Preterm In-Utero Transfer Standard Operating Procedure

For Sussex Maternity Units

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Quick Guide for Preterm In-utero Transfer (IUT)

Preterm delivery threatened
< 27 weeks gestation for LNUs
< 28 weeks, multiples for LNUs
< 32 weeks gestation for SCUs

Aim: safe and timely IUT from Sussex maternity units to RSCH for delivery and care on the NICU

Triage for rapid review at local maternity unit
Is delivery imminent?
Contractions
Condition of cervix
CTG
Fibronectin test
QUiPP app - https://quipp.org
Are there risks that prevent safe transfer?
PV bleeding
PET
Start SBAR form

Likely need for delivery and safe to transfer

TELEPHONE CONTACTS

BSUH CDS: 01273 664793

EBS: 0207 407 4999

SECAMB: 0300 123 0999

Arrange time critical transfer to the RSCH:

Contact labour ward at the RSCH and confirm bed availability

No need to check NICU cot status at this stage

D/W the RSCH labour ward consultant and if helpful include the NICU consultant

Contact EBS if transfer refused

Identify midwife for transfer

Contact SECAMB for transfer

Information to parents

Delivery not likely or indicated

Monitor and manage locally and consider:

Steroids
Antibiotics
Tocolysis

Imminent risk of delivery and / or unsafe to transfer

Delivery at local unit

Ex-utero transfer to NICU

The RSCH labour ward team should inform the NICU of all IUT requests (accepted and refused)

Stabilise and start appropriate treatments: steroids, magnesium, antibiotics and tocolysis.

Complete SBAR form for transfer

Delivery following successful IUT

IUT successful but not delivered

The maternity team at the RSCH will make every effort to accept IUTs from Sussex maternity units.

Failure to achieve an IUT at <27 or <32 weeks gestation will trigger the referring maternity and neonatal teams to jointly complete an exception report.

Key Principles

A standard operating procedure (SOP) is a set of step by step instructions ensuring that a potentially complex process can be undertaken in a timely way. Professional judgement may be used in the application of a SOP.

Scope

This SOP applies to:

- All members of staff who come into contact with the pregnant person being transferred during the antenatal, intrapartum and postpartum periods.
- Women being transferred from home to hospital, from site to site and from this Trust to another Trust.

Responsibilities

It is the responsibility of all midwifery and medical staff to:

- Access, read, understand, and apply this guidance
- Attend any mandatory training pertaining to this guidance

It is the responsibility of the division to:

- Review the SOP in line with national recommendations
- Ensure the SOP is accessible to all relevant staff
- Monitor outcomes of the SOP

Definitions

Preterm labour is defined by the World Health Organisation (WHO)[1] as the onset of regular uterine contractions between viability and 37/40 weeks gestation associated with cervical effacement and dilatation. Current guidelines describe a 'threshold of viability' between 22 and 26 weeks.

Preterm birth is defined as birth between 26+6 weeks to 36^{+6} weeks gestation.

Extreme preterm birth is defined as birth between 22+6 weeks to 26+6 weeks gestation.

[1] https://www.who.int/news-room/fact-sheets/detail/preterm-birth

Aims

- Timely in-utero transfer is achieved for those pregnant mothers most at risk.
- 85% of births in Sussex, below 27 completed weeks of pregnancy occur at a maternity unit with a NICU.
- The number of unnecessary transfers is reduced.
- Patient experience of transfer is improved.
- The time spent on arranging transfer is reduced.

Indications

An in-utero transfer is required when a pregnant person is likely to deliver a baby who requires expertise unavailable at the local baby unit; or when a woman has an illness in pregnancy requiring expertise not available at the local maternity unit.

The following criteria apply for in-utero transfer of threatened preterm delivery within the South East Coast Neonatal Network.

Local Neonatal Units (LNU):

- <27 weeks gestation and/or an expected birth weight of <800g and <28 weeks gestation multiples should be transferred in-utero to a NICU for delivery.

