Wessex In-utero Transfer Guideline

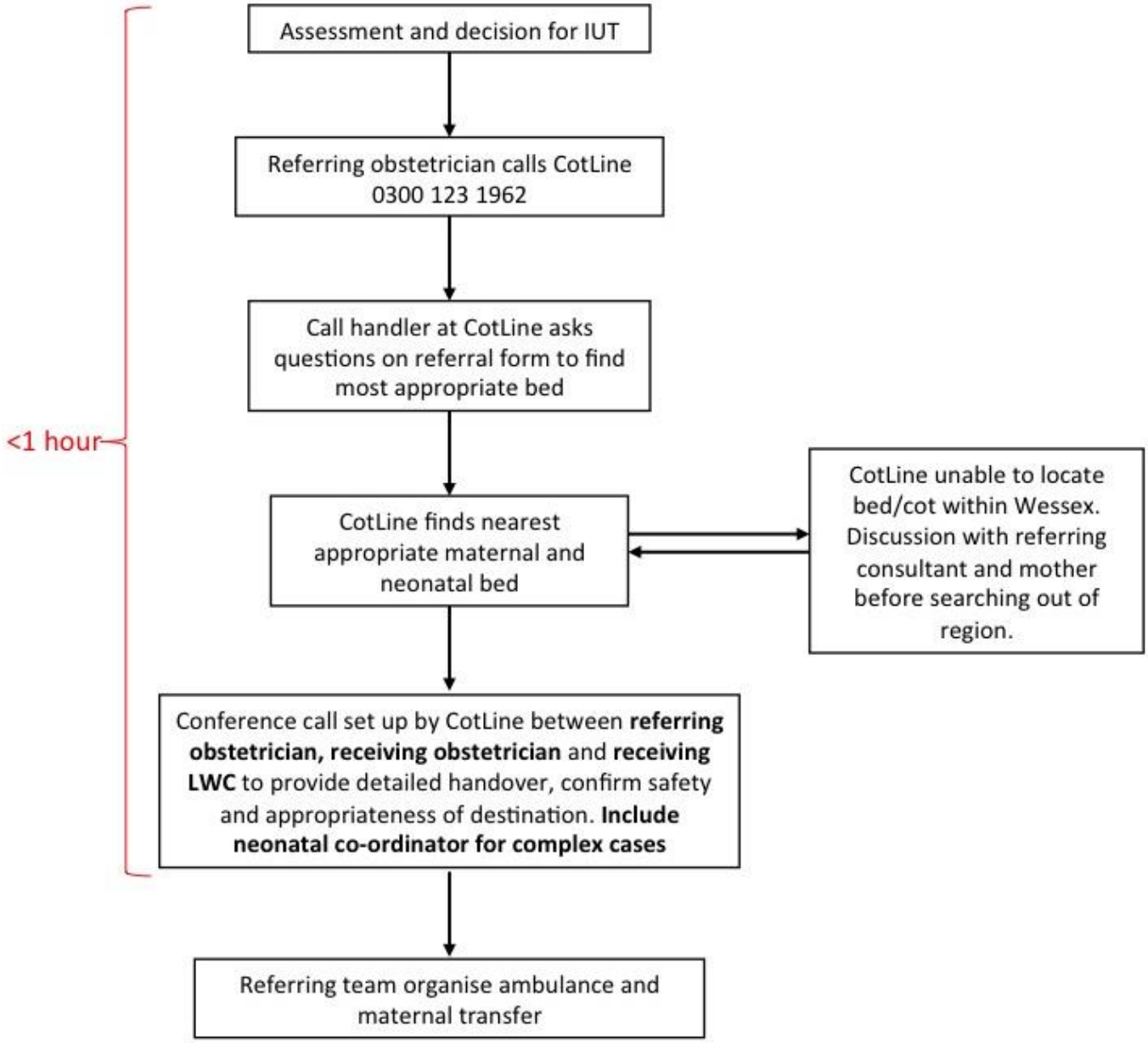
Title:	Wessex In-utero Transfer Guideline
Main Author(s):	N. Crawford, E. Brooke
Scope:	All Maternity and Neonatal services within Wessex
Ratified by:	Wessex Intrapartum Care Network (WICN)
Date Ratified:	29/04/2021
Review Date:	29/04/2023
Version:	4
Document status:	Version 4

