Birmingham and Solihull United Maternity and Newborn Partnership

Single point of access (single telephone number) pathway for the referral of women presenting with PPROM between 22+0 - < 27 weeks gestation within the LMS and Worcester, Hereford and Birmingham City Hospital

Introduction

The outcome for babies born < 27 weeks gestation is significantly improved if they are delivered in an obstetric unit with an associated level three NICU. The BSoL LMS hosts two such units namely Birmingham Women's Hospital (BWH) and University Hospital Birmingham (UHB). The catchment for these providers includes Worcester and Hereford, Birmingham and Solihull and Birmingham City Hospital (Figure 1). Recent data has shown that up to half of the babies from Worcester and Hereford born at this gestation are not delivered in an obstetric facility with a level three facility. Automatic acceptance of women in preterm labour has been resisted because of obstetric capacity concerns. This paper sets out a proposed pathway for managing these pregnancies to support the objective of ensuring all women from Birmingham, Solihull, Worcester and Hereford who deliver before 27 weeks do so in an appropriate level 3 setting that will optimise their outcome.

Scope

All women from Birmingham, Solihull, Worcester, Hereford and Birmingham City Hospital who are ***gestational age 22+0 – 26+6 days and have spontaneous ruptured membranes***.

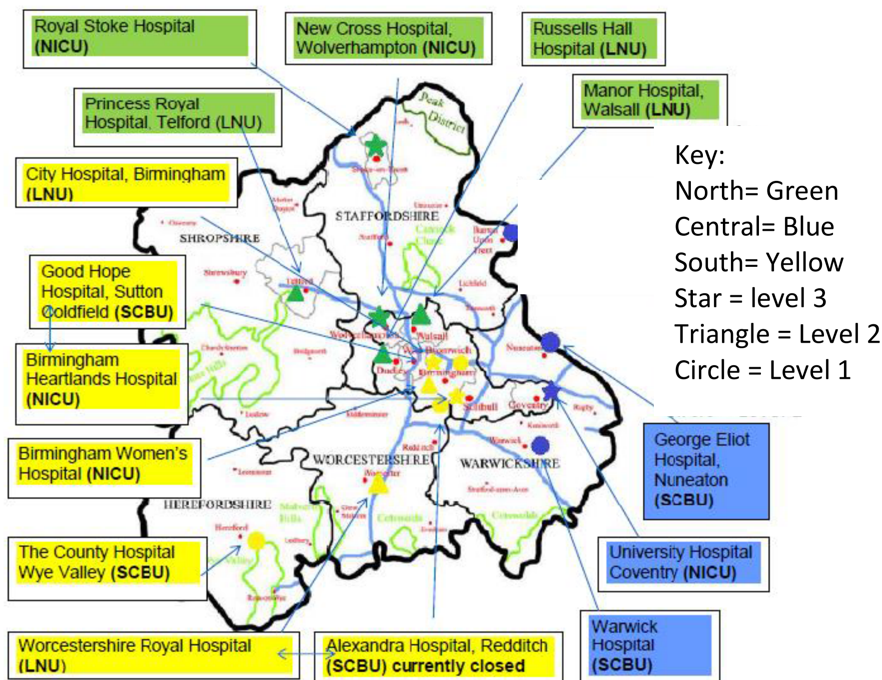


Figure 1. West Midlands Neonatal provision and ODN

Single Point of Access

This pathway provides for a ***single telephone number*** operated by the **NTS /KIDS** service for referrers to call. The NTS/KIDS service will coordinate and chair a conference call between the referrer and either of the LMS receiving unit (BWCH or UHB). This is ***not*** a retrieval service. Ambulance transfer processes remain as they are currently and will continue to be the responsibility of the referrer to arrange.