Special Care Units (SCU):

- <32 weeks gestation and/or an expected birth weight of <1250g should be transferred in-utero to a NICU or LNU if appropriate.

Ex-utero transfer of extreme preterm babies immediately after birth is associated with increased neonatal morbidity and mortality. Importantly some may represent missed opportunities for in-utero transfer.

Trust to Trust Transfer

The tertiary maternity site within Sussex is located at the Royal Sussex County Hospital (RSCH) in Brighton.

The tertiary centre should accept people in Sussex who are in preterm labour below 32 weeks gestation. The expectation is that **all** below 27 weeks gestation will be accepted. It may be acceptable to transfer in-utero to a LNU at gestations between 27 and 32 weeks. Currently there is no LNU within Sussex. Transfer out of the local area to a NICU or LNU should be avoided as it may increase the risk of transfer and be associated with increased stress and expense for the pregnant woman and her family.

Identifying a pregnant person with preterm labour is extremely important and should involve senior obstetric, neonatal and midwifery staff.

A thorough clinical assessment of every pregnant person in threatened preterm labour, or deemed to be at risk of delivering preterm, should be performed by the obstetric middle grade before discussion of in-utero transfer with the obstetric and neonatal consultant.

Transfer following preterm prolonged rupture of membranes should be considered if there is evidence of uterine activity or clinical chorioamnionitis.

Full communication between units is vital in the management planning of an in-utero transfer. This must include a MDT discussion within both the transferring and the receiving maternity unit. The decision to transfer can then be reviewed and documented in both the notes and on the MIT system.

Although the Trevor Mann Baby Unit (TMBU) will always accept a Sussex in-utero transfer when it is safe to do so, the neonatal staff should be informed as soon as possible to allow any necessary reorganisation of resources.

Transfer

Once a decision has been made to transfer i.e. preterm birth is probable or medically indicated for either maternal or fetal condition, the midwife providing care for the pregnant person should ensure the following:

- Medical staff at each site are in agreement to transfer the pregnant person
- Labour ward coordinators at each site know about and agree to the transfer
- Neonatal unit is informed
- Maternal consent is gained and documented in notes
- SBAR transfer form is completed in full and placed in the notes

The obstetrician providing care should write a clear plan of action in maternal notes. If necessary a copy of all documentation can be kept by the transferring unit, the original **must** accompany the birthing person.

All in-utero transfers by ambulance will be classed as an emergency unless otherwise indicated.

The labour ward co-ordinator should arrange for an ambulance by phoning ambulance control.

- It should be stated that the transfer is an immediate, blue light transfer by a paramedic ambulance.

- The time of the call should be documented in the maternal notes by the person making the call.

- The time of the arrival of the ambulance and time of departure from the transferring maternity unit should be documented in the maternal notes by the midwife providing care.

- The time of arrival at the receiving labour ward should be documented in the maternal notes, or a new electronic record commenced, by the midwife providing care.

- The midwife providing care should accompany the pregnant person in the ambulance (bringing appropriate equipment for eventualities during transfer)

- The maternity notes should accompany the pregnant person. On arrival the midwife providing care should give a full handover to the receiving midwife. If possible include the labour ward co-ordinator and on call registrar. The handover should be documented in the notes and the SBAR form signed as confirmation of a complete and proper handover.

Transfer refused or not completed

There may be some incidences when transfer is refused. This might be due to the labouring person's wishes or lack of capacity / staffing at the tertiary centre. Any potential refusal of a Sussex in-utero transfer should be escalated by the RSCH labour ward coordinator to their obstetric labour ward and NICU consultants. Options to facilitate acceptance should be fully explored within MTD discussions at both the transferring and receiving units. Freeing up capacity or reorganisation of staffing may be possible with only minor delay. It will be necessary to have further unit to unit discussions at this stage. The transferring unit must record the decision making process in the pregnant person's notes and on the MIS.

