

Clinical Guideline: Patient Flow

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For use in: EoE Neonatal Units

Guidance specific to the care of neonatal patients.

Used by: Neonatal units, Transport team (ANTS)

Key Words: Patient flow, transfer, repatriation, capacity, escalation

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Audit Standards:

- Number of capacity closures across EOE
- Number of delayed repatriations across EOE
- Number of infants cared for outside normal cluster pathway
- Number of infants cared for outside of EOE

References

NHS England. Schedule 2 Service Specification. Neonatal Critical Care E08/S/a. available from: <https://www.england.nhs.uk/commissioning/wp-content/uploads/sites/12/2015/01/e08-serv-spec-neonatal-critical.pdf>

NHS England. Schedule 2 Service Specification. Neonatal Critical care Retrieval (Transport) E08/S/b. Available from: <https://www.england.nhs.uk/commissioning/wp-content/uploads/sites/12/2015/01/e08-serv-spec-neonatal-critical-transp.pdf>

Toolkit for high quality neonatal care(2009) Department of health. Available at [webarchive.nationalarchives.gov.uk/20130107105354/http://www.../DH_107845](http://www.webarchive.nationalarchives.gov.uk/20130107105354/http://www.../DH_107845)

Categories of care (2011) British Association of Perinatal medicine Available at www.sort.nhs.uk/Media/SONeT/.../BAPM%202011%20categories%20of%20care.pdf

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Patient flow guideline

Summary

This document outlines the East of England Neonatal Care Operational Policy for the movement (admission and transfer) of infants within the East of England. This document sets out the expectations for admission, transfer and repatriation of patients throughout all neonatal inpatient pathways and includes the policy for transfer of infants for escalation of care and repatriation of infants to either their home unit or for step down care. It describes how the flow of patients is supported by the processes within all of the neonatal services. To ensure that the cots across the EOE are used appropriately this requires transfer of infants into and out of the tertiary centres to allow provision of intensive care. Tertiary neonatal units are expected to provide care for infants from their local population providing including intensive care, high dependency and special care.

This document has been developed with the support of the neonatal transport team (ANTS) and in conjunction with all neonatal units across the EOE to support appropriate and timely transfer of infants.

Background

The Neonatal Operational Delivery Network (ODN) encompasses the 17 neonatal units in the East of England and the Acute Neonatal Transfer Team (ANTS). They work according to the [Neonatal Critical Care](#) (E08/S/a¹) and [Neonatal Critical Care Retrieval \(Transport\)](#) (E08/S/b²) service specifications as defined by NHS England. The units work as a network group across 3 clusters and with 2 units having patient flows to tertiary centres in London.

Mothers may book in tertiary hospitals due to complex maternal conditions or concerns around fetal wellbeing. Booking of maternal care **ONLY** applies to their maternity care not any subsequent provision of neonatal care. Parents will be provided with information which explains that their infants will be repatriated to their local unit in relation to home post code when their clinical condition allows. There will be situations due to capacity where this is not possible and repatriation to a step down unit close to home may need to be considered.

Unit designations

All units within the neonatal network have agreed to provide care for specific infants within their designated units based upon the threshold documents as detailed in appendix 1

Special Care Units (SCBU) previously a 'Level 1 unit'.

SCU's provide special care for their own local population. Depending on arrangements within their neonatal network, they may also provide some high dependency services. In addition, Special Care Units provide a stabilisation facility for babies who need to be transferred to a Neonatal Intensive Care Unit for intensive

or high dependency care and receive transfers from other network units for continuing special care.

Local Neonatal Units (LNU) previously a 'Level 2 unit'.

LNU's provide neonatal care for their own catchment population, except for the sickest babies. They provide all categories of neonatal care, but they transfer babies who require complex or longer-term intensive care (more than 48hours) to a Neonatal Intensive Care Unit, this is in line with the BAPM 2011 recommendations. The LNU will provide escalation of care where appropriate and within the agreed thresholds for infants from SCBU.

Neonatal Intensive Care Units (NICU) previously a 'Level 3 unit'

NICU's are sited alongside specialist obstetric and fetal-maternal medicine services, and provide the whole range of medical neonatal care for their local population, along with additional care for babies and their families referred from the neonatal network. Many Neonatal Intensive Care Units in England also provide neonatal surgery services and other more specialised treatment. Within a network, at least one hospital will have Neonatal Intensive Care unit, offering a specialist centre of expertise and experience for the sickest infants. The NICU unit will work closely with the other network LNU and SCBU units.

