NHS
North West Anglia
NHS Foundation Trust

Welcome to the Neonatal Intensive Care Unit (NICU) Family Guide

Our NICU Tour Video

BLISS
About Neonatal Care

All information was correct at time of writing. Photos and images are our own. Photo was gained with consent from ex-parent of NICU.

Created by Chevvy Wright (Deputy Sister, Peterborough NICU). Updated October 2024.

Introduction

Dear Family

Congratulations on the birth of your baby. We appreciate that this is a particularly difficult time for you. We hope that this information is useful and will help take some of the stress away from having your baby on the unit. Everyone on NICU is here to help you and your family.

Our Vision

Philosophy of Care

While your baby is with us on NICU, we will strive to provide you and your baby with the best in Family Integrated Care (FICare) facilitating a healing, nurturing environment which provides developmental and emotional support to meet the diverse needs of every family.

We view parents as partners in care and ensure every baby and family are treated with respect and dignity throughout their neonatal journey, valuing feedback to enable us to continue to grow as a service.

Finally, we strive to provide a high standard of medical and nursing care to all infants through enhanced clinical skills, research and evidence-based practice. All our staff complete professional development to ensure safe clinical and supportive skills.

Our Trust Values

We put patients first
We are actively respectful
We seek to improve and develop
We are caring and compassionate
We work positively together

NICU Mission Statement

We work within the East of England Neonatal Network and ensure we meet BAPM (British Association of Perinatal Medicine) standards to ensure our care is of the best standard. We also actively participate in benchmarking audits, and within the National Neonatal Audit Programme (NNAP).

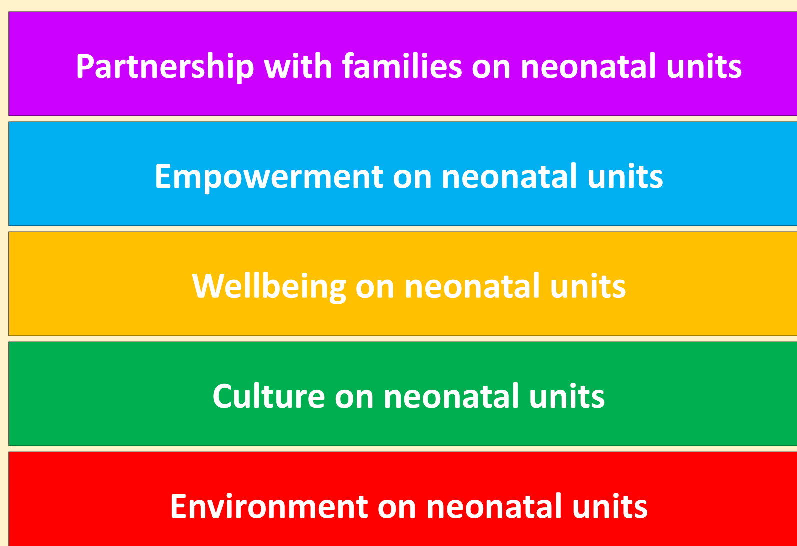
Our Values

- Provide a high standard of medical and nursing care to all infants.
- Enhance clinical skills through evidence-based practice.
- To view parents/carers as partners in care, encouraging and supporting them to become involved in their baby's care with an aim to becoming proactive in planning and delivering the care.
- Create a healing, nurturing environment which provides developmental, educational and emotional support to meet the diverse needs of staff and families.

Family Integrated Care—FICare

FICare is a model of neonatal care, promoting a culture of partnership between families and staff. This enables and empowers you as parents/carers to be empowered, confident, knowledgeable and to be the independent primary caregivers for your baby.

There are 5 pillars of FICare



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Welcome to NICU

What you can expect of NICU staff

- The NICU team are here to support you at all times and ensure you are kept up to date about your baby's progress.
- Our aim is to ensure that all parents are confident and skilled in looking after their baby.
- We want to help you get home as a family as soon as possible.

To do this, we need you!

- Please read this family guide which you should receive on arrival to NICU. This has important information regarding your baby's stay with us.
- Please work with the nursing team to enable us to support you in caring for your baby.
- You need to be involved in your baby's care as much as possible; attending to cares, participating in skin-to-skin and attending ward rounds wherever possible.
- We would appreciate it if you could provide nappies and cotton wool for your baby. Your baby may also have their own clothes and blankets- please make sure they are washed before use. We will give them back to you to take home to wash when they are dirty. We will make every effort to ensure your personal clothes and blankets are given to you, however, there is a small chance they may get lost- please avoid bringing any particularly special clothes or blankets.
- There is a zero tolerance for aggressive, discriminatory or threatening behaviour towards staff. Security will be contacted in the event of this happening.
- Parents rooms are available when preparing to take your baby home, however, we encourage parents staying in these flats to take the opportunity to care for their baby day and night.
- If you have any questions, please do not hesitate to ask any of the NICU team.

All about our NICU

Partnership with families on neonatal units

Empowerment on neonatal units

Wellbeing on neonatal units

Environment on neonatal units

Created by Chevvy Wright (Deputy Sister, Peterborough NICU). Updated October 2024.

Key Phone Numbers

NICU Reception	01733 677236
NICU Nurses station	01733 677233 or 677234
Outreach Team	01733 677235

Parents/carers can ring at any time of the day or night, but please be aware we have a nursing handover between 07:30-08:00 and 19:30-20:00 so it may take us a little longer to get to the phone during these times.

Nursing handover times

Morning: 07:30 – 08:00

Evening: 19:30 - 20:00

Doctors Ward Round times

Morning : 08:45 – 09:30 (approximately)

Evening: 20:45- 21:00 (approximately)
We encourage parents to be present for ward rounds wherever possible. On Thursday mornings we have the 'grand round' where multiple Consultants/Doctors and our Allied Health Professionals (dieticians, occupational and physiotherapists etc) involved in your baby's care, will be present.

Confidentiality & your baby's Medical Records

Information regarding your baby's heath is strictly confidential and will only be given to you. **We cannot give information to any other family member unless it has been discussed with a senior member of staff. This includes phone updates.**

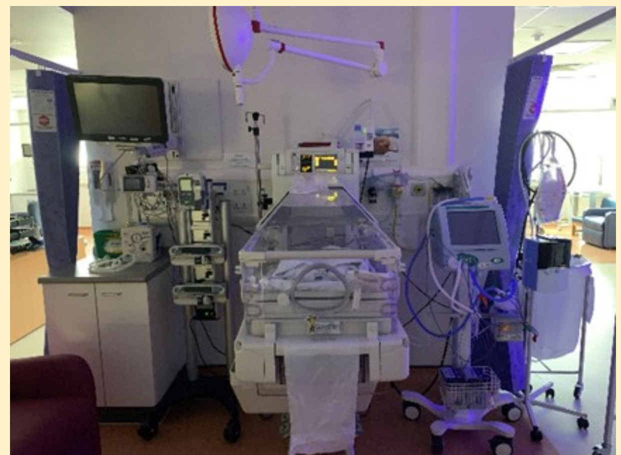
To access your babies medical records, please visit the NWAFT website and follow the instructions. The link can be found in the QR Code Library.

Our NICU

We have a large team compromised of neonatal and paediatric medical staff including; Consultants, Registrars, Senior House Officers (SHO's) and the Advanced Neonatal Nurse Practitioners (ANNP's).
Our Nursing Team consists of our manager, Senior Sisters, Deputy Sisters, Staff Nurses, Nursery Nurses and the neonatal Outreach Team.

There are 2 main areas:

Intensive Care or High Dependency (Beds 1-8)- This is where babies who need close monitoring or respiratory support are nursed. Registered nurses work in this area to care for these babies.



Special Care Nursery (Beds 9-16)-
is for babies who are clinically stable and are preparing for discharge. They are normally growing, establishing feeds and sometimes on a small amount of oxygen. Both nurses and nursery nurses work in this area.

Who's Who?