Failure to achieve an in-utero transfer at <27 weeks for LNUs or <32 weeks gestation for SCUs will trigger the referring maternity and neonatal teams to jointly complete an exception report. There is a Sussex, Standard Operating Procedure for the review and learning from preterm babies born outside a unit appropriate for their gestation or weight. The completed exception report is sent to the Neonatal Network Manager, South East Coast Operational Delivery Network and the LMS Safety Lead.

Useful Links

https://www.bapm.org/posts/109-new-bapm-framework-on-extreme-preterm

https://quipp.org

Appendices

Appendix 1: SBAR Communication Tool

Appendix 2: SECAmb Guidance

Appendix 3: SOP for reviewing the learning from preterm births born outside of appropriate unit

Appendix 4: ODN Exception Reporting Tool

Sussex
Health and Care Partnership

Appendix 1 - SBAR Communication Tool

S Situation	**What is happening now?** Identify yourself, woman/baby by name, Parity & Gestation Reason for Request/briefly describe Current Situation
B Background	**What has happened in the past that is relevant?** Reason For Admission, Significant Medical or Obstetric History
A Assessment	**What is the Problem/Issue?** Summarise Facts/Findings Relevant Observations & MEOWS | Fetal Condition
R Recommendations	**What do you think needs to happen now? What does the receiver want you to do?** Recommendations/Proposed Plan of Care What Action is Required?
Ask receiver to repeat key information to ensure understanding. Handover signature	Receiver signature

Appendix 2 – SECAmb Guidance

Suspected Preterm Labour

Guidance for Frontline Clinicians

NHS South East Coast Ambulance Service NHS Foundation Trust

Background

Over the last 25 years the prospects for babies who are born very premature, have congenital anomalies requiring surgery, or who develop illnesses after birth, have improved greatly. For example, in babies born at extremely low gestational ages (23-25 weeks of gestation) survival increased between 1995 and 2006 by 15%, and since then has continued to improve year on year (https://fn.bmj.com/content/105/3/232).

Alongside this, services have been re-organised into a series of networks so that hospitals can work together to ensure that expert care can be delivered when it is needed. These centres are required to look after a minimum number of very small infants and infants requiring intensive care; in order to maintain expertise.

Improving outcomes should not mean we are complacent. The evidence shows that there are further gains that can and should be achieved. We know that some of the variation in outcomes is due to babies being born in maternity units without intensive care services. Whilst every hospital with a labour ward has the capability to look after a sick or preterm baby who needs intensive care as an emergency; and can do so for a brief period of time – the expertise of an intensive care unit is demonstrated to improve outcomes for these infants. Additionally babies who are born in the wrong centre will then need to undergo a transfer ex-utero, which has also been associated with a worse outcome; as well as causing increased demand for neonatal transfer services.

Achieving more than 85% of extremely preterm births (<27 weeks) in the right place is a national standard (KLOE 20/21); and having in place a perinatal pathway to facilitate this is a NICE quality standard.

In an emergency, it is always the right decision to go to the nearest hospital (with a labour ward). If there is a choice, the aim of this flow chart is to aid decision making to support delivery in the right centre.

Types of neonatal unit

NICU

Neonatal Intensive Care Unit (level 3)

- In-patient care of mothers expected to deliver at less than 27 weeks gestation
- In-patient care of mothers at 27 weeks gestation and above who are considered to be at high risk (identified in clinical guidelines – for example, severe early onset pre-eclampsia; fibronectin positive; cervical length decrease at 24 – 27 weeks)
- Babies needing intensive care (excluding short-term intensive care in level 2 units)
- Babies needing intensive or high dependency care following surgery
- Babies needing high dependency and special care

LNU

Local Neonatal Unit (level 2)

- Deliveries at 28 weeks gestation and above considered to be medium risk.

