Title:	**NWNODN In Utero Transfer Guideline**
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Scope	All Maternity and Neonatal services within North West England North Wales Maternity services Isle of Man Maternity services North West Ambulance Service Wales Ambulance Service
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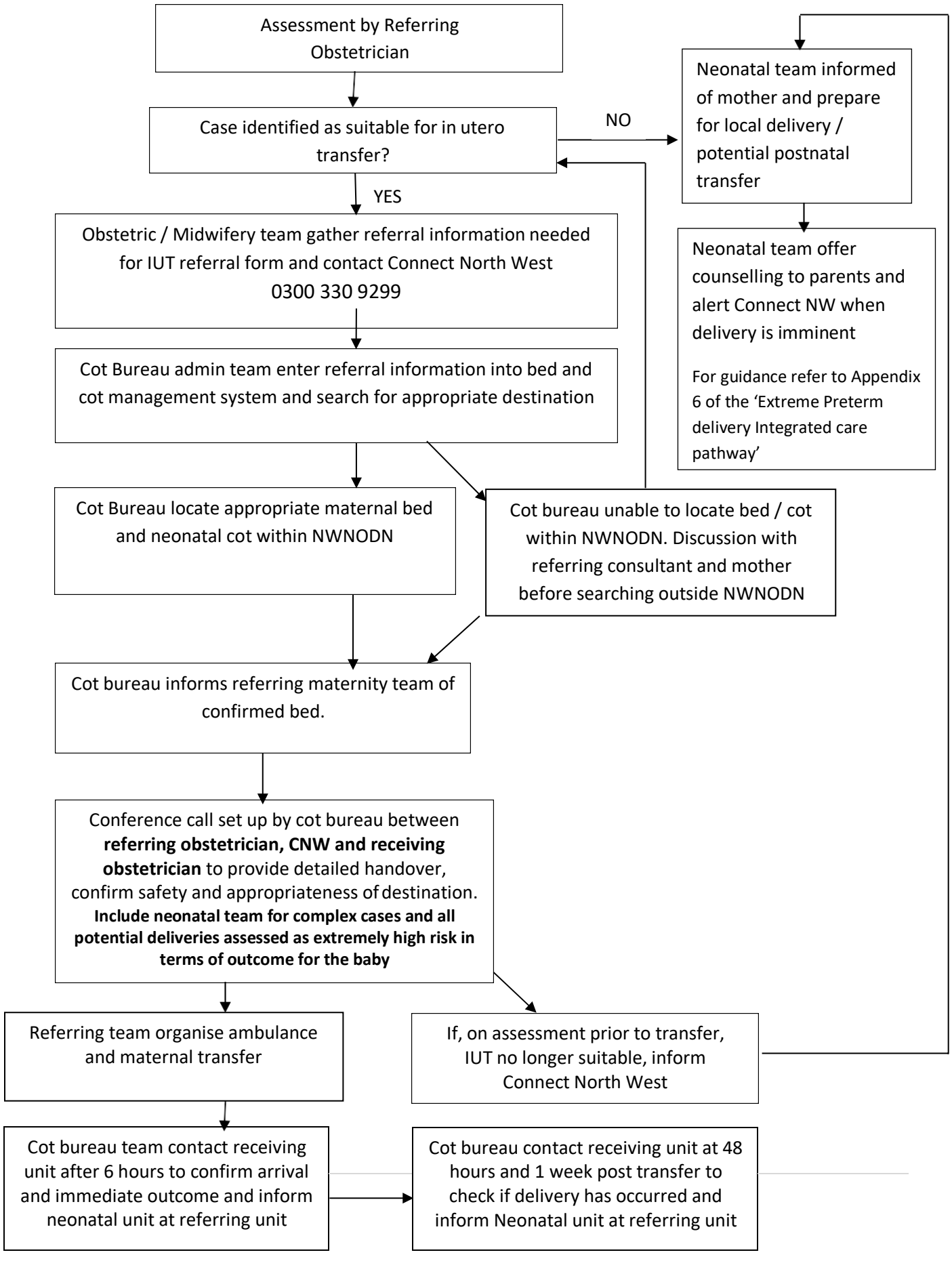
Document History:

Date	Version	Author	Notes
30/7/19	V8	KM	Front page amended by CN to use standard template. Review date extended. All guidelines to be reviewed every 3 Years
10/12/20	V9	CN	Reviewed by Preterm Guideline Author Group and amendments made to fall in-line with changes in guidance. Both guidelines are to be reviewed by PT G/L group
5/1/21	V9	CN	Circulated Dec 2020 to all Clinical Leads, HOMs, CNW, NWNODN SMT & authors / reviewers of preterm guideline. No further feedback or requested changes.
22/2/21	V10	CN	Further minor amendments following circulation by GM SCN & feedback from an Obstetrician. Advice sought & terminology for Doppler results amended. Taken to SMT for ratification

In-Utero Transfers (Flowchart)



Purpose

This guideline has been developed to provide the best available evidence-based practice for the acute transfer of mothers and babies in-utero. It aims to provide a clear process for in-utero transfers between hospitals and maternity units within regional networks and the wider North West Neonatal Operational Delivery Network (NWNODN). Excluded from this guidelines remit are elective transfers for ongoing management following detection of fetal anomalies or where a baby is not anticipated to require admission to the neonatal unit. This guideline includes collaboration with maternity and neonatal colleagues utilising the best available evidence, expert opinion and professional consensus.

Background

The North West is the third most populated region within the UK with a population of 6.9 million. Maternity and neonatal care across the North West is delivered by 21 maternity and neonatal units as well as Alder Hey Children's Hospital who provide neonatal surgical care. Care is delivered locally within 3 localities; Cheshire & Merseyside, Greater Manchester and Lancashire & South Cumbria. The networks and units are supported by the North West Neonatal Transport service; Connect North West, which facilitates bed location for in utero transfers and undertakes ex utero transfers across the region.

Introduction

There is clear evidence that babies born in facilities with neonatal intensive care when less than 27 weeks gestation or those that have a condition requiring tertiary neonatal care have better outcomes than those that are not (Marlow et al 2014, Watson et al 2014). The National Neonatal Audit Programme (NNAP) and NHSE have set a national target that at least 85% of deliveries for babies born below 27 weeks gestation (<28 weeks if multiple pregnancy) should be delivered in a maternity unit where there is also a level 3 Neonatal Intensive Care Unit (NICU).

Scope

All Maternity and Neonatal services within North West England
North Wales Maternity services
Isle of Man Maternity services
North West Ambulance Service
Wales Ambulance Service

Roles and responsibilities

It is the responsibility of all staff involved in transferring mothers to familiarise themselves with the content of this guideline.

Indications for transfer

- Uplift of care for mother, fetus or neonate, where active resuscitation is anticipated (from 22weeks gestation)
- Neonatal unit closed
- Maternity unit closed
- Neonatal unit capacity
- Maternity unit capacity
- Lack of availability of neonatal cot of the appropriate level
- Maternal request

Care Standards prior to transfer

1. Appropriate clinical assessment should have been undertaken at the host unit (including fibronectin/ /cervical length scan/QUiPP assessment where appropriate).
2. A course of corticosteroids should have been offered in accordance with NICE Guideline/regional guideline
3. Magnesium Sulphate regime should have been offered in accordance with NICE Guideline/regional guideline
4. If premature labour is the indication for transfer tocolysis would normally be in use.
5. If pre-labour PROM is the indication for transfer prophylactic antibiotics should have been commenced.
6. Maternal conditions, such as pre-eclampsia, APH etc., should be appropriately stabilised prior to transfer to minimize risk.
7. The fetal condition should have been appropriately assessed prior to transfer and deemed satisfactory
8. The need for in-utero transfer must be discussed with the mother and consent obtained and documented