Conference call procedure

1. Referrer identifies need and calls NTS/KIDS number – **Pathway A** (see below)
2. The referrer needs to be clear that they are requesting a conference call for the ***in-utero transfer of a women, gestational age of 22+0 and 26+6 with spontaneous rupture of membranes***.
3. The call will normally be chaired by an NTS/KIDS consultant.
4. The neonatal & obstetric consultants should determine locally whether to include their neonatal /midwifery nurse in charge on the call.
5. If a consultant is unable to take the call they must ensure there is someone else who can take it.
6. Whilst the intention is to default to accepting these referrals within the LMS, if neither UHB nor BWC can accept, the onus to find a suitable cot/bed will then be transferred back to the referring hospital by the NTS/KIDS coordinator.
7. If the NTS consultant is inundated with clinical commitments, the KIDS consultant should be approached to lead the call conference. If both consultants are otherwise engaged there may not be a KIDSNTS consultant chairing the call. The conference call should still continue.
8. In the unlikely event the NTS/KIDS administrative team are unable to coordinate the conference call, the referring team will revert to the direct approach to BWCH/UHB-HGS – **Pathway B** (see chart below).

Principles to be applied by both providers

1. Every effort will be made to accommodate requests for IUT of women from Worcester, Hereford and City Hospital that fulfil the criteria set out below. ***"Yes" is the default***.
2. The midwifery, neonatal and obstetric senior staff will work collaboratively between BWCH and UHB/Heartlands to achieve this.
3. Delivery suite capacity and safety will be assessed by the consultant obstetrician and the most senior midwife or operational manager on site.
4. If a woman fulfilling the criteria cannot be accepted the incident will be reported on Datix

5. All women will be assessed at booking for their risk of preterm labour; the risk assessment result recorded on Badgernet and in the event of an increased risk identified, the women referred to a PPC or equivalent (this is an action for all maternity service providers).
6. The impact of this pathway will be evaluated and reported through governance processes.

Principles to be applied be referring units

1. Application of risk assessment for Preterm labour in line with Saving Babies Lives Care Bundle V2 implementation.
2. Actions taken prior to transfer as described below.
3. Reciprocity between neonatal units if required to create capacity to enable transfer.
4. Effective clinical handover of care of woman.

Criteria for transfer within the terms of this policy (part 1 implementation)

1. Gestation less than 27 weeks and >/= 22+0 weeks
2. Preterm Premature Rupture of Membranes (PPROM) confirmed by speculum examination ***or*** positive phosphorylated insulin‑like growth factor binding protein‑1 test or placental alpha‑microglobulin‑1 test of vaginal fluid

Risk assessment for preterm labour

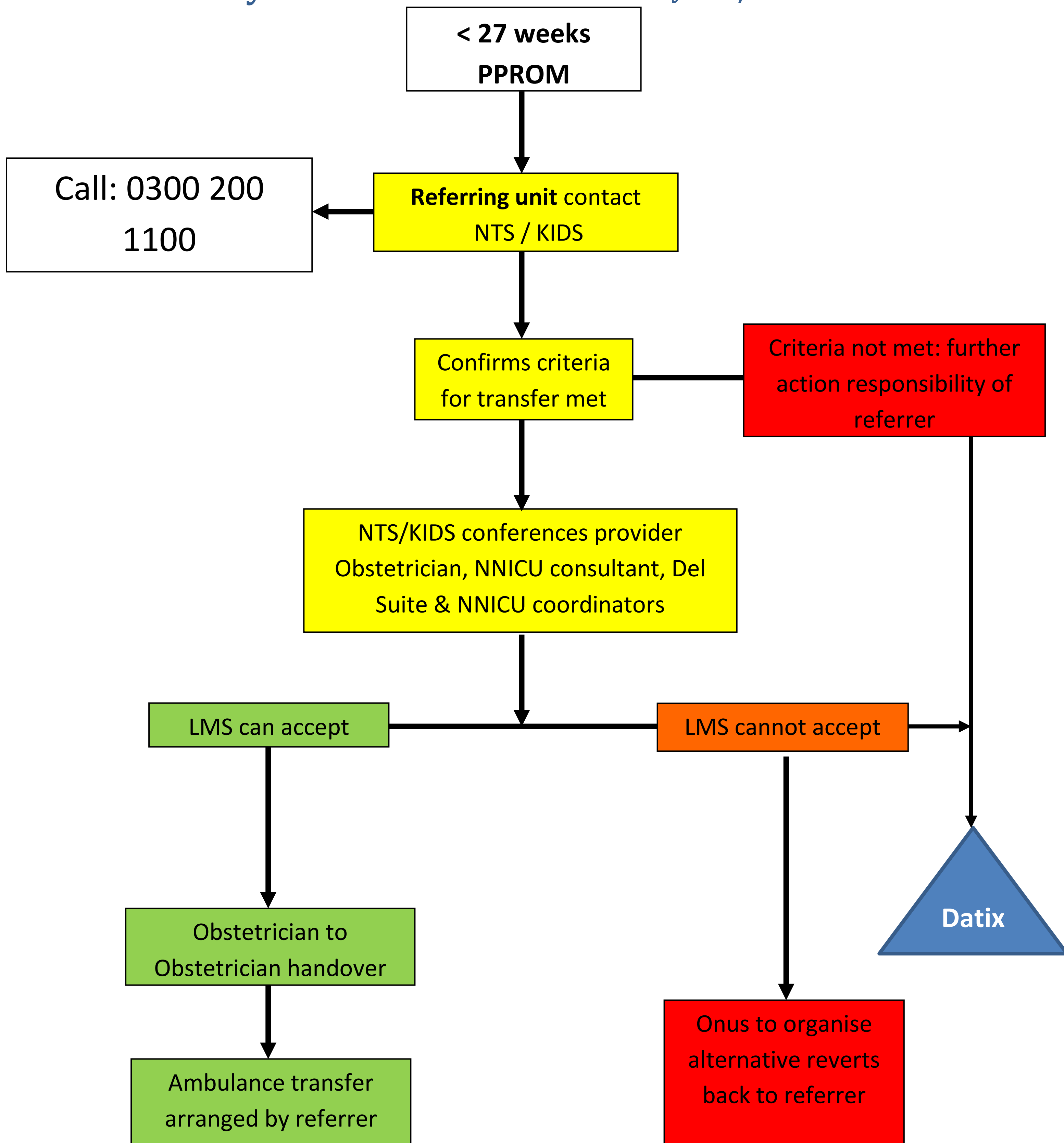
All women should have an assessment of their risk of preterm birth documented at their first antenatal assessment.