Ward Manager
& Neonatal Sisters
Navy Blue

Advanced Neonatal
Nurse Practioners
Olive Green

Deputy Sisters
Royal Blue

Staff Nurse (Speciality
and non-speciality)
Ciel Blue

Nursery Nurses
Lilac

Support Workers
Mali Blue

NICU has a huge team of amazing people working to help your baby get better.
The consultants will wear their own clothes or blue scrubs, and the other doctors working on the unit will be wearing blue scrubs. They should always introduce themselves so you will know who you are speaking to, every member of staff should be wearing an ID badge.

We also have support workers & ward clerks. These specific roles ensure that the nursing staff have greater ability to focus on your baby. They will always be happy to help you if you have any questions.

Occasionally, you may find that a student nurse or midwife is working alongside the nurse caring for your baby. They will be dressed in their student uniform and will be introduced to you. We will ensure that they are supervised and are competent in all care they provide for your baby.

Spending time with your baby

We have an open access policy for parents, so you are welcome to the unit whenever you wish, during the day and night.
Siblings are welcome with parent(s) during the day between 08.00 and 20.00 (and must be supervised at all times)

If you are feeling unwell, we understand that you may be desperate to be with your baby as much as possible, but please consider postponing until you (or other visitors) are well enough.

Supporting Partners

In certain circumstances, we can arrange for there to be an alternate 'supporting partner' that is not a parent, who could potentially support you and who could receive updates by phone. This is not applicable for every family and is primarily aimed where only 1 parent is involved. Please speak to your nurse if you would like to discuss this.

Other visitors

Two adult visitors (over the age of 16yrs) are welcome on the unit per day between 08.00 and 14.00 then between 16.00 and 20.00. Only two people can be at the cot side at any time and one of these must be a parent. No visitors will be allowed to visit without a parent being present unless prior arrangements have been made.
We do restrict this to 2 people at each cot side, one of these people must be a parent (siblings are not counted in these numbers). **For example: Mum OR Dad AND 1x other visitor.**

Passwords

When your baby is admitted to NICU, we will ask you to choose a password so we can give you updates and confidential information over the phone. Please choose a password that you can remember easily, as we should ask you whenever you phone.

Safety and Security

The doors to NICU are locked at all times. Please ring the doorbell and we will answer as quickly as possible. Please be patient at busy times, we will open the door as quickly as possible. You may be asked to identify yourself as a safety precaution if we do not recognise you straight away.

Please be aware that while your baby is on NICU, baby's surname will be the same as Mums/birthing parent. When we are asking who you are here to see, please make sure you use this name.

Privacy for our patients

We encourage parents and visitors to respect other babies' and families' privacy on NICU, this includes not approaching other cots or incubators and not accessing other babies' medical and nursing information.

If you have any concerns regarding your baby's (or another baby's) privacy or confidential information, please speak to the nurse in charge.

Infection Control

It is important to us that we protect your baby from infection risks. All visitors must wash their hands with warm water and soap on entering the unit. All
outside coats must be left on hooks at the entrance to the unit.

We also ask that only parents and siblings touch their new baby to reduce the risk of germs- we know this might seem strict but it is all to keep your baby safe!

Car Parking

Car Park D is the closest car park to the Women and Children's entrance.

Parking for parents is free; please ask your nurse or the ward clerk on reception for a parking voucher. Take your voucher and parking ticket to the reception in the main atrium to be validated.

Parent & Family Facilities

Our family room or parent's kitchen provides a space for you to have a drink and something to eat while not being too far away from your baby.

There is a fridge and microwave for your convenience, and we have limited food supplies and drink donated to the unit for parents by previous families and 'Give Back Peterborough' and other charities, for those families that have been admitted quickly and have not been able to get home.

We strongly encourage parents to take regular breaks to eat and drink. There is a small shop and limited hot and cold food in the Women and Children's Atrium. Costa, WH Smiths and Deli Marche are in the main atrium, while the 'Wellbeing Café' hospital restaurant is located in the main hospital on Level 1.

Alternatively, we can order parents hot meals or sandwiches which can be delivered directly to NICU. Please ask your nurse for a menu, ordering times are as follows:

- Lunch orders must be ordered by 11am to be delivered at 12 noon (approx.)
- Dinner must be ordered by 4pm, to be delivered around 5pm (approx.)

NICU is a very warm environment, so please ensure you have a drink with you. Please do not bring hot drinks onto the unit unless they are in a sealed flask/bottle. (i.e. no costa cups).

We also have some lockers available for parent and family use in the reception area. Please feel free to use these to store your personal belongings in, however, we are unable to accept responsibility for loss of personal belongings while on the unit.

Safeguarding Children and Families

As a trust we have a legal duty to protect and promote the welfare of all children and young people. This means that sometimes we may need to contact Children's Services and other professionals deemed necessary if we have concerns about a baby on NICU. If your baby has any input from children's social care, or you have been seen by the safeguarding midwife during pregnancy, we ask that you are open and honest with us so we can support you and your baby.

Fire alarms

We do not routinely run fire drills on this unit, therefore in the event of a fire or an emergency please follow the NICU team's instructions.

Smoking

The hospital building is a no smoking zone, outside there are smoking shelters which we ask families to use should they wish to smoke. If you would like any smoking cessation advice, please speak to your nurse who can get you relevant information.
If you do smoke, please try and wear something over your indoor clothes to keep them as smoke free as possible. We would recommend you avoid smoking around the time you plan on having baby out for cuddles to reduce the risks associated with second-hand smoke (Lullaby Trust).

Mobile Phones

Mobile phones are allowed on NICU, but we ask that you have them on silent while here. If you are using your phone to call or videocall, please ensure the volume is turned down so as not to disturb the babies, or other families spending time with their baby.

If you use your phone as a camera, please ensure the flash is turned off.

Please ensure you do not record or take photos of other babies or staff, and ensure no confidential information is recorded.

Chaplaincy Team

The Chaplaincy team is available to support you and your family, whether you have a faith or not. The team provides spiritual and pastoral care for families, and sometimes just someone who isn't a nurse to chat to.

They offer a 24-hour trust wide on-call service and are happy to come up to the unit if you would like to speak to someone. Just ask your baby's nurse if you would like more information. Occasionally, the chaplaincy team will come up to NICU and check that everyone is doing well and offer their services.

Feedback & Complaints

If, for any reason, you do have any concerns about your baby and the care they are receiving then please ask to speak to the Nurse in Charge or ward manager and we will try and resolve this wherever possible.

However, if you have a complaint that you feel cannot be resolved by us, then PALS (Patient Advice and Liaison Service) are available to help. They are there to help deal with issues and try to prevent formal complaints where possible by resolving a situation to the best of their ability.

To contact PALS:

- Visit their desk in the main atrium between 08:30am-4:30pm Monday to Friday
- Phone number 01733 673405 (you may have to leave a message and they will get back to you)
- Email nwangliaft.pals@nhs.net

Your Baby's Information

and the National Neonatal Audit Programme

While your baby is in the neonatal unit, staff record information in an electronic record. They use this to care for your baby, and to help the health service run well. The National Neonatal Audit Programme uses this information to improve care and outcomes for other babies in the future.

For full information regarding the NNAP and your baby's information, please see the QR Code Library for the most up to date version.

Consent

What is consent?

Parents should be included in making decisions about their baby's care. Fostering a good relationship and developing trust with parents by effective communication is key to getting valid consent. Consent means giving permission to the neonatal unit staff to care for and treat your baby. We will discuss with you the relevant information so you can understand your baby's condition and the treatment/tests required so you can make an informed decision about your baby's care. There will be opportunities for you to ask any questions. Consent is obtained from someone with 'parental responsibility' and involves both communication and understanding by the parent. If parents are married, valid consent can be obtained from either parent. If parents are not married, valid consent can only be obtained from the father if he is to be named on the birth certificate, and the mother confirms she wishes him to have parental responsibility.