Within the east of England there are 3 units designated to provide the higher levels of care alongside fetal medicine services; Luton and Dunstable University Hospital Foundation Trust, Cambridge University Hospital Foundation Trust (CUH) and the Norfolk and Norwich University Hospital Foundation Trust (NNUH).

CUH and NNUH are both designated to provide specialist neonatal surgery, providing the majority of neonatal surgery for the region, the exception being cardiac which is currently delivered outside of the East of England. CUH is also a specialist paediatric neurosurgical centre. All three lead centres provide Neuroprotection services (cooling) for babies, specialist respiratory therapies (High Frequency and Nitric Oxide) long term intensive care.

Cluster Units

Cluster Hospital	County	Acute Hospital Trusts Providing Care	Neonatal Units	Unit Type
Addenbrookes	Cambridge & Peterborough	Cambridge University Hospitals NHS Foundation Trust	Addenbrookes Hospital (AH)	NICU
		North West Anglia NHS Foundation Trust	Peterborough City Hospital (PCH)	LNU
		Cambridgeshire Community Services NHS Trust	Hinchingbrooke Hospital (HH)	SCU
	Essex	Mid Essex Hospital Services NHS Trust	Broomfield Hospital (BRM)	LNU
		Colchester University Hospitals NHS Foundation Trust	Colchester General Hospital (CGH)	LNU
		Princess Alexandra Hospital NHS Trust	Princess Alexandra Hospital, Harlow (PAH)	LNU
Suffolk	West Suffolk Hospitals NHS Trust	West Suffolk Hospital (WSH)	SCU	
Norfolk & Norwich	Norfolk	Norfolk & Norwich University Hospitals NHS Trust	Norfolk and Norwich University Hospital (NNH)	NICU
		Queen Elizabeth Hospital King's Lynn NHS Trust	Queen Elizabeth Hospital, King's Lynn (QEKL)	LNU
		James Paget University Hospitals NHS Foundation Trust	James Paget Hospital (JPH)	SCU
	Suffolk	Ipswich Hospital NHS Trust	Ipswich Hospital (IH)	LNU
Luton & Dunstable	Bedfordshire	Luton and Dunstable Hospital NHS Foundation Trust	Luton and Dunstable Hospital (LDH)	NICU
		Bedford Hospital NHS Trust	Bedford Hospital (BH)	SCU
	Hertfordshire	East and North Hertfordshire NHS Trust	Lister Hospital, Stevenage (LH)	LNU
		West Hertfordshire Hospital NHS Trust	Watford General Hospital (WGH)	LNU
Royal London	Essex	Southend University Hospital NHS Foundation Trust	Southend Hospital (SEH)	LNU
		Basildon & Thurrock University Hospital NHS Foundation Trust	Basildon & Thurrock University Hospital (BTH)	LNU

Escalation

In-utero

Thresholds for care are clearly demonstrated on page 4 /5. Each unit must have a process in place for discussion of potential deliveries with their midwifery and obstetric colleagues and the timely transfer in-utero where possible of women outside of their threshold limits. Multidisciplinary review of any deliveries which occur outside of a units threshold are required, and these reports should be shared with the neonatal ODN and maternity clinical network.

EBS will locate maternity and neonatal beds for in-utero transfers. In-utero transfers will be made to the closest most appropriate unit.

E.g.; Women 27 - 30 weeks gestation can be transferred to units with LNU's where this is deemed appropriate for both the mother and babies care needs with women <27 weeks going to NICU's.

Pathways of care for escalation ex utero Transfers

The units have agreed expected pathways of care for escalation of care which should apply to the majority of patients. When the primary pathway (i.e. to the lead tertiary unit for that cluster) is unable to be followed the ANTS team will inform the ODN. The South Essex LNU have agreed pathways into London Units.

