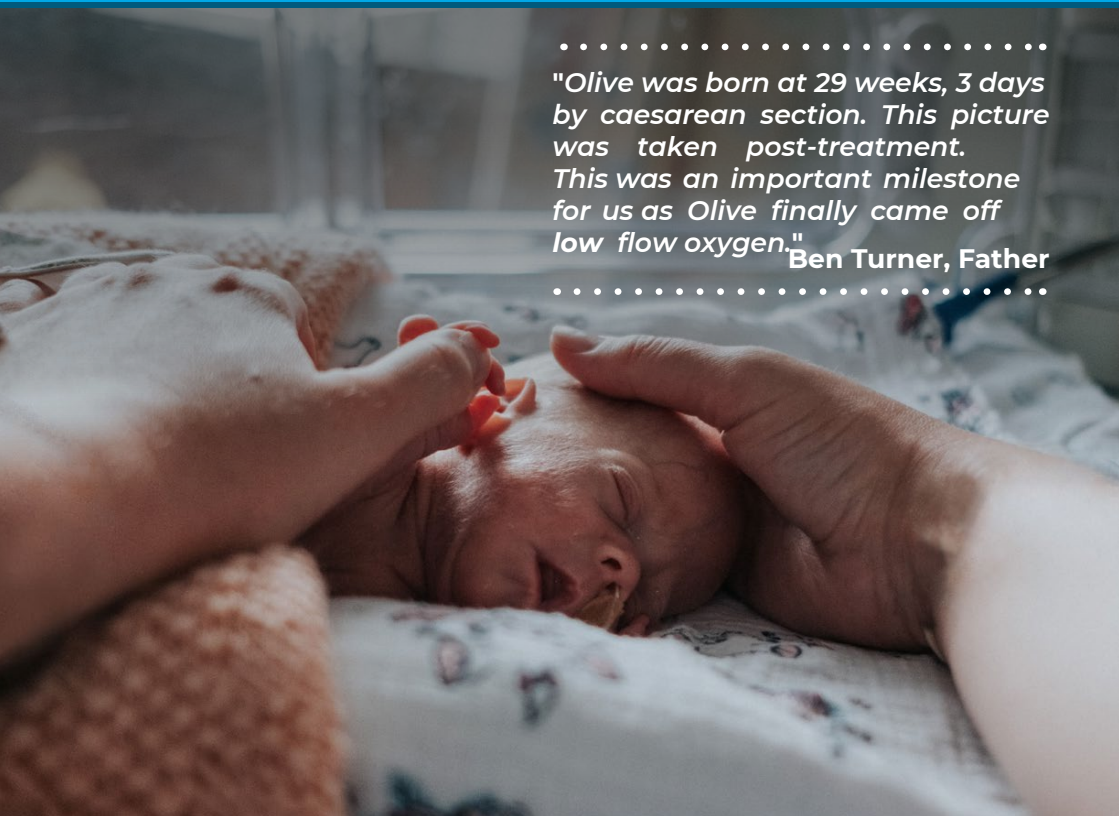
A guide to the
National Neonatal Audit Programme
2020 data

NNAP
National Neonatal Audit Programme

Your baby's care

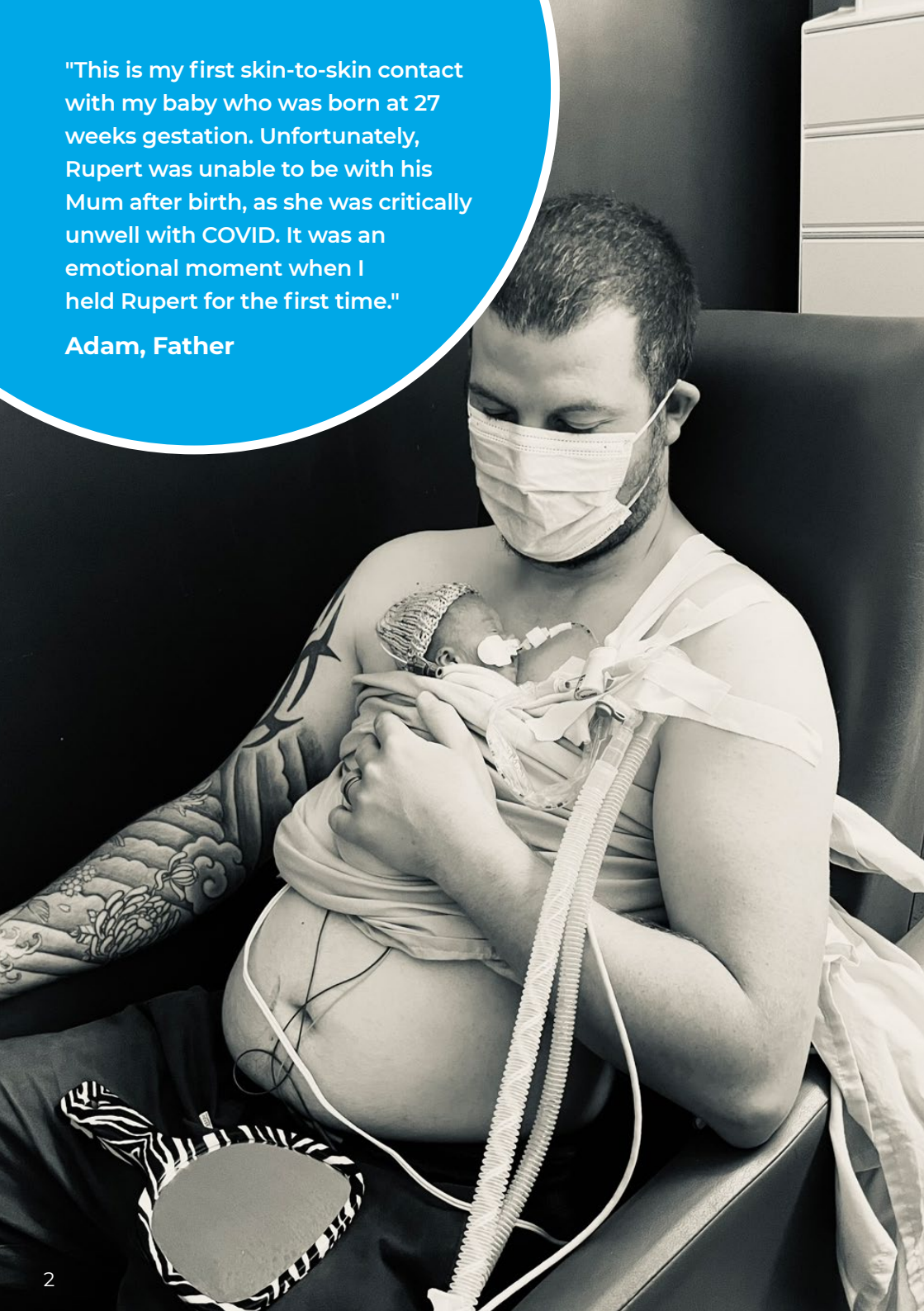
Measuring standards and improving neonatal care