Please see the QR code to read the BAPM Enhancing Shared Decision making in Neonatal Care—A Framework for practice (2019)

Types of consent:

Implicit Consent Implicit (or implied) consent refers to clinicians proceeding with a non-urgent low-risk intervention without necessarily having specific prior discussion for the procedure at that time with the parents. Implicit consent procedures should have been described to you prior to or on admission, supported with written information, and

Consent—continued

have been described to you prior to or on admission, supported with written information, and expanded on by healthcare professionals as the opportunities arise.

Implicit consent is dependent upon the building up of rapport and trust between clinicians and parents. The assumption that implicit consent has been gained must be made with caution unless a thorough discussion has taken place. Procedures considered to be routine and low risk for healthcare professionals may be seen as invasive to a parent. Explicit consent Explicit consent, involves a discussion whereby the purpose and risks of an intervention are formally explained and consent, either verbal or written, is obtained prior to the intervention; this should be recorded in the notes.

Implicit (implied) consent examples:

- Clinical Examination and assessment
- Portable X-rays
- Routine blood sampling
- Gastric tubes (insertion and use)
- Administration of frequently used drugs with a good evidence base
- Umbilical arterial and venous catheter insertion
- Peripheral arterial line insertion
- Cerebral function monitoring
- Cranial ultrasound
- Parenteral nutrition

If you have any questions about consent, please speak to the nurse or nursery nurse looking after your baby. Open communication and working together with you as partners in care are priorities for us as a neonatal unit.

Explicit verbal consent examples:

- Breast milk fortification
- Donor breast milk
- Cows' milk formula
- First blood transfusion
- Postnatal corticosteroids to facilitate extubation
- Screening of babies in high risk situations with no prior knowledge of maternal status e.g. suspected
- Human Immunodeficiency Virus (HIV)

Explicit written consent examples:

- All surgical operations involving regional or general anaesthetics
- Any biopsy
- Clinical photography and video-recordings
- Immunisations
- Treatment for retinopathy of prematurity

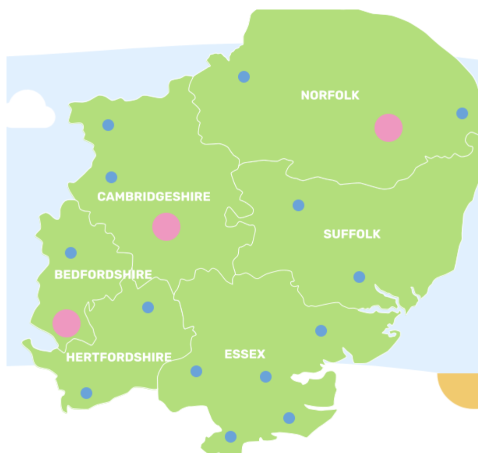
Our Neonatal Operational Delivery Network

We work collaboratively with 17 units across the region to deliver high quality care to our babies and their families. We have:

3 Neonatal Intensive Care Units (NICU—Level 3)

- Addenbrookes Hospital
- Norfolk & Norwich University Hospitals
- Luton & Dunstable Hospital

- **10 Local Neonatal Units (LNU—Level 2)**
    - Peterborough Hospital (NWAFT)
    - Broomfield Hospital
    - Colchester Hospital
    - The Princess Alexandra Hospital - Harlow
    - Ipswich Hospital
    - The Queen Elizabeth Hospital Kings Lynn
    - Lister Hospital - Stevenage Bedford Hospital
    - Watford Hospital
    - Basildon & Southend are both LNU's and feed into the London Network
- **4 Special Care Baby Units (SCBU—Level 1)**
    - Hinchingbrooke Hospital (NWAFT)
    - West Suffolk NHS Foundation Trust
    - James Paget Hospital Great Yarmouth
    - Bedford Hospital



For more information, please visit our neonatal network's website.

Created by Chevvy Wright (Deputy Sister, Peterborough NICU). Updated October 2024.

Support for you and your family

Partnership with families on neonatal units

Empowerment on neonatal units

Wellbeing on neonatal units

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Parent Support & Information

For many parents, the first few days, weeks or months with a premature or sick baby can be extremely tough. We are very happy to support you and your family and signpost you to relevant information sources should you need them.

Financial Support

If you receive universal credit, you may be entitled to additional support and benefits. This may include reimbursement of travel expenses to and from NICU when using public transport. Please speak to the nurse in charge for more information, or to see if this is applicable for your family.

The NICU Family Support Team

We are lucky enough to have a family support team dedicated to the well-being and psychological support of parents who use the Neonatal Services at Peterborough and Hinchingbrooke Hospital.

Sarah Lenton is our clinical Psychologist and Helen Taylor is our Specialist Nurse Counsellor.

Everyone copes differently with their feelings about their baby being on NICU and it can be useful to have space to talk about the impact this is having on you. Talking can help you make sense of any difficult feelings you may be experiencing.

If you feel that an appointment with the NICU Family Support Team could be helpful, you can ask you nurse to refer you. If you would like to self-refer please email:

nwangliaftneonatalfamilysupport@nhs.net

Or phone/text: 07811721724

Parent Support & Information

For many parents, the first few days, weeks or months with a premature or sick baby can be extremely tough. We are very happy to support you and your family and signpost you to relevant information sources should you need them.

Maternity and Neonatal Voices Partnership is a group of local parents, birth worker volunteers and staff representing the voices of birthing women and people, their families and partners to improve and develop maternity and neonatal services across Cambridgeshire & Peterborough.

The partnership between the Trust and the MNVP enables co-production between staff, service users, and other stakeholders, to improve and develop local maternity and neonatal services.

The MNVP team can always be contacted to share your feedback or find out how you can be involved. They are social media based at the moment and can be found on Facebook **"PCHandHinchMNVP"**

There is a Neonatal Parents Support Group which is exclusively for parents who have had a baby on Peterborough NICU. Details can be found on the notice board in the parents kitchen, or speak to the nurse caring for your baby for more information. Come and join NICU parents and staff for a cuppa and a chat. Toys will be provided for little ones, outside agencies such as pottery making and photographs will sometimes join too.

Parent Support & Information sources

Bliss—the leading UK charity for babies born premature or sick. For emotional support, information or a question about your neonatal journey, the Bliss team is here to help whatever stage you are at. You are not alone.

Email us at: hello@bliss.org.uk or visit www.bliss.org.uk

For general enquiries or questions please either email ask@bliss.org.uk or complete an online form or call us on 020 7378 1122 to leave a message.

Monday to Friday 9am-8pm and Weekends 11am-4pm
We want to ensure your whole family is going home into a safe and happy home, please speak to them if you have any worries or concerns. Please speak to a member of staff if you want to discuss anything regarding abuse.
www.domestic-abuse.org
0808 802 3333

The Lullaby Trust offers advice on safe sleep for babies and gives emotional support to bereaved families. There is lots of information on their website on safe sleep.
www.lullabytrust.org.uk

If you want help to stop smoking, or need some advice then NHS Smokefree helping offer free help, support and advice and can give you details of local support services.
0300 123 1044

The 'Parents of Peterborough NICU' Facebook page has been set up by Peterborough parents who have been on our unit.
Staff have no control over the page.

Best beginnings work to inform and empower parents who want to maximise their children's long term development and well-being. They also have a 'baby buddy' app which provides evidence-based information and self-care told to help parents build their knowledge and confidence. Search 'Baby Buddy' App on the Apple Store or Google play.

Family and Baby Support Services (Fab) offer support to families helping them back into the community during and after their stay on NICU. This can be accessing support for benefits, housing, bonding and attachment or baby clinics.

If you would like to talk to the local FaB worker, please call 01480 376242, or speak to a worker when they come to NICU to see parents.

PANDAS Foundation are able to support and advise parents with per-inatal mental illness.
Free Helpline 0808 1961 776
Monday-Sunday 9am-8pm
Email info@pandasfoundation.org.uk
PANDAS Facebook pages.

UNICEF has lots of online support available for parents with regards to feeding premature and term babies.
Please see their website with resources for parents:
https://www.unicef.org.uk/babyfriendly/support-for-parents/

The mind website has a wealth of information on maternal mental health.
Call 0300 123 3393 or Text: 86463
www.mind.org.uk

You & your baby

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Your Baby & Family Time

We aim to work in partnership with families when caring for babies, and like you to feel as involved as possible in your baby's care. We will encourage you to be with your baby and ask you to take responsibility for aspects of care as you feel able, this is to support a family integrated approach, which we are so keen to encourage here on NICU.

