

Learning Environment



Neonatal

Learner Booklet

Welcome

We would like to warmly welcome you to Lancashire Teaching Hospitals NHS Foundation Trust (LTHTR). Incorporated on the 1st of April 2005, LTHTR was the first trust in the county to be awarded “Teaching Hospitals” status.

We have created this pack as a useful resource to help you to settle in with us. The purpose of this booklet is to provide you with information to help you on your learning environment.

About LTHTR

We have three equally important strategic aims:

- To provide outstanding and sustainable healthcare to our local communities
- To offer a range of high-quality specialist services to patients in Lancashire and South Cumbria
- To drive health innovation through world class education, training and research

We provide a range of Hospital based health services for adults and children and cover a range of specialities. These include cancer services such as radiotherapy, drug therapies and surgery, disablement services such as artificial limbs and wheelchair provision. Other specialities include vascular, major trauma, renal, neurosurgery and neurology including brain surgery and nervous system diseases.

Our five core values:

- Being caring and compassionate
- Recognising individuality
- Seeking to involve
- Building team spirit
- Taking personal responsibility



We deliver care and treatment from three main facilities:

- Royal Preston Hospital
- Chorley and South Ribble Hospital
- Specialist Mobility and Rehabilitation Centre, Preston

In relation to car parking, please refer to your Induction to the Trust, for information regarding car parking. Additional information can be found on our Intranet page.

<https://legacy-intranet.lthtr.nhs.uk/car-parking-documents>



Learning Environment

We would like to welcome you to your learning environment.

The Neonatal unit has 28 cots. 7 of which are Intensive care and 21 are for High Dependency and Special Care. There are five nurseries on NICU. The intensive care and high dependency nurseries IC1, IC2, HD1 and HD2 have monitors and an incubator (or cot) at each space, babies are usually admitted into these nurseries. SC2 is the 'nursery' where babies move to as they are preparing for discharge and are usually relatively well, however there is still potential for these babies to deteriorate.

There are 10-11 members of staff on duty on each shift. Whilst you are on the unit you will be supernumerary, although you may be expected to care for your own babies with supervision depending on your experience and competence.

SHIFT TIMES

LONG SHIFTS 07:30-20:30

EARLY 07:30-15:30

LATE 12:30-20:30

NIGHTS 20:00-08:00

If you do long days and night shifts your hours may not be quite what they should be. You may be required to do a make-up shift, if you only owe a couple of hours, you may be able to do some self-directed study, but you will have to provide evidence for this.

Please speak to your Practice Assessor, Practice Supervisor or Sister in charge if you need to change any of your shifts. Ideally, we would like no more than 3 learners per shift to help you gain the best experience and exposure to clinical situations.

If you are unable to attend due to sickness please ring the unit and speak to sister in charge, inform university and email learner.absences@lthtr.nhs.uk

The NMC suggest that you do 2 weeks of night duty throughout your training however the trust suggest 6 weeks would be beneficial. Nights on NNU are very different to others wards and we suggest that you experience this.

DOCUMENTATION

All nursing documentation that you write must be countersigned by a qualified member of staff at the end of each shift. Please ensure you ask the member of staff you are working with to countersign your documentation.

Patient confidentiality is of utmost importance. Do not discuss the care and treatment of any baby or family while out of the unit. It is important to respect the rights of the family to privacy and confidentiality.

It is your responsibility to negotiate dates for your initial, intermediate and final reviews with your Mentor. Please make sure these are planned far enough in advance & document on the off duty.

You may need to come into the unit on a day off to do your meetings, but this time will be allocated on your time sheet, hopefully the interviews can be done whilst on shift but this may not always be possible due to the unit workload.

EXPERIENCES

Whilst on NICU there may be an opportunity for you to spend a day with other members of the MDT, such as the community team, family support worker and ANNPs. Your mentor will be able to help arrange this with you however sometimes it may be easier to catch members of these teams when you are on shift to arrange the most suitable day. You may also want to spend time with physio, OT, SALT and hearing screeners.

Please ensure you utilise the [CLINICAL SKILLS.NET](https://www.clinicalskills.net) website to aid with any learning and outcomes. The nursing and medical guidelines are available on the intranet and it would be advisable that you take some time to read these, as they will also help with some of the care we give on NNU. During quiet periods you are welcome to use the internet to do some research to assist with any assignments/ learning outcomes/understanding of neonatal care. We have included some questions at the end of this information pack to help you gain knowledge in neonates.