Guideline Contributors	
Natalie Crawford	SHIP LMS Preterm Birth QI and Safety Fellow
Emily Brooke	SHIP LMS Preterm Birth QI and Safety Fellow
Mark Davey	SHIP LMS Obstetric Safety Lead
The Wessex Preterm Birth Network	
Lambri Yianni	Neonatal transformation fellow
Victoria Puddy	Clinical lead- Wessex Neonatal ODN
Gina Outram	Network manager- TVW Neonatal ODN
Latha Vinayakarao	WICN
Clare Halls	Labour Line
Liz Kimber	Labour Line
Tony Peters	South Central Ambulance Service

Document History			
Date	**Version**	**Author**	**Notes**
5/10/20	1	N CRAWFORD	First draft
25/03/21	2	E BROOKE	Adjusted following PTN consultation
30/04/21	3	E BROOKE	Adjusted following WICN consultation
13/05/2021	4	E BROOKE	Adjusted following regional feedback

Contents

Wessex In-Utero Transfers (IUT) Flowchart



Key Principles

It is the expectation that if a unit is open to accept their local population, then the unit is open to accept an appropriate IUT. The decision to decline an IUT due to neonatal cot availability or staffing should only be made if the neonatal consultant is in agreement. The decision to decline an IUT due to maternity bed availability or staffing should only be made when the obstetric consultant is in agreement.

Purpose

This guideline has been developed to provide a clear pathway for acute transfers of mothers and babies *in-utero.* It aims to clarify the agreed processes in place to ensure safe and timely transfer of women within the Wessex maternity and neonatal network to an appropriate location for mother and baby.

This guidance has been produced in collaboration with the *Wessex Intrapartum Care Network*, *Thames Valley and Wessex Neonatal ODN, South Central Ambulance Service (SCAS)* and *Labour Line*.

The aims of this guideline are:

- To ensure safe and timely transfer of pregnant mothers when the need for IUT has been identified.
- To reduce the clinical time spent organising in-utero transfers.
- To reduce the number of infants born in an incorrect care setting.
- To reduce the number of unnecessary or inappropriate IUTs.

This guideline should not replace local unit policies on maternity transfers. It is designed to complement existing maternity transfer guidelines by; informing clinicians of the network support available, empowering them to make appropriate decisions around IUTs and reducing inappropriate variations in care.

Background

The working party behind this guideline was formed in response to a need for uniformity in practice regarding IUTs within Wessex.

It is an extension of the '*Policy for transfer of infants to a Neonatal Intensive Care Unit/ Local Neonatal Unit*' (https://southodns.nhs.uk/wp-content/uploads/2018/11/Transfer-Policy-for-LNU-SCU-2018-Final-Version-ratified-Sept-2018.pdf), '*Management at the Extremes of Prematurity*' (https://southodns.nhs.uk/wp-content/uploads/2021/01/Extremes-of-prematurity-Final-Guideline-Jan-2021.pdf) and *'Policy for exception reporting of neonates who meet criteria for transfer to NICU/LNU' (https://southodns.nhs.uk/wp-content/uploads/2018/11/Exception-Reporting-Policy-reviewed-June-18-Final-version.pdf)* guidelines which both provide guidance on IUTs.

With the 2019 publications '*Saving Babies' Lives Version Two*' (NHS England) and '*Perinatal Management of Extreme Preterm Birth before 27 weeks of gestation: A Framework for Practice'*

(BAPM) the need for robust IUT pathways to optimise place of birth for the sickest babies has never been more apparent.

This led to the development of 'CotLine' which is a 24/7 telephone service that runs from the Labour Line, based at the SCAS Emergency Operations Centre in Otterbourne, Hampshire. It is staffed by experienced midwives and should be utilised to facilitate any acute in-utero transfer *within* and *in to* any Wessex maternity unit (Appendix 1).

Introduction

Neonatal care services are provided in a variety of settings, dependent upon the interventions required for the baby. Neonatal services are organised across three levels of care according to expertise, meaning not all neonatal units (NNUs) are commissioned to care for all babies. Details of Wessex NNU designations and admission criteria can be found in Appendix 1.

The majority of in-utero transfers will be for women at high risk of preterm birth. Preterm birth remains a major contributor to neonatal mortality and long term disability. Extremely preterm babies and those requiring tertiary neonatal care who are born in a Level 3 neonatal unit are less likely to die than those born into a Level 2 (or less) setting. It is widely documented that *in-utero* transfer to a tertiary centre optimises outcomes for the baby and is better than *ex-utero* transfer.

