University Hospitals Plymouth NHS Trust

MATERNITY GUIDELINES

Intrapartum care and cord bloods

Contents

1. Introduction

The following guideline pertains to the care of all women in labour regardless of the environment that they are cared for in. All women should receive individualised care according to their own personal needs and preferences.

Choosing Planned Place of Birth

1.1 Explain to both multiparous and nulliparous women who are at low risk of complications that giving birth is generally very safe for both the woman and her baby.

1.2 Explain to both multiparous and nulliparous women that they may choose any birth setting (home, freestanding midwifery unit, alongside midwifery unit or obstetric unit), and support them in their choice of setting wherever they choose to give birth. Please advise women that all options may not be available in the local geography, and choices such as a midwifery led unit may require some travelling.

- Advise low-risk multiparous women that planning to give birth at home or in a midwifery-led unit (freestanding or alongside) is particularly suitable for them because the rate of interventions is lower and the outcome for the baby is no different compared with an obstetric unit.

- Advise low-risk nulliparous women that planning to give birth in a midwifery-led unit (freestanding or alongside) is particularly suitable for them because the rate of interventions is lower and the outcome for the baby is no different compared with an obstetric unit. Explain that if they plan birth at home there is a small increase in the risk of an adverse outcome for the baby. **(Please see appendix 2 for further information)**

2. Care Pathway in Labour

Women who have been midwife led in pregnancy should be assessed for suitability to be midwife led in labour.

The inclusion criteria for MLC:

- Spontaneous onset of labour
- Be 37-42 weeks gestation
- Cephalic presentation
- Singleton pregnancy
- No medical/obstetric complications (please see appendix 1)
- <P4

There is no evidence to support the use of 'admission CTGs' in low risk women. Intermittent auscultation should be default for all women unless there is clinical indication for CTG, which should be clearly documented. **Please see guideline The monitoring of fetal well-being during labour.**
http://staffnet.plymouth.nhs.uk/Portals/1/Documents/Trust%20Documents/Maternity/Intrapartum/The%20monitoring%20of%20fetal%20well-being%20during%20labour.pdf

Women who develop complications should be transferred to obstetric care. The decision of transfer should be discussed with the woman and her birth partners. The co-ordinating midwife and obstetrician should be informed. Indication and timings of transfer of care should be clearly documented in the patient notes and computer systems should also be amended accordingly.

3. On Admission

Introductions should be made to the woman and her birth partners with a full explanation of your role in her care.

All documents pertaining to assessment and admission should be completed, including the following;

- Thromboprophylaxis risk assessment
- Latex allergy risk assessment
- Manual handling/ tissue viability
- The management plan

4. Initial Assessment

On admission in labour there should be a discussion between the midwife, mother and her birth partners regarding birth preferences.

The following examination should take place:

- Baseline observations (BP, Temperature, Pulse, respirations, oxygen saturations and urinalysis).
- Abdominal palpation, to include fetal lie, fetal presentation and level of presenting part in relation to the pelvic brim. The abdominal palpation should also include tone of the uterus and the symphysis fundal height.
  NB: If the symphysis fundal height, when plotted on the growth chart, shows static or reduced growth &/or a clinical suspicion of a small for gestational age fetus, there should be a discussion with a senior registrar or consultant regarding the appropriate method of fetal monitoring. If the patient has been referred for an ultrasound scan for concerns with growth or fetal movements then continuous fetal monitoring throughout labour would be recommended.
- Assessment of strength, length and frequency of contractions.
- Record any vaginal loss to include colour of liquor if spontaneous rupture of membranes has occurred.
- Fetal assessment to include auscultation of fetal heart for at least one minute immediately following contraction. Mode of auscultation should be documented (i.e. pinnard stethoscope, Doppler). Fetal heart should be documented as one single rate and maternal pulse should be palpated to differentiate.
- A record should be made of fetal movements.
- Offer vaginal examination to assess cervical dilatation/ progress. Ensure that vaginal examination is necessary and add important decision making information. Explain to the patient why it is needed and what it involves. Gain verbal consent and maintain dignity throughout procedure. Sensitively explain findings to the woman and her birth partners.