We welcome parents and siblings to spend with your new family member and suggest that you prepare your other children by telling them a little about their new sibling and showing them some photos of what to expect.

Things you can bring in

- Nappies & Cotton Wool

- Clothes—not all babies will be able to wear clothes straight away, we will discuss with you when it will be appropriate for them to be dressed. We have plenty of clothes in all sizes, but if you would prefer to use your own, just let us know. We would recommend short-sleeved vests and full baby grows to keep them warm. If your baby is still very small, the premature ranges often have Velcro or popper sleeves and legs to allow for cannulas etc. When you do bring clothes in, please ensure they are washed beforehand. We will change baby's clothes when necessary (i.e. baby has been sick or nappy has leaked), and bag them up for you to take home and wash. If your own clothes go into our washing by mistake, baby clothes get washed on the unit, so hopefully they won't be far.

- Blankets - If you would like to bring your own blankets for your baby, please ensure they are washed. If they can't be used when your baby is in bed then you can use them during cuddles.

- Teddies and Toys - We ask that large teddies are not put in the cot or incubator and no more than 2 small teddies/comforters in the incubator please. This is to keep your baby safe and allow us easy access to your baby. Please ensure that these have been washed before going into your baby's bed, and are taken home regularly to wash also.

Nappy cares

Changing the nappy is a big way that you can be involved in your baby's care. Even if you have changed nappies many times before, we understand that it may be daunting when there are wires and tubes, and if your baby is premature or sick. We will always be happy to go through the process with you and support you in changing nappies.

It is important to remember that 'cares' tend to disturb baby, so we encourage them to only be done when necessary (this will depend on baby's condition, but usually is 6-8 hourly), or when baby wakes themselves and you can see that they may have a dirty or wet nappy which may be making them uncomfortable. We will work with you to recognise these cues, or to see when baby is 'due' a nappy change to protect their skin.

Skin care

Every time you, or we, undress your baby, their skin needs to be assessed. Babies on NICU are at a slightly increased risk of skin breakdown because of monitoring equipment, infections, birth injuries or simply because they are premature and have more delicate skin. The main way of preventing skin damage is by assessing the skin regularly and properly and intervening as necessary.

Nappy rash can occur when there is prolonged contact of the skin with urine and faeces– preventing nappy rash is the main goal of nappy area care. We encourage you to use warm tap water and cotton wool balls to clean baby's bottom, this prevents unnecessary chemicals on such delicate skin.

We will support you to assess your baby's skin and ask that if you see anything that is unusual or that you are not happy with, please tell the nurse or nursery nurse caring for your baby. It may be that we take a swab to check for any infections, or start using barrier creams. We often refer to the hospital's Tissue Viability Nurses to ensure your baby gets the treatment they need.

Mouth care

Whether your baby is very premature, sick or only staying on NICU for a short time, mouth care is very important. If expressed breast milk (EBM) is available and you are happy to use it, then this is the best thing for mouth care, however, sterile water can also be used. Your nurse will show you how to complete mouth care, as it is something, we encourage families to participate in whenever possible.

Expressed breastmilk (EBM) has anti-bacterial properties and has a taste that is familiar to your baby, this will provide comfort, and is an excellent way of keeping baby's mouth clean.

Mouth care should be a positive experience for you and for baby- so try to only do it when baby is awake so you can bond with them while you're doing it and they can appreciate the stimulation it provides.

How to give effective mouth care:

- Make sure you wash your hands thoroughly and make sure you have;
  - ◊ EBM or sterile water
  - ◊ sterile gauze
  - ◊ sterile cotton buds

- Soak the sterile cotton bud in the milk or water, press of excess and then use the tip to sweep the inside of your baby's mouth including the gums, roof the mouth, lips and cheeks.

- Don't push the tip too far into baby's mouth as it could make them gag. Rolling the cotton bud instead of wiping it around their mouth may be nicer for the baby- it won't tickle or over-stimulate them!

- Use a piece of sterile gauze and the EBM/sterile water to wipe baby's lips, removing any coating and keeping them from getting dry.

- Let your nurse know that you have done the mouth cares, or we can show you were to write it in baby's notes if you would like.

- Throw away all the rubbish in the black and yellow striped bin bags.

Caring for your baby

The NICU team will help you to adapt to being a parent with a baby on NICU and start to focus on developing your own role in supporting your baby's care. We can work alongside you in many aspects of caring for your baby as soon as you feel comfortable to be involved.

It is important to take into consideration though, that your baby needs as much rest as possible to allow growth and development, please keep in-touch with your baby's nurse that shift to see when nappy changes are, we can alter plans to allow your participation in cares.

Kangaroo Care (Skin-to-skin)

"Skin to skin with your premature infant" written by Bliss has lots of excellent information on the benefits of skin to skin with your baby. Please see the QR code library at the front of this folder to read for yourself.

Kangaroo care, or skin-to-skin cuddles encourages you to have close contact with your baby. This is proven to have positive benefits for you both. As long as your baby is clinically stable, we will encourage kangaroo care. We can pull the curtains round, so you can have private time with your baby and we will try to leave you as much as possible.

We encourage cuddles for at least 60 mins (but longer is preferred!), transferring premature and sick babies can be very stressful for them, so they need a nice long cuddle with you to settle. Make sure you are ready for a long cuddle; go to the toilet, have a bottle of water with you and maybe a book to read to baby.

We try to 'cluster' care together for your baby, so they are disturbed as little as possible, if you let us know when you are coming to the unit, you can be supported to change your baby's nappy, learn all about mouth care, and then be ready to have baby out for cuddles as well.

It is normal that you might want to have your baby out multiple times in the day, but please understand that your baby may not cope with lots of transfers, so we need to work together to find a good time to have cuddles.

Kangaroo care continued…

Your baby wants to be able to smell you, as your smell is familiar and comforting to them. Please ensure that:

- You are showering/bathing regularly
- You try to avoid using perfumes or sprays (as baby will be placed on your chest, and this may irritate them).
- If you smoke, please wear a jacket or overcoat to smoke in and do not have this around your baby. Also, wait at least 20 minutes after smoking to handle your baby.
- Take into consideration alcohol consumption when caring for your baby. The smell of alcohol may linger on your breath, clothes and body and can significantly affect your abilities to care for your baby safely. If you need support with this, please speak to your nurse.

Feeding

Partnership with families on neonatal units

Empowerment on neonatal units

Culture on neonatal units

Feeding your baby

We actively promote the benefits of breastfeeding and using breastmilk for preterm or sick babies. Research and evidence show that every drop of breastmilk (whether you chose to exclusively breastfeed or not) is of benefit to your baby. **NICU encourages and promotes informed choice and however you decide to feed your baby, you will be fully supported.**

Intravenous (IV) Fluids

Not all babies are able to have milk straight away, some need to have IV fluids through their cannula directly into their veins to keep them hydrated and to keep their blood sugars stable. If your baby needs IV fluids, this will be discussed with you.

Nasogastric or Orogastric tube feeding (NGT/OGT)

A tube can be used to deliver expressed breastmilk or formula milk directly into the stomach of babies who are unable to take all feeds by breast or bottle. This tube will either be a nasogastric (NG) tube, which goes through baby's nose, or an orogastric (OG) tube, which passes through baby's mouth. Babies may be unable to feed due to being born prematurely, being too ill to feed orally or have difficulties, such as a diagnosis that affects a baby's ability to feed by mouth. The feeding tube is flexible and is inserted into the nose or mouth, passing down the back of the throat, through the oesophagus and into the stomach. Passing the tube is thought to be uncomfortable but not painful for a baby. Once in place, it is unlikely to bother them too much, although some babies manage to pull them out repeatedly! If you would like to be involved in tube feeding your baby, the nursing staff can support you to learn how to give your baby feeds via the NG/ OG tube. A nurse will show you how to give a feed, check the tube is in the right place (aspirate), observe and support you in delivering one yourself and sign a form that says you have the necessary skills to safely tube feed your baby.