PLEASE COMPLETE THE LEARNING ACTIVITY LOG WHEN NOT WORKING WITH YOUR ASSESSOR AS THIS WILL HELP MAKE DOING YOUR ASSESSMENTS AND INTERVIEWS QUICKER AND MORE STRAIGHT FORWARD.

THERE IS ALSO SPACE TO GET STAFF TO SIGN COMPETENCIES, ALTERNITIVELY IF YOU LOG ONTO PARE AT THE END OF YOUR SHIFT YOU CAN GET A MEMBER OF STAFF TO SIGN THE RELEVANT COMPETENCIES/ADDITIONAL FEEDBACK PAGE.#

GENERAL CARE ON NEONATAL

On NICU we believe it is important to provide care which supports development. Care is planned to meet each baby's individual needs taking into account how premature and sick they are.

Developmental care is a concept that involves protecting premature babies from stressors such as noise and light. It also encompasses the use of nests and blanket rolls for postural support and comfort.

Cares (nappy changes)

We try to carry out cares when appropriate for the individual baby. They should be performed prior to feeds to minimise the risk of vomiting. Cares are generally performed every 4-8 hours depending on condition, gestation and feed frequency. We advocate the use of water only for cares.

Temperature

Temperature observation is extremely important on NICU as babies can get hypo/hyperthermic very quickly. Please try to record temperature at all feeds unless the baby is preparing for discharge. The acceptable temperature range is 36.6°C – 37.2°C. Please discuss any deviations from this range with the member of staff you are working with.

Equipment

There is a lot of equipment on NICU some of it you may be familiar with, if you are not please feel free to ask. All babies will be on a monitor during their stay on NICU. The sick babies are likely to be on a saturation monitor and ecg monitor the alarm limits vary by gestation as follows

All gestations

Heart rate 90 – 190

Respiratory rate 30- 100

Saturation alarms

- Infants over 34 weeks gestation receiving oxygen therapy: Lower limit – 92%
Upper limit – 96%
- Infants less than 34 weeks gestation receiving oxygen therapy: Lower limit – 89%
Upper limit – 94%



Infants in air irrespective of gestation should have their upper limit set at 100% or turned off. Lower limits to remain as above.

Well babies are usually placed on an apnoea monitor which will alarm if they stop breathing. The alarm sounds after 20 seconds if the baby stops breathing.

All equipment and alarm limits should be checked at the start of each shift.

Calculating Feeds

It is important that the babies' feeds are calculated at the start of each shift. Feeds are calculated by:

highest weight x amount (mls/kg)

number of feeds per day

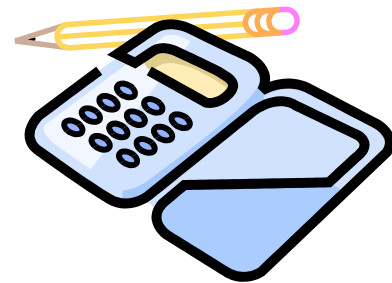
For example

Weight = 1.870kg

Amount = 180mls/kg

4 hourly feeds = 6 feeds in 24 hours

$$\frac{1.870 \times 180}{6} = \frac{336.6}{6} = 56\text{mls every 4hours}$$



New-born babies are commenced at different amounts of feed/fluid (mls/kg) and this amount normally increases every day for the first five days of life. The doctors will inform us of any change from the normal guideline.

Drug Calculations

Neonatal drugs are usually given in very small doses.

The formula for drug calculations is:

what you want x what amount it is in
what you have got

To calculate dose - Highest weight x (micrograms/mgs)/kg

Example

Paul is 35 weeks gestation, he is 5 days old and he weighs 2.6kg - Paul needs 65mg of benzylpenicillin (twice daily)

Benzylpenicillin is made up as 600mg in 6mls



DISCLAIMER: YOU MUST ALWAYS CHECK MEDICINES AND DOSES IN THE BNF FOR CHILDREN (DRUG FORMULARY) BEFORE ADMINISTERING THEM TO PATIENTS. WITH NEONATES IT IS IMPORTANT TO CONSIDER GESTATION, AGE AND WEIGHT AS THESE CAN ALL AFFECT DOSAGE. AS A STUDENT YOU MUST NEVER GIVE DRUGS UNSUPERVISED.