Following assessment of contractions vaginal examination may be offered but may not always be necessary. **Please see section 5 Latent Phase.**

A woman in established labour should receive 1:1 care. She may be left for short periods of time only, or at her own request.

5. Latent Phase

The latent phase of labour is defined as a period of time, which is not necessarily continuous in the presence of:

- Painful contractions **and**
- There is some cervical change, including cervical effacement and dilatation up to 4cm.

Women who attend the unit and are found to be in the early stages of labour should be supported to return home with coping techniques, i.e breathing exercises, simple analgesia or being in water. Women and their birth partners should be given information as to when to contact triage again.

If wanting to use TENS machine it should be commenced in the early stages of labour as starting use in the active stages will mean it is not effective.

Please see Pain relief in labour guideline.
http://staffnet.plymouth.nhs.uk/Portals/1/Documents/Trust%20Documents/Maternity/Intrapartum/Pain%20Relief%20in%20Labour.pdf

6. First Stage of Labour

Established first stage of labour can be defined as;

- Regular, painful contractions **and**
- Progressive cervical dilatation ≥ 4cm.

Cervical dilatation of less than 2cm in 4 hours in the active stage of labour should be considered as delay in progress. Amniotomy alone is not an indication for continuous electronic fetal monitoring. **Please see Augmentation of labour guideline.**
http://staffnet.plymouth.nhs.uk/Portals/1/Documents/Trust%20Documents/Maternity/Intrapartum/Augmentation%20of%20Labour.pdf

6.1 Observations in Labour

- 4 hourly BP and temperature and respiration rate
- 1 hourly Pulse.
- ½ Hourly assessment of contractions.

- Ensure accurate input/output monitoring using a fluid balance chart (see Care of Urinary Bladder guideline).
- Bladder care, frequency of voiding to include in/out catheter and amount where necessary.
- Observe and document the colour of liquor and any other PV loss
- Oxygen saturations and respirations should be performed within an hour of administration of opioids and 4 hourly following.
- 4 hourly VE and abdominal palpation with indication, except where there is concern regarding progress, clinical condition or maternal request. Identification of
- presentation and position should be documented on the vaginal examination sticker. **Please note that should cleansing be required prior to VE that tap water is appropriate to use.**
- Women who are having continuous electronic fetal monitoring should have an hourly assessment of CTG to include a completed 'fresh eyes' sticker as a second opinion. (see Monitoring of fetal wellbeing during labour (2017) http://staffnet.plymouth.nhs.uk/Portals/1/Documents/Trust%20Documents/Maternity/Intrapartum/The%20monitoring%20of%20fetal%20well-being%20during%20labour.pdf

- Significant intrapartum events should be clearly documented on the CTG- for example the presence of new meconium stained liquor.
- Ensure a partogram is used and fully completed to assess and record progress.

6.2 Mobility in Labour

Women should be encouraged and supported to be as mobile as possible in labour and to adopt which ever positions she finds most comfortable.

6.3 Pain Relief in Labour

The types of analgesia available to women in labour are:

- Natural methods such as massage, alternative positions, water, heat
- TENS
- Entonox
- Diamorphine
- Epidural

Women should be supported in their choice of pain management and provided with a full explanation of risks and benefits appropriate to the chosen method.

6.4 Diet in Labour

Encourage oral hydration in labour and advise that isotonic drinks are more beneficial than water. Encourage a light diet in both latent phase and established labour unless the woman has had opioids or has risk factors that mean that GA is likely.

6.5 Gastric Acidity

- Do not routinely offer histamine 2 receptor antagonist (Ranitidine) or antacids to low risk women

- Histamine 2 receptor antagonist receptor antagonists should be considered for women who receive opioids or where a GA is more likely.