"Olive was born at 29 weeks, 3 days by caesarean section. This picture was taken post-treatment. This was an important milestone for us as Olive finally came off low flow oxygen."
Ben Turner, Father

RCPCH Audits

RCPCH
Royal College of Paediatrics and Child Health
Leading the way in Children's Health



"This is my first skin-to-skin contact with my baby who was born at 27 weeks gestation. Unfortunately, Rupert was unable to be with his Mum after birth, as she was critically unwell with COVID. It was an emotional moment when I held Rupert for the first time."

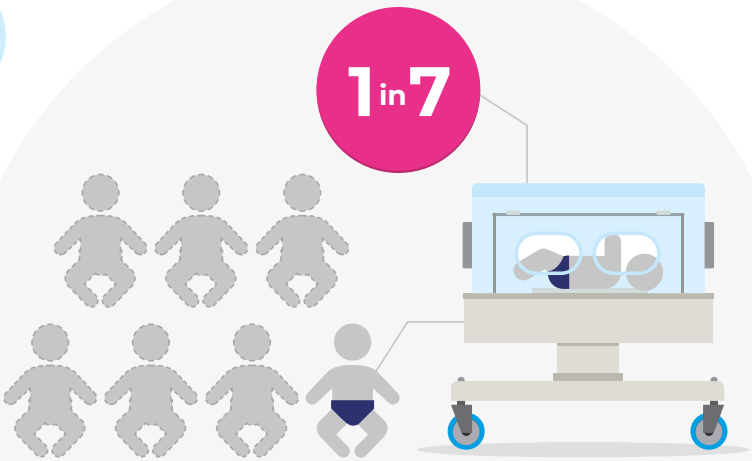
Adam, Father

Neonatal care

Approximately **1 in 7 babies** will require neonatal care because they are born too early, have too low a birth weight or have a medical condition that needs specialist treatment.

A baby may need their breathing monitored or need extra breathing support. They may have an infection and need antibiotics or have other medical conditions.

The length of a baby's stay in a neonatal unit can vary from days, to weeks or months, depending on their needs.



Neonatal unit admissions

Approximately **1 out of every 7 babies** born in England and Wales each year (or 90,000 out of 610,000) needs specialist neonatal care in hospital.

What is the National Neonatal Audit Programme?

It is important that the standards of care provided by neonatal units are regularly checked. The Royal College of Paediatrics and Child Health (RCPCH) does this through the National Neonatal Audit Programme (NNAP).

The National Neonatal Audit Programme helps neonatal units to give better care to babies who need specialist treatment.

We look at whether babies receive consistent, high quality care. We assess whether babies have had the health checks recommended for them to reduce the risk of complications, and we check how well babies are doing following this care.

We use information about your baby's care to help neonatal units in England and Wales to improve the care and outcomes for other babies.

Neonatal unit staff enter your baby's information onto a secure electronic record system called BadgerNet. All neonatal units share information from these electronic records with the National Neonatal Audit Programme (NNAP) project team within the RCPCH, via another processor, Clevermed Ltd, who manage the BadgerNet system.