(*information from East of England guideline)*

Breastmilk

We will discuss with you the benefits of colostrum and breastmilk for you baby. More information can be found in the **"Off to the Best Start"** Leaflet produced with UNICEF and the NHS. Please feel free to go to the QR Code library at the front of this folder and have a read through for yourself.

Breastmilk has many benefits and can reduce the risk of:

- Respiratory infections
- Obesity and developing Type 1 & 2 Diabetes
- SIDS
- NEC (necrotising enterocolitis) and other gut infections

Specifically for preterm babies, breastmilk can reduce the risk of:

- Feed intolerance
- Infection and sepsis
- Developing Chronic Lung Disease
- Retinopathy and the risk of readmission once discharged.

Here are some quick tips to help you establish your milk supply:

◊ Start expressing within 2 hours of birth, or as soon as possible

◊ Express a minimum of 8-10 times in 24 hours, leaving no long gaps and expressing at least once overnight.

◊ You can start to collect colostrum by hand expressing, massaging your breasts may help to support milk flow.

◊ Once you are confident with hand expressing, we will encourage you to use the breast pumps to support milk production.

◊ Use bonding squares with baby to get to know each other's scent.

◊ Express at your baby's cot side or while having skin to skin cuddles.

UNICEF have a video on how to hand express, please go to the QR code library to watch the video, a member of staff will always be available to support you with this too.

However you express , it is important that you have the right environment and equipment to do so. Please feel free to close the curtains around your baby for privacy and ask for a comfortable chair.

Sterilising equipment and breast pumps are available to you on the unit, please ask your nurse for more information.

Breast pumps are available for you to use on the unit whenever you like, we will provide you with expressing sets that you can keep at the bedside also. We also have breast pumps for loan whilst your baby is here on NICU.

When you express milk for your baby, please label each bottle or syringe with:

1. Your baby's name
2. Your baby's DIS (hospital) number
3. The date and time you started expressing.

Did you know?

In the first few expressing sessions, we expect you to only get very small amounts of colostrum (the yellow thick milk). This is amazing for your baby as it is very high in calories and contains lots of fats that they need to grow and antibodies they need to build their immunity. Your body produces milk that is perfect for your baby's gestation, it is the best milk to help get their gut working properly.

Breastfeeding

If you are planning on breast feeding your baby, we can offer lots of advice to help with positioning, latching and maintaining effective feeding for you and your baby.

Even very premature babies can be put to the breast– this does not necessarily mean they will feed, but they may find comfort in smelling your milk and being in that position. Please discuss this with your nurse and they will let you know if it is appropriate for you and your baby.

Babies tend to develop the suck, swallow, breathe reflex around 34-35 weeks, but sometimes they can start to take small amounts of milk from the breast slightly before this. When they do start to feed 'effectively' we can help you to spot the main signs.

It is a good idea to wait until your baby is showing the signs of wanting to feed before offering breastfeeds. Responding to baby's cues is known as '**Responsive feeding'**. This is important as it recognises that feeds are not only for nutrition, but also for love, comfort and reassurance for both mother and baby. We will work with you to help determine how well your baby is breastfeeding and if/when they need to have milk through their NGT/OGT.

It is important when establishing breastfeeding that we find a balance between giving baby rest (suck feeding is hard work at first!) and establishing good, effective breastfeeds. It may be beneficial for both you and baby to have skin to skin time before a breastfeed to ensure you and baby are calm, comfortable and content.

If experience any pain during feeding, please let someone know.

There are members of the NICU team who have specialist knowledge in feeding, and we can refer you to our infant feeding specialist.

UNICEF has produced a video on effective breastfeeding and attachment which you may find helpful.

Please go to the QR Code Library to watch this.

Tips to Support Effective Breastfeeding

- You need to be comfortable and relaxed, let us know if you need a different chair or pillows to support you.
- Recognise the feeding cues your baby is demonstrating.
- Before starting a breastfeed, if baby is unsettled, it might be useful to cuddle baby (skin to skin preferably) to help calm them.
- Try hand expressing a small about of milk to tempt baby with the smell.
- Gently rub your nipple on baby's top lip to get them to open their mouth.
- When baby opens their mouth very wide, allow baby to tilt their head back and the baby will take a large mouthful of nipple and start to suck.
- Ideally, you should be able to see your areola above baby's top lip, and feel baby sucking with nice full cheeks.

Donor Human Milk or Donor Breast Milk (DHM/DBM)

In certain circumstances, which will be discussed with you, we may offer you the choice to use DHM.

UNICEF and The World Heath Organisation recommend DHM as the best alternative for sick and preterm babies when their own mother's milk is not available.

At Peterborough, DHM comes from The Rosie Hospital Milk Bank (in Cambridge), and they must adhere to strict NICE guidelines to ensure all DHM is rigorously screened and full traceability to the donor is ensured. The DHM is pasteurised to destroy most bacteria and viruses and stored frozen until it is needed.

It may be used while we support you in initiating your milk production so your baby can be given your own breastmilk if/when available. We will never give DHM without your consent, so please speak to the nurse caring for your baby if you have any other questions.

In the QR code library there are some links for you to read and gain more information if required.

Formula Milk

Please visit the First Steps Nutrition Website for impartial information on the different formula milks available. The link to this website is available in the QR Code Library. We will support you to make formula milk safely and correctly, and how to sterilise all equipment ready for your baby's feed.

If you use formula milk, this is the only milk your baby will need for the first year of life.

Depending on the weight and gestation of your baby, they may require specialist formula. We will arrange for certain non-standard formulas to be on repeat prescription from your GP once baby is discharged. It is likely that your baby will remain on this formula for up to 1 year, however, this will be reviewed in outpatient baby clinics.
Please let us know if you have any religious or dietary needs with regards to formula milk (i.e. halal requirements) so we can support with this choice.

Bottle Feeding

Whether you are feeding your baby breastmilk or formula milk with a bottle, we will work with you, as parents, and your baby to recognise feeding cues to determine how ready they are for a bottle feed and make each feeding experience a pleasant one for you both.

It is important to remember that not every bottle has to be completed for it to be a fantastic feed, it's all about quality over quantity.

The Start4Life leaflet "A Guide to Bottle Feeding" has lots of advice and is available through the QR Code Library.

Paced bottle feeding

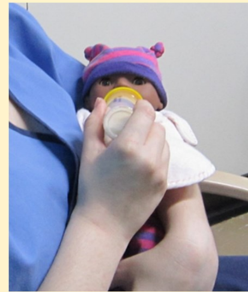
When starting to offer your baby bottles, we can use a 'paced feeding' technique. This is where we tilt the teat enough to half fill with milk, this will allow your baby to control the flow of milk out of the teat in a more regulated way, instead of allowing the teat to be filled and 'drip' feed. Paced feeding also means taking regular breaks as your baby needs them and allowing them to be in control of the feed. We can support you in learning this technique with demonstrations if you would like.

Bottle feeding positions

Firstly, it is important that you, as parents, offer as many of baby's feeds as possible. You can even offer them in skin to skin for a closer bonding experience for you both.
We encourage an elevated side lying position with a teat that allows slow flow of milk to start with, this is to make sure that baby tolerates this new stimulation and can slowly build up their feeding skills.

Once we are sure baby is tolerating this feeding position, we can move baby into a semi upright position and gradually increase the flow rate of the teats we use. You can see these positions below.

Elevated side lying position



Semi upright "cradle" position

Probiotics on NICU

When a baby is born at term their bowels are full of 'friendly' bacteria which help to keep the bowel healthy. When infants are born prematurely, they do not have the same range or amount of 'friendly' bacteria. This can lead to less 'friendly' bacteria increasing within the bowel, which, in turn, can put them at risk of developing a disease called necrotising enterocolitis (NEC). NEC is a condition that mainly affects premature infants. It affects the bowels and, when severe, can be life threatening. There are many factors involved in the development of NEC, but we know that the type of bacteria.

