

## SCHEDULE 2 – THE SERVICES

### A. Service Specifications

<b>Service Specification No.</b>	E08/S/a
<b>Service</b>	Neonatal Critical Care (Intensive Care, HDU and Special Care)
<b>Commissioner Lead</b>	
<b>Provider Lead</b>	
<b>Period</b>	12 Months
<b>Date of Review</b>	

#### 1. Population Needs

##### 1.1 National/local context and evidence base

Neonatal services provide care for all babies less than 44 weeks post menstrual age that require on-going medical care. Neonatal services form part of an integrated pathway for high quality maternity, paediatric and family care serving a geographically defined regional population. Neonatal care services are provided in a variety of settings dependent upon the interventions required for the baby and with dedicated transport services to support babies being transferred to and from neonatal care units. In total around 60,000 – 70,000 babies (approximately 10% of all births) per year will receive some type of neonatal care (i.e. Special Care, High Dependency Care and Intensive Care Services).

In 2003 the Department of Health recommended that neonatal services be organised into managed clinical networks. In 2007 the National Audit Office reviewed the work of the networks and concluded that the development of neonatal networks had improved measures.

Under the auspices of the NHS and the Department of Health (DH) a Taskforce was commissioned to provide a Toolkit for High-Quality Neonatal Services (Dec 2009) which:

- Outlined the quality principles required of the care services providing specialist neonatal care.

- Provided a consistent definition of three categories of neonatal care.
- Described three types of units working in a network of units.
- Described a set of quality metrics.
- Gave examples of how to address Quality, Innovation, Productivity and Prevention (QIPP)

There is a growing body of evidence both nationally and internationally that suggests that caring for babies born before 27 weeks and those in other higher risk category groups (e.g. sick, more mature babies requiring prolonged intensive care) should be concentrated in relatively few centres in order to:

- Ensure that expert and experienced staff treat sufficient numbers of cases to maintain a safe high quality service and move towards the national standards;
- Maximise the use of scarce, expensive resources (staff, facilities and equipment).
- Organise retrieval services across large enough areas to be effective and economic.
- Facilities will be available to support family-centred care, including; access to parent accommodation for all families, free parking, private and comfortable breastfeeding/expressing facilities, an area for making drinks and preparing simple meals, a private room for confidential conversations and any other relevant facilities to support family-centred care.

#### **Publications include:**

1. Toolkit for High-Quality Neonatal Services. Department of Health (2009)
2. Standards for Hospitals Providing Neonatal Intensive and High Dependency Care. The British Association of Perinatal Medicine (2001). Available at [www.bapm.org](http://www.bapm.org)
3. Quality standard for specialist neonatal care. National Institute for Clinical Excellence (NICE) (2010) Available at [www.nice.org.uk](http://www.nice.org.uk)
4. Caring for Vulnerable Babies. The re-organisation of neonatal services in England. Committee of Public Accounts (2008) 26th Report.
5. Neonatal Critical Care Minimum Data Set. Department of Health (2009) (NCCMD).
6. The Confidential Enquiry into Maternal and Child Health (CEMACH). Lewis G (ed) (2007). CEMACH became an independent charity on 1 July 2009 with the new name "Centre for Maternal and Child Enquiries" (CMACE).
7. Saving Mothers' Lives: Reviewing maternal deaths to make motherhood safer – 2003-2005
8. Safer Childbirth: Minimum Standards for the Organisation and Delivery of Care in Labour. RCOG (2007)
9. Report of the Neonatal Intensive Care Services Review Group.
10. National Service Framework for Children, Young People and Maternity Services, Standard 11. Department of Health/Department for Education and Skills (2004).
11. Clinical Negligence Scheme for Trusts: Maternity Clinical Risk Management Standards. NHS Litigation Authority (2009) Version 2, 2009/10.
12. The Bliss Baby Charter Standards (Bliss 2009).
13. The Bliss Baby Charter Audit Tool. Bliss (2011).
14. Parents' experiences of neonatal care: A report on the findings from a national survey. Picker Institute Europe (2011).
15. Descriptions of Services for Pregnant Women with Complex Social Factors. National Institute for Clinical Excellence (NICE) (2012). Available at [www.nice.org.uk](http://www.nice.org.uk)
16. Children and Young People's Health Outcomes Strategy: A report of the Children and Young People's Health Outcomes Forum (2012)

17. NCEPOD Are we there yet? A review of organisational and clinical aspect of children's surgery. A report by the National Confidential Enquiry into patient outcome and death (2011).
18. NICE clinical guideline 129: Multiple pregnancy. The management of twin and triplet pregnancies in the antenatal period. September 2011.

## 2. Outcomes

### 2.1 NHS Outcomes Framework Domains & Indicators

<b>Domain 1</b>	<b>Preventing people from dying prematurely</b>	✓
<b>Domain 2</b>	<b>Enhancing quality of life for people with long-term conditions</b>	✓
<b>Domain 3</b>	<b>Helping people to recover from episodes of ill-health or following injury</b>	✓
<b>Domain 4</b>	<b>Ensuring people have a positive experience of care</b>	✓
<b>Domain 5</b>	<b>Treating and caring for people in safe environment and protecting them from avoidable harm</b>	✓