Cambridge Cluster								
	Unit	CUH	NWAFT	Colchester	Broom field	PAH	West Suffolk	Hinching brooke
Inborn criteria	Designation	NICU	LNU	LNU	LNU	LNU	SCBU	SCBU
	GA singleton	All	>27 weeks	>27 weeks	>27 weeks	>27 weeks	>30 weeks	>30 weeks
	GA twins	All	>28 weeks	>28 weeks	>28 weeks	>28 weeks	>32 weeks	>32 weeks
	Weight	All	800gms	800gms	800gms	800gms	1000gms	1000gms
Respiratory support	HFOV	Yes	No	No	No	No	No	No
	Nitric	Yes	No	No	No	No	No	No
	Ventilation	Yes	>48 hours	>48 hours	>48 hours	>48 hours	Tertiary discussion	Tertiary discussion
	CPAP	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	TPN	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Cooling	yes	No	No	No	No	No	No
	Surgery	General & neuro-surgery	No	No	No	No	No	No

Norwich Cluster					
	Unit	NNUH	Ipswich	Kings Lynn	James Paget
Inborn criteria	Designation	NICU	LNU	LNU	SCBU
	GA singleton	All	>27 weeks	>27 weeks	>30 weeks
	GA twins	All	>28 weeks	>28 weeks	>32 weeks
	Weight	All	800gms	800gms	1000gms
Respiratory support	HFOV	Yes	No	No	No
	Nitric	Yes	No	No	No
	Ventilation	Yes	>48 hours	>48 hours	Tertiary discussion
	CPAP	Yes	Yes	Yes	Yes
	TPN	Yes	Yes	Yes	Yes
	Cooling	yes	No	No	No
	Surgery	General	No	No	No

Luton Cluster					
	Unit	Luton	Lister	Watford	Bedford
Inborn criteria	Designation	NICU	LNU	LNU	SCBU
	GA singleton	All	>27 weeks	>27 weeks	>30 weeks
	GA twins	All	>28 weeks	>28 weeks	>32 weeks
	Weight	All	800gms	800gms	1000gms
Respiratory support	HFOV	Yes	No	No	No
	Nitric	Yes	No	No	No
	Ventilation	Yes	>48 hours	>48 hours	Tertiary discussion
	CPAP	Yes	Yes	Yes	Yes
	TPN	Yes	Yes	Yes	Yes
	Cooling	yes	No	No	No
	Surgery	No	No	No	No

Essex Cluster			
	Unit	Basildon	Southend
Inborn criteria	Designation	LNU	LNU
	GA singleton	>27 weeks	>27 weeks
	GA twins	>28 weeks	>28 weeks
	Weight	800gms	800gms
Respiratory support	HFOV	No	No
	Nitric	No	No
	Ventilation	>48 hours	>48hours
	CPAP	Yes	Yes
	TPN	Yes	Yes
	Cooling	No	No
	Surgery	No	No

Tertiary advice

Short periods of ventilation are expected but must be discussed with the tertiary centre at 48 hours and every 24 hours after if the infant remains ventilated
Tertiary discussion should be sought for SCBU's for all ventilated patients (daytime hours if stable)

Contact numbers

Unit	Day time	Out of hours
CUH	01223 256939	01223 256939
Luton	01582 497315	01582 497315
NNUH	01603 286866/7	01603 286866/7

These charts gives guidance about which babies it is expected will be transferred to a tertiary centre.

There will on occasions be exception to these where it is deemed in the best interests for them to remain in their LNU /SCBU. Examples of this may be

- TPN / UVC whilst awaiting a long line to be sited in a SCBU
- Ventilated infant at 48 hours who is weaning and ready for extubation in the next few hours following discussion with the tertiary centre.

The ODN will send out exception reports each month which will highlight such cases and it will be for the unit to complete and return in a timely fashion to the ODN giving rationale for the exception. Exceptions will form a report which will be discussed at the governance meeting, COG and a highlight report which will go to the ODN board. (see appendix 1 for BAPM threshold limits)

Tertiary centre discussions should normally occur in daytime hours but this does not preclude clinicians seeking referral earlier if required.

Surgical flows

Within the neonatal network Addenbrookes and Norfolk and Norwich provide neonatal surgery. Surgical pathways for infants within these cluster groups are into their respective centre. Luton does not provide surgery for their cluster hospitals. Cardiac surgery is not provided by any of the tertiary centres and the pathways are detailed below.