IUT Process and care

1. All requests for IUT should be through the North West Cot Bureau (0300 330 9299)
2. The IUT standardised SBAR form (See Appendix 1) should be used for IUT referrals alongside the 'Extreme Preterm Delivery Integrated Care Pathway' for babies <27 weeks gestation
3. Details of the information required by the North West cot bureau, when making a referral, can be found in Appendix 2.
4. When a neonatal cot and an obstetric bed is confirmed, the referring obstetrician should discuss with the receiving obstetrician the safety and appropriateness of the proposed transfer with a detailed clinical handover prior to transfer. This can best be facilitated by a teleconference call organised by the cot bureau staff and may include the referring and receiving neonatal team for complex cases and all potential deliveries that are categorised as high risk or above.
5. If a bed cannot be located within the NWNODN, the cot bureau will contact the referring obstetric consultant to discuss the appropriateness and safety of a transfer out of region and to ensure the mother's continued consent to this.
6. The referring hospital remains responsible for the mother until handover at the receiving hospital.
7. Appropriately trained staff should accompany the mother during transfer.
8. Equipment and medication required during the transfer must be individualised to each mother and is the responsibility of the referring unit.
9. Both the maternal and fetal condition should be monitored safely during transfer.
10. Maternal observations should be recorded using the Obstetric Early Warning Score (OEWS) chart and a monitoring device used when travelling in the ambulance.
11. On arrival at the receiving hospital, a formal handover should take place with the obstetric team.
12. Formal handover at receiving hospital should be documented in the transfer pro-forma and the extreme preterm delivery Integrated care pathway will continue to be completed.
13. The referring trust must ensure that staff and equipment are enabled to return to their base unit after completion of the transfer process.
14. The outcome of the IUT should be recorded by the cot bureau.
    a. They will contact the receiving unit approximately 6 hours after transfer has been agreed to confirm that the transfer has been completed and the immediate outcome.
    b. They will contact the receiving unit at 48 hours and 7 days post transfer to record if delivery or other outcome has taken place.

15. It is expected that the referring maternity team would contact the receiving maternity unit for an update on the case to promote continuity.
16. The regional database information should be audited to improve consistency of the transfer process and promote patient safety during transfer.
17. Multi-disciplinary review should take place for any IUT not completed where the decision was made this was the most appropriate action, to promote safety and share lessons learnt.

References

1. Perinatal outcomes for extremely preterm babies in relation to place of birth in England: the EPICure 2 study. Marlow N, Bennett C, Draper CS et al. Arch Dis Child Fetal Neonatal Ed 2014 https://www.ncbi.nlm.nih.gov/pubmed/24604108
2. The effects of designation and volume of neonatal care on mortality and morbidity outcomes of very preterm infants in England: retrospective population-based cohort study. Watson SI; Arulampalam W; Petrou S; Marlow N; Morgan AS; Draper ES; Santhakumaran S; Modi N; Neonatal Data Analysis Unit and the NESCOP Group. BMJ 2014 https://bmjopen.bmj.com/content/4/7/e004856
3. The benefit of preterm birth at tertiary care centers is related to gestational age. Lee SK, McMillan DD, Ohlsson, A et al. Am J Obstet Gynecol 2003 https://www.ncbi.nlm.nih.gov/pubmed/12634630
4. Fenton AC, Ainsworth SB, Sturgiss SN. Population-based outcomes after acute antenatal transfer. *Paed Perinatal Epid* 2002; 16 (3) 278-285 https://onlinelibrary.wiley.com/doi/abs/10.1046/j.1365-3016.2002.00412.x
5. https://pathways.nice.org.uk/pathways/preterm-labour-and-birth

APPENDIX 1: SBAR Proforma for IUT							
Situation			Patient Sticker				
	Yes	No	Additional Information				
Mother is aware of transfer (out)							
Family aware of transfer							
Ambulance arranged			Date		Time	Ref no	
Transfer arranged by :			Date			Time	
Hospital arranging transfer out:-							
Name of Consultant on call :-							
Hospital receiving transfer :-							
Name of receiving Consultant :-							
Consultant to Consultant discussion:- Yes Summary:							
Gravida Parity Singleton / Multiple pregnancy ……. EDD = Gestational age:							
Past Medical/Surgical History							
Past Obstetric History							
Reason for transfer :-							
Background							
Reason for admission							
Reason for transfer :-							
Safeguarding issues:-							
Communication problems:-							