#### Key Outcomes:

- Each Network should have the capacity to provide all neonatal care for at least 95% of babies born to women booked for delivery in the network (i.e. no more than 5% of babies born to booked women should be transferred out of network for inappropriate reasons) (Domains, 1,3,4,5,)
- Retinopathy Screening - Babies born at less than 32 weeks gestation and / or with a birth weight less than 1501g who receive specialist neonatal care must undergo retinopathy screening in line with national guidelines on timing. (Domains: 3,5)
- Blood Infections - The rate of blood stream infection per 1,000 catheter days taken after 72 hours of age must be recorded. (Domains: 1,3,5,)
- Early Surgery - Babies with antenatal diagnosed fetal malformations requiring early surgery must be booked to be delivered at a designated network surgical centre. (Domains: 1,2,3,4,5,)
- Temperature - Newborn babies who receive specialist neonatal care must have their temperature taken within one hour of admission and temperatures of 36C or less must be recorded for audit purposes. (Domains: 1,5,)
- Birth Place of Extremely Premature Network Babies - The number and location of birth of babies born at less than 27 weeks gestational age. (Domains: 1,3,5,)
- Transfer of Extremely Premature Network Babies - Babies <27+0 weeks born outside of the network NICU who are not transferred into a Network NICU within 24 hours and the reason for this (Domains: 1,3,5)
- Unit Closures - The number of days the neonatal unit was closed beyond 24 hours

- both for booked patients and network babies and in-utero transfers. (Domain: 3,4,5,)
9. Refused Ex-Utero Transfers - The number of network ex-utero transfers refused admission to the unit due to lack of capacity/staffing/equipment. (Domain: 3,4,5,)
  10. Production of an annual report to include at least: activity data, quality measures performance and evidence that parent experience has been measured and responded to (Domain: 4)
  11. Increase the number of preterm babies (<34+ weeks) who are receiving some of their own mother's breast milk at final discharge. (Domains 1, 3, 5)

### **3. Scope**

#### **3.1 Aims and objectives of service**

The aim of the neonatal service is to:

1. To improve babies' chances of survival and minimise the morbidity associated with being born either premature or term and sick. It is a high cost, low throughput service in which clinical expertise is a key determinant of the quality of the outcomes for the baby.
2. To provide a family-centred approach to care, defined as involving families in the care of their own children, and helping parents understand their baby's needs.
3. To improve quality of care by working in partnership with other provider units and service commissioners within Operational Delivery Networks (ODNs) as part of the broader Maternity and Children's Strategic Network. This will ensure integration across the whole maternity and children's pathway of care.

The service will deliver the aim to improve both life expectancy and quality of life for newborn babies by:

1. Ensuring neonatal outcomes are in line with the type of unit where babies are cared for.
2. Ensuring neonatal outcomes across an ODN are in line with other ODNs across England & Wales.
3. Delivering care in a family-centred way that seeks to minimise the physical and psychological impact of neonatal care on the baby and their family, for example by improving psychological outcomes and breastfeeding rates.
4. Providing an environment where parents are enabled to make informed decisions about treatment and become involved in the care of their baby / babies, thereby minimising the psychological trauma of premature or sick term babies.
5. Ensuring robust arrangements for clinical governance are in place.
6. Ensuring that robust links to clinical governance in co-located maternity units are in place.
7. Working in partnership with other network neonatal services to promote delivery of neonatal care in the most appropriate setting.
8. Ensuring robust monitoring and reporting arrangements in accordance with performance requirements and evidence of continuing improvement of quality and responsiveness, year on year is demonstrated through evaluation and audit.
9. Ensuring that parents whose babies are unlikely to survive or have life limiting

conditions receive sensitive support and care which follows a recognised Palliative Care Pathway.

### **3.2 Service description/care pathway**

The following list summarises the service description:

1. Inpatient management and pathway of care for babies within each type of neonatal unit and in each category of care.
2. Pathway of specialist services for example surgical, cardiac and specialist medical conditions which is only available in designated centres to optimise outcome and remove inequity.
3. Transport of babies within a geographical region (see neonatal transfer service specification).
4. Discharge and provision of short-term and long term follow up to 2 years in some cases.

#### **3.2.1 Categories of Care Levels (BAPM 2011):**

Services must ensure that any care provided is proportionate to the need of the baby. Cots must be used appropriately according to the level of care needed. Details of criteria are found in BAPM 2011 categories of care.

##### **Intensive Care (Health Resource Group (HRG) XA01Z):**

Intensive Care is care provided for babies who are the most unwell or unstable and have the greatest needs in relation to staff skills and staff to patient ratios. This includes any day where a baby receives any form of mechanical respiratory support via a tracheal tube, both non-invasive ventilation (e.g. nasal Continuous Positive Airway Pressure (CPAP), SIPAP, Bilevel Positive Airway Pressure (BIPAP), nasal high flow) **AND** Parenteral Nutrition (PN), day of surgery (including laser therapy for retinopathy of prematurity (ROP)) and on day of death or any conditions listed as per BAPM categories of care.

##### **High Dependency Care (HRG (XA02Z):**

High Dependency care is provided for babies who require skilled staff but where the ratio of nurse to patient is less than intensive care. This care takes place in a neonatal unit where a baby does not fulfil the criteria for intensive care but receives any form of non invasive respiratory support (e.g. nasal, CPAP, SIPAP (infant flow system with multiple modalities), BIPAP, nasal High Flow, parenteral nutrition or continuous treatment of their condition as per BAPM categories of care

##### **Special Care (HRG (XA03Z):**

Special Care is provided for babies who require additional care delivered by the neonatal service but do not require either intensive or high dependency care. It includes babies receiving oxygen via low flow nasal cannula, feeding by nasogastric tube, jejunal tube, or gastrostomy, continuous physiological monitoring, care of stoma, presence of an intra-venous (IV) cannula, receiving phototherapy or special observation or physiological

variables at least 4 hourly.