Unit	Agreed Clinical pathway	
	Non cardiac surgical pathway	Cardiac surgical pathway
Addenbrookes		GOSH
Peterborough	Leicester	Leicester / GOSH
PAH	Addenbrookes	Brompton
Colchester	Addenbrookes	GOSH
Chelmsford	Addenbrookes	GOSH
Hinchingbrooke	Addenbrookes	GOSH
West Suffolk	Addenbrookes	Evelina / Brompton
Norwich		GOSH
Ipswich	NNUH	Evelina

Kings Lynn	NNUH/ CUH	GOSH
James Paget	NNUH	GOSH
Luton	GOSH/Addenbrookes	GOSH
Lister	GOSH/ Addenbrookes	Brompton/GOSH
Watford	GOSH/ Addenbrookes	Brompton
Bedford	Addenbrookes /Norwich	GOSH
Basildon	Royal London	GOSH
Southend	Royal London	Evelina/ Brompton

Repatriations

It is recognised that the repatriation of infants is necessary to ensure that the pathways of care continue without unnecessary delay or interruptions, and supports the NHS objective 'Right Care, Right Place, Right Time'.

It also provides a clear and concise description of the procedures and timescales to allow repatriation of infant's to their local unit or for step down care to occur in a timely manner. This outlines clear expectations to all hospitals within the EOE around the appropriate repatriation of infants in a timely manner.

Delay in repatriation

- Impedes the care pathways for infants being cared for closer to home
- Causes distress to parents and families where infants are being nursed a long way from home
- Contribute to delays in getting sick infants into Tertiary centres or requires transfer over long distances outside of network for intensive care cots
- Prevent specialist cots being available when and where they are required.

Infants requiring repatriation can be classified as:

- Infants who no longer need intensive care but require continuing care at either high dependency or special care level in their local or step down unit
- Infants who are admitted to the neonatal unit from outside the EOE due to lack of capacity in their local network
- Infants who are unexpectedly born within the EOE but whose family normally reside outside of EOE.
- Transfers to support capacity within the tertiary centres

It is acknowledged that within the EOE bed location is carried out by the Emergency Bed Service (EBS) and that this is carried out with the full knowledge of the agreed patient pathways. Where possible infants should be cared for within their cluster units. Therefore all units must be transparent and provide readily available information on cot status. This information is shared with EBS twice daily and should be available when the EBS team ring.

- Current occupancy
- Available cots capacity this should be available when EBS call
- Explanation of any discrepancy between established and available cots

Cot location for the treatment of ROP (retinopathy of prematurity) and PDA ligation (Patent ductus arteriosus ligation) is not within the remit for the EBS service. Where treatment with ROP laser treatment cannot be provided at the CLUSTER NICU, the referring centre must locate the neonatal cot and ophthalmologist on an individual basis. PDA ligation will require the referring unit to liaise with the cardiac centre and organise a planned surgery date.

ANTS transfer

There is an aim that all infants assessed as clinically fit for transfer to home unit or to step down unit that this transfer occurs within 72 hours from the time of referral to the receiving hospital. Referral to the transport service must be made when the infant is clinically fit for transport. Any baby referred must be ready to be transferred at any point after the referral unless otherwise stated.

- Repatriation will take place once the infant's is considered to be clinically stable in respect of their requirement for on-going intensive care. There will be a clear on-going management plan and the infants needs must be able to be provided by the receiving unit (*in line with threshold information on pages 4/ 5*)
- The infant must be deemed fit for transfer by the ANTS team
- Receiving units must support repatriation of infants to support on-going activity in the NICU'S, as is appropriate to their unit designation (see threshold document)
- Repatriation is in the families and infants best interest and must be supported where possible
- Collection of data on delayed transfers should be recorded by all units. (Delayed Transfer = more than 72 hours after decision to transfer) and should be escalation to the ODN
- Regular updates should be obtained by the receiving units to ensure they can appropriately manage patient flow, appropriate/ predicted repatriation dates should be provided by the NNU.
- The decision to repatriate resides with the clinical team responsible for the infant's current care.

Decision - not to repatriate

- Where there are clinical concerns due to previous instability of an infant. These should be discussed with the home team and plans made to overcome any difficulties, with appropriate communication between the local and tertiary team.
- Where parents do not want their infant repatriated. There must be a consultant led conversation with the family explaining the need for repatriation

as part of the provided care pathway. It must be made clear that only in exceptional circumstances would a request be agreed for infants not to be transferred to their home units.

