

The New NCCMDS, Neonatal HRGs 2016 and Reference Costs

A Guide for Clinicians

Aim

To help clinicians involved in neonatal care to understand

- the changes that have taken place to the NCCMDS dataset
- the new neonatal HRGs 2016 and
- what you need to do to ensure you get next year's reference costs as accurate as possible

If you haven't understood a word of this so far then you need this guide.

Key Messages:

- ***The reference costs for neonatal care will be calculated against the new HRGs 2016 from data collected from 1st December 2016-31st March 2017 and this will need to be submitted around July 2017***
- Clinicians need to ensure they are accurately entering all the relevant daily data items that are used to determine the new neonatal HRGs 2016 into Badger.net (and/or alternative data collection system) from December 2016
- Clinicians need to work with their trust costing team to ensure that reference costs are as accurate as possible using National Casemix Office NCC EWG (National Critical Care Expert Working Group) Reference Cost Guidance

Why do I need to bother with this – I'm a clinician?

- In the past, pricing has been agreed at a local level. NHS England wish to move to a national pricing model in the next 2-3 years
- The reference costs using the new neonatal HRGs 2016 will be used to help support development of national tariffs for neonatal HRGs.
- If clinicians don't ensure they are collecting the data items for the new HRGs accurately and help their local costing team to cost this correctly then the national tariffs will be incorrect which may mean you can't afford to run your service. This applies to all types of units that deliver neonatal care -NICUs/LNUs & SCBUs.

NCCMDS and HRGs

- **NCCMDS** (Neonatal Critical Care Minimum Data Set) contains the daily data items used to derive the neonatal HRGs (*see appendix 1: NCCMDS Critical Care Activity Codes*)
- The **neonatal HRGs** (Healthcare Resource Groups) are used as the payment structure for neonatal care and they are grouped into one of 5 daily neonatal HRGs, and a neonatal transport HRG which is paid per patient journey

XA01Z	Neonatal Critical Care, Intensive Care
XA02Z	Neonatal Critical Care, High Dependency Care
XA03Z	Neonatal Critical Care, Special Care, Carer not resident alongside baby
XA04Z	Neonatal Critical Care , Special Care, Carer Resident at cotside and caring for baby
XA05Z	Neonatal Critical Care, Normal Care
XA06Z	Neonatal Critical Care, Transport

- The current neonatal HRGs are based on the BAPM (British Association of Perinatal Medicine) Categories of Care 2001
- The new Neonatal Critical Care HRGs 2016 have been developed from the updated BAPM Categories of Care 2011, with further clarification regarding special care with and without carer present, and what should be considered normal maternity care (which would not attract a neonatal HRG tariff). This work was led by the CRG pricing group, and had wide representation including National Casemix Office, NHS England Pricing Team, CRG, BAPM , NNA (Neonatal Nursing Association) and BLISS (*see appendix 2: Neonatal Critical Care HRGs 2016*)
- The new HRGs were reviewed and approved by the BAPM executive in November 2015 and accepted as a replacement for the BAPM categories of care
- Since 7th September 2016 there are now 2 versions of the NCCMDS
 - Version 1 – the existing NCCMDS which must continue to be submitted and is used for current payment
 - Version 2 - contains an additional 14 fields which allow complete collection of the data items required for neonatal HRG 2016
- Full details of the changes to the NCCMDS database are published on the NHS Digital website <http://content.digital.nhs.uk/isce/publication/scci0075>

Reference Costs

- Reference costs (the cost of providing neonatal care) are collected from every trust annually
- ***This year the reference costs will be calculated against the new HRGs using data collected from 1st December 2016-31st March 2017 and this will need to be submitted around July 2017***
- Reference costs will be used to help support the development of national tariffs for neonatal care
- The National Casemix Office’s NCC EWG suggests costs (particularly staffing) should be apportioned to appropriately reflect the requirements of the different neonatal HRGs. As a guide, it would usually be expected that:
 - The cost of XA03Z and XA04Z would be similar
 - The cost of XA01Z would be at least 4 times the cost of XA03Z
 - The cost of XA02Z would be at least 2 times the cost of XA03Z
 - The cost of XA05Z would be lower than the cost of XA003Z/XA04Z but would not usually be expected to be below £450

Key Actions for Clinicians

- Ensure you are entering all the relevant daily data items that are used to determine the new HRGs into Badger.net (or alternative data collection device). In order to do this read and check against both appendix 1 and appendix 2 (NB. not all data items for the HRGs are collected through the NCCMDS eg. babies born at 35 weeks, who are receiving additional neonatal support, should be included as receiving XA03Z or XA04Z for first 48 hours after birth although they may not fulfil the other XA03Z/04Z NCCMDS data requirements)
- Confirm you have a method for collecting data on ***ALL patients*** you are caring for and fulfil the data requirements for the new HRGs eg. those cared for on postnatal /transitional care wards.
- Check your unit data using Badger.net system (or suitable alternative) to ensure that you are entering all data correctly (*for Badgernet data, if you go into the “unit daily update” tab there is a dropdown box on the top right. Ensure the toggle is set to HRG 2016*)
- The 2016 HRGs do cause significant changes compared with HRG 2001 and you will see more “normal care HRG XA05Z” days in the last 1-3 days of a patients stay. You may wish to check longer runs of “normal care” to confirm the data items have all been completed.
- Determine who prepares the reference costs in your hospital and ask them to involve you so you can check they have
 - used the correct activity data
 - included all your costs appropriately,
 - excluded costs appropriately
 - apportioned the costs correctly between the various levels of care using the EWG reference cost guidance or your Trust apportioning method if this is felt to be more robust.