To find out more about the audit, how we use this information, and your rights, you can read our privacy notice, 'Your baby's information' available at

www.rcpch.ac.uk/nnap

Find out more about the NNAP

To find out more about how we use your baby's information, please visit our website:

www.rcpch.ac.uk/nnap

or scan the QR code with your phone.

"This is a photo of my little girl Marilynn, taken when she was two days old. Seeing her being taken care of so well really helped me feel less anxious. I knew she was in the best place to help her get better."

Jade, Mother

What areas of care does the NNAP focus on?

The NNAP report on 2020 data looked at six areas of care for premature and sick babies, covered by 19 audit measures.

The areas we focused on were chosen by a group of experts in neonatal care, which includes nurses and doctors, supported by parents.

In this booklet we give more detail about twelve of the measures, selected by parents, healthcare professionals and patient-facing organisations.

We also produce a poster for each unit covering these measures, which you can view at the link below: **www.nnap.rcpch.ac.uk/postergenerator.aspx**

If you want to find out more after reading this booklet, you can view the full **NNAP report on 2020 data** and further information about each hospital on the NNAp website, here: **www.nnap.rcpch.ac.uk**

"Theo was born at 26 weeks and spent 5 months in a NNU due to severe chronic lung disease. We all tried to make every day magical for him and this picture shows the love and special bond between him and his Dad. You can also see the special heart-shaped tube sticker on his left cheek, made for him by the nurses."

Hayley, Mother

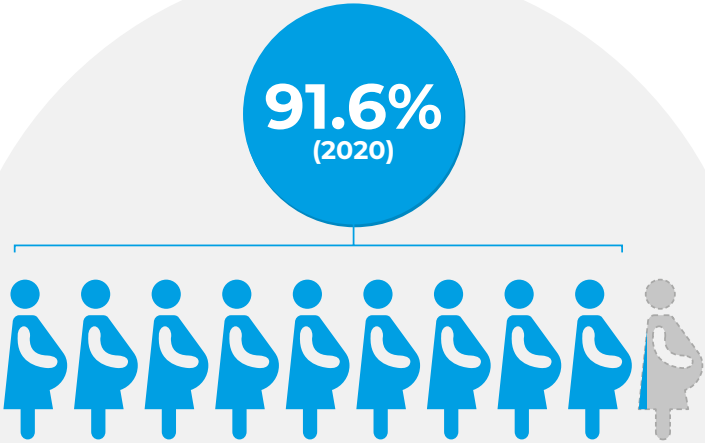
Antenatal steroids

Question:

Is a mother who delivers a baby between 23 and 33 weeks gestational age inclusive given at least one dose of antenatal steroids?

Babies born at less than 34 weeks gestational age sometimes have breathing difficulties in the first few days after they are born.

Giving antenatal steroids to mothers who are about to give birth early can help to reduce breathing difficulties in baby and make other serious problems, such as bleeding into the brain, less likely.



Antenatal steroids

91.6% of mothers of babies born at less than 34 weeks gestation were given antenatal steroids.

Antenatal magnesium sulphate

Question:

Is a mother who delivers a baby below 30 weeks gestational age given magnesium sulphate in the 24 hours prior to delivery?

Giving magnesium sulphate to women who give birth early reduces the chance, by about a third, that their baby will develop cerebral palsy, a lifelong condition that affects movement and coordination.

It is recommended that all mothers who may give birth at less than 30 weeks gestational age are offered this treatment.

Antenatal magnesium sulphate

85.7% of mothers of babies born at less than 30 weeks gestation were given antenatal magnesium sulphate.

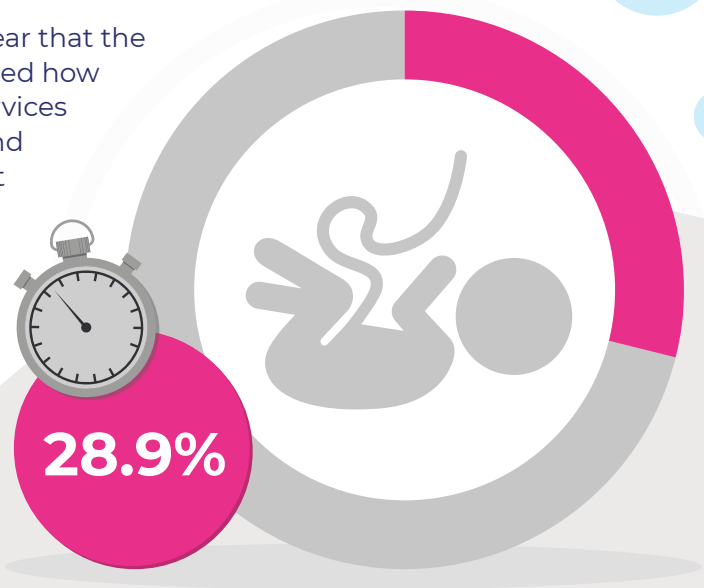
Deferred cord clamping

Question:

Does a baby born at less than 32 weeks gestational age have their cord clamped at or after one minute?

There is evidence that delaying cord clamping can improve the health of preterm babies and increase their chance of survival.

This is the first year that the NNAP has reported how well neonatal services are doing this, and it is an important area of focus for improvement.