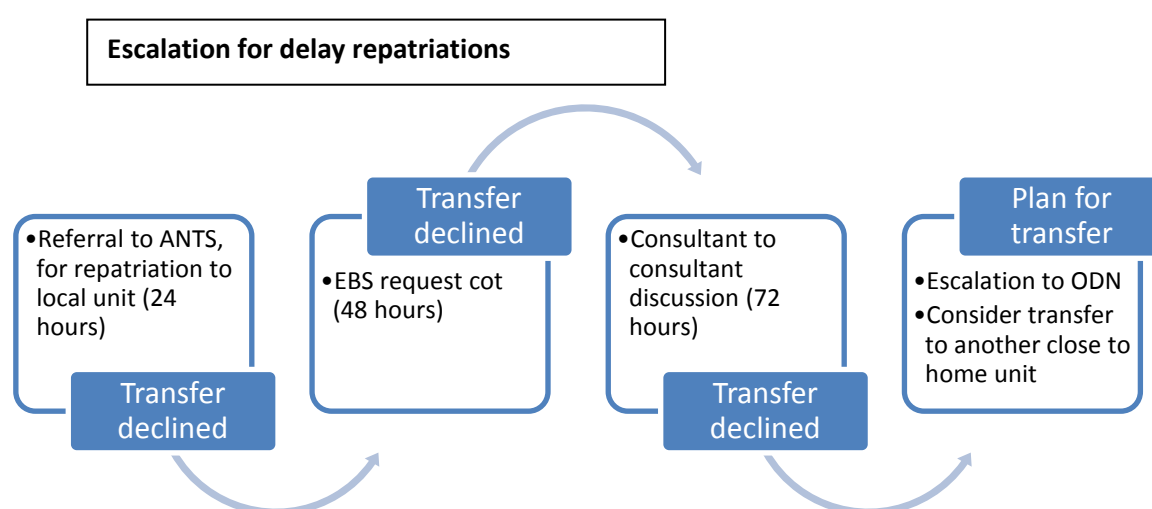
- Transfer of local infants from the tertiary centres may be required to support capacity. This should not occur if it is likely to cause extreme hardship to the family.
- Where infants have made good progress and are ready for home it may be appropriate to send directly home. A direct consultant to consultant conversation is required to ensure all parties are clear of any follow-up arrangements which are required
- Parents must be kept up to date with decisions on repatriation. All decisions with the parents must be recorded in the notes

Decision making

- When an infant is considered to be fit for repatriation/ step down to their home unit. The consultant at the referring hospital must authorise infant transport.
- Parents are informed of the decision to repatriate
- Referral to the neonatal transport team is made and both Clinical information given and approximate timing of transfer should be discussed
- When cot availability is confirmed at the receiving unit, clinical information can be given to the receiving unit
- Unavailability of cots for repatriation does happen on occasions, if availability is likely within 24 hours unless the tertiary centre is at cot crisis level the repatriation can be postponed for 24 hours. Where it is unlikely a cot will become available in the next 48 - 72 hours a decision must be taken by the local team to wait or to seek available cots in units local to the home unit. This should be escalated to the ODN.
- Documentation of fit for discharge/repatriation should be made within the badgernet system and the infant's notes.
- The referring hospital must complete the relevant discharge summary/ letter including clinical and social information. Access to badgernet information for the receiving hospital should be made to allow access to clinical information.
- The clinical responsibility lies with the referring hospital until the Transport team formally take over care
- If an infant's clinical state changes making the infant either unfit to transfer or they require a higher level of care than can be provided at the receiving unit, the repatriation should be cancelled. Parents, ANTS and the receiving unit should be informed

Escalation procedures

- If repatriation has not occurred within 72 hours of the decision and where no change in the infants condition has been noted this will be recorded as a repatriation delay by the unit.
- Daily communication between the referring and receiving hospital will be maintained supporting regular update on the cot position. The neonatal transport team will be regularly kept up to date on any decisions regarding transfer.
- Escalation to the ODN should be made for all delayed transfers over 72 hours
- Reporting of infants who are greater than 44 weeks corrected gestation to the ODN who will send monthly reports to the commissioning team (Appendix 2)



Infection Control

- Infection control status must be declared at time of referral to receiving unit
- Repatriation of an infant should not be delayed due to the infant's infection control status; this includes but is not exclusive to MRSA, pseudomonas, MDRO(multi drug resistant organisms) such as enterobacter, ESBL. Screening and isolation of the infant should be as per network guideline (2018). Due to regular surveillance in many of the EOE units colonisation rather than infection can identify MDRO.
- Infections which are significant within the neonatal population and require strict isolation precautions i.e. RSV, tuberculosis transfer of such infants should only take place if appropriate isolation facilities are available.
- Notification to the transport service of any colonisation or infection must occur on referral of the infant for transfer. The transport service will organise work load to ensure appropriate cleaning of equipment post transfer.