Because of this, neonatal networks recommend delivery of extremely preterm babies in a Level 3 unit. This is not always possible because of the unpredictable nature of preterm delivery, but high antenatal transfer rates can be achieved where there is consistency and cooperation among maternity units.

Wessex benefits from the services of two Level 3 neonatal units (Queen Alexandra Hospital, Portsmouth Hospitals University Trust and Princess Anne Hospital, University Hospital Southampton). In order to balance the maternity and neonatal workload between these sites and ensure cot and bed capacity for the women and babies who require the care of a tertiary unit, it will sometimes be necessary to organise in-utero transfers *from* these units *to* a Level 2 or 1 NNU. This guideline and the 'CotLine' service should still be used for in-utero transfers that are taking place to 'free up' a maternity bed or neonatal cot for another patient.

Scope

- Queen Alexandra Hospital, PORTSMOUTH HOSPITALS UNIVERSITY NHS TRUST
- Princess Anne Hospital, UNIVERSITY HOSPITAL SOUTHAMPTON NHS FOUNDATION TRUST
- Basingstoke and North Hampshire Hospital, HAMPSHIRE HOSPITALS NHS FOUNDATION TRUST
- Royal Hampshire County Hospital, Winchester, HAMPSHIRE HOSPITALS NHS FOUNDATION TRUST
- Poole Hospital, POOLE HOSPITAL NHS FOUNDATION TRUST
- Salisbury District Hospital, SALISBURY NHS FOUNDATION TRUST
- St Richard's Hospital, Chichester, WESTERN SUSSEX HOSPITALS NHS FOUNDATION TRUST
- Dorset County Hospital, Dorchester, DORSET COUNTY HOSPITAL NHS FOUNDATION TRUST
- St Mary's Hospital, Isle of Wight, ISLE OF WIGHT NHS TRUST

Plus

- Any unit wishing to transfer a patient **in to** a Wessex maternity unit
  Including Jersey General Hospital and Princess Elizabeth Hospital, Guernsey

Roles and responsibilities

This guideline applies to all clinical staff employed or contracted by any of the above organisations who provide antenatal care to women. Staff have a responsibility to ensure that they are aware of this guideline and its contents. They should clearly document their rationale if they have not complied with the recommendations detailed in this guideline. It is the responsibility of department managers, consultants, team leaders and education leaders to ensure staff are aware of this guideline.

Indications for transfer

The need for an in-utero transfer may arise due to the referring unit being unable to provide optimal care to a pregnant woman for a number of reasons. These include:

1. Preterm labour (neonatal gestational thresholds)
2. Neonatal indication (requiring specialist neonatal care or specialist paediatric care e.g. surgical intervention or cardiac opinion/intervention
3. Maternal indication (requiring specialist care)
4. Maternity bed/ neonatal cot capacity/ staffing

1. Preterm labour

The diagnosis of genuine preterm labour (PTL) can be difficult. Ideally the diagnosis will be made based on the findings of regular uterine contractions and a change in the cervix. Waiting for the latter might mean that the opportunity to arrange a transfer is missed. Therefore, when membranes are intact, biomarker tests (such as fetal fibronectin (fFN)) or transvaginal cervical length assessment) should be undertaken to establish the likelihood of preterm birth.

Local unit policies and guidelines on the following should be followed for the prediction, prevention and preparation for preterm birth:

- Fetal Fibronectin/ Actim Partus/ PartoSure
- Antenatal steroids
- Magnesium sulphate
- Tocolysis
- Preterm Prelabour Rupture of Membranes (PPROM)

There is increasing use of the 'QUiPP' app amongst clinicians across Wessex. The QUiPP app is a clinical decision-making tool that can help with the accurate diagnosis of preterm labour in women with symptoms as well as asymptomatic high-risk women (for example those under the care of the preterm birth prevention clinic). It has been designed for allied health professionals who look after pregnant women to calculate individualised % risks scores of delivery within pre-specified clinically relevant timeframes. It is designed to be used with women as an educational tool and to arrive at shared decisions regarding the management of their pregnancy.