Deferred cord clamping

28.9% of babies born at less than 32 weeks gestation had their cord clamped at, or after, one minute from birth

Temperature on admission

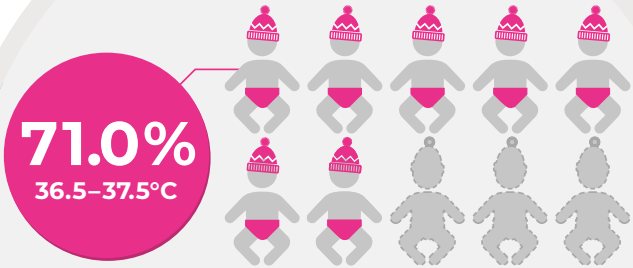
Question:

Does an admitted baby born at less than 32 weeks gestational age have its first measured temperature of 36.5°C to 37.5°C within one hour of birth?

Babies who are born very early get cold easily after birth. Being cold can make babies more unwell.

Doctors and nurses on the neonatal unit need to know a baby's temperature as soon as they are born, so that they can prevent these babies from getting cold.

Simple interventions such as placing the baby in a plastic bag at birth can help to maintain a normal temperature.



Temperature on admission

71.0% of babies born at less than 32 weeks gestation were admitted with a temperature within the recommended range of 36.5-37.5°C.

Consultation with parents

Question:

Is there a documented consultation with parents by a senior member of the neonatal team within 24 hours of a baby's first admission?

It is important that families understand and are involved in the care of their baby.

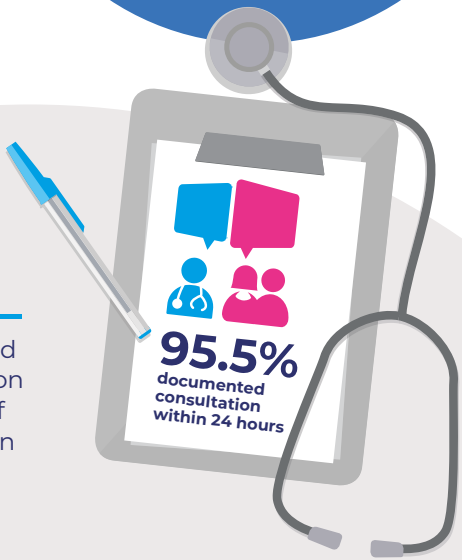
We look at whether parents have talked to a senior member of the neonatal team within the first 24 hours of their baby's admission.

In this first consultation, the senior staff member can meet the parents and listen to their concerns. They can explain how their baby is being cared for and respond to any questions.

What can you do?

If you feel that you haven't had an early consultation with a member of the neonatal team you can ask your baby's nurse to arrange one.

At this meeting, you can talk about how you can work in partnership with the neonatal team to look after your baby.



Consultation with parents

95.5% of parents received documented consultation with a senior member of the neonatal team within 24 hours of their baby's admission.

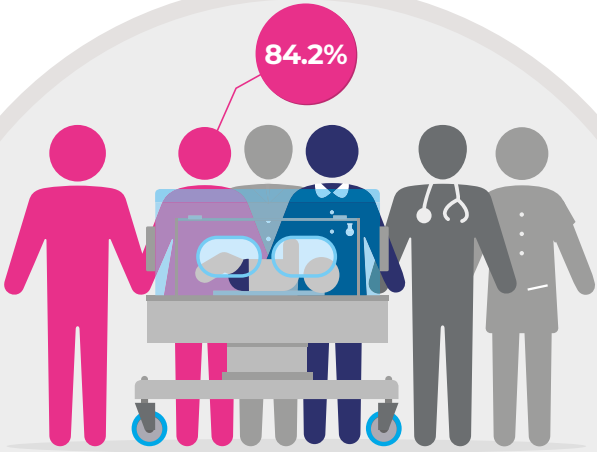
Parents on ward rounds

Question:

For a baby admitted for more than 24 hours, did at least one parent attend a consultant ward round?

Neonatal unit care is very stressful for babies and parents. It is important that families understand and are involved in the care of their baby.

Including parents in consultant ward rounds, which occur regularly on neonatal units, can help to develop a partnership in planning of care between parents and the neonatal team.



Parental presence on consultant ward rounds

In **84.2%** of admissions, parents were present on a consultant ward round on at least one occasion during a baby's stay.

"This is me having a double cuddle with my babies, during the daily ward round carried out by the doctors. The doctors always made sure they spoke to me about both babies, their progress, and what would happen next. This made me feel very reassured and relaxed, knowing that both our babies were getting the best care. During these double cuddles, doctors would often check the babies e.g., head circumference and general wellbeing."

