective data collection systems within the region. Data to be used to support continuous quality improvement.
 - Submission to the National Neonatal Audit Programme (NNAP)
-

3.4.6 Research

High quality neonatal services encourage participation in research and development activity, which supports collaborative working across the region and will have a structure in place to support interaction and engagement with the National Institute for Health Research and its networks.

This will be evidenced by:

- Recorded support of study-related handovers during transfers.
 - Unified policies, where multiple trials are taking place.
 - The provision and recording of Good Clinical Practice (GCP) training in the areas of research processes for staff participating in research.
-

3.4.7 Developmental Care

Developmental care is the culture within the unit that recognises and supports the developmental needs of all infants at all stages within the neonatal environment. Access to appropriate developmental care at the right time can have a positive impact on the future health of the child and improve the effectiveness of care.

This will be evidenced by:

- The establishment of a multi-disciplinary developmental care group.
 - Guidelines for delivery of developmental care, supported by education and training for staff.
-



3.5 Equitable

A high quality neonatal service within Scotland will provide equity of access and equity of care through the development of three regional Managed Clinical Networks (MCNs). Care will be provided to all groups of the population, taking account of all protected characteristic groups covered by the Equality Act 2010.

The Scottish Neonatal MCNs will support an equitable service through service agreements which ensure appropriate care can be accessed by all babies who require it; cross-boundary working between regions to ensure optimal patient care; equitable provision of support to parents and appropriate transfer and transport of babies.

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3.5.1 Managed Clinical Networks

The development of three regional Managed Clinical Networks (MCNs) for the South and East, North and West of Scotland will support the delivery of a high quality neonatal service.

This will be evidenced by:

- The work of each MCN complying with the core principles for MCNs as laid out in HDL (2007) 21¹¹ and subsequent Scottish Government guidance.
- Cross-boundary working where appropriate for each MCN to ensure collaboration between Board areas, which will help to sustain the service.
- An agreed governance framework including network structure, accountability, reporting and performance management arrangements to support equity of service.
- The provision of an annual meeting for all network members and development of action plans incorporating outcomes of this meeting.
- The publication of an annual report covering, as a minimum, neonatal activity for the network's population, monitoring of quality markers and progress with addressing any concerns identified.
- The provision of robust quality data to compare outcomes across units and inter-regionally, in order to ensure the quality of care provided is equitable.

3.5.2 Service Agreements

Service agreements will support the delivery of a high quality neonatal service for units that do not provide intensive care or other specialist services.

This will be evidenced by the provision of access to:

- Neonatal surgery, including details of the process for follow-up.
- Units providing care at a higher level of acuity.
- Cots when local unit(s) have reached capacity.

¹¹ "Strengthening the role of Managed Clinical Networks", Scottish Government March 2007, http://www.sehd.scot.nhs.uk/mels/HDL2007_21.pdf

3.5.3 Cross-regional Working

A high quality neonatal service will be supported through facilitation of work across the regions by the MCNs. This will improve equity of care by ensuring support services are readily accessible for advice, information and review.

This will be evidenced by the provision of access to:

- Clinical genetics
 - Dermatology/vascular lesions
 - Endocrinology
 - Laboratory services
 - Neurophysiology
 - Ophthalmology
 - Paediatric cardiology
 - Paediatric ear, nose and throat
 - Paediatric gastroenterology
 - Paediatric nephrology
 - Paediatric neurosurgery/neurology
 - Paediatric orthopaedics
 - Radiology
-

3.5.4 Transfer and Transport

A high quality neonatal service will ensure stakeholders (including clinical personnel from network units, the ambulance service, parents and commissioners of specialist and national services) will have input into the planning, development and monitoring of the transport service to ensure equitable access to and quality of services throughout Scotland.

This will be evidenced by:

- The provision of a single point of telephone contact through a dedicated line on which cot/maternal bed availability and the transfer service can be accessed and activated at all times.
 - Participation in regular joint service reviews with transport leads to reduce delays in transfers, adverse incidents and address capacity issues. Any changes in service delivery/new service developments will be discussed and taken forward demonstrating a collaborative approach and engagement with all key stakeholders.
-



3.6 Timely

Neonates will be cared for in the right place, at the right time and by the right people with the right skills.

A high quality neonatal service will demonstrate timely provision of clinical care, minimised delays in emergency transfer and access to care; effective deployment of teams for planned transfers; a sustainable transport infrastructure to support the service and effective and timely communication with obstetric staff.

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3.6.1 Timely Provision of Clinical Care

A high quality neonatal service will provide care at a time appropriate to clinical need with no unnecessary delays.