- ANTS team must be informed if infant's have been home and are readmitted from the community

Monitoring arrangements

- Delay in repatriation over 72 hours is escalated to the ODN, this should be carried out by EBS and the unit referring the infant for transfer
- Recurrent delays to be discussed with lead nurse and clinician at the unit and an action plan put in place if felt to be appropriate
- Network Quality Dashboard to demonstrate delays in repatriation on a quarterly basis

Data on delayed repatriations/ transfers will be kept by the ODN and presented on a quarterly basis along with exception reporting of infants outside of threshold criteria within the governance structure

Below are the thresholds for repatriation as agreed by each local team.

Unit	Basildon	Bedford	Cambridge	Chelmsford	Colchester	Harlow	Hinchingbrooke	Ipswich
Respiratory support								
HHFNCO2/CPAP	Y	Y		Y	Y	Y	Y	Y
Weaning	Y	CPAP		Y	CPAP	Y	Y	Y
Feeding								
NGT frequency	Y	Hourly		Y	Y	Y	Hourly	Y
NJT – accept	Y	Y		Y	Y	Y	N	Y
Continuous feeds	Y	Only if NJT		Y	Y	Y	N	Y
Weight restriction	≥ 800gm Unless otherwise agreed with level 3	>1Kg		>800gms	>800gms stable feeding regime	>800gms	>1kg	>800gms
Gestational restriction	≥27 wks Unless otherwise agreed with level 3	>30 weeks		>27 weeks	>27 weeks	>27 weeks	>30 weeks	<27 weeks singleton or 28 weeks twin
Intravenous access								
Long line	Y	Y		Y	Y	Y	Y	Y
Broviac Lines	Y	Y		Y	N	N	N	Y
Neurological								

Ventricular taps	N	N		Y	Y	N	N	Y
Convulsions	Y	N			Stable	Y	Y	Y
Medication exceptions	N	N		N	N	N	N	N
Other		Do not accept ventilated babies for palliative care individual discussion required			Long term infection dependant on side room		Cannot accept HHFO/CPAP repatriation when there are two babies on the unit receiving HD Care	End of life care with local hospice support

Unit	James Paget	Kings Lynn	Lister	Luton	Norwich	Peterborough	Southend	Watford	West Suffolk
Respiratory support									
HHFNC02/CPAP	Y	Y	Y			Y	Y	Y	Y
Weaning	Y	Y	Y			Y	Y	Y	Y
Feeding									
NGT frequency	Any	Y	Y			Hourly	Y	Y	Y
NJT – accept	Y	Y	Y			Y	Y	Y	Y
Continuous feeds	N	Y	Y			N	Y	N	Y
Weight restriction	>1kg	If stable	>800gms			>800gms	>800gms	>800gms	>1000gms
Gestational restriction	>30 weeks	If stable	>27 weeks			>27 weeks	>27weeks	>27 Weeks	>30 Weeks
Intravenous access									
Long line	Y	Y	Y			Y	Y	Y	Y
Broviac Lines	Y	Y – would need referring hospital policy	Y			Y	N	Y	Y
Neurological									
Ventricular taps	N	Medical to	Y			Y	N	Y	Y

		medical handover							
Convulsions	N	Medical to medical handover	Y			Y	Y	Y if stable	Y
Medication exceptions	Prostin or inotropes	N-advance notice if unusual	N			N	Inotropes	N	N
Other	Stoma as long as the surgeons would review at JPUH, so no need for baby to travel. Don't accept exchange transfusions					Depending on the degree of instability, discussion with the clinical team to agree acceptance and plan of care	Would not accept babies on prostaglandin to maintain duct patency		

Unit Closure Policy

Information on unit closures is collected by EBS twice daily.