SCU

Special Care Unit (level 1)

- Deliveries at 32 weeks gestation and above considered to be low risk

Regional contact details

Medway Maritime, Gillingham 01634 825278	NICU
Queen Alexandra, Portsmouth 02392 286000 x3286	NICU
Royal Sussex County, Brighton 01273 696 955 x4373, 7016, 4374	NICU
St Peter's, Chertsey 01932 722160	NICU
William Harvey, Ashford 01233 616124	NICU
East Surrey, Redhill 01737 768511 x6790	LNU
Frimley Park, Frimley 01276 604527	LNU
Tunbridge Wells, Pembury 01892 634013	LNU
Conquest, Hastings 0300 131 5341	SCU
Darent Valley, Dartford 01322 428273	SCU
Princess Royal, Haywards Heath 01689 864812 or 01689 864839	SCU
QEQM, Margate 01843 234290	SCU
Royal Surrey, Guildford 01483 464133	SCU
Worthing 01903 285262	SCU

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Suspected Preterm Labour: Guidance for Frontline Clinicians SPTLG/v1.0/A4/2021-03

Suspected Preterm Labour Decision Tree

DISPATCH TO PREGNANCY RELATED CONCERNS

Do you need senior help?
Consider discussing with CCP/CCD

Assess clinical status
- Maternal baseline observations
- Blood pressure
- Frequency of contractions
- History of blood loss
- Foetal movements
- Antenatal history

Gestation 22-26+6 weeks
- Suspected preterm labour: PV bleeding
- Contractions
- Ruptured membranes

→
- Transfer to **maternity with NICU** if ETA <30 minutes
- Contact critical care desk if ETA >30 minutes

Gestation 27-32 weeks
- Threatened preterm labour

→
- Transfer to **maternity with LNU** if ETA <30 minutes
- May benefit from transfer to maternity with NICU

Gestation <22 or >32 weeks
- Threatened preterm labour
- Concern for foetal wellbeing
- Concern for maternal health

→
- Transfer to **nearest maternity centre** with a neonatal unit

Antenatal history
Known need to deliver at hospital with NICU: e.g. growth restriction (weight <800g), significant congenital anomaly or maternal condition

→
- May benefit from transfer to maternity with NICU
- Contact critical care for advice

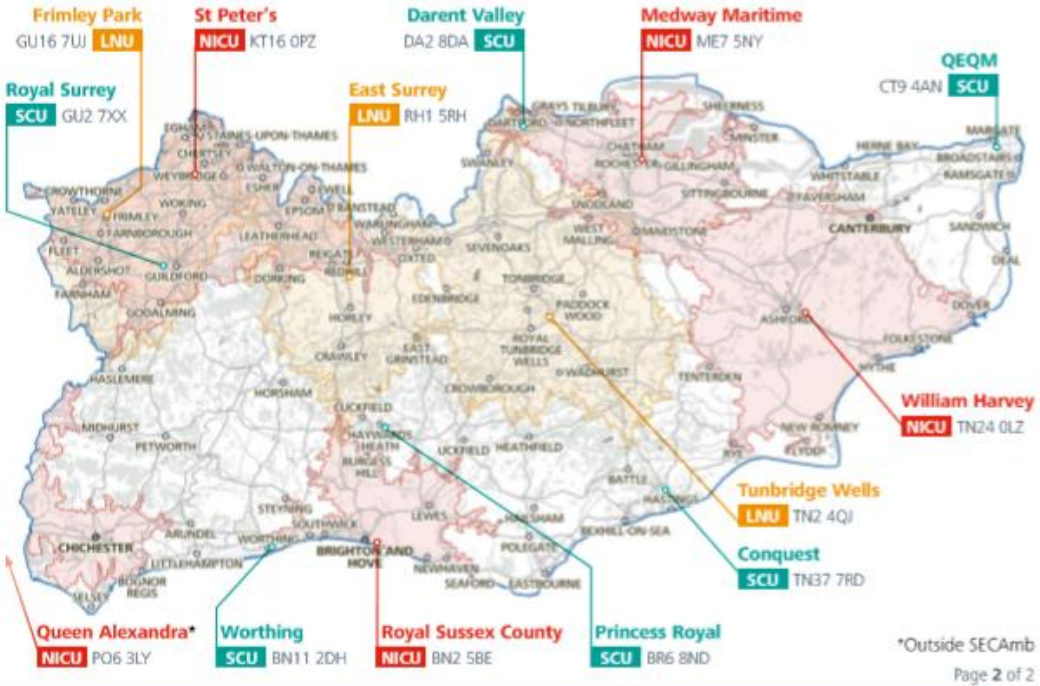
Delivery on scene or en route
- Preterm <32 weeks
- Any gestation need for maternal or infant resuscitation