6.6 Transfer to Obstetric Care in Labour

A woman who develops any of the risk factors listed below during labour should be transferred to obstetric led care;

- Pulse over 120bpm on two occasions 30 minutes apart
- A single raised diastolic BP reading of 110mmHg or above
- A single raised systolic BP reading of 160mmHg or above
- 2 consecutive readings taken more 30 minutes apart of a diastolic BP of 90 or above or a systolic of 140mmHg or above.
- A urine dip with 1+ of protein or more and a single raised BP (140/90)
- One temperature of ≥ 38°c or two consecutive ≥37.5°c two hours apart
- Any vaginal blood loss more than a show
- The presence of significant meconium
- Confirmed delay in 1st or 2nd stage of labour
- Regional anesthetic
- Malpresentation
- Prolonged rupture of membranes >24hours

7. Second Stage of Labour

The second stage of labour can be defined as:

- Expulsive contractions with a finding of full dilatation of the cervix or other signs of full cervical dilatation

- Active maternal effort following confirmation of full dilatation

- A visible presenting part

In the absence of maternal urge to push it is acceptable in the presence of a normal fetal heart rate to allow a passive hour following confirmation of full cervical dilatation.

7.1 Observations in Second Stage of Labour

- Hourly BP monitoring
- 4 hourly temperature
- ½ hourly pulse – Pulse may be documented more frequently to differentiate from FH
- ½ hourly documentation of contractions
- Frequency of urination

- Observation and documentation of liquor colour or any other PV loss

7.2 Progress in the Second Stage

- Assess progress, which should include the woman's behaviour, the effectiveness of pushing and the fetal wellbeing. This should take into account the baby's position and station at the onset of the second stage. These factors will assist in deciding timing of further vaginal examination and any need for transfer to obstetric led care.

- Vaginal examinations may be performed hourly during the second stage, or at maternal request following assessment and documentation of vaginal loss and abdominal palpation.

7.3 Pushing in the Second Stage of Labour

- Discourage the woman from laying supine or semi-supine and encourage any other position that she may find comfortable.
- Encourage the woman to be guided by her own urge to push
- If there is no maternal urge to push and the fetal heart is normal, allow for descent with a passive hour. Monitoring of fetal heart rate should continue as per second stage policy.
- If pushing is found to be ineffective, offer remedial measures such as voiding/bladder emptying, change of position and additional support. If putting a woman into lithotomy it is advised that the time of lithotomy is documented and care and attention is paid to the amount of time that a woman spends in this position.
- Birth is expected to take place within 3 hours in nulliparous women (2 hours for multiparous women) from the start of the active second stage.
- Delay in the active second stage should be diagnosed when it has lasted 2 hours in nulliparous women (1 hour for multiparous women) and an obstetric practitioner trained in operative vaginal deliveries should be called if delivery is not imminent.
- Suspect delay if progress (rotation/descent of presenting part) is inadequate after 1 hour of active second stage for nulliparous women (30 minutes for multiparous women) and offer vaginal examination and amniotomy if membranes are still intact.
- A 'hands on' technique should be used to reduce rates of perineal trauma.

Please see Perineal Trauma Guideline for additional information.

8. Episiotomy

Episiotomy should not be routinely performed during a normal delivery, however it may be used to;

- Shorten the second stage in cases of fetal distress
- Instrumental delivery
- Reduce the risk of 3rd/4th Degree tears where risk factors have been identified

The reason for an episiotomy should be discussed with
the woman where possible and verbal consent should be gained and documented.

The episiotomy should be performed on a thinning perineum, and the recommended technique is a mediolateral episiotomy, originating at the vaginal fourchette and directed to the right hand side. The ideal angle for this is 60°. Where possible the Episcissors should be used.

9. Third Stage of Labour

The third stage of labour is defined as the time from the birth of the baby up until the expulsion of the placenta and membranes.