Yasmin, Mother

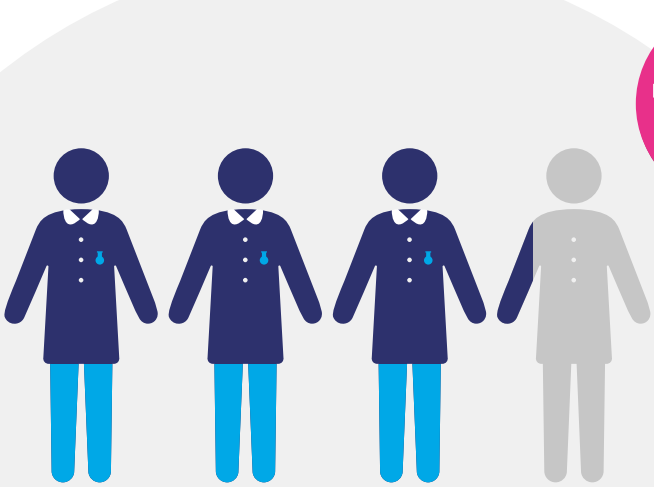
Neonatal nurse staffing

Question:

What proportion of nursing shifts are numerically staffed according to guidelines and service specification?

There are guidelines which describe how many nurses are required on each shift to care for babies on the neonatal unit, depending on the intensity of care being provided[1,2].

There is evidence that higher levels of nurse staffing are associated with better outcomes[3]. The NNAP looks at the proportion of shifts staffed according to the guidelines.



Neonatal nurse staffing

Nationally, **78.6%** of shifts are staffed according to the total nurses' element of the service specification.

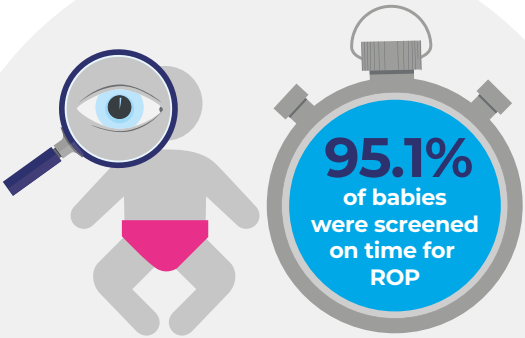
Retinopathy of prematurity screening

Question:

Does an admitted baby born weighing less than 1501g, or at a gestational age of less than 32 weeks, undergo the first retinopathy of prematurity (ROP) screening in accordance with the NNAP interpretation of the current guideline recommendations?

Babies born very early or with a very low birth weight are at risk of a condition called retinopathy of prematurity (ROP). ROP affects the blood vessels at the back of the eyes and can lead to loss of vision.

ROP can usually be stopped by treating it early. Screening babies for ROP at the right time is important to help babies have the best eyesight in the future. A national guideline says when this screening should be done. We look at how successful neonatal services are in achieving 'on time' screening.



Screening for retinopathy of prematurity (ROP)

Retinopathy of prematurity screening was done on time for **95.1%** of eligible babies.

What can you do?

Find out from the neonatal team whether ROP screening is relevant for your baby, and when your baby's screening is due.

If your baby's screening is due after being discharged from the unit, make sure you can attend the appointment. Find out whether there are any follow-up appointments you will need to attend.

Bronchopulmonary dysplasia (BPD)

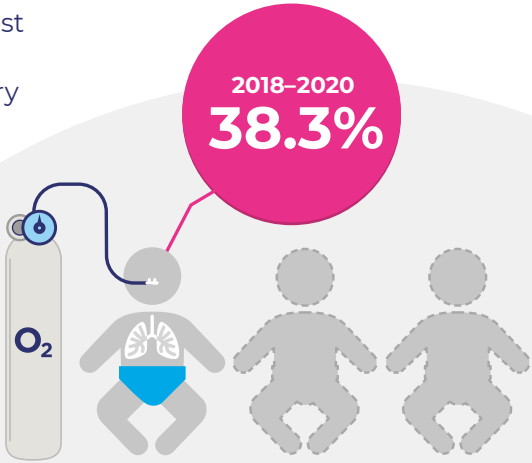
Question:

Does an admitted baby born at less than 32 weeks develop bronchopulmonary dysplasia (BPD)?

Babies born very early often do not have fully developed lungs and many need support with their breathing from a ventilator or other device. Simply being born early can cause some ongoing breathing difficulty.

Being on a ventilator can cause damage to the lungs, exacerbate breathing problems later in life and put babies at risk of chest infections. This condition is known as bronchopulmonary dysplasia (BPD) and is sometimes called chronic lung disease.

Rates of BPD vary between neonatal units. This variation may be partly explained by differences in the complexity and prematurity of babies between neonatal units and the methods they use. Neonatal units aim to reduce rates of BPD.



Bronchopulmonary dysplasia (BPD)

38.3% of babies born at less than 32 weeks gestation developed significant bronchopulmonary dysplasia (BPD)or died between 2018 and 2020.

Early breastmilk feeding

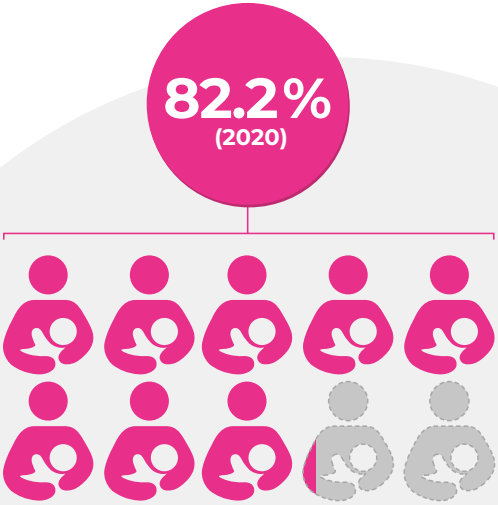
Question:

Does a baby born at less than 32 weeks gestational age receive any of their own mother's milk at day 14 of life?