Probiotics preparations contain the 'friendly' bacteria normally found in the bowels of babies born at term. They are given to preterm babies to grow in their own bowel and to help stop more 'unfriendly' bacteria from growing out of control. Research studies have shown that giving probiotics to premature babies can reduce their risk of developing NEC. They may also help prevent other infections and improve overall survival. In the UK probiotics are classed as food supplements, not medicines. However, the probiotic preparation used in the neonatal intensive care unit (NICU) is produced under the same standards as medicines to ensure its safety and quality.

Will my baby receive probiotics?

If your baby is born at less than 32 weeks, probiotics will be given daily until your baby reaches around 34 weeks corrected age, as this is the age the risk of NEC is thought to reduce. However, if your baby is older than this but was started on probiotics because they were very small, the probiotics will stop as part of the discharge planning process. If, for any reason, your baby stops feeds, then the probiotics will stop as well. They will recommence once feeds are restarted.

How are probiotics given?

Probiotics are given as soon as your baby is ready to feed, at the same time as one of their milk feeds. It can be given down their feeding tube or in their mouth using a syringe once they have started to take their vitamins orally.

What are the side effects of probiotics?

Research has shown probiotics to be safe to use in preterm babies. There is however a very small risk that probiotics may cause an infection in some preterm infants. This infection can be treated with antibiotics. The risk of infection from the use of probiotics is much smaller than the risks associated with the development of NEC. In other words, the benefits of giving probiotics outweigh the risks of not giving them.

Can I refuse to allow my baby to have probiotics?

Yes, you can choose not to allow your baby to receive probiotics, and you can change your mind either way at any time.

Do my baby's milk feeds contain probiotics?

Breastmilk can help to provide some 'friendly' bacteria, and this is one of the reasons why we encourage mothers to try to express breast milk wherever possible. The benefits of giving probiotics everyday, are in addition to the known benefits of breastmilk. Preterm formulas do not contain probiotics.

What if I have further questions?

Please speak to a member of staff for more information.

Developmental Care

Partnership with families on neonatal units

Empowerment on neonatal units

Culture on neonatal units

Environment on neonatal units

Created by Chevvy Wright (Deputy Sister, Peterborough NICU). Updated October 2024.

Developmental care

Developmental care is what we do on NICU to try and make the baby's environment as pleasant and stress-reducing as possible, but also to improve the attachment and bonding between you and your baby and support a family integrated approach of care.

Things we can do on NICU to help provide a developmentally friendly environment:

Keep a quiet environment wherever possible. We encourage everyone (staff included) to...

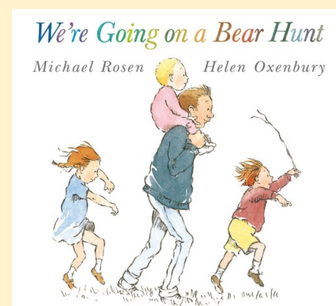
- Avoid talking over incubators and cots where possible.
- Close incubator doors quietly
- Turn phones to silent
- If you play music to your baby, we would encourage you to keep this very quiet as your baby may not enjoy loud music as it may disturb them.
- If you are having cuddles or skin to skin, babies enjoy hearing the sound of your voice so please do talk to them in a calm, quiet way. We have books available for you to read with your baby, if you'd like.

Reduce light levels wherever possible...

- Premature babies have thin eyelids so even a little bit of light can affect them
- significantly– therefore we don't encourage the use of flash photography.
- Your baby would like the incubator cover down whenever possible to make sure they can rest in a dark environment, but please feel free to lift up a side to look at your baby while you're at the cot side.
- As your baby grows, having some periods of light can help them with their sleep-wake cycles. Ask your nurse for more information about this and how you can be involved.

Communicating with your baby

- Babies on NICU enjoy parents providing positive touch through holding, gentle pressure and cuddles.
- Positive touch communicates love and reassurance to your baby so is very important whenever possible and suitable for your baby.
- Containment holding when baby is not able to come out for skin-to-skin is an excellent alternative for you both.
- Skin-to-skin cuddles for long periods of time (at least 1 hour).
- Using bonding squares in your bra and giving it to baby (and vice versa) can help settle baby as they can recognise your smell (and their smell can support your breastfeeding/expressing journey)
- Holding hands near baby
- Reading books, talking quietly and letting baby grasp your finger are all excellent ways of communicating with your baby.



The Bliss booklet 'Look at me- I'm talking to you' is an excellent source of information regarding developmental care and what we can do together to help your baby. You will find a link to it in the QR Code Library.

Quiet Time

We like to try and give the babies periods of uninterrupted rest through the day, so we may close blinds and encourage quiet periods from staff and families throughout the day. We will try and avoid unnecessary procedures and interventions during this time, it may be used as an ideal opportunity for skin-to-skin, cuddles, or positive touch between you and your baby.

Pain Management

Preterm and full-term babies will feel pain differently, and different things may feel uncomfortable or painful to them. As nurses and nursery nurses, we will assess your baby's pain regularly to ensure that they are comfortable. We can also support you in reassuring your baby and guiding and supporting you to recognise and relieve discomfort. Below are some of the behavioural signs your baby may show when they need time out or further intervention for pain relief.

- Crying
- Restlessness/squirming
- Not sleeping properly
- Facial grimacing/frowning
- Fingers and toes clenched or splayed
- Changes in baby's observations which the nurse will recognise and act on.

Using EBM for pain relief

If you have chosen to express breastmilk, then this can be used as a form of pain relief. By using a cotton bud (in the same way as mouthcare) comfort and pain relief can be provided to your baby from the taste of the breastmilk. Research suggests that this is incredibly effective and should be used as a first source of pain relief.

Containment holding

If your baby is on their tummy, then placing your hands firmly on their head and bottom my help to calm them if they are upset. If they are on their back or side, then one hand on their head and the other cupping their feet may also help to keep them calm.

Containment holding is comforting for the baby because it makes them feel safe and secure, mimicking a feeling of being in the womb. It helps to settle a restless baby but can also prepare them for being awake, placing your hands-on baby slowly and gently while they are asleep will start to wake them up in a more pleasant way than just being moved straight away (Bliss 2019)

Swaddling

Swaddling has been shown to reduce pain and discomfort during certain procedures like passing a new Nasogastric Tube or during an eye test. It can reduce stress levels, leaving more energy for feeding, growth and development.
Swaddling or wrapping should also be done when a baby is being weighed. Babies do not cope well with exposed and free to move too much on the scales, and swaddling helps to keep them comfortable and calm (Çaka and Gozen, 2017).

Pain medication

If your baby is likely to require a painful procedure, if possible we will discuss this with you. We will also administer pain relief medication to help your baby. This can include sucrose orally or paracetamol through their feeding tube if they are able, or through their cannula if baby cannot have medication orally yet. Some babies may require constant pain relief or sedation, your nurse will discuss individual medications with you.

Non-nutritive sucking

Even very small, premature babies have the ability to suck (usually from around 28 weeks gestation), and there is evidence to suggest that by using a dummy during potentially painful or stressful procedures, such as a heel prick test, effects can be minimised.

We will ask for your consent before giving your baby a dummy, as it is a personal decision. If you decide that you would rather not have your baby use a dummy, please discuss this with your nurse for our records. Some parents have agreed to use a dummy during these procedures only, and not for regular use.

Sucrose

If your baby is allowed sucrose (and EBM is not available), then it may be used before blood tests or other potentially painful procedures. The nurse or doctor can give a small amount in the baby's mouth (tip of the tongue) which will taste sweet and helps to reduce procedural pain. (East of England Neonatal Network, 2018)

Screening tests on NICU

Partnership with families on neonatal units

Empowerment on neonatal units

Created by Chevvy Wright (Deputy Sister, Peterborough NICU). Updated October 2024.

Jaundice

Jaundice is very common in all newborn babies, not just those that are admitted to the NICU. It is estimated that 80% of preterm babies and 60% term babies will develop some kind of jaundice, with breastfed babies, potentially, being jaundiced for up to 1 month **.