Appendix 1: NCCMDS

Neonatal Critical Care Minimum Data Set

Code	Definition
01	Respiratory support via a tracheal tube (Respiratory support via a tracheal tube provided)
02	Nasal Continuous Positive Airway Pressure (nCPAP) (Patient receiving nCPAP for any part of the day)
03	Surgery (Patient received surgery)
04	Exchange Transfusion (Patient received exchange transfusion)
05	Peritoneal Dialysis (Patient received Peritoneal Dialysis)
06	Continuous infusion of inotrope, pulmonary vasodilator or prostaglandin (Patient received a continuous infusion of an inotrope, vasodilator (includes pulmonary vasodilators) or prostaglandin)
07	Parenteral Nutrition (Patient receiving Parenteral Nutrition (amino acids +/- lipids))
08	Convulsions (Patient having convulsions requiring treatment)
09	Oxygen Therapy (Patient receiving additional oxygen)
10	Neonatal abstinence syndrome (Patient receiving drug treatment for neonatal abstinence (withdrawal) syndrome)
11	Care of an intra-arterial catheter or chest drain (Patient receiving care of an intra-arterial catheter or chest drain)
12	Dilution Exchange Transfusion (Patient received Dilution Exchange Transfusion)
13	Tracheostomy cared for by nursing staff (Patient receiving care of tracheostomy cared for by nursing staff not by an external Carer (e.g. parent))
14	Tracheostomy cared for by external Carer (Patient receiving care of tracheostomy cared for by an external Carer (e.g. parent) not by a NURSE)
15	Recurrent apnoea (Patient has recurrent apnoea needing frequent intervention, i.e. over 5 stimulations in 8 hours, or resuscitation with IPPV two or more times in 24 hours)
16	Haemofiltration (Patient received Haemofiltration)
21	Carer Resident - Caring for Baby (External Carer (for example, parent) resident with the baby and reducing nursing required by caring for the baby)
22	Continuous monitoring (Patient requiring continuous monitoring (by mechanical monitoring equipment) of respiration or heart rate, or by transcutaneous transducers or by Saturation Monitors. Note: apnoea alarms and monitors are excluded as forms of continuous monitoring)
23	Intravenous glucose and electrolyte solutions (Patient being given intravenous glucose and electrolyte solutions)
24	Tube-fed (Patient being tube-fed)
25	Barrier nursed (Patient being barrier nursed)
26	Phototherapy (Patient receiving phototherapy)
27	Special monitoring (Patient receiving special monitoring of blood glucose or serum bilirubin measurement at a minimum frequency of more than one per calendar day)
28	Observations at regular intervals (Patient requiring recorded observations for temperature, heart rate, respiratory rate, blood pressure or scoring for neonatal abstinence syndrome. Recorded observations must be at a minimum frequency of 4 hourly)
29	Intravenous medication (Patient receiving intravenous medication)
	NEW data codes added to NCCMDS v2 to determine neonatal HRGs 2016
80	Patient receiving heated humidified high flow therapy (HHHFT)
81	Presence of an umbilical venous line
82	Patient receiving a continuous infusion of insulin
83	Patient receiving therapeutic hypothermia
84	Patient has a Replogle tube in situ
85	Patient has an epidural catheter in situ
86	Patient has an abdominal silo
87	Administration of IV blood products
88	Patient has a central venous or long line (PICC line) in situ
89	Patient has an indwelling urinary or suprapubic catheter in situ
90	Patient has a trans-anastomotic tube in situ following oesophageal atresia repair
91	Patient has confirmed clinical seizure(s) today and/or continuous CFM monitoring
92	Patient has a ventricular tap via needle or reservoir today
93	Patient has a stoma

Appendix 1: NCCMDS

	PCCMDS (Paediatric Critical Care) codes also used to support NCCMDS v2
51	Invasive Ventilation via ET tube
53	Non-invasive ventilator respiratory support
55	Nasopharyngeal Airway
66	Haemodialysis
69	Intraventricular catheter or external ventricular drain