It relies on a relevant clinical history having been taken regarding the woman's risk factors for preterm birth and her current symptoms. It relies on existing point-of-care testing: quantitative fetal fibronectin (fFN) sampling of the cervico-vaginal fluid and/or transvaginal ultrasound cervical length (CL) measurements. Therefore the user is expected to have significant midwifery or obstetric experience in order to use the QUiPP app or is working closely with a team-member who does.

Accurate diagnosis of preterm labour is desirable in order to prevent the maternal and fetal risks incurred when potential preterm labour is over-managed, without missing true cases. The QUiPP app should be used to aid decision making around the timing of administration of steroids and

magnesium sulphate as well as the need for IUT but should not be used as the sole clinical decision maker, especially when providing reassurance in high risk women.

Results and actions relating to the above should be communicated during the initial call to CotLine and during the conference call between the referring and receiving units.

On occasion there may uncertainty whether to transfer complex cases, such as those at the extremes of viability. There may be times when discussions are required between referring and receiving obstetric and/or neonatal teams prior to decision for transfer. CotLine can facilitate these discussions using multidisciplinary conferencing call facilities.

2. Neonatal indication

Some babies will have an antenatal diagnosis requiring specialist postnatal care. The location of this unit will usually be available in the Mother's notes. Wessex neonates requiring surgical intervention or specialist cardiac opinion/intervention will require in-utero or ex-utero transfer to University Hospital Southampton NHS Foundation Trust. In the absence of any maternal issues, in-utero transfer is preferred but the risk of delivery in transit should be absolutely minimal. It may be safer to deliver the baby in the local unit before stabilising and transferring ex-utero than risk delivery on route.

3. Maternal indication

There may be occasions where a woman needs to deliver in a specific tertiary unit due her medical history (e.g. cardiac, liver or renal disease). Whilst usually she would present to said unit at the time of birth, she may initially present to her local unit, thus necessitating IUT. The maternal condition must be such that it is safe for the woman to be transferred and not requiring intervention during transfer (e.g. antepartum haemorrhage or uncontrolled hypertension).

4. Maternity bed/ neonatal cot capacity/ staffing

The decision to transfer a woman out of a unit due to maternity bed capacity or staffing/ workload ratio should only be made after consultation between the midwife in charge of the labour ward and the obstetric consultant on duty or on call, or others as per local policy.

The decision to transfer a woman out of a unit due to neonatal cot capacity or staffing/ workload ratio should be made only after consultation with the neonatal consultant and nurse in charge, or others as per local policy.

Contraindications for transfer

- Significant risk of delivery occurring during transfer
- Known fetal compromise requiring immediate delivery
- Unstable maternal condition likely to require medical intervention during transfer (e.g. active antepartum haemorrhage, uncontrolled hypertension)
- Any other unstable maternal condition
- Mother refuses transfer
- Obstetric or neonatal staff unable to accept transfer

IUT process and care

Decision making

- All cases should be discussed with an obstetric consultant before arranging an in-utero transfer. This would usually be discussed by the most senior registrar on site.

Management prior to transfer

- For cases of preterm labour, appropriate clinical assessment should have been made in accordance with local guidelines (e.g. Fetal Fibronectin/ Actim Partus/ PartoSure/ cervical length assessment). If there is a delay in the woman departing the referring unit or if the clinical situation changes, then repeat assessment should be made to ensure that labour has not progressed such that transfer is unsafe.
- Antenatal corticosteroids should have been commenced (where appropriate) according to local guidance.
- Magnesium sulphate should have been commenced (where appropriate) according to local guidance. The infusion should be stopped during the in-utero transfer and re-commenced upon arrival at the receiving unit.
- If preterm labour is the indication for transfer then the use of tocolysis should be considered.
- If PPROM has been confirmed, prophylactic antibiotics should be administered in accordance with local guidance.
- Maternal conditions such as pre-eclampsia/APH should be stabilised prior to departure to minimise risk during transfer.
- The fetal condition should be appropriately assessed (this may include ultrasound and CTG assessment) by a senior obstetrician prior to departure. If there is evidence of fetal compromise requiring imminent delivery, the IUT should not go ahead.
- The need for IUT must be discussed with the mother and her family. They should be given written/ electronic information about the receiving unit. Consent must be obtained and documented.
- If there are any safeguarding issues regarding the woman or her unborn baby, the named social worker and local authority must be identified.