Jaundice causes a yellowing of the eyes and the skin and is caused by a raised bilirubin level in the body. Bilirubin is completely normal and is produced when red blood cells break down, the body has lots of ways of getting the bilirubin out of the body (including through faeces and urine), but jaundice develops when there is an excess of bilirubin.

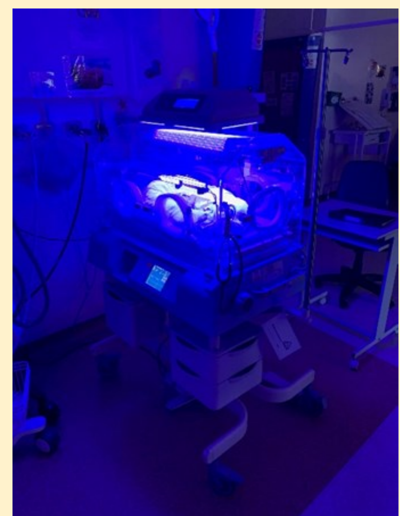
Your baby will be monitored for jaundice through blood tests. If the blood tests show baby requires treatment for jaundice, then we can start phototherapy (the blue or bright white lights). We will protect your baby's eyes from the bright light by providing goggles or masks. We will check your baby's jaundice levels regularly when they are having treatment and will turn off the lights when the bilirubin levels are low enough.

Your baby will need to stay under the lights as much as possible while having treatment, so we may feed your baby through a feeding tube to ensure they are getting enough milk instead of lots of oral feeds. If you are breastfeeding, it may be beneficial for you to express to keep up your supply, we can support you with this.

Jaundice may be caused by infection, bruising or due to the reaction between mother and baby's blood. If this is the case with your baby, your nurse or doctor will explain this to you in more detail.

** Breastmilk jaundice

This may be referred to if your baby has jaundice and your are breastfeeding. It happens because your baby doesn't take enough milk to help lower their bilirubin levels– as breastfed babies tend to take less milk than a formula milk fed baby. **It is important to remember that you can absolutely continue to breastfeed your baby if they have Jaundice.**



Screening tests for your baby

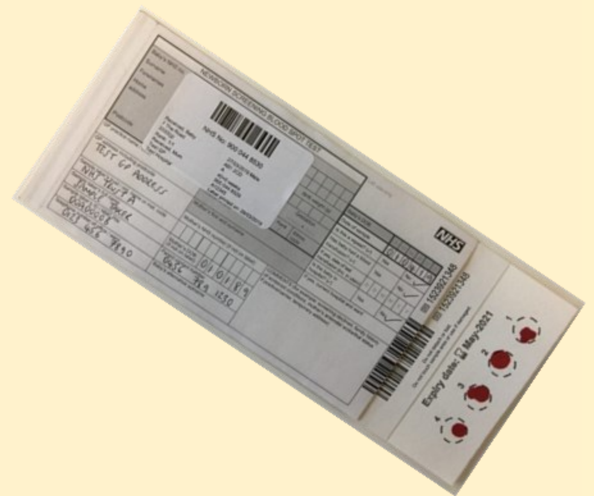
The NHS and government website have lots of information on screening tests for your baby, and will allow you to make an informed decision as to whether you would like these tests to happen. Your consent is always needed. Please see the QR Code Library for the link to these websites.

Newborn Blood spot Screening

The newborn blood spot screening test is usually done on day 5 of your baby's life. It is usually taken from a heel prick blood sample, where 4 spots of blood are put on to a screening card which is sent away to test.

It tests for 9 serious inherited health conditions:

- Sickle cell disease (SCD)
- Cystic Fibrosis (CF)
- Congenital Hypothyroidism (CHT)
- Phenylketonuria (PKU)
- Medium-chain acyl-CoA dehydrogenase
- deficiency (MCADD)
- Isovaleric acidaemia (IVA)
- Glutaric aciduria type 1 (GA1)
- Homocystinuria (HCU)



Any baby that is admitted to the neonatal unit will have a sample of blood taken as soon as possible in case they need a blood transfusion. If your baby is born before 32 weeks gestation then another sample should be taken to test for Congenital Hypothyroidism (CHT), this is done on day 28, or when you take your baby home (whichever comes first). You should receive the results by letter from your health visitor or GP within 6 weeks.

Newborn Infant Physical Examination (NIPE)

The NIPE test is offered to all newborn babies, no matter of their gestation or how sick they are. The tests will not be done until your baby is stable enough. It includes an examination of your baby's heart, eyes, hips and testes (in boys). The medical professional completing the exam will ask you about your immediate family history regarding any conditions with these body parts.

Infection Screening (Sepsis Screen)

When babies are admitted to NICU, the doctors will make a decision as to whether they think baby needs antibiotics. This is to treat a suspected infection. Antibiotics are started if your baby is showing certain behaviours or meeting certain criteria relating to infection. These may include preterm labour, breathing problems or early jaundice levels.

We will monitor your baby's infection markers by doing blood tests, and once we are happy there is no infection, or the infection has been adequately treated, then the antibiotics will be stopped. This is usually a minimum of 48 hours after blood tests, because we have to wait for the 'blood cultures' results to come back, which can take up to 48 hours.

Sometimes, babies who have been on NICU for a little while may show signs of becoming unwell. In this case, the doctors may take blood samples and start antibiotics in case of a new infection. We will let you know if this happens, and keep you updated, as we know this can be quite worrying. This will mean that if your baby did not have a cannula in, then they will need one for the antibiotics. Occasionally babies also need increased respiratory support or monitoring.

Retinopathy of Prematurity (ROP)

Retinopathy of prematurity or ROP is a condition where the blood vessels at the back of the eye (the retina) develop abnormally. It affects approximately 65% of premature babies, and those weighing less than 1.25kg. Usually, no treatment is needed, however, in some of those affected babies, ROP does not get better and treatment may be required.

When a baby is born prematurely, the blood vessels of the retina are not fully developed. After birth, these blood vessels have to develop and may grow abnormally- if this happens there is a risk that the retina may become damaged.

Due to this risk, all babies who are born under 31 weeks gestation, or under 1.5kg will be offered ROP screening. This will be discussed with you if your baby meets this criteria.

Please visit the QR Code Library to find a link to lots of information on ROP from The Royal College of Opthalmologists.

If your baby needs screening, the nurses will give some eye drops about an hour before the examination. These are to dilate the pupils and make it easier to view the back of the eye during the examination. The ophthalmologist then examines the back of the eye using their special equipment. They normally use 'speculums' which hold the eyes open during the test and may use a tool to rotate the eye and get a better view.

These examinations can be uncomfortable for babies, so we will give a dose of paracetamol before the exam to make them more comfortable.

If the ophthalmologists find ROP has developed in your baby, they will discuss this with you and explain the next steps required. If the ROP is mild, your baby may need a follow up in 1-2 weeks, just to ensure that it is not worsening or that it is resolving on its own.

As nurses, we will always give you as much information as you need to understand ROP and the screening involved in your baby's care. The screening test is not the nicest thing to watch but a nurse will be your baby throughout the examination, so we do not expect you to stay. However, if you want to stay and comfort your baby, we will support you in this.

Hearing Screening

The newborn hearing screeners will perform the hearing test on your baby just before they are discharged from NICU. It is aimed to find those babies that have permanent hearing loss and provide support and advice to those families.

1 in 900 babies have hearing loss in 1 or both ears, this increases to 1 in 100 for those babies that have spent 48 hours in NICU.

Once your baby is more than 34 weeks corrected gestation, but less than 3 months old and they are ready to go home, the hearing screeners will be able to complete the test. The test doesn't take long but needs to be done when they are asleep and calm. The hearing screeners will need to get your consent before completing the test and will document the results in baby's red book.

Keeping your baby warm

Partnership with families on neonatal units

Environment on neonatal units

Created by Chevvy Wright (Deputy Sister, Peterborough NICU). Updated October 2024.