### **Special Care with Primary Carer Resident (HRG XA04Z) (often referred to as transitional care):**

Transitional Care can be delivered in two service models, within a dedicated transitional care ward or on a post natal ward. In either case the primary carer must be resident with the baby and providing care. Care above that needed normally is provided by the mother with support from a midwife / healthcare professional trained in delivering elements of special care but does not require a specialist neonatal qualification. Examples include low birth weight babies, babies who are on a stable reducing programme of opiate withdrawal for Neonatal Abstinence Syndrome and babies requiring special care that can be administered outside of a neonatal unit environment, such as tube feeding, antibiotics and phototherapy

### **3.2.2 Categories of Neonatal Units:**

These are listed below.

#### **3.2.3 Special Care Unit (SCU):**

The service will provide:

1. Neonatal services commensurate with national guidelines and professional standards where singleton births are anticipated after 31+6 weeks gestational age provided the anticipated birth weight is above 1,000g.
2. ODN care pathways will define antenatal factors or conditions present soon after birth which increase the likelihood that transfer to a Neonatal Intensive Care Unit (NICU) for complex or prolonged neonatal intensive care **OR** a Local Neonatal Unit for short term neonatal intensive /high dependency care will be required. ODNs and the Trusts responsible for these units should monitor adherence to the care pathways.
3. Some ODNs have approved care pathway where babies born between 30+0 and 31+6 weeks gestational age receive initial care in Special Care Unit (SCU) provided the anticipated birth weight is above 1,000g and intensive care is not required.
4. Stabilisation of babies prior to transfer to an (Local Neonatal Unit (LNU) or NICU predominantly, but not exclusively for intensive care.
5. Care for local babies with high dependency or special care needs following repatriation from LNUs or NICUs within the network or from out of area in accordance with approved ODN care pathways.
6. Referrals for ongoing special care from other network neonatal units who are unable to undertake this work due to capacity reasons.
7. Care for local babies post specialist surgery following repatriation from the network surgical unit or step down from other LNUs in accordance with approved ODN care pathways.
8. Transitional care, working in collaboration with post natal services subject to local service model.

A Special Care Unit will not be commissioned and therefore not be expected to provide the following except under exceptional circumstances which have been agreed and formally documented by the Network NICU on an individual case basis:

1. Care beyond initial stabilisation to babies less than 30+0 weeks of gestation.
2. Care beyond initial stabilisation to babies with a birth weight < 1,000g.
3. Intensive care for any baby apart from initial stabilisation prior to transfer
4. Babies with symptoms of hypotension, DIC, renal failure, metabolic acidosis or babies requiring the following treatment and support: Inotrope infusion, insulin infusion, presence of a chest drain, exchange transfusion, prostaglandin infusion, nitric oxide, high frequency oscillatory ventilation (HFOV) and therapeutic hypothermia.

### 3.2.4.

#### **Local Neonatal Unit (LNU):**

In addition to all the services provided by Special Care Baby Unit's (SCU's) local neonatal units will provide:

1. Neonatal services commensurate with national guidelines and professional standards where; singleton births are anticipated after 26+6 weeks gestational age and multiple births are anticipated after 27+6 weeks gestational age providing the anticipated birth weight is above 800g.
2. ODN care pathways will define antenatal factors or conditions present soon after birth which follow up increase the likelihood that transfer to a NICU for complex or prolonged neonatal intensive care will be required. ODNs and the trusts responsible for these units should monitor adherence to the care pathways. (Please refer to section below which outlines complex and prolonged intensive care).
3. Some ODNs have approved care pathways where all babies born between 27+0 and 27+6 weeks gestational age receive initial care in NICUs rather than LNUs.
4. Where possible, women will be transferred in-utero to the Network NICU when gestational age, anticipated birth weight or need for complex or prolonged intensive care is anticipated in accordance with ODN care pathways.
5. Limited intensive care in accordance with approved ODN care pathways (see commissioning exclusions, below)
6. Short periods of intubated ventilator support will be provided, however the clinical condition of any baby requiring this care must be discussed with a consultant in the Network NICU by 48 hours and every 24 hours thereafter if intubated ventilatory support continues.
7. An agreed management plan including decisions regarding transfer criteria will be documented
8. The stabilisation of babies prior to transfer to the Network NICU who require complex High dependency care and special care for their local population.
9. Referrals from other network neonatal units who are unable to undertake this work, due to capacity reasons and/or network guidelines.
10. Ongoing care for babies who have undergone specialist surgery following repatriation from the network surgical NICU.
11. Care for local babies repatriated from elsewhere in the network who no longer require positive pressure ventilation.
12. LNUs will not accept out of network referrals without prior discussion with the ODN defined Lead NICU to ensure the integrity of capacity for network babies.
13. LNUs will transfer babies requiring complex care or prolonged care to the approved ODN NICU in accordance with approved care pathways.

### 3.2.5.

A Local Neonatal unit will not ordinarily be commissioned to provide the following:

1. On-going intensive care beyond initial stabilisation and intensive care to babies less than 27+0 weeks of gestation
2. On-going intensive care beyond initial stabilisation to babies with a birth weight below 800g
3. Complex intensive care including babies requiring respiratory support with symptoms of additional organ failure (e.g. hypotension, disseminated intravascular coagulation (DIC), renal failure, metabolic acidosis) or babies requiring the following treatment and support:
  - Support of more than one organ, for example ventilation via a tracheal tube plus any one of the following: Inotrope infusion, insulin infusion, presence of a chest drain, exchange transfusion and prostaglandin infusion.
  - Nitric oxide
  - High frequency oscillatory ventilation (HFOV)
  - Therapeutic hypothermia beyond initial stabilisation.
  - Prolonged Intensive care (intubated ventilatory support) for greater than 48 hours