Women with the following are considered at risk of preterm labour and birth:

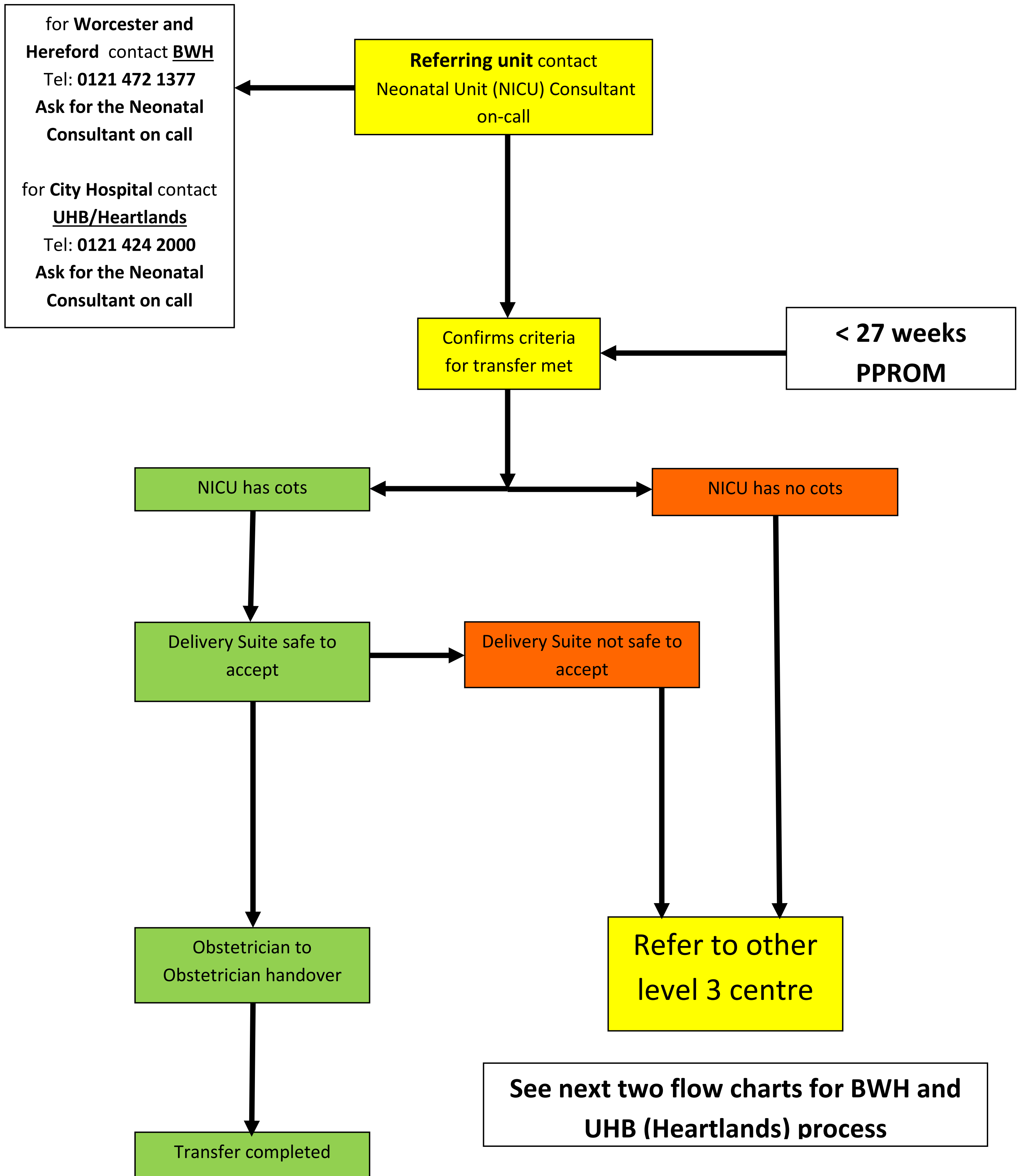
- a history of spontaneous preterm birth
- a history of preterm pre-labour rupture of membranes
- a history of mid-trimester loss
- a history of cervical trauma (including surgery)
- a short cervix that has been identified by scan.