All of the above information including drug names, doses and administration timings must be clearly documented on the Wessex IUT handover sheet.

CotLine

The flow chart on page 3 gives an overview of how CotLine fits in to the Wessex in-utero transfer pathway.

CotLine is a designated phone line manned by the staff of the Hampshire Labour Line. These include midwives (band 6+) and MSWs (band 3+). The staff of CotLine have no clinical responsibility for the women being transferred. They act as a conduit to the multiple searches and phone calls that are often required to organise an IUT and alleviate this time-consuming process for the clinicians on labour ward. The summary flow charts for the cot and bed finding pathway and the telephone call pathway can be found in Appendices 2 and 3.

CotLine is staffed and available to contact 24/7. However, on rare occasions the needs of the Labour Line will require the attention of all available staff and the CotLine services may be unavailable for a short period of time. During such periods, if the in-utero transfer needs to be organised immediately, staff should revert to performing the bed/cot search and making the relevant phone calls themselves. Staff should adhere to the principles outlined below (especially with regards to escalation to obstetric and neonatal consultants before a transfer is declined). If it is acceptable to do so, the referring unit should wait a short period of time until CotLine is available as normal.

It is important to keep CotLine informed of any change in clinical situation (e.g. the woman delivers or is no longer safe for transfer). Calls to CotLine should be kept to a minimum, to allow the CotLine staff to focus on the bed/cot search and coordination of phone calls.

Staff at the referring and receiving units should minimise the risk of duplicating phone calls to CotLine.

Staff are expected to engage with the CotLine service, particularly with regards to receiving an IUT from another unit. The time from the initial call to CotLine to request an IUT to the start of the handover conference call should be no more than 1 hour (preferably less). Rapid escalation to senior obstetric, midwifery and neonatal staff is expected to eliminate delays in being able to accept an IUT due to labour ward activity and staffing. **It is the expectation that if a unit is open to accept their local population, then the unit is open to accept an appropriate IUT.**

The decision to decline an IUT due to neonatal cot availability should only be made if the neonatal consultant is in agreement. The decision to decline an IUT due to maternity bed availability should only be made when the obstetric consultant is in agreement.

Transport

Once the in-utero transfer has been accepted by the receiving neonatal and maternity unit, the referring unit should organise the transport. The mode of transport (usually ambulance or helicopter) will depend on the geography of each unit and the urgency with which the woman needs to be transferred.

Provision of an escort from the referring maternity team for the transfer will be made on a case by case basis.

The above should be agreed by all parties during the CotLine conference call.

Parental needs

The emotional needs of the parents must be recognised. A birthing partner should be allowed in the ambulance unless clinically unsafe or their presence would compromise the care being given. Parents should be given as much information about the unit they are being referred to as possible.

When considering available units for transfer, preference should be given to locations nearest to the mother's home address.