### 3.2.6.

#### **Neonatal Intensive Care Unit (NICU)**

The service will provide in addition to services provided by SCUs and LNUs:

1. Neonatal services commensurate with national guidelines and professional standards where births are anticipated after 22+6 weeks gestation (BAPM & Nuffield Council on Bioethics).
2. Intensive care for all the babies born within the network according to ODN approved care pathways including those less 27+6 weeks gestation, or with a birth weight < 800g and any baby requiring complex or prolonged intensive care. ODNs and the Trusts responsible for these units should monitor adherence to the care pathways
3. Neonatal intensive care service for other local neonatal networks or out of area neonatal units when they cannot access a cot in their network NICU because of lack of capacity at that unit
4. Leadership within neonatology for the neonatal ODN units and 24 hour acute clinical telephone consultations as required by the network hospitals and, if required neonatal transport services. Where more than one NICU is within a neonatal ODN, there will be a sharing of responsibility to provide 24 hour acute clinical consultations.
5. Care for local network babies repatriated from elsewhere requiring ongoing care from a NICU.

### 3.2.7.

A Neonatal Intensive Care Unit would not necessarily be expected to provide the following which are only available in specialist centres to optimise outcome and remove inequity:

1. Extra - Corporeal Membrane Oxygenation (ECMO), which is nationally commissioned



2. Surgical care, except as part of approved ODN protocol
3. Specialised cardiac care, except as part of approved ODN protocol.

The local ODNs will determine the care pathways for the above services in designated units delivering specialist services. These Trusts will provide, in addition to the above:

1. Specialist surgical assessment, treatment and care prior to repatriation to local neonatal unit.
2. Specialist medical treatment and care, for example renal and endocrine services.
3. Specialist cardiac treatment and care.

### **3.2.8.**

#### **Transfers:**

- Transfer of babies will be co-ordinated by the neonatal ODN transfer service in accordance with the national service specification.
- The transport for nationally commissioned services, e.g. ECMO will be arranged by the receiving specialist centre in consultation with the local network transfer team (eg for ECMO).

### **3.2.9**

#### **Capacity:**

1. Each unit will ensure they have sufficient capacity to deliver the appropriate service for their booked maternity population.
2. Unit capacity must be planned in co-ordination with local maternity and fetal medicine services and the neonatal ODN. This should take into account the level of care provided at the unit, and so anticipating neonatal network transfers, both in- and ex-utero.
3. Capacity should be planned on an average 80% occupancy where possible – this provides reserve to cope with the stochastic nature of NICU admissions, which are unpredictable in terms of quantum and intensity of care required. [NOTE: This does not mean that 80% capacity is a notional ceiling on a day to day basis]

### **3.2.10**

#### **Staffing:**

1. Trusts will ensure that adequate numbers of medical, nursing and allied health professional staff with appropriate skills are in place to deliver the level of care required for that unit.
2. A workforce plan must be in place, designed to maintain sustainable staffing levels based on the DH Toolkit standards and in line with any predicted increases in birth rate. Each unit must work towards an agreed plan with commissioners to have nurse staffing levels based on the following nurse to baby ratios:  
Intensive Care 1:1  
High Dependency 1:2  
Special Care 1:4

### 3.2.11

Medical staffing rotas must be European Working Time Directive compliant at levels required for the type of unit as outlined in BAPM 2010 guidance.

1. Units must engage with neonatal ODN workforce strategies. Ongoing development and modernisation of the workforce must be reviewed to ensure skills meet future service requirements.
2. Staffing in each unit must include provision for a designated Lead Nurse, designated Lead consultant, educator, shift co-ordinator and discharge planning / outreach co-ordinator.
3. All units must have access to Dietitians, \*Specialist Pharmacy, Physiotherapists, Speech and Language Therapists and Occupational Therapists in line with Toolkit requirements. Allied health professionals must have time within their job plans to provide advice and clinical care to the neonatal unit.
4. Acute and clinically complicated neonatal cases will require clinical pharmacy, aseptic services and dispensary support to; review the clinical appropriateness of prescription therapy, advise on drug dosing and choice and stability, compatibility and clinical monitoring, ensure safe and effective and economic use of high risk drug therapy, prepare and dispense unlicensed or off-label, complex intravenous therapies, parenteral nutrition and specially manufactured, imported and unlicensed medicine.

### 3.2.12

#### **Professional Competence, Education and Training:**

1. Appropriate and specific training programmes for all trained and untrained staff must be in place with regular neonatal specific update training where required.
2. A minimum of 70% (special care) and 80% (high dependency and intensive care) of the nursing and midwifery establishment must hold NMC registration; & a minimum of 70% of registered nursing and midwifery establishment must hold a post registration qualification in specialised neonatal care.
3. Funded staffing levels must recognise the need to provide specialist training and allow for this.
4. Appropriate training / supervision must be provided to all staff in order to remain competent in practice.
5. Staff must adhere to all national and local guidelines and policies.
6. Staff in each unit will adhere to local, network and national programmes to actively reduce their neonatal infections.

### 3.2.13

#### **Family Experience, Communication and Facilities:**

1. Each unit must deliver a family-centred care approach, with sufficient emotional and practical support for parents and families, enabling them to make informed choices and play an active part in their babies' care.
2. Staff must have the appropriate skills including communication skills to provide knowledgeable and skilled advice to parents/ carers. To deliver high quality family-centred care staff should understand what parent's needs are ('be able to stand in

their shoes') and have empathy with the patient/carer needs.