Assessment	Yes	No	Comments
ID name band			
Allergies			
Regular medications taken			
Drugs given			Steroids / Tocolysis / MgSo4/antibiotics
CTG DR criteria met or normal CTG by NICE criteria			
Observations within normal range			(If no state why)
Bloods Hb and blood group			
Speculum			
HVS			
Fibronectin/ cervical length/ QUiPP			Results
VE see notes for details			
Regular medications taken			
Medication (chart enclosed)			
USS findings including presentation			
Tightenings / contractions			T = 1 in C = 1 in
SROM			
PV loss specify			
Anti-embolic stockings			
Infection status			
Copy of hand held notes and drug charts with patient			
Patient has own medication with her			
Shift Leader telephoned by hospital at time of departure for transfers out			
Photocopy of completed SBAR in notes of hospital arranging transfer out			

Recommendations	Comments

Completed by		Signature	
Designation		Date and Time	

Appendix 2: In-Utero Transfer Referral Information Required by Cot Bureau		
Date:	Time:	Connect North West Reference Number:
Referring clinician name & designation	Referring unit and contact no	Referring Obstetric consultant
Patient Name: First & Surname	DOB:	NHS Number: Local Hospital Number:
Maternal Address	Postcode	
Indication for transfer (drop down) It is acknowledged transferring during establish labour is rare and each situation will be assessed on an individual basis	Choose one from list OR could have multiple options	Threatened preterm labour Established preterm labour IUGR / fetal compromise Other fetal indication (specify) Antepartum haemorrhage Other obstetric indication (specify) Maternal medical indication (specify)
Significant previous obstetric history	Gravida Parity	Free text comments
Level of receiving neonatal / maternity unit required	Choose one or more of the options	- Special Care Baby Unit - Local Neonatal Unit - Neonatal Intensive Care Unit - NICU linked to surgical centre - NICU linked to cardiac centre - Tertiary Perinatal Centre - Other specialist centre for maternal reason
Pregnancy Details		
Gestation Multiples		Gestation: Weeks + Days Multiples? Drop down singleton/twins/trips etc If yes, chorionicity drop down MCMA / MCDA / DCDA / Other
Antenatal Steroids	Date/time last dose:	Antenatal steroids Drop down - None - Awaiting first dose - Completed first dose -Completed 2nd dose -Received multiple courses
Neuroprotection		Magnesium Sulphate Drop down -Not received -In progress -Completed
Tocolysis		Tocolysis Drop down None / Atosiban / Nifedipine / Other
Other medication		Other medication (drop down)

Rupture of membranes	Yes ☐ No ☐ If Yes	Date & Time Nature of liquor (Drop down: Normal / Offensive / Meconium)
Assessment Details		
Any signs of maternal infection	Yes ☐ No ☐ If Yes	Maternal pyrexia Yes ☐ No ☐ Highest temperature: Maternal antibiotics Yes ☐ No ☐ Name: (drop down) Latest CRP:
Established labour Last VE	Yes ☐ No ☐ Date / Time	Contracting Yes ☐ No ☐ Frequency of contractions: Type of VE (speculum / digital / both / none) Cervical dilatation: Effacement (fully / partially / not effaced)
Cervical length scan		Yes / No / length (mm)
Predictive swab:		Not indicated / Not performed / Not known / Positive / Negative (name of test) and value
QUiPP risk of birth calculated?	Yes/no	If yes, chance of birth in next wk (value as a %) ……
Any significant bleeding (antepartum haemorrhage)	Yes ☐ No ☐	
Placental site		Grade of placenta praevia (low lying) 1 /2 /3 / 4 Anterior / Posterior
Presentation		Cephalic / Breech / Transverse
Fetal ultrasound scan/growth		
Fetal medicine involvement		Details of fetal medicine review
Intra-uterine growth restriction Umbilical artery Doppler abnormality	Yes ☐ No ☐ Yes ☐ No ☐	Estimated Fetal Weight: Absent EDF/ Reversed EDF/Doppler PI>95th centile **Significant** abnormalities found on anomaly scan:
Additional information Placental abnormality ?	Yes ☐ No ☐	
Other Information		
Safeguarding issues		
Other medical concerns		
Infection risk		
Name of referrer	**Date & Time**	