Documentation

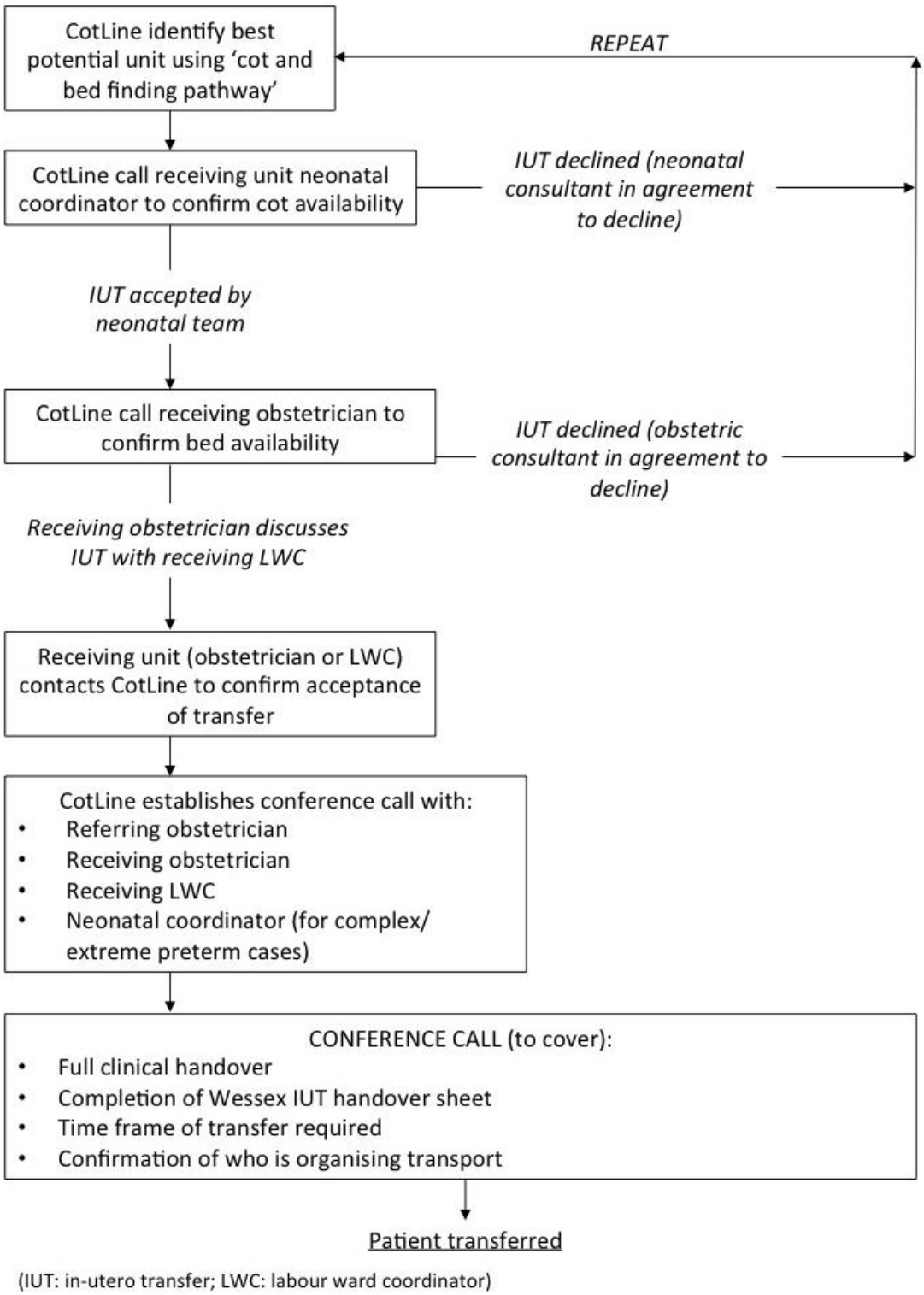
Photocopies of the relevant notes and investigations should accompany the mother for transfer. Hard copies will be retained in the referring hospital clinical notes. The Wessex IUT handover sheet (Appendix 4) should be started during the CotLine conference call, be present at the front of the clinical notes during handover and completed upon arrival at the receiving unit. This is designed to allow rapid sharing of relevant information upon arrival of the woman at the receiving unit.

Appendix 1: Wessex neonatal unit designations and referral criteria

Trust	Hospital	Designation		Referral Criteria
PORTSMOUTH HOSPITALS UNIVERSITY NHS TRUST	Queen Alexandra Hospital	Level 3	NICU	• <27 week gestation singleton • <28 week gestation twin • <30 week gestation higher order multiple (triplet +) • <800g EFW, regardless of gestational age • Any neonate over 27 weeks who receive or are likely to require ventilation for more than 48 hours (e.g. PPROM <27 weeks) • Any neonate likely to need complex care ie significant fetal anomaly or exchange transfusion
UNIVERSITY HOSPITAL SOUTHAMPTON NHS FOUNDATION TRUST	Princess Anne Hospital	Level 3	NICU	• <27 week gestation singleton • <28 week gestation twin • <30 week gestation higher order multiple (triplet +) • <800g EFW, regardless of gestational age • Neonates requiring surgical intervention • Neonates requiring specialist cardiac opinion/intervention • Any neonate over 27 weeks who receive or are likely to require ventilation for more than 48 hours (e.g. PPROM <27 weeks) • Any neonate likely to need complex care ie significant fetal anomaly or exchange transfusion
HAMPSHIRE HOSPITALS NHS FOUNDATION TRUS	Basingstoke and North Hampshire Hospital	Level 2	LNU	• >27 week gestation singleton • >28 week gestation twins • >30 week higher order multiples • >800g EFW • Any neonate above these thresholds likely to need short term intensive care ie ventilation for less than 48 hours
HAMPSHIRE HOSPITALS NHS FOUNDATION TRUST	Royal Hampshire County Hospital, Winchester	Level 2	LNU	
POOLE HOSPITAL NHS FOUNDATION TRUST	Poole Hospital	Level 2	LNU	
SALISBURY NHS FOUNDATION TRUST	Salisbury District Hospital	Level 2	LNU	
WESTERN SUSSEX HOSPITALS NHS FOUNDATION TRUST	St Richard's Hospital, Chichester	Level 2	LNU	
DORSET COUNTY HOSPITAL NHS FOUNDATION TRUST	Dorset County Hospital, Dorchester	Level 1	SCU	• >32 week gestation singleton • >1.25kg EFW
ISLE OF WIGHT NHS TRUST	St Marys Hospital, Isle of Wight	Level 1	SCU	• >32 week gestation singleton • >34 week gestation multiple • >1.25kg EFW