3. Parent information should be given within parents' first 24 hours on the unit in written and verbal format (ideally in a range of languages). This should include information about their baby's condition and treatment, local unit information (including accommodation, parking, transport and food), financial help, welfare and breastfeeding. This should be Information Standard approved and recognised by NHS England. There should be a designated person on each unit responsible for ensuring each parent has a conversation with a member of staff to discuss the support available.
4. There must be regular updates and communication between all health professionals and parents/ families particularly where the babies' condition or care plan is subject to change. Parents should have access to consultants/ senior staff to help them understand their babies' condition and treatment.
5. Parents will be supported to be actively involved in their babies' care including helping them develop the skills and confidence to provide kangaroo care, breastfeeding/expressing, resuscitation training and any other relevant activities
6. Facilities will be available to support family-centred care including access to parent accommodation (including co-bedding where appropriate) for all families, free parking, private and comfortable/private breastfeeding/expressing facilities, an area for making drinks and preparing simple meals, a private room for confidential conversations and any other relevant facilities to support family-centred care e.g. enable skin to skin/kangaroo care.

### **3.2.14**

#### **Feedback from Families:**

1. Provider Trusts will be expected to involve families not only in the health care of their own baby but also in the evaluation of the service they are accessing. There must be a continuous process for involving parents in improving the delivery of family-centred care.
2. A range of tools must be in place to measure parent experience which balances real time and retrospective feedback. This must be in a form which can be nationally and regionally benchmarked.
3. Providers will have a named lead who is responsible for receiving concerns from parents.
4. Provider Trusts must demonstrate that procedures are in place for involving families in routine audit arrangements for the purpose of evaluating service performance from a family perspective. These procedures should include a variety of methods for obtaining parent feedback and the results used to help identify future audit topics, action plans and agreed targets.
5. ODN's and providers will ensure that parent representatives are included within governance structures and that parent representatives have support and training.

### **3.2.15**

#### **Surgical Services:**

1. Units providing surgical care must have staff with appropriate skills and knowledge to

deliver high quality surgical care.

2. Parents are sufficiently informed of the risks and potential outcomes of surgery, the need for consent is explained, and decisions are made in partnership with parents and fully documented.
3. There must be a surgically experienced nurse on every shift if surgical babies are present, able to give nursing surgical advice to other units in the Network.
4. There must be a designated Lead specialist paediatric surgeon for the surgical neonatal unit and 24 hour paediatric surgical cover.

### **3.2.16**

#### **Discharge Route:**

1. By working closely with community services, neonatal services support babies and their families in the transition and adjustment from an in-patient stay on a neonatal unit to restored family life in the community.
2. Discharge planning will be facilitated and coordinated from initial admission to discharge date, to ensure both the baby and the family receive the appropriate care and access to resources. This includes decisions about any continuing care needs that the woman, her baby and her family may have to make following discharge from in-patient care, and should meet the following criteria:
  - Pre-discharge planning involves parent / carer and other key family members, GP, Health Visitor and the care co-ordinator and if appropriate, social care.
  - All key professionals receive copies of the discharge plan, including details of when the patient will next be seen and by whom, and emergency contact details.
  - Before discharge, parents are advised about their babies' medication and its side effects, supported to administer all medicines and provided with appropriate advice on safe useage.
  - Following discharge, the baby and family are contacted by a community professional in primary care within one week.
  - Units should have written local criteria for higher risk follow-up arrangements.
  - Care plans reflect a multi-disciplinary approach to neonatal care, both within primary care and community teams.

### **3.2.17**

#### **Follow Up Services:**

1. Medical outpatient clinic - babies born less than 32 weeks gestation and/or <1,501g or with a high risk of problems will have their medical condition followed up post discharge. Follow-up clinics will also have intent to focus on long-term outcomes of premature babies and those in at-risk groups, which may require a further follow-up programme.
2. Neonatal follow-up programmes - Structured neuro-developmental follow-up assessments will be undertaken at 2-2.5 years (corrected gestation) on all eligible babies in line with recommendations of the British Association of Perinatal Medicine (BAPM) and National Neonatal Audit Programme (NNAP). Eligible babies include, (but is not exclusive): < (or equal to) 30 weeks, <1,000grams birth weight, moderate to severe encephalopathy.

3. Clinicians will involve partner paediatricians and health professionals to carry out the 2-year assessment. The results of the 2 year assessment must be entered into the baby's electronic records.

### **3.2.18**

#### **Discharge Criteria and Planning:**

1. Neonatal services support babies and their families in the transition and adjustment from an in-patient stay on a neonatal unit to restored family life in the community, by working closely with the community services.
2. Babies will be discharged from neonatal care as soon as condition allows with reporting to AT commissioners and the ODN of babies likely to remain on the neonatal unit beyond 44 weeks post menstrual age (4 weeks corrected gestation), taking into consideration the ongoing support for the baby and carers.
3. Local services, including neonatal, midwifery and primary care professionals, provide follow-up support to babies and families in the community after they have been discharged, and help to ensure that there is a seamless transition from in-patient stay back into family life.
4. Ongoing admission of babies with delayed discharge for social or community resource reasons must be agreed with commissioners as soon as the delay is anticipated.

### **3.2.19**

#### **Neonatal Out-Reach / In-Reach or Community Services:**

1. Community support is provided by an integrated hospital-community neonatal team or an identifiable team of community health professionals.
2. Each Trust will ensure that these professionals undertake adequate neonatal training and have appropriate skills and competencies for neonatal out / in- reach. These staff should feel confident and able to provide consistent and appropriate advice to parents supported by the appropriate information ahead of discharge, including details of any particular arrangements identified in the baby's care plan, in order to best support families care for their babies at home.
3. Units will enable parents to meet with the community team supporting them at home before the baby is discharged from the hospital.