This will be evidenced by:

- The benefits of breastfeeding being highlighted at the earliest possible opportunity following delivery.
 - The provision of clinical care and therapeutic interventions in line with current guidelines and timescales as specified by professional bodies, based on substantiated evidence.
 - The adherence to standards and guidelines pertaining to national immunisation, national screening, neuro-developmental assessment and follow-up programmes.
 - A named consultant making contact with the parents at an appropriate time to offer discussion and counselling following the death of a baby. This will take place no later than seven weeks following bereavement (unless instructed not to do so by the Procurator Fiscal).
 - Transitional care being recognised as part of the full spectrum of neonatal care and being made available to parents, including those progressing from special care.
-

3.6.2 Emergency Transfer

A high quality service will provide a timely transfer for unscheduled cases.

This will be evidenced by:

- Delays in all types of transfers being captured in audit data at unit level. This will capture where there have been delays, highlight critical incidents and ascertain the reason for delays.
 - The neonatal transport service liaising with the MCNs to initiate improvement programmes and work with transport teams to minimise delays in the future.
-

3.6.3 Non-emergency Transfer

A high quality service will provide an appropriately timed service for non-emergency transfers.

This will be evidenced by:

- Repatriation, or back transfer, being undertaken as soon as it is clinically appropriate for the baby.
 - Where a baby is being returned to a unit following a surgical procedure, the surgical team ensuring timely communication with the unit concerning forthcoming transfer.
-

3.6.4 Transfer Guidelines

A high quality neonatal service will have guidelines in place for ex-utero transfers.

This will be evidenced by ex-utero transfer guidelines which cover:

- Referral processes.
- Indications and contra indications for transfer.
- Documentation of discussions between healthcare staff and women/parents/families undergoing transfer.
- Documentation of discussions between receiving and sending units.
- The written documentation of management prior to and during ex-utero transfers.

In-utero transfer guidelines will be in place to cover referral processes and documentation of discussions between receiving and sending units.

3.6.5 Communication with Obstetric Staff

A high quality service will ensure timely access to an appropriate level of care and expertise which results in the best possible outcome for neonates and their families.

This will be evidenced by:

- A structured communication process between neonatal and obstetric staff within the Networks.
 - Regular case discussions taking place with the neonatologist, in units delivering obstetric care to high risk women and infants.
 - The use of established channels of communication to share key information with the referring unit whilst the patient is still in the tertiary unit and after discharge, including death.
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Appendix One: NEAG Membership

Group Member	Designation
Professor Stewart Forsyth OBE	Chair*#
Dr Sean Ainsworth	Scottish Neonatal Consultants Group
Ms Christine Birrell	SANDS
Mrs Liz Blackman	Secretariat (NSD)
Dr Phil Booth	Royal College of Paediatrics & Child Health#
Dr Catherine Calderwood	Scottish Government
Professor Alan Cameron	Royal College of Obstetricians and Gynaecologists
Mr Andy Cole	BLISS
Ms Katherine Collins	National Services Division (NSD)
Ms Rosslyn Crocket	Nurse Directors (until February 2012)
Ms Emma Currer	Scottish Partnership Forum
Mr Carl Davis	Neonatal Surgeon
Mr John Froggatt	Scottish Government
Ms Marie Gardiner	MCN - Network Manager, North* (From June 2011)
Dr Annie Ingram	Regional Planning Group - North
Dr Nikolaus Kau	MCN - Lead Clinician, North*
Ms Heather Knox	Regional Planning Group - West
Dr Ian Laing	MCN - Lead Clinician, SEAT*
Ms Jan McClean	Regional Planner, SEAT* (until Jan 2011)
Mr Ken Mitchell	Regional Planning Group - North* (until June 2011)
Ms Lynne Nicol	Scottish Government
Derek Phillips	Workforce Planning#
Ms Iona Philp	MCN - Network Manager, SEAT* (From Jan 2011)
Ms Jane Reid	AHP Lead
Mrs Sylvia Shearer	Scottish Government (until June 2011)
Ms Jacqui Simpson	Regional Planning Group - SEAT
Dr Charles Skeoch	MCN - Lead Clinician, West*
Ms Elinor Smith	Nurse Directors (from March 2012)
Mrs Fiona Tait	MCN - Network Manager, West (+RCN)*
Mr John Wilson	Chief Executives Group
Ms Alison Wright	Scottish Neonatal Nurses Group#

* Working Group

Workforce Subgroup

Appendix Two: Abbreviations

ALARP	As Low As Reasonably Practical
ANNP	Advanced Neonatal Nurse Practitioner
BAPM	British Association of Perinatal Medicine
EUT	Ex-utero transfer
HDL	Health Department Letter (now Chief Executive's Letter)
IRMER	Ionising Radiation Medical Exposure Regulations
IUT	In-utero transfer
NICE	National Institute for Health and Clinical Excellence
NNAP	National Neonatal Audit Programme
PACS	Picture Archiving and Communications System
QIS	Qualified in Specialty



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ISBN: 978-1-78045-831-1

This document is also available on the Scottish Government website:
www.scotland.gov.uk

APS Group Scotland
DPPAS12998 (02/13)

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