Women identified as being at risk of preterm birth should attend a clinic specialising in preterm birth prevention.

Pathway A – Conference call coordinated by NTS/KIDS

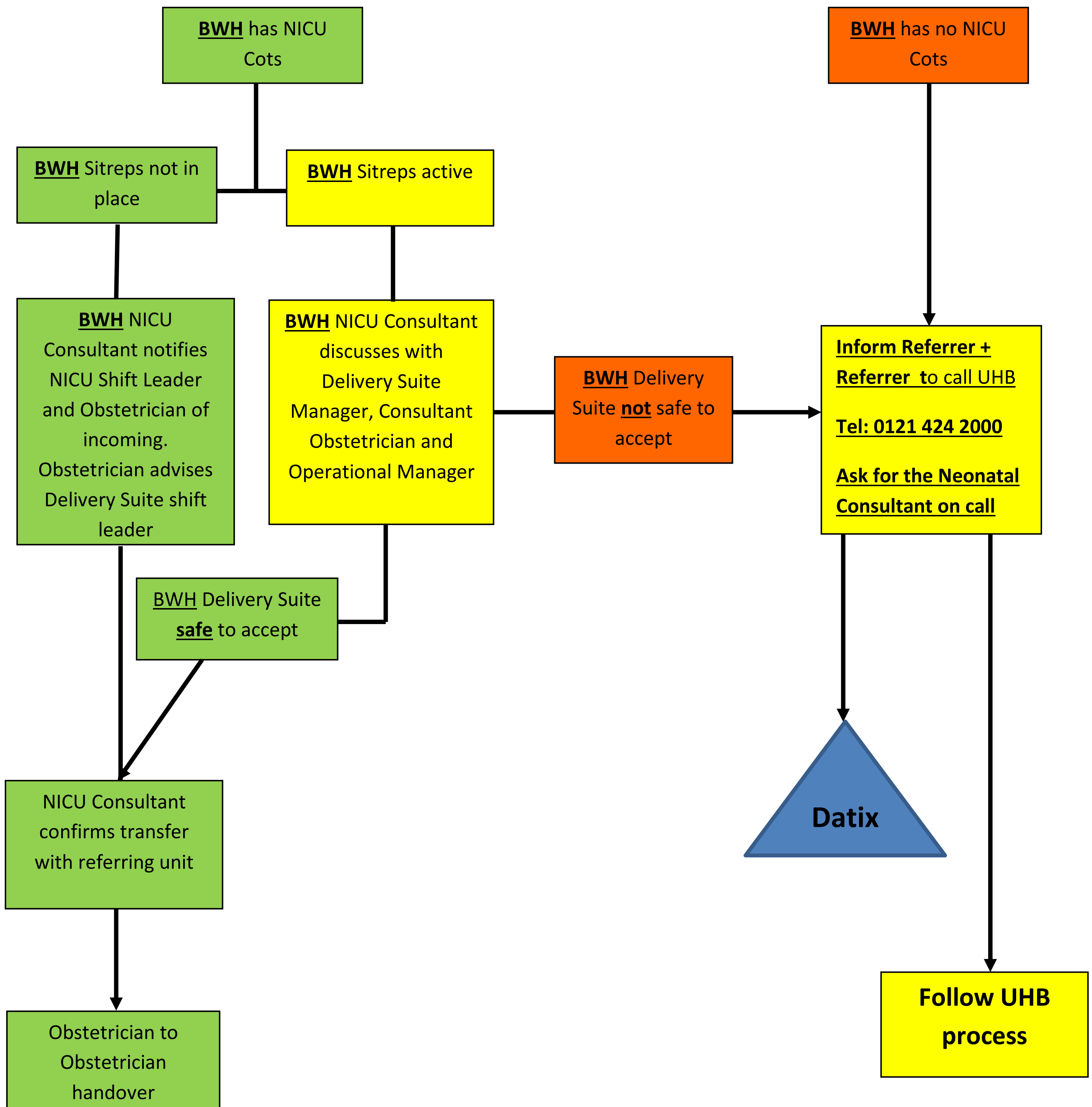


Pathway B: Direct referral; NTS/KIDS unable to coordinate call

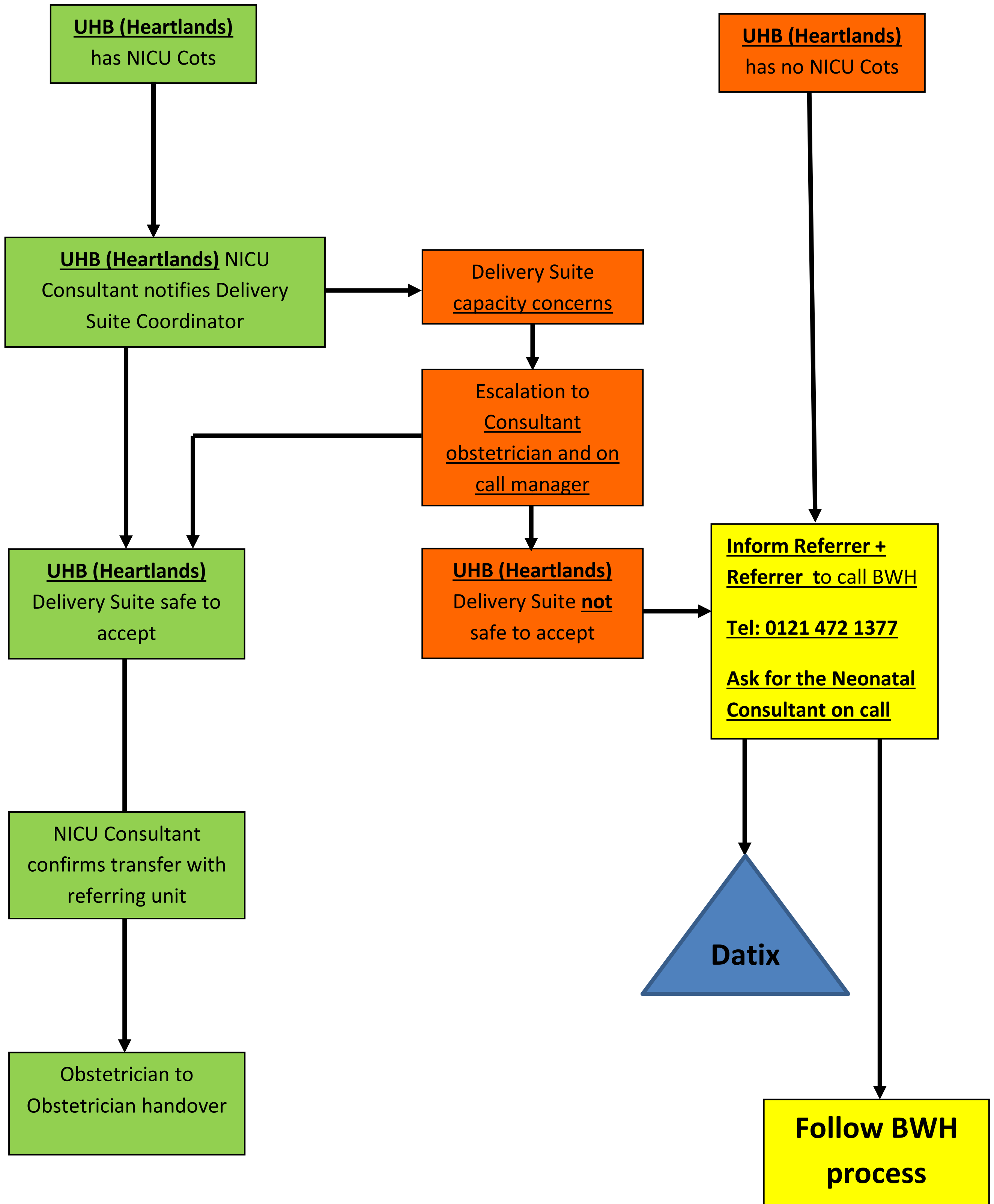


Pathway B

BWH Process



Pathway B UHB (Heartlands) Process



Actions to be taken by the referring unit before transfer

1. Diagnosis
2. Prescribe Nifedipine unless contraindicated or there is PPROM
3. If Nifedipine is contraindicated and there is no PPROM prescribe Atosiban
4. Administer first dose of steroids if not already started
5. Prescribe Magnesium Sulphate (bolus and commence infusion)
6. If PPROM, commence antibiotics – Erythromycin first choice

Outcome measures

1. **Primary outcome**: the proportion of babies from the scope area who are born less than 27 weeks and delivered at either BWH or UHB
2. **Secondary outcomes**:
    a. Number of preterm infants transferred out of the LMS for capacity reasons
    b. The neonatal mortality rate of the babies transferred

The data will be reviewed by the BSoL LMS Board at six months from the initiation of the pathway