### **3.2.20**

#### **Data Requirements:**

1. Trusts must ensure that they are able to securely maintain accurate, reliable computerised records of patient-level and unit-level data systems must be capable of capturing operational activity. The data must be suitable for retrieval, analysis and presentation stratified by month, calendar year or financial year, as required.
2. Trusts must ensure that neonatal data systems are capable of generating outputs for clinical and operational benchmarking
3. Trusts must ensure that neonatal data systems are capable of generating exportable data outputs for the following purposes:

- BAPM neonatal dataset (2012)
- Neonatal Critical Care Minimum Data Set
- National Neonatal Dashboard
- National Neonatal Database (currently hosted by Neonatal Data Analysis Unit (NDAU)).
- National Neonatal Audit Programme.
- Mothers and Babies Reducing Risk through Audits and Confidential Enquiries (MBBRACE) Dataset.
- Returns to the lead commissioner / ODN manager of any additional, to national, dashboard requirements.
- Exception reporting in accordance with ODN policy.

### 3.2.21

#### **Policies:**

A national (Department of Health) policy document is in place to be used by all neonatal units for the use of Palivizumab to reduce the risk of Respiratory Syncytial Virus (RSV) in high risk infants.

### 3.2.22

#### **Clinical Governance:**

1. The clinical governance of the neonatal unit must be to the standard specified by the host NHS Trust, and clinical governance responsibility should reside with that NHS Trust.
2. Where appropriate there must be evidence of compliance with external NHS standards (e.g. Care Quality Commission (CQC), NHS Litigation Authority (NHSLA), National Institute for Health and Care Excellence (NICE)).
3. Each Trust must have in place a range of practice guidelines, protocols and pathways to ensure consistent and evidence-based clinical management. In the main, these will reflect national professional guidance, such as that available from NICE, BAPM, Department of Health Neonatal Toolkit, the Royal College of Obstetricians and Gynaecologists or the Royal College of Paediatrics and Child Health.
4. ODN approved guidelines, protocols and care pathways will be adopted by Trusts.
5. The service must have, as a minimum, written policies covering the transfer of babies both in utero and ex utero, evidence of written clinical procedures and protocols in place.

### 3.2.23

#### **Contractual Definitions:**

Contractual definitions and associated Health Resource Groups (HRGs) and Treatment Function Codes (TFCs) are defined by service area. The Neonatal Critical Care Minimum Data Set (NCCMDS) has been developed by NHS stakeholders for use in neonatal services. Five HRG groups are identified within the NCCMDS dataset of which 4 groups relate to neonatal care (see table below).

Service Area	HRG / Treatment Function Code	National / Local
Neonatal Intensive Care	XA01Z	National
Neonatal High Dependency	XA02Z	National
Neonatal Special Care	XA03Z	National
Special Care with External Carer (Transitional Care)	XA04Z	National
Normal Care (post natal)	XA05Z	Local
Surgical Care	HRG depending upon the procedure	National
Neonatal Community Outreach	Not known	Local
Community support	Not known	Local
Neonatal Outpatients	Depending on the respective TFC	Local
2 year Neurodevelopmental reviews	Paediatric Outpatient first multi attendance (WF02B)	National
Neonatal Transport	XA08Z	National
Major Neonatal Diagnosis	PB01Z	
Minor Neonatal Diagnosis	PB02Z	

### 3.2.24

#### **Operational Delivery Network:**

Operational Delivery Networks have been developed for this service area. ODNs ensure quality standards and networked patient pathways are in place. They focus on an operational role, supporting the activity of commissioned providers in service delivery, improvement and delivery of a commissioned pathway, with a key focus on the quality and equity of access to service provision. This allows for more local determination, innovation and efficiency across the pathway. ODNs support the delivery of 'Right Care' principles by incentivising a system to manage the right patient in the right place.

#### **3.3 Population covered**

The service outlined in this specification is for patients ordinarily resident in England; or otherwise the commissioning responsibility of the NHS in England (as defined in *Who Pays?: establishing the responsible commissioner* and other Department of Health guidance relating to patients entitled to NHS care or exempt from charges).

Specifically, this service is for babies who are generally (but not exclusively) less than 44 weeks post menstrual age (less than 28 days old, corrected for gestational age assuming 40 weeks defined as term) as outlined within this specification.

### **3.4 Any acceptance and exclusion criteria and thresholds**

#### **3.4.1.**

##### **Acceptance Criteria:**

1. The service will accept inward referrals from obstetric, maternity or feto- maternal services. Within the antenatal period, high risk mothers or mothers with high risk babies will generally be under the care of an obstetrician.
2. The service will also accept referrals from other providers of neonatal services within the operational delivery network or within a defined regional pathway, particularly when the referring service is not accredited to undertake the clinical role that the baby requires. When the baby's condition has stabilised, ongoing care will be effectively undertaken at a designated provider closer to the family's home.

The service will accept referrals for babies who meet one of the following criteria:

1. From co-located obstetric and maternity services in discussion with relevant medical staff.
2. Within the network as per approved in utero transfer pathways and in discussion with parents and relevant multi-professional senior staff (to include consultant-to-consultant dialogue)
3. Within referral thresholds from within the ODN as per approved network policies and in discussion with parents and relevant multi-professional senior staff (to include consultant-to-consultant dialogue).
4. From referrals for surgery, specialist care or diagnostic procedures in discussion with parents and relevant multi-professional senior staff (to include consultant-to-consultant dialogue)
5. From outside the network when capacity allows in discussion with the ODN transfer co-ordinating service and relevant senior staff.
6. From other ODN units which are closed due to capacity, staffing or infection outbreaks in discussion parents and relevant multi-professional senior staff (to include consultant-to-consultant dialogue).