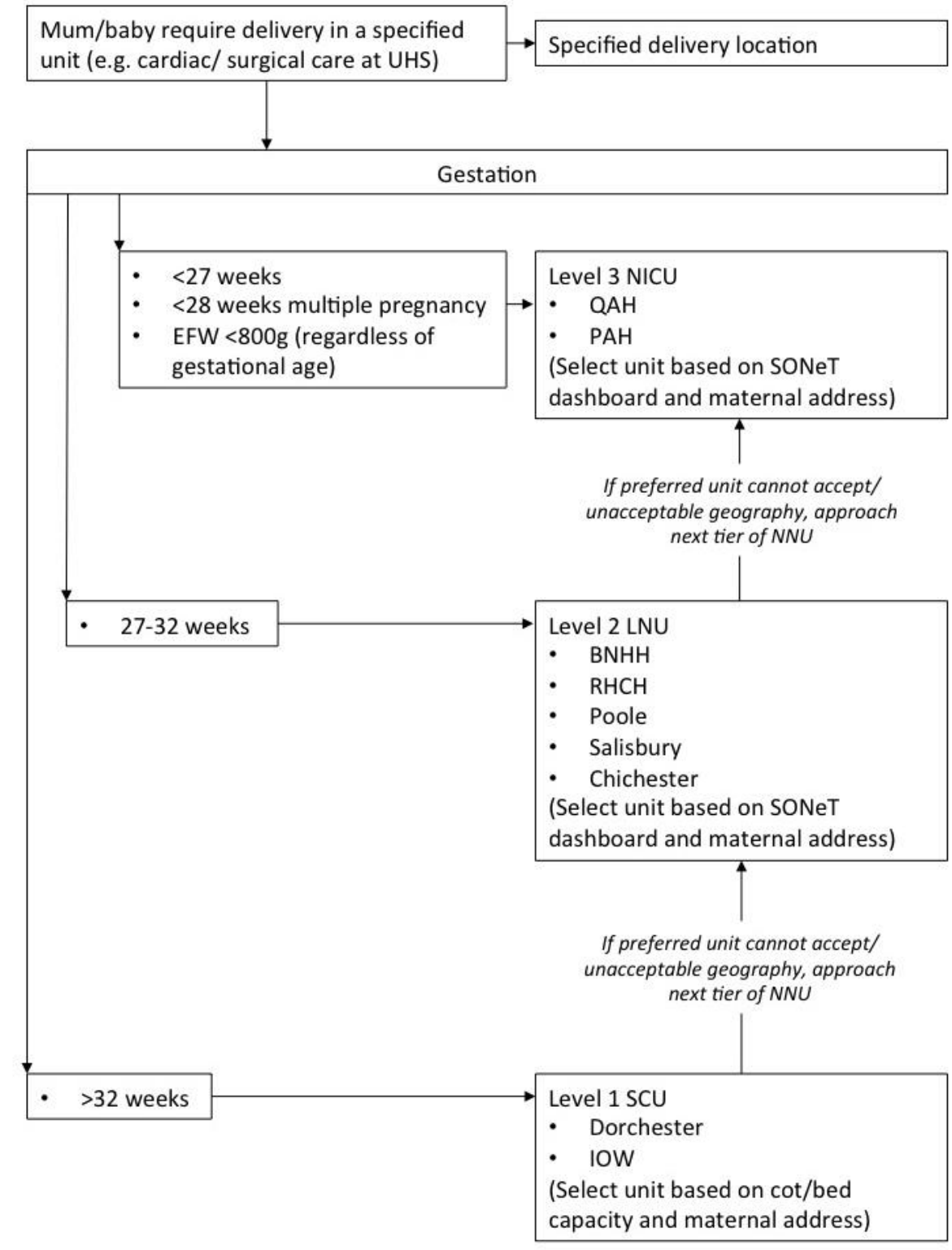
NICU: neonatal intensive care unit; LNU: local neonatal unit; SCU: special care unit; EFW: Estimated fetal weight