Receiving breastmilk helps prevent infection and bowel problems in premature babies and improves longer term health and development.

Premature or unwell babies may not be ready to be fed from their mother's breast straight away, but mothers can express milk for their baby.

It is important that neonatal staff give you practical support to help you express milk if you choose to and to get feeding established ready for going home.



Early breast milk feeding

82.2% of eligible babies were receiving mother's milk; either exclusively or with another form of feeding, at 14 days of age.

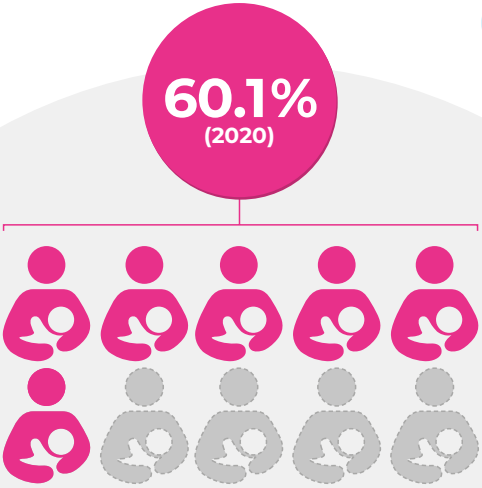
Breastmilk feeding at discharge home

Question:

Does a baby born at less than 32 weeks gestational age receive any of their own mother's milk at discharge home from the neonatal unit?

"This photo shows Charlie with his feeding tube at just under a month old. Charlie tolerated the tube well most of the time. This picture is important to us because it proudly shows off his beautiful cleft smile while he has his feeding tube in place."

Kim, Mother



Mother's milk at discharge

60.1% of eligible babies were receiving mother's milk; either exclusively or with another form of feeding, at the time of their discharge from neonatal care .

What can you do?

Ask staff in your unit how they can support you with breastfeeding and expressing milk, and for advice about other organisations that offer support.

"I could just see our beautiful boy Bobby, as I held him for the first time. It was a feeling like no other and a bond so strong. I didn't see the wires or the tube nor hear the noises all around."

Sarah, Mother

Follow-up at two years of age

Question:

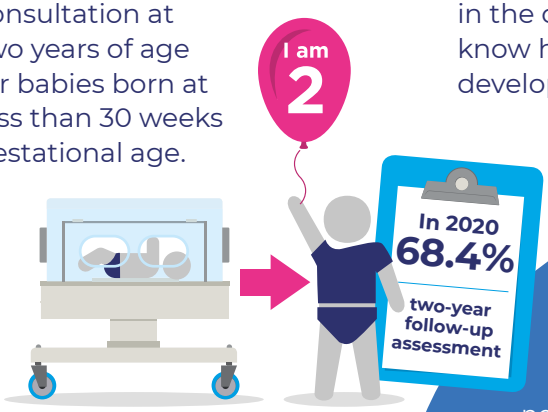
Does a baby born at less than 30 weeks gestational age receive medical follow up at two years gestationally corrected age?

It is important that a paediatrician or neonatologist (specialist doctors trained in the care of children and babies) checks the development of very premature babies after they leave the neonatal unit.

We look at whether there is a documented follow-up consultation at two years of age for babies born at less than 30 weeks gestational age.

This consultation looks for any problems with movement or the senses, any delays in development, or any other health problems.

Babies born very early can have these problems more often that those born at full term. It is important that those involved in the care of premature babies know how the babies are developing as they get older.



Follow-up at two years of age

68.4% of babies born at less than 30 weeks gestation had a documented medical follow up within the appropriate time period.

What can you do?

Stay in touch with the neonatal unit you're discharged from and find out when and where follow-up appointments will take place. Going to all follow-up appointments means you can get reassurance about how your baby is developing and get any support your baby might need for their development.

"Skin to skin cuddles on the unit. This is my favourite picture from the neonatal intensive care unit and is enlarged and framed in my home. They are so special showing how small Archie was still despite being weeks old. His shiny blonde hair and the content look on his face while having skin to skin."

Amy, Mother

"Archie aged 2. Mighty oaks from little acorns grow."

Amy, Mother

Your unit's NNAP results

The information given in this booklet describes the national results for all units in England and Wales.