The care, prioritisation and urgency required will be based upon the individual needs of the baby, network policies / guidelines and following discussion between the relevant consultants.

Referrals will be accepted by the neonatal unit based on the local baby's need and in accordance with referral criteria and the designation of the individual unit.

With the exception of neonatal referrals for fetal medicine/surgical expertise and referrals for specialist services (Ref 2.2.2), a unit within the Network will not accept referrals from outside the Network unless there is no possibility of the baby being accommodated within or near to its Network of origin.



Transfers either within the local ODN or outside will require discussion with the ODN transfer service and should follow the criteria as set out in the transfer specification.

### 3.4.2

#### **Exclusions:**

1. Normal care (HRG XA05Z) – This specification excludes normal care, which is defined as care given after birth primarily by the mother, with midwifery support but without the need for special investigations. This is commissioned by Clinical Commissioning Groups (CCGs) as part of the normal maternity pathway within postnatal HRGs. This includes social care provided in the case of babies waiting for foster care or safeguarding issues.
2. Ward Attendees – babies who have care provided for less than 4 hours
3. Out Patient Clinics - which form part of the paediatric service
4. Community Support – support given by Community Midwives, Health Visitors and Community Children's Teams from primary care.
5. Specific high cost drugs and treatments are included in tariff prices, unless where there is a nationally agreed exception and where an inclusive PbR tariff rather than a local tariff applies.

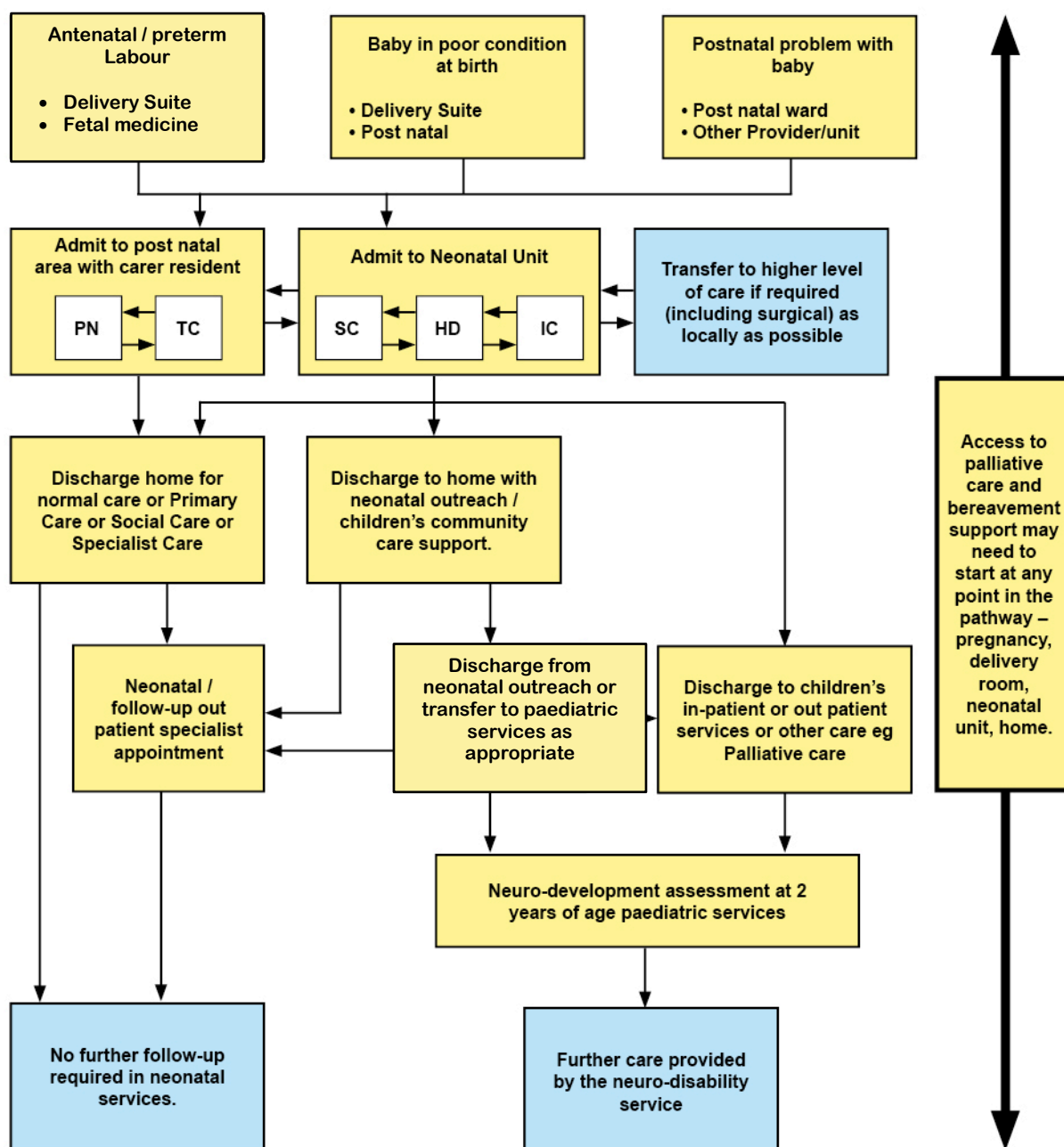
### **3.5 Interdependencies with other services/providers**

Co-located services: Neonatal units are located alongside obstetric-led services. Paediatric services for ongoing care are available either through the provider Trust or an NHS Trust in the parents' area of residence

Interdependent services: Neonatal services form part of an integrated high quality maternity and family care service serving a regional population. Neonatal services are interdependent with maternity, fetal medicine, paediatrics and specialised neonatal transport service developments.

