

NDAU

Neonatal Data Analysis Unit

How to use the National Neonatal Research Database (NNRD) for research, audit and quality improvement

Information for clinicians and other health professionals



Who are we?

The Neonatal Data Analysis Unit (NDAU) is an independent academic unit based at the Chelsea & Westminster Hospital Campus of Imperial College London.

What do we do?

The NDAU aims to support neonatal units, networks, and NHS Trusts to improve the quality of care for newborns and their outcomes through health services support and research.

How do we work?

The NDAU maintains and manages the National Neonatal Research Database (NNRD). This database has approval from the National Research Ethics Committee, and the Caldicott Guardians and lead neonatal clinicians for all contributing trusts. The NNRD contains a defined set of about 430 data items that have been extracted from the Badger.net neonatal electronic health records of all admissions to NHS Neonatal units.

The NNRD currently holds over 6 million care days of data on over 600,000 infants. Data from over 80,000 more infants are added every year.

This unique, population level database has been created as a national resource to improve neonatal care. Neonatal health professionals are ideally placed to utilise these data in this way.

Where do the data come from?

These are your data. They originate from information entered by doctors and nurses into Badger.net. All 200 neonatal units in England, Wales and Scotland contribute data and form the UK Neonatal Collaborative (UKNC).

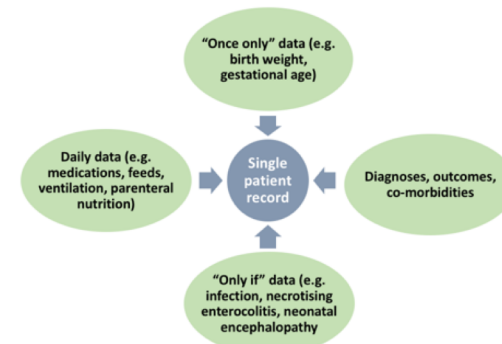
What is the difference between NNRD data and local data on Badger.net?

While local data (freely accessible through Badger.net) are useful for local projects, NNRD data have a number of important advantages:

1. They are national, population level data
2. All episodes of care (e.g. in different hospitals) are linked to create a complete neonatal record for each baby
3. Data are cleaned and missing or implausible values are improved
4. Data are being linked with databases such as Hospital Episode Statistics

What types of data are collected?

About 430 data items are collected. These comprise the Neonatal Data Set, an NHS Data Standard. Data are compliant with international nomenclature; include ICD10 codes and map to SnoMedCT



How can the data be used?


Data held in the NNRD are already used for multiple national, regional and local projects.

If you have a research question applicable to NNRD data, please contact the NDAU. The NDAU can help to plan NNRD data extraction, visualisation and analysis.

Projects can be local, regional, national or international in scope. Recent examples include:

1. *Examining the association between volume and level of neonatal care and mortality among preterm babies in England: Watson et al., BMJ Open 2014;4(7):e004856*

2. *Examining the association between retinopathy of prematurity screening in English neonatal units and need for treatment: Wong et al., Arch Dis Child Fetal Neonatal Ed 2014; 99(3):F196-202*

3. *Measuring the impact of a regional care bundle on maternal breast milk use in preterm infants: Battersby et al on behalf of the East of England Perinatal Network, Arch Dis Child Fetal Neonatal Ed 2014; 99(5):F395-401* 

The NDAU can also provide population level (below 34 weeks gestation) incidence data for many neonatal conditions. This can be used to inform clinical trial and other research proposals or funding applications.

What can we do for you? Working with the NDAU

The data that you enter, and its quality, is what makes the NNRD an internationally unique resource. The NDAU exists to help health professionals, researchers and others use this to improve neonatal care.

If you have an idea or proposal about using NNRD data please visit our website or contact us (details on the back).

All requests for assistance will be reviewed by the NDAU board (board members listed on the NDAU website).

The NDAU receives no core funding to support the NNRD and a charge is necessary to cover the costs of maintaining and developing the NNRD. These cover data transfer, extraction, cleaning, storage, and any analyses requested. Costs are determined on a project by project basis, based on an established costing model. Costs range from <£1000 for simple descriptive population data to >£10,000 for complex national quality improvement projects.

These costs can be built into funding applications, and for this reason we advise contacting the NDAU early in the development of a proposed study.

You can access your local unit data free of charge at any time. Liaise with your local Badger.net lead for further details.

HOW CAN YOU FIND OUT MORE?



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NDAU

Neonatal Data Analysis Unit

Bliss
for babies born
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