→
- Transfer to **maternity centre**
- If ongoing resus, then **nearest emergency department**

Pass pre-alert call to receiving unit

Kent, Surrey, Sussex neonatal unit locations

30 min drive to LNU | 30 min drive to NICU



*Outside SECAmb

Appendix 3 – SOP for reviewing the learning from preterm births born outside of appropriate unit

Standard Operating Procedure for review and learning from preterm babies born outside a unit appropriate for their gestation or weight

Purpose

To provide a framework to support multidisciplinary review and learning of all cases where a baby has been born in a maternity unit that does not have the recommended level of neonatal unit support, according to the South East Coast Neonatal Network Guidance and Process (V4 Sept 2017)

To support NHS KLOE target of 85% of deliveries under 27 weeks in the right place; and development of a perinatal pathway for delivery in accordance with NICE quality standard. This work is in support of GIRFT and the Neonatal Critical Care Review.

Scope

All maternity units within the Sussex LMS footprint

- Eastbourne & Hastings NHS Trust (SCU) – Level 1
- Brighton & Sussex University Hospital Trust (NICU) – Level 3 at RSCH site, (SCU) – Level 1 at PRH site
- Western & Sussex NHS Foundation Trust (SCU) – Level 1 at the Worthing site, (LNU) – Level 2 at St Richards's site

The LNU on the St Richard's site falls within the Wessex neonatal ODN despite the maternity department being part of Sussex LMS. This LNU is also under review as part of the neonatal critical care review.

Categories of unit

Whilst every hospital with a labour ward has the capability to look after a sick or preterm baby who needs intensive care as an emergency; and can do so for a brief period of time – the expertise of an intensive care unit is demonstrated to improve outcomes for these infants. Additionally babies who are born in the wrong centre will then need to undergo a transfer ex-utero, which has also been demonstrated to worsen outcomes; as well as causing increased demand for neonatal transfer services.

Neonatal Intensive Care Units (NICUs) are sited alongside specialist obstetric and fetal 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 NICUs in England are co-located with neonatal surgery services and other specialised services. Medical staff in a NICU should have no clinical responsibilities outside the neonatal and maternity services.

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

LNU's in South East Coast provide care for;

- singletons from 27 weeks upwards and birth weight above 800g,
- multiple births from 28 weeks upwards and birth weight above 800g.

LNU's can provide short term ventilation for up to 48 hours. The majority of babies over 27 weeks of gestation will usually receive their full care, including short periods of intensive care, within their LNU. Babies expected to deliver below 27 weeks gestation and/or below 800g should be transferred out in-utero to a NICU for delivery. LNUs may receive transfers in from other neonatal services in the Network; as per Network Pathways.

Although LNUs are able to provide short duration of intensive care, where this is likely to continue early contact should be made with the NICU to alert them to the case; in order to offer support and planning in case of the need for transfer.

Special Care Units (SCUs) provide care for babies that do not require intensive care. SCU's in South East Coast Neonatal Network provide care for;

- Babies of 32weeks upwards with an expected birth weight of above1250g

Babies expected to deliver below the above criteria should be transferred out in-utero for delivery where possible.

Any baby requiring intensive care post-delivery should be stabilised and transferred out to an appropriate centre.

Exception Reporting

An established process is already in place that is led by the South East Coast Operational Delivery Network (ODN) whereby an exception report is completed for all births that occur outside the recommended setting according to the neonatal network guidance.

In order to maximise learning opportunities to prevent future occurrence of babies born outside the recommended care setting, each case should be reviewed by a multidisciplinary team soon after occurrence.