Closure to network activity - unit is currently accepting own local activity but unable to accept from network- there may be gestations agreed within this statement

Closure to network and own activity- unit is negotiating transfer out of all expected preterm / complex deliveries and is not accepting transfers from outside of the trust

Closed - The unit is unable to accept any admissions including those from maternity - escalation of closure of maternity

EoE EBS team

On being informed of a unit closure the EBS team will ascertain the following information-

- Name of unit affected
- Reason for closure (includes **type** of infection if applicable)
- Expected duration of closure
- How many cots are closed

EBS will collect the information and make the other units aware, the ODN will also be informed

Any closure beyond 24 hours **MUST** be reported to the ODN using the attached form (appendix 4)

Incident reporting

- All neonatal services should work within their trust governance process and report adverse incidents as per policy
- Serious incidents within any of the neonatal units must be escalated to the ODN
- All incidents related to delays in transfer/ repatriation will be reported to the ODN after 72 hours by the referring and receiving unit
- All incidents related to transfer should be reported to the manager of the transport service and these will be shared with the ODN.
- Quarterly reports of incidents related to repatriation should be provided to the Clinical Oversight Group as part of the transport presentation.
- All units should collect data on periods of time exceeding 24 hours when their service is closed to any type of delivery. This data will also be collected by EBS.

Definitions

Escalation – Transfer of infants from a SCBU/ LNU or tertiary service for uplift in care provision

Tertiary escalation – Transfer of infants from a non-surgical tertiary centre that require surgery or from all NICU units for ECMO.

Repatriation - Repatriation refers to an infant returning to their local hospital as is appropriate to their care level and requirements

Delayed Repatriation - when an infant who has been identified as fit for discharge to their home unit is delayed by more than 48 hours from the decision

Local/home unit - Unit local to their home address (not maternity booking hospital)

Step down unit - Neonatal service close to their local unit/ within network which can provide the appropriate level of care

East of England neonatal network - Consists of 17 units in Norfolk, Suffolk, Cambridgeshire, Essex, Bedfordshire and Hertfordshire

Emergency Bed Service EBS

Closure

Closure to network activity - unit is currently accepting own local activity but unable to accept from network- there may be gestations agreed within this statement

Closure to network and own activity- unit is negotiating transfer out of all expected preterm / complex deliveries and is not accepting transfers from outside of the trust

Closed - The unit is unable to accept any admissions including those from maternity - escalation of closure of maternity

Appendix 1

Exception thresholds - BAPM categories of care 2010

LNU

- Babies <27wks or <800g in a LNU beyond 1 day of life (except London ODN which doesn't use the beyond 1 day of life criteria)
- Babies receiving intubated ventilatory support for greater than 48 hours beyond 1 day
- Babies receiving ventilation via a tracheal tube AND Inotrope, prostaglandin infusion, insulin infusion, a chest drain, or had an exchange transfusion in a LNU beyond 1 day
- Babies with hypotension, disseminated intravascular coagulation (DIC), renal failure, or metabolic acidosis
- Babies who received nitric oxide, HFOV, or therapeutic hypothermia

SCBU

- Babies <30wks or <1000g in a SCBU beyond 1 day of life (except London ODN which doesn't use the beyond 1 day of life criteria)
- Babies receiving IC in a SCBU beyond 1 day
- Babies receiving inotrope, prostaglandin infusion, insulin infusion, have a chest drain, or had an exchange transfusion in a SCBU beyond 1 day
- Babies receiving intubated ventilatory support for greater than 48 hours beyond 1 day
- Babies with hypotension, disseminated intravascular coagulation (DIC), renal failure, or metabolic acidosis
- Babies who received nitric oxide, HFOV, or therapeutic hypothermia

Appendix 2

Exception reporting form

Complete all areas which are applicable to the type of exception being reported (Threshold, >44 weeks, delayed repatriation)

Unit						
contact details						
Badger Unique identifier						
Cause of exception (Mark Box)			Babies <27wks or <800g in a LNU beyond 1 day of life (except London ODN which doesn't use the beyond 1 day of life criteria)			
			Babies receiving intubated ventilator support for greater than 48 hours beyond 1 day			
			Babies receiving ventilation via a tracheal tube AND Inotrope, prostaglandin infusion, insulin infusion, a chest drain, or had an exchange transfusion in a LNU beyond 1 day			
			Babies with hypotension, disseminated intravascular coagulation (DIC), renal failure, or metabolic acidosis			
			Babies who received nitric oxide or HFOV			
			Therapeutic hypothermia			
			Delayed Repatriation			
			> 44 weeks Corrected Gestation			
Brief clinical details	Gestation		DOB		Time of birth	
First discussion with ANTS/EBS/ NICU (where applicable)	Date and Time, Who:					
Discussion with other specialist centre	Date and Time, Who:					
Reasons for non-transfer						
Decision made by:	LNU/EBS/specialist centre/ mutual agreement					
Cot available in region?	YES/NO		Nearest Cot available			
Nursing staffing						
Medical staffing						
LNU activity +(template)	IC		HD		SC	
Antenatal/ DS status / anticipated activity						
Additional information. (If completing contemporaneously us this box to update every 24 hours.)						
Final outcome						
Form Completed by						
Date from started			Date form completed			
Date form submitted to Network						