Keeping your baby warm

One major part of NICU is making sure your baby stays warm. Most of the babies will have a temperature probe underneath their arm which will help us monitor their temperature effectively.
Ideally your baby's temperature to be between 36.5-37.5°C when they are in their incubators, cots or out for cuddles. The nurse looking after your baby will ensure that they are kept warm and will change the heat around your baby if they get too cold, or too hot. While on NICU, your baby may transition through many different types of bed, all of which are aimed at keeping your baby warm and protected.

Incubators

Most babies are admitted directly into a 'giraffe' incubator. Caring for a baby in an incubator means we can isolate baby in case of an infection, but also we can control the temperature of the air in the incubator to make sure your baby stays warm. This temperature may be increased or decreased depending on your baby's needs. Once your baby is clinically stable, they may be able to start wearing one layer of clothing. This helps give us an indication as to whether they are going to tolerate being out of the incubator and allows us to reduce the temperature of the incubator air. Please talk to your nurse about when dressing your baby might be appropriate.

Normally, we will keep a baby in an incubator until they can show us that they are not needing the warmth it provides. This may be when they reach a certain weight, or a certain gestation. Usually babies smaller than 1.5kg or less than 33 weeks will stay in an incubator, however, this may change depending on your baby!

Overhead beds

Occasionally we admit babies onto an overhead. This is an open top bed, with a pre-warmed gel mattress and an overhead heater. Your baby will be fully monitored while on the overhead, and the thermometer under their arm will give us a good indication of their actual temperature and whether we need to adjust the heat of the mattress or the heater. These overheads are also able to deliver phototherapy to your baby, so we can keep them warm while also treating their jaundice levels.

Kanmed or Hot Cots

Kanmeds are heated water mattresses that we use for those babies who need to come out of an incubator but may not be able to control their temperature well.

They are often used in the blue Kanmed cots, however, can be used in a normal cot

also. When your baby first goes into a Kanmed cot, the mattress will be started at 37°C and reduced according to your baby's temperature. Usually, we will stop reducing when we reach 36°C and may go straight into a normal cot!

When your baby is in the Kanmed cot, it is important that they don't have too many layers on. They should have: 1 sheet covering the mattress, 1 layer of clothing (i.e. baby grow OR vest), no more than 2-3 blankets. If they need more than this then they may not be ready for a Kanmed, or may need the mattress temperature increasing.

Cot

Once your baby is stable enough to be fully dressed and has shown us, they can maintain their temperature to a certain level, they can be nursed in a normal cot. When nursed in a cot, they must be fully dressed, including:

- A vest (long or short sleeved)
- A babygrow/sleepsuit
- Adequate blankets
- Socks if babygrow has open feet.

By this point, your baby may no longer have a continuous temperature probe in place, and we may monitor them using a manual thermometer at regular intervals. We always assess a baby’s temperature by feeling the back of their neck or their chest to see if they are warm to touch.

Equipment on NICU

Partnership with families on neonatal units

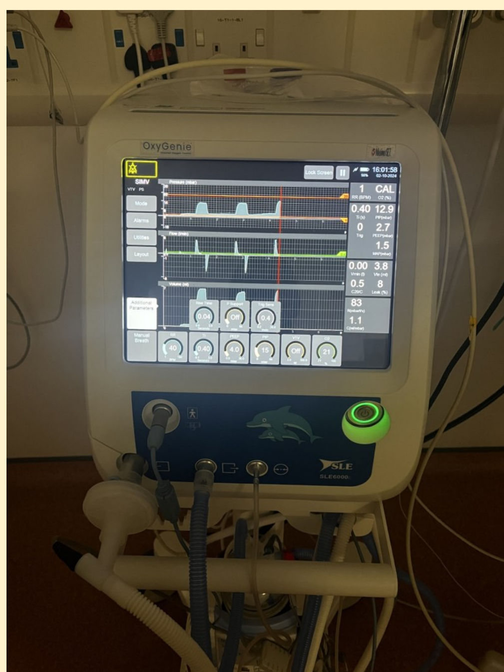
Environment on neonatal units

Created by Chevvy Wright (Deputy Sister, Peterborough NICU). Updated October 2024.

Common Equipment used on NICU

When your baby was inside you, you did everything for them to help them grow and develop. Once babies are born, they have to breathe for themselves which can become difficult if they are premature or have a medical condition.

We have one machine that delivers multiple types of respiratory support– this machine is a ventilator, CPAP and can also deliver high flow nasal cannula oxygen.



Ventilatory Support

Sometimes, babies may need extra support in a variety of ways. The Doctors may need to insert a breathing tube (or endotracheal tube) into your baby's airway which will be attached to a ventilator. The ventilator aims to deliver breaths to your baby and can support your baby's own breaths too.

The breathing tube is very important and needs to be kept securely in place. Your nurse will support you to be involved in your baby's care where possible, positive touch and containment holding will help your baby to feel more comfortable and know that you are with them.

CPAP (Continuous Positive Airway Pressure)

At the end of each breath, our lungs are deflated, but because we are well adults, we can easily take another breath in.

In some babies, particularly premature or poorly babies, when the baby breathes out, it can be difficult to open the airways back up and take another breath in. CPAP pushes air into the lungs to keep the airways open so that taking that next breath is a little bit easier.

The nurse caring for a baby on CPAP will regularly take the mask or prongs off and check the skin underneath to make sure it isn't getting sore or marked. CPAP can only be held in place by using the hat and straps on baby's cheeks, we have measures in place to try and make sure their cheeks don't get sore.

Vapotherm (High Flow)

Vapotherm delivers air and oxygen depending on what the baby needs, through some small nasal cannula or prongs. This air is warmed, and humidified to make it nicer for baby to breathe in.

At the end of a breath, there will always be some air left in the airways– Vapotherm replaces this ‘used’ air with fresh air and oxygen, making the babies breathing easier and more comfortable.

The **white number** is the number of litres per minute the baby is receiving. This will be turned down by the doctors when they feel the baby is ready.

The **green number** is the percentage of oxygen that baby is currently in. 21% is the same as the air we are breathing- so it’s can’t go any lower.

The **red number** is the temperature of the air being delivered.

Nasal Cannula or Low Flow Oxygen

When a baby needs just a little bit of oxygen to keep their oxygen saturations within normal limits, oxygen can be given through a pair of nasal cannula.

It is measured in litres per minute (Lpm) instead of a percentage like the vapotherm, and we will let you know how much oxygen your baby is requiring. Usually, the lowest flow is 0.01Lpm and can go up to over 1.0Lpm.

Monitoring

This is one of the normal monitors that we use on NICU. All babies will be monitored initially, and as they grow, we will gradually remove monitoring until it is turned off completely.

Green number = This is baby's heart rate which is monitored by the 3 pads and wires on your baby's chest. Babies heart rates will vary depending on gestation, medications, and if they have any medical problems.

If you hear 'bradycardic episode', this is where baby's heart rate slows down and is often linked with a desaturation (see below). Some babies pick this back up quickly themselves and some may need a bit more help. We will let you know if this happens.

Blue number = oxygen saturation levels. The oxygen saturation we aim for is completely based on your baby's gestation, age, oxygen requirement and medical condition. We can discuss your baby's target levels with you on an individual basis.

A 'desaturation' is when baby's oxygen levels drop to a level where the alarms will ring. One of the nurses will come to your baby if this is happening and help them.

Yellow number = respiration rate. This is the amount of times that the machine thinks your baby is breathing every minute. You will see this number change and go up and down very quickly, which is why to monitor your baby's breathing rate more accurately, we will watch/feel them breathe for 1 minute.

White number = temperature. This should be between 36.5-37.5°C.

The most important thing about the monitors is that you don't panic if they alarm! Sometimes the alarm may indicate baby needs a bit of help, other times it may be because a probe has fallen off.

Created by Chevvy Wright (Deputy Sister, Peterborough NICU). Updated October 2024.

All information was correct at time of writing. Photos and images are our own. Photo on front of Family Booklet was gained with consent from ex-parent of NICU. Please see Chevvy Wright for more information.