You can look for your unit's NNAP posters, (which we encourage them to display on the wall) at the following website:

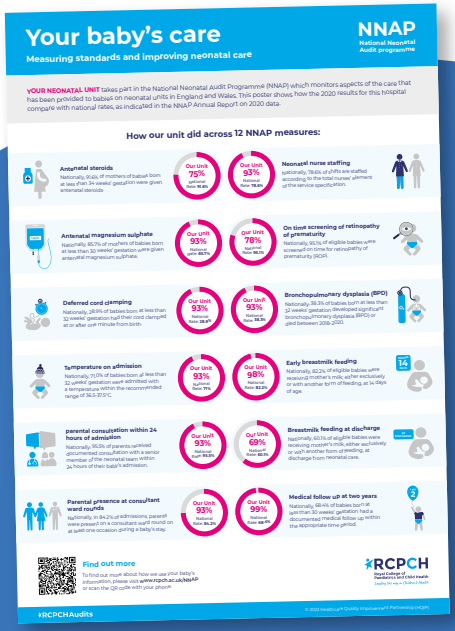
www.nnap.rcpch.ac.uk/postergenerator.aspx

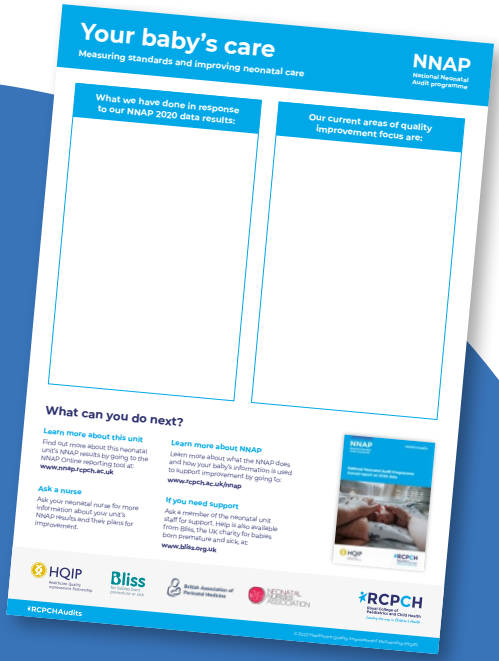
Examples of both posters can be found below.

These posters show you the NNAP results for your unit, national results and what your unit is doing in response to their NNAP results. Where there are opportunities for improvement, units are encouraged to put together an action plan.

You can view the full National Neonatal Audit Programme report and information about each hospital on NNAP Online at:

www.nnap.rcpch.ac.uk





Who is the NNAP supported by?

We're pleased to be supported by a range of organisations. Further details can be found below.

Bliss
for babies born premature or sick

Bliss is the UK charity working to ensure that every baby born premature or sick in the UK has the best chance of survival and quality of life.

Bliss fully supports the National Neonatal Audit Programme.

For more information on Bliss please visit: **www.bliss.org.uk**

British Association of Perinatal Medicine

British Association of Perinatal Medicine (BAPM) aims to improve standards of perinatal care by supporting all those involved in perinatal care to optimise their skills and knowledge, deliver and share high quality safe and innovative practice, undertake research, and promote the needs of babies and their families.

For further information, visit: **www.bapm.org**

NEONATAL NURSES ASSOCIATION

The Neonatal Nurses' Association (NNA) is a national organisation representing neonatal nurses, steered by neonatal nurses to promote neonatal nursing for the benefit of sick newborns and their families throughout the country.

For more information on NNA please visit: **www.nna.org.uk**

What can you do next?

- Find out more about this neonatal unit's NNAP results by going to the NNAP Online reporting tool at: **www.nnap.rcpch.ac.uk**
- Ask your neonatal nurse for more information about your unit's NNAP results and their plans for improvement.
- Learn more about what the NNAP does and how your baby's information is used to support improvement by going to: **www.rcpch.ac.uk/nnap**
- Ask a member of the neonatal unit staff for support.

"This is my husband touching our baby girl for the first time. He felt so left out of the pregnancy due to COVID restrictions but he set straight into Daddy mode the second he laid eyes on her."

Samantha, Mother

Find out more about the NNAP

To find out more about how we use your baby's information, please visit our website:

www.rcpch.ac.uk/nnap

or scan the QR code with your phone.

Glossary

Antenatal – The period before birth during or related to pregnancy.

Antenatal Steroid – A medication given to mothers who may give birth early which can help to reduce breathing difficulties in their baby and make other serious problems, such as bleeding into the brain, less likely.

Bronchopulmonary Dysplasia (BPD) – A lung condition that mostly affects premature babies, especially those that need to be on a ventilator after they are born. In NNAP we say that a baby has BPD if it needs breathing support or extra oxygen when it reaches 36 weeks corrected gestational age. BPD is also known as chronic lung disease (CLD).

Blood culture – If doctors think that a baby may have an infection, neonatal staff may take a blood sample and/or a sample of fluid from the spine, to send to the laboratory for testing. If germs grow in this blood sample, it is known as a positive blood culture.

Cannula – A small flexible plastic tube inserted into a vein. This gives the baby medication or fluids that they cannot take by mouth or that need to enter your baby's blood stream directly.

Colostrum – The first form of milk produced by the mammary glands of mammals (including humans) immediately following delivery of the newborn.

Consultation – A staff member meeting the parents to discuss their baby's condition. They can explain how their baby is being cared for and respond to any concerns or questions.

Continuous positive airway pressure (CPAP) – See Ventilator.