Appendix 2: Neonatal Critical Care HRGs 2016

Neonatal Critical Care HRGs 2016

HRG XA01Z

Data Item
Any day where a baby receives any form of mechanical respiratory support via a tracheal tube
BOTH non-invasive respiratory support(e.g. nasal CPAP, SIPAP, BIPAP, duoPAP, HHHFT) AND Parenteral Nutrition (amino acids +/- lipids)
Day of surgery (including laser therapy for ROP, but excluding intraocular injections eg. Bevacizumab)
Day of Death
Any day with Umbilical Venous Catheter Present
Any day with Umbilical Arterial Catheter or Peripheral Arterial Catheter Present
Any day with a chest drain in situ
Any day on which Insulin infusion is given
Any day on which Prostaglandin infusion is given
Any day on which inotrope or vasodilator (including pulmonary vasodilator) is given
Day on which exchange transfusion occurs (includes dilutional exchange)
Any day on which Therapeutic Hypothermia is given (hypothermia treatment given during the initial assessment period should not be counted if ongoing cooling is not required)
Any day on which a replegle tube is present
Any day on which an epidural catheter if present
Any day on which an abdominal silo is present (for anterior abdominal wall defects)
Presence of External Ventricular drain or intraventricular catheter
Dialysis (any type)

HRG XA02Z

Does not fulfill criteria for XA01Z where one of the following applies:

Data Item
Any day where a baby receives any form of non-invasive respiratory support (e.g. nasal CPAP, SIPAP, BIPAP, HHHFT)
Any day a baby receives Parenteral Nutrition (amino acids +/- lipids)
Any day a baby receives an infusion of blood products (red cells, fresh frozen plasma, platelets, cryoprecipitate, intravenous immunoglobulin). It does not include infusion of albumin
Any day on which a central venous or long line (PICC) is present
Any day on which a tracheostomy is present
Any day with a trans-anastomotic (TAT) tube present following oesophageal atresia repair
Any day with NP airway/nasal stent present
Confirmed Clinical Seizure(s) today and/or continuous CFM recording
Ventricular tap (including via reservoir)

Appendix 2: Neonatal Critical Care HRGs 2016

HRG XA03Z/HRG XA04Z

Does not fulfil the criteria for XA01Z/XA02Z and requires any of the following:

Data Item
Presence of an indwelling urethral or suprapubic catheter
Oxygen by low flow nasal cannula
Feeding by orogastric, nasogastric, jejunal tube or gastrostomy
Care of a Stoma
Intravenous medication not otherwise specified elsewhere
Receiving Intravenous Sugar +/- electrolyte solutions
Receiving drug treatment for neonatal abstinence AND on an observations scoring regimen 4 hourly or more frequently
Birth weight ≤ 2 kg for first 48 hours after birth
Gestation at birth 35 weeks for first 48 hours after birth
Gestation at birth 34 weeks for first 7 days (168 hours) after birth
Gestation at birth <34 weeks until discharge from hospital

HRGXA05Z

Does not fulfil the criteria for XA01Z/XA02Z/XA03Z/XA04Z and requires any of the following:

Data Item
Any baby receiving care in a neonatal unit (NOT in a transitional care ward)
Babies receiving phototherapy

Normal Maternity Care

These babies should generally not receive neonatal payments unless they fulfil additional criteria as specified above:

Gestational age at birth $\geq 36+0$ weeks AND birth weight > 2kg
Birth weight <2kg AND/OR gestational age 35 weeks, after first 48 hours of life
Babies Gestational Age 34 weeks, after first 7 days (168 hours) of life
Any baby who has been discharged home who requires readmission in the first 14 days of life for any of the care activities considered to be part of normal care (see below)
<p>The following care activities for babies described in the above 3 sections are considered to be part of normal care:</p> <ul style="list-style-type: none"> PROM/GBS observations (12 hrs) Meconium observations (12 hrs) Thermoregulatory management Babies of diabetic mothers who are well and following a Management & Prevention of Hypoglycaemia policy Supporting establishment of infant feeding Investigation and support for infants with congenital abnormalities who do not otherwise fulfill criteria for higher category of care Support for babies with social care needs

Appendix 2: Neonatal Critical Care HRGs 2016 Neonatal Critical Care HRG Working Group Membership

Eleri Adams (chair)	CRG pricing group
Vanessa Attrell	TCU working group/ CRG pricing group
Sarah Rattigan	National Network Managers
Alan Fenton	BAPM
Peter de Halpert	TCU working group
Kujan Paramanatham	Neonatal Data Analysts
Gary Hartnoll	NCCSWG
Paula Monteith	Head of Design, National Casemix Office
Sam Oddie	CRG pricing group/ TCU working group
Yve Collingwood	Midwifery
Paul Fenton	NHS England Pricing Team
Peter Reynolds	CRG/ BAPM Cat of Care working group
Zoe Chivers	BLISS
Denise Evans	NNA/ CRG
Lawrence Miall	CRG
Andy Lyon	Clevermed
Neil Marlow	CRG pricing group
Caroline King	Allied Health Care Professionals

Final Report: June 2015

Approved by BAPM Executive Committee to replace BAPM Categories of Care: November 2015