Appendix 2: Telephone call pathway for CotLine



(IUT: in-utero transfer; LWC: labour ward coordinator)

Appendix 3: Cot and bed finding pathway for CotLine



(EFW: estimated fetal weight; NNU: neonatal unit; LNU: Local Neonatal Unit; SCU: Special Care Unit)

Appendix 4: Wessex In-Utero Transfer Handover Sheet

<table>
<tr><td rowspan="4">Patient ID label</td><td colspan="2">EDD:</td></tr>
<tr><td colspan="2">Gestation:</td></tr>
<tr><td>Gravida:</td><td>Parity:</td></tr>
<tr><td colspan="2">Singleton/multiple pregnancy:</td></tr>
<tr><td>Transfer from (obstetrics)</td><td colspan="2">Transfer to (obstetrics)</td></tr>
<tr><td>Hospital:</td><td colspan="2">Hospital:</td></tr>
<tr><td>Dr name:</td><td colspan="2">Dr name:</td></tr>
<tr><td>Contact no/bleep:</td><td colspan="2">Contact no/bleep:</td></tr>
<tr><td>Consultant:</td><td colspan="2">Consultant:</td></tr>
<tr><td colspan="3">Reason for transfer:</td></tr>
<tr><td colspan="3"></td></tr>
<tr><td colspan="3">Drugs administered (dates/times):</td></tr>
<tr><td>Steroids:</td><td colspan="2">Magnesium sulphate:

Loading-

Maintenance-</td></tr>
<tr><td colspan="3">Other (e.g. antibiotics, tocolysis):</td></tr>
<tr><td colspan="3">Last ultrasound report (include gestation/ weight/ dopplers/ placental location/ any concerns):</td></tr>
<tr><td colspan="3"></td></tr>
<tr><td colspan="3">Obstetric history:</td></tr>
<tr><td colspan="3">

GBS status:</td></tr>
<tr><td>Past medical/ surgical history:</td><td colspan="2">Social history/safeguarding:</td></tr>
<tr><td></td><td colspan="2">If relevant, complete Appendix 5: UHS SBAR Safeguarding Handover</td></tr>
<tr><td colspan="3">COVID-19 status:</td></tr>
</table>

Appendix 5: UHS SBAR SAFEGUARDING HANDOVER

Patient sticker **Date……Time……..**	**Staff member transferring care** Name: Job title: Department: Ext/bleep: **Staff member accepting care** Name: Job title: Department: Ext/bleep:

S **Situation**	**Reason for admission:** Place of safety □ Baby's medical needs □ Other (give details below) □ Further information……..
B **Background**	**Copy of Midwifery Liaison Form/other relevant paperwork given** □ New / current concerns □ Historic concerns □ **Current issues:** Mental health □ Drug/alcohol misuse □ Learning difficulties □ Domestic abuse □ Housing □ Other (please write below) □ Further information …… …… **Details of any plan in place:** Allocated Social Worker □ Child Protection Plan □ Child in Need □ Early Help/Family Support □ Current orders in force / awaiting court date, e.g. ICO, PPO……..…
A **Agreed Plan**	**Current discharge planning arrangements:** Discharge to parents □ Discharge to Foster Care □ Undecided □ **Is a discharge planning meeting required?** □ Date/time/venue (if known)…….. ……
R **Recommendations**	**Visiting:** Unrestricted visiting □ Restrictions to visiting □ Supervised visits only□ (if so, by whom.....) Further Information (including plan if attempted removal): …… …… **Immediate plan of care:** …… ……

Once complete, copy to go into baby's notes / upload onto e-Docs

Social worker	**Any other relevant contacts**	**Maternal details**
Name……	Name…….. Role…… Tel…….. Name…….. Role……	Name…… DOB…….. H/N…… NHS……..