Review Team

The review team should have representation from each of the following:

- Consultant Obstetrician
- Consultant Neonatologist/Paediatrician with specialist neonatal knowledge
- Midwife
- Neonatal Nurse

The review may be undertaken within an already established MDT meeting such as a Perinatal Mortality & Morbidity meeting.

On-line representation from obstetric and/or neonatal team members from the Level 3 unit may be helpful in maximising learning opportunities.

Trust process

- When a baby meets the criteria for an exception report to be completed, a Datix should be generated from within the relevant Trust within 48 hours of the baby being born.
- An exception report should be completed within 7 days by an obstetric consultant and forwarded to the Maternity Governance Lead for inclusion at the next designated forum for case review and discussion. There is a proforma for reporting: Exception report for births in the wrong place (South East Coast ODN). A copy of which can be seen in appendix 4 of this document.
- Following the MDT review, the finalised and completed exception report should be sent to the ODN and LMS.
- A summary of the case review and learning should be shared at the next LMS Quality & Safety Forum. The LMS Safety Lead will contact each Trust ahead of the forum to ascertain whether there are any cases to be presented.
- Learning from each case will be shared by the LMS with the ODN at the next ODN Governance Meeting.

Appendix 4: ODN Exception Reporting Tool

South East Operational Delivery Network

Exception report for births in the wrong place:

<27 week or <28/40 multiples delivered in a centre without a NICU

<31 or 32 weeks (dependent of service spec) in a centre without a NICU or LNU

Unit Name:		
BadgerNet ID:	Date / time of delivery:	Gestation at birth:
Birthweight:	Number Fetus (>1 for multiple birth) :	Time of admission
Date of discharge	Hospital of discharge (if transferred)	Discharge destination.
Date / time of presentation of mother:		
Start of labour: Date / time / type (Iatrogenic or spontaneous) Rupture of membranes: Date / time / type Start of 2nd stage: Date / time Date and time of delivery : Method of delivery Please outline Concerns at presentation and rough timeline of events to delivery if not covered above		

Date of last presentation of mother (prior to delivery episode):
Please describe reason for presentation , eg routine outpatient appointment **Identify any risk factors or concerns documented for pre term birth at this stage. E.g.** Previous pre-term delivery, Current multiple pregnancy PET, APH, Signs of infection, Preterm Rupture of Membranes, Prolonged Rupture of Membranes > 18 /24 hrs (please circle), Shortened cervix on scan, Previous cervical treatment, Fetal abnormality, Placenta Praevia, IVF pregnancy

Prior to delivery were any of the following tests/investigations tried?
Fibronectin test : if so state positive result date or negative result date Ante natal steroids given : date & time Mg SO4 given : Loading dose date and time Maintenance dose date & time Antibiotics : date & time Rescue cerclage : date

Were efforts made to undertake an in- utero transfer prior to delivery?	**Yes**		**No**	
Please outline reason why transfer did not occur (e.g. Tertiary NICU unable to accept, Tertiary Obstetric service unable to accept, Delivery occurred prior to transfer, Maternal condition unsafe for transfer, Delivery indicated immediately.				

Prior to delivery did communications take place with a tertiary obstetric consultant?	**Yes**		**No**	
If no, why not?				
If yes, name / title of contact at tertiary unit and outline of communication that took place:				

Prior to delivery did communications take place with a tertiary NICU consultant?	**Yes**		**No**	
If no, why not?				

If yes, name / title of contact at tertiary unit and outline of communication that took place:				
Prior to delivery did communications take place with a senior midwife on labour ward of the NICU?	**Yes**		**No**	
If no, why not?				
If yes, name / title of contact at tertiary unit and outline of communication that took place:				
Have you reviewed this as a maternity clinical incident within your Trust?	**Yes**		**No**	
Name / title of reviewer(s)				
Please comment on any learning coming out of review. Or other learning. (e.g. Were any opportunities missed, could anything have been done differently , are there processes that could be improved in the future,)				

Outcome of baby :
(eg died, transferred. If remained on unit please say whether discussed with tertiary centre (If so who & when)

Exception Reported by:	
Name and Title:	Date:
Organisation:	