Implementation

Part 1.

1. Criteria for automatic acceptance will be restricted to under 27 weeks and PPROM provided level 3 cot space is available
2. The default position will be acceptance for transfer with the criteria specified
3. The pathway provides for consideration of delivery suite service pressures by senior staff
4. Will be evaluated at 3, 6 & 12 months

*Subject to the evaluation and assessment of the impact on **BWH & UHB** capacity Part 2 will commence.*

Part 2.

1. Access through central number (Single point of Access) coordinated by NTS/KIDS.
2. Single point of access to operate from 6th January 2020 as a pilot
3. Pilot to be evaluated after six months.

Part 3.

1. Criteria for automatic acceptance will be expanded to include those women under 27 weeks with symptoms suspicious of preterm labour and *positive* Fetal Fibronectin or quantitative Fetal Fibronectin >50 nanogram/ml before cervical examination or Ultrasound cervical length <15mm or PPROM

2. The default position will be acceptance for transfer with the criteria specified
3. The pathway provides for consideration of delivery suite service pressures
4. Implementation date is set for 1st October 2020
5. The second stage will be evaluated at 12 months

Pathway development next steps

1. **Feedback from Stakeholders (July 2019)**
2. **LMS Neonatal Workstream for approval (July 2019)**
3. **Clinical Workstream for approval (July 2019)**
4. **LMS Board Approval (September 2019)**
5. **Provider governance approval (September 2019)**
6. **Develop single number access through Operational Delivery Group and Neonatal Workstream (January 2020)**
7. **Communication of pathway to relevant stakeholders**

References

1. Marlow N,Bennett C, Draper ES, et al. Perinatal outcomes for extremely preterm babies in relation to place of birth in England: the EPICure 2 study Arch Dis Child Fetal Neonatal Ed 2014;99: F181–F188.
2. Preterm labour and birth. NICE Guideline NG25 (2015) https://www.nice.org.uk/guidance/ng25/chapter/recommendations#symptoms-of-preterm-labour
3. Thomson AJ, on behalf of the Royal College of Obstetricians and Gynaecologists. Care of Women Presenting with Suspected Preterm Prelabour Rupture of Membranes from 24+0 Weeks of Gestation. BJOG 2019; https://doi.org/10.1111/1471-0528.1580