Appendix 3

Parent Letter

Dear Parent

Neonatal units work within a network which aims to provide 'the right care for the right baby in the right place'. This neonatal unit is part of the East of England Neonatal Networks. Within this network there are 3 NICU (neonatal intensive care units) which provide all levels of care, two of these units also provide surgery. 10 LNU (local neonatal units) who provide short term intensive care, high dependency and special care, and 4 SCBU who provide stabilisation, short term high dependency care and special care. All units have access to skilled nurses and clinicians 24 hours a day and are able to provide high quality care.

To enable the network to achieve the right baby in the right place and to ensure that all babies within the neonatal service receive the highest standard of care it is sometimes necessary for babies to be moved to other units. This may happen for a number of reasons

- *Your baby requires intensive care which needs to be provided within one of the 3 Neonatal intensive care units*
- *Your baby has received a period of intensive care at one of the 3 NICU's and now no longer requires intensive care and is transferred back to your local LNU(local neonatal unit) or SC (special care units)*
- *Your baby does not require intensive care and is transferred to a local unit for on-going care- this is occasionally necessary to ensure that the intensive care units cots are available when they are needed for sick infants.*

It is the aim of the neonatal network to try where possible to keep families as close to home as is appropriate, although this may not necessarily be your local hospital or the hospital where you booked your maternity care depending on the level of care your baby needs.

For parents who have booked their maternity care at one of the 3 NICU'S but live closer to another hospital there may be occasions where your baby is transferred closer to your home address. This supports family life, improved family support and earlier discharge as your baby may require on-going outreach support which can only be provided by the team at your local hospital.

Please be assured that prior to any transfer of your baby you will be fully informed of the reasons for transfer. The local team will explain these to you. Transfer to other hospitals is often difficult for parents when you have built a relationship with the team at the NICU.

Where possible we would encourage parents to visit the hospital their infant will be transferred to so that they can be reassured before the transfer. This is of course not always possible if your baby is transferred for emergency care. One parent can travel with your baby and all units have information on the transport service within the East of England.

Whilst we understand that having a sick baby is very stressful for the whole family we will aim to keep transfers at a minimum however provision of cots for sick babies is essential to ensure that all infants across the East of England have the opportunity to receive the right care.

Please support us to ensure that all babies have the opportunity to receive high quality care as close to home as is possible.

Regards

Liz Langham

Director Neonatal ODN

UNIT CD / lead nurse

Appendix 4

Unit Closure Notification form

Unit Closure Notice to ODN		
Date:		
Unit		
Person completing form		
Consultant on duty		
Internal escalation information		
Reason for closure	Capacity <input type="checkbox"/> IC HD SC (current activity) Infection control <input type="checkbox"/> Details Pending deliveries <input type="checkbox"/> Staffing :Please specify and give information for next 24 hours Nurse <input type="checkbox"/> Medical <input type="checkbox"/> Other :	
Closure	Closed to Network <input type="checkbox"/> Closed to Network and local activity <input type="checkbox"/> Closed to deliveries < please specify Capacity available maternity closed <input type="checkbox"/>	
Repatriation	Name of unit	Level of care IC/HD/SC
Out of unit		
Into the unit		
Time scale	<i>Detail approximate anticipated length of closure</i>	

Appendix 5

Exceptional Circumstances Form

Form to be completed in the **exceptional** circumstances that the Trust is not able to follow ODN approved guidelines.

Details of person completing the form:	
Title:	Organisation:
First name:	Email contact address:
Surname:	Telephone contact number:
Title of document to be excepted from:	
Rationale why Trust is unable to adhere to the document:	

Signature of speciality Clinical Lead:	Signature of Trust Nursing / Medical Director:
Date:	Date:
Hard Copy Received by ODN (date and sign):	Date acknowledgement receipt sent out:

Please email form to: mandybaker6@nhs.net requesting receipt.

Send hard signed copy to: Mandy Baker
 EOE ODN Executive Administrator
 Box 93
 Cambridge University Hospital
 Hills Road
 Cambridge CB2 0QQ