Weekly Routine

Weigh days

All babies should be weighed on alternate days. Some babies may require more frequent weighing which will be requested by the doctors.

Routine Bloods

Routine bloods are taken overnight on Mondays. Please check with the nurse you are working with or the doctors to identify which investigations are necessary. Usually it is a FBC (full blood count) U+Es (urea and electrolytes) Liver and Bone Profiles.

Ward Rounds

There are daily ward rounds with the consultant carried out at in the morning following the medical handover at 0900 and a grand round (where all consultants attend) on Tuesday mornings 0900-1000. It would be beneficial for you to attend at least one grand round during your placement, as this will give you an insight into some of the more complex babies on the unit. There is also an evening ward round on the night shift led by the registrar.

Abbreviations and Jargon on NICU

IUGR – Intrauterine Growth Retardation/Restriction

LBW – Low Birth Weight

ELBW – Extremely Low Birth Weight

MAS – Meconium Aspiration Syndrome

NAS – Neonatal Abstinence Syndrome

RDS – Respiratory Distress Syndrome

CLD – Chronic Lung Disease

SDLD – Surfactant Deficient Lung Disease

TPN – Total Parental Nutrition

TEWL – Transepidermal Water Loss

HR – Heart Rate

RR – Respiratory Rate

Bradycardia – Slow/reduced Heart Rate <90beats/min

Tachycardia – Increased Heart Rate >180 beats/min

Apnoea - No respiratory effort for 20 seconds

Tachypnoea – High/increased respiratory rate >60 breaths/min

UAC – Umbilical Arterial Catheter
UVC – Umbilical Venous Catheter
PDA – Patent Ductus Arteriosus
VSD – Ventricular Septal Defect
ASD – Atrial Septal Defect
AVSD – Atrioventricular Septal Defect
ROP – Retinopathy of Prematurity
NCPAP – Nasal Continuous Positive Airway Pressure
SIMV - Synchronised Intermittent Mandatory Ventilation
CMV – Continuous Mandatory Ventilation
IPPV – Intermittent Positive Pressure Ventilation
ET - Endotracheal
IVH – Intraventricular Haemorrhage
NEC – Necrotizing Enterocolitis
SIDS – Sudden Infant Death Syndrome
TTN – Transient Tachypnoea of the Newborn

Maternal

SRM – Serum Rupture Membrane
PROM – Prolonged Rupture of Membranes
Gravida – number of pregnancies the woman is in
Para - number of previous live births

Bloods

FBC – Full Blood Count
U&E – Urea & Electrolytes
LFT – Liver Function Test
TFT – Thyroid Function Test
BC – Blood Cultures
CRP – C-Reactive Protein
TSB – Total Serum Bilirubin
DCT – Direct Coombs Test
Group and Save (blood group)
Scriver – National screening done at day 5 of life screening for PKU, thyroid conditions and now CF



Induction

The Local Induction process will take place throughout the first week of your placement.

This will comprise of:

- Trust and department orientation, including housekeeping information
- Location of emergency equipment
- IT access
- Reading & acknowledgement of Mandatory Trust policies such as Health & Safety, Fire Safety, Infection Control, Information Governance, Staff Code of Conduct, Social Networking and Dress Code policies.
- Adult Basic Life Support training if applicable
- Trust Moving & Handling Training if applicable
- COVID-related policies & procedure
- Orientation
- Professional voice: - freedom to speak up, datix, chain of command, open door policy
- An awareness of our Educational Governance Team- evaluation and importance of feedback
- Inter-professional Learning Sessions
- Practice Assessment Record and Evaluation (PARE) training, if applicable
- Collaborative Learning in Practice (CLiP™), if applicable
- How the role of Practice Development Facilitator can support you, where applicable



What to bring on your first day

- Uniform: All other items in the dress code policy must be adhered to <https://legacy-intranet.lthtr.nhs.uk/search?term=uniform+policy>
- A smallish bag which would fit into a small locker.
- You may wish to bring a packed lunch and a drink on your first day.