Corrected gestational age – The age a premature baby counted from the start of their pregnancy. After their due date it is the age they would have been if they had been born on their due date.

Development – A baby's progress as they grow in terms of movement, vision, hearing and language.

Expressing Breastmilk – To use a pump, hands or both to get milk from the mother's breasts. The milk can be stored in a fridge or freezer or given directly to the baby.

Gestational age – The number of weeks the baby has been in the womb is known as the gestation. Being born at term means being born after 37 full weeks in the womb but before 42 weeks. If a baby is born before 37 weeks' gestation, they are premature (also known as preterm).

Incubator – A transparent Perspex box-like bed where sick or preterm babies are nursed and observed. This allows the air temperature around the baby to be controlled.

Intravenous (or IV) – Taking place within, or administered into, a vein or veins.

Local neonatal units (LNUs) – Provide neonatal care for their own catchment population, except for the sickest babies. They provide all categories of neonatal care, but they transfer babies who require complex or longer-term intensive care to a NICU.

Low birth weight (LBW) – There are three categories of low birth weight:

- Low birth weight (LBW) – a weight at birth of less than 2.5kg
- Very low birth weight (VLBW) – a weight at birth of less than 1.5kg
- Extremely low birth weight (ELBW) – a weight at birth of less than 1kg

Necrotising Enterocolitis (NEC) – A serious condition, where tissue in the bowel (small and large intestines) becomes inflamed. NEC can make a baby temporarily unable to take milk, and at its worst it can cause parts of the bowel to become so damaged that tissue within it dies. NEC can affect just a small part of the bowel, or sometimes the whole bowel can be affected.

Neonatal – The first four weeks of a baby's life (up to 28 days).

Neonatologist and Paediatrician – Specialist doctors trained in the care of children and babies.

NICU – Neonatal Intensive Care Unit – Where neonates who need the highest levels of care are looked after (see NNU and SCBU).

NNU – Neonatal unit (see NICU and SCBU).

Magnesium sulphate – A substance naturally found in the body, but given as a medicine to women in premature labour.

Paediatric – The branch of medicine dealing with children and their health.

Phototherapy – An ultraviolet light used to treat jaundice, by a light placed over the incubator. The baby will be nursed in only a nappy and their eyes will be covered.

Premature (or preterm) – A baby born before 37 weeks of pregnancy (full term is 40 weeks).

Retinopathy of Prematurity (ROP) – Damage to the back of the eye (retina), most commonly in premature babies and those born with a very low birth weight. It is linked to the amount of oxygen in the blood. These babies are regularly checked for retinopathy of prematurity.

SCBU – This stands for Special Care Baby Unit (see NICU and NNU). referred to as a level 1 neonatal unit: provides stabilisation for sick or preterm infants prior to transfer to the LNU or NICU.

Transfer – When a baby is moved to another hospital or another part of the hospital for treatment.

Ventilation – Mechanical support with breathing, so that the baby will be able to have normal levels of oxygen and carbon dioxide in their blood when unable to achieve them for themselves. There are several different types of ventilation.

Ward rounds – Regular, planned reviews of all the babies in a ward or area, involving all the team caring for those patients; often in the morning.

References

[1] NHS England. Neonatal Critical Care Service Specification. 2016. Available from **https://www.england.nhs.uk/commissioning/spec-services/npc-crg/group-e/e08/**

[2] British Association for Perinatal Medicine. Service Standards for Hospitals Providing Neonatal Care (3rd edition). Available at: **https://www.bapm.org/resources/32-service-standards-for-hospitalsproviding-neonatal-care-3rd-edition-2010**

[3] Watson S., et al. On behalf of the Neonatal Data Analysis Unit (NDAU) and the Neonatal Economic, Staffing, and Clinical Outcomes Project (NESCOP) Group. The effects of a one-to-one nurse-topatient ratio on the mortality rate in neonatal intensive care: a retrospective, longitudinal, population-based study. Archives of Disease in Childhood - Fetal and Neonatal Edition. 2016;101:F195-F200. Available at: **https://www.ncbi.nlm.nih.gov/pubmed/26860480**

A guide to the **National Neonatal Audit Programme** 2020 Annual Report

HQIP
Healthcare Quality Improvement Partnership

The National Neonatal Audit Programme is commissioned by the Healthcare Quality Improvement Partnership (HQIP) as part of the National Clinical Audit and Patient Outcomes Programme (NCAPOP). HQIP is led by a consortium of the Academy of Medical Royal Colleges, the Royal College of Nursing and National Voices.

Its aim is to promote quality improvement in patient outcomes, and in particular, to increase the impact that clinical audit, outcome review programmes and registries have on healthcare quality in England and Wales.

HQIP holds the contract to commission, manage and develop the National Clinical Audit and Patient Outcomes Programme (NCAPOP), comprising around 40 projects covering care provided to people with a wide range of medical, surgical and mental health conditions. The programme is funded by NHS England, the Welsh Government and, with some individual projects, other devolved administrations and crown dependencies. www.hqip.org.uk/national-programmes

RCPCH
Royal College of Paediatrics and Child Health
Leading the way in Children's Health

Royal College of Paediatrics and Child Health
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