Related services: Some babies require care which is ongoing and beyond the scope of the neonatal services. There needs to be established links with local paediatric services, community paediatric services and primary care. The following list includes, but is not limited to the following related services: community paediatric services, primary care and social care, hospice care, Children's Centres, ambulance services, psychiatric services, national screening and laboratory services, neonatal surgical services, neonatal supra specialist services. Clear care pathways must be developed to provide a seamless service for babies and their families. ODN approved care pathways should link in with pathways of care (universal and complex) if ongoing care is required.

## • Neonatal Care Pathway:



## 4. Applicable Service Standards

### 4.1 Applicable national standards e.g. NICE

NICE Standards exist for neonatal services and can be accessed via the following link:  
<http://www.nice.org.uk/media/8C6/31/SpecialistNeonatalCareQualityStandard.pdf>

### 4.2 Applicable standards set out in Guidance and/or issued by a competent body (e.g. Royal Colleges)

	Standard	Measurement
1	Robust clinical governance arrangements are in place locally and across the Network to ensure safe pathways of care for the baby and family (BAPM 2011 standards)	Review at a minimum annually and endorsed corporately by providers.
2	Outcomes are benchmarked nationally and data is available and shared in accordance with Caldicott regulations.	Produced annually
3	Staffing and competency levels are achieved (BAPM 2011 Standards)	An action plan is required to be agreed as part of the contractual setting process for 13/14. The action plan is to set a baseline position and plans to ensure incremental improvements are made year on year with full achievement within a <b>THREE</b> year period. These plans need to be monitored on a six monthly basis through this period to demonstrate improvements.
4	Neonates are transferred for uplift in care according to the service specification criteria on gestation and complexity of care.	Exception reports made available for cases where this does not apply.
5	NICE quality standards for specialist neonatal care are measured and maintained (NICE Standards 2010)	Compliance reported six monthly, paying due regard to what has been agreed in relation to standard 3 in relation to staffing.
6	Standards are in place and parent feedback is collected and acted upon (Bliss Baby Charter 2011)	An audit of family centred care provision must be conducted and an action plan put in place to ensure progress is made year on year with full achievement within a three year period. These plans need to be monitored on a six monthly basis through this period to demonstrate improvements.

## 5. Applicable quality requirements and CQUIN goals

**5.1 Applicable quality requirements (See Schedule 4 Parts A-D)**

There is a quality dashboard in place for neonates. The metrics will be reviewed on a regular basis.

Table with CQUIN metrics removed as these will be subject to change over time.

**5.2 Applicable CQUIN goals (See Schedule 4 Part E)**

There are currently 4 CQUINS on the national pick list as follows:

- Improved Access to Breast Milk
- Timely Administration of TPN
- Timely Simple Discharge
- Retinopathy Of Prematurity Screening

**6. Location of Provider Premises**

**The Provider's Premises are located at:**

Not applicable

**7. Individual Service User Placement**

Not Applicable

## Appendix Two

Quality standards specific to the service using the following template:

Quality Requirement	Threshold	Method of Measurement	Consequence of breach
<b>Domain 1: Preventing people dying prematurely</b>			
Ensuring babies are delivered in the optimum environment	To be agreed <i>Provisional level of 80% births and 90% of children admitted to NICUs</i>	Network level: all babies <27w born in Level 3 service National Neonatal Dataset	Non-compliance with contract General Conditions 8 & 9
Ensuring babies are cared for in the optimum environment		Hospital – Monthly review of inter-hospital and intra-hospital transfers and delays	Non-compliance with contract General Conditions 8 & 9
Contribution to national mortality review		Adjusted mortality for hospital and network within 95%CI for national data	Non-compliance with contract General Conditions 8 & 9
<b>Domain 2: Enhancing the quality of life of people with long-term conditions</b>			
Ensuring high risk babies are followed up appropriately after discharge	To be agreed <i>Provisional level set at 85% follow up to 2 years</i>	Network level: All babies under 32 weeks of gestation at birth and all children cooled following intrapartum asphyxia followed to 2 years	Non-compliance with contract General Conditions 8 & 9
<b>Domain 3: Helping people to recover from episodes of ill-health or following injury</b>			
Ensuring children are cared for close to their home and family – no delay in repatriation transfer to local	To be agreed		Non-compliance with contract General Conditions 8 & 9

Quality Requirement	Threshold	Method of Measurement	Consequence of breach
<p>hospital</p> <p>Minimising nosocomial infection</p> <p>Increasing the number of pre-term babies who are receiving some of their mothers own breast milk at discharge</p>	Unit Specific	preterm babies (<34+ weeks) who are receiving some of their own mother's breast milk at final discharge.	<p>Non-compliance with contract General Conditions 8 &amp; 9</p> <p>Non-compliance with contract General Conditions 8 &amp; 9</p>
<b>Domain 4: Ensuring that people have a positive experience of care</b>			
<p>Hospital seeks patient feedback and action upon feedback</p> <p>Hospital has no complaints concerning care</p>	To be agreed	<p>Hospital level: Annual patient feedback report, including the results of nationally designed questionnaire, and list of actions taken in response</p> <p>Number of complaints and actions taken</p>	<p>Non compliance with contract General</p> <p>Non compliance with contract General</p> <p>Conditions 8 &amp; 9</p>
<b>Domain 5: Treating and caring for people in a safe environment and protecting them from avoidable harm</b>			
Monitoring of clinical incidents, including medicine related events.	To be agreed	Hospital Level: Annual audit with learning points and actions taken	Non-compliance with contract General Conditions 8 & 9