Inter-professional Learning Sessions and eLearning Resources

At our Trust, our Education Team facilitates a yearly programme of Inter-professional Learning (IPL) sessions. This programme consists of various teaching sessions, delivered by our Specialist Teams, to support and enhance our learners and trainees' learning experience with us.

Inter-professional learning is an important part of your development and allows you to build professional relationships and communication skills with the wider multi-disciplinary teams. Our IPL sessions are valuable in supporting you to stretch your knowledge and experiences to enhance your clinical practice. They also help bridge the gap between theory and practice, allowing you to hold a deeper understanding of the topics discussed. Our sessions are open for all learners and trainees on placement at our Trust to attend and these learning opportunities are an extension to your learning environment; therefore, these hours need to be recorded on your timesheets. We encourage our staff to facilitate enabling a learner/trainee to attend these sessions.

Please note: You must inform your learning environment prior to attending a session. These IPL sessions need to be discussed in a timely manner with your learning environment.

You are required to complete a reflection on each of your IPL sessions, as well as documenting on your HEI documentation what you have learnt and how this relates to your current placement.

You can book onto our IPL Sessions by accessing this link <https://elearning.lthtr.nhs.uk/login/index.php> and searching for 'IPL'.

You can access our policies and procedures via our Intranet page, which will help expand and stretch your knowledge.

Support with evidencing your learning outcomes or proficiencies

We encourage you to use the Trust learning logs to collate and evidence your skills, knowledge and abilities achieved. You can then present your completed learning logs to your Practice Assessor/Educator during your assessment meetings. Any staff member who is involved in coaching you can complete your learning log feedback.

You can request time during your placement hours to complete these and request feedback prior to the shift ending. To obtain a copy of our learning logs, please visit our Health Academy Webpage on the link below, where you will see a copy of our CLiP™ Learning Log available for you to download, on the right hand side - <https://healthacademy.lancsteachinghospitals.nhs.uk/support/clinical-placement-support/collaborative-learning-in-practice-clip/>

Chain of Command

Keeping patients safe, providing the best care that we can and learning in an environment where you feel safe and valued is important to us. Speaking up about any concern you have on your learning environment is also important. In fact, it's vital because it will help us to keep improving our services for all patients.

There may be occasions where we witness, experience or are asked to do something that causes us concern. Often, these concerns can be easily resolved, but sometimes it can be difficult to know what to do.

Our Clinical Placement Support Team are available Monday – Friday, 8.00am – 4.00pm should you need to contact them in relation to any concerns regarding your learning environment. If your concern relates to patient safety and/or your concerns are outside of these hours, please follow the chain of command in your learning environment and speak with the person in charge.

Please visit our Freedom to Speak Up page on the Intranet for more details.



We value your feedback

Our Trust values your feedback. To continuously improve, we offer opportunities for our learners and trainees to provide feedback regarding both your learner experience and your learning environment. We would encourage you to kindly complete your end of placement evaluation, within your clinical hours.

We will keep you updated with the improvements that we make based on the feedback you provide us with.

Learning Environment Improvement Forum

Our Learning Environment Improvement Forum began in November 2021, with key stakeholders attending; Learners, Trainees, Clinical Staff, Education Leads and our Nursing Directorate. Monthly meetings are held to share new and innovative ideas as to how we can collaboratively enhance our learning environments, to support both learners, trainees and staff.

All attendees at the Learning Environment Improvement Forums contribute their suggestions and guidance on our projects. Collaboratively, exciting improvements are implemented to enhance our learning environments.

Innovative changes made by our Learning Environment Improvement Forum, within Academic Year 2021-2022;

- NEW Learner Boards designed and placed on our learning environments
- Learner booklets made available on our Health Academy webpage to prepare our learners and trainees for their clinical placements, as suggested by our learners and trainees
- PARE and CLiP™ training embedded into our Learner and Trainee Inductions
- Quick Reference Guide designed and created to welcome our learners and trainees to the Trust and prepare them for their clinical placements

We welcome any of our staff, learners and trainees at the Trust to attend our Learner Environment Improvement Forums, to contribute your ideas and suggestions for our new and innovative projects. You can join via the E-Learning Portal - <https://elearning.lthtr.nhs.uk> and going to Courses, then selecting the tab 'Inter Professional Learning', where you will see our forum listed.