There are two methods for managing the third stage of labour; active and phyisiological. Consent should be gained and documented where ever possible during the first stage of labour for whichever method used.

9.1. Active Management of Third Stage

Active management of the third stage requires:

- Administration of uterotonic drugs
- Deferred clamping and cutting of the cord
- Delivery of the placenta by controlled cord traction (CCT)

For active management, administer **10 IU of oxytocin by intramuscular injection** with the birth of the anterior shoulder or immediately after the birth of the baby and before the cord is clamped and cut. Use oxytocin as it is associated with fewer side effects than oxytocin plus ergometrine.

Any patient at high risk of postpartum hemorrhage for example, grand multiparity or previous history of PPH, Syntometrine IM should still be used as first line for active third stage management.

- Following the administration of an oxytocic the cord should be left for fetal transfusion for at least one minute before cutting and clamping. It is recommended that the cord should be cut and clamped within 5 minutes of administration of an oxytocic, however if the woman requests active management of the third stage but would like to delay cord clamping by longer than 5 minutes then her choice should be supported.
- The uterus should be palpated to ensure that it is well contracted
- The introitus should be observed for signs of a lengthening cord and signs of placental separation

- The uterus should be guarded just above the symphysis pubis as a precaution to uterine inversion
- Controlled cord traction may then be used to deliver the placenta and membranes

9.2. Physiological Third Stage

The principles of a physiological third stage are:

- No administration of uterotonics
- Allowing for cord to stop pulsating before clamping and cutting
- Placenta delivered by maternal effort

9.3. Delay in Third Stage

A diagnosis of delay in third stage may be made when it has exceeded:

- 30 minutes in active management
- 60 minutes in physiological management

Refer to the coordinating midwife and obstetrician once remedial measures have been made:

- Encouraging patient to pass urine (either mobilising to toilet or using a bedpan)
- Passing an in/out catheter if the lady is unable to void
- Putting the baby to the breast if this is in line with maternal wishes
- Encourage a change of maternal position, standing, squatting etc

If undertaking a physiological third stage and it is not complete by 60 minutes then it is necessary to discuss with the woman the need to change to active management and the administration of an oxytocic.

9.4. Observations in the Third Stage

- Observe for the woman's general condition, colour, respirations and how she feels
- Observe for excessive blood loss
- If the placenta is expected to be retained a full set of observations should be taken 15 minutely (BP, Pulse, Temp, Respiration rate and oxygen sats)

9.5. Consent for Third Stage

When counselling a woman for the method of management for the third stage it is important to explain the following risks and benefits of each method:

Active Management

- Shortens the third stage compared with physiological management

- Is associated with nausea and vomiting in about 100 in 1,000 women
- Is associated with an approximate risk of 13 in 1,000 of a haemorrhage of more than 1 litre
- Associated with an approximate risk of 14 in 1,000 of needing a blood transfusion

Physiological Management

- Is associated with a risk of 29 in 1,000 hemorrhage over 1 litre
- Is associated with an approximate risk of 40 in 1,000 of a blood transfusion

10. Initial Post Birth Assessment to include Perineal Examination

The following assessment should be carried out and documented after birth, maintaining the dignity of the woman and facilitating skin to skin wherever possible;

- BP
- Pulse
- Temperature
- Respiration rate
- Uterine contraction and lochia
- Oxygen saturations should be recorded postnatally if the patient has had opiates during labour
- A full examination of the placenta and membranes, to include structure, condition, cord vessels and completeness.

It is advisable that this initial post natal check is performed before the midwife leaves the room.

10.1 Perineal Inspection

The perineum should be examined gently and sensitively after birth. The inspection should be systematic and thorough. Before commencement, inhalation analgesia should be offered and a full explanation of the procedure should take place.

The assessment should include:

- Visual assessment of the trauma to include the structures involved, (cervix, vagina, labia, perineum etc) the apex should be identified and an assessment of bleeding made
- A rectal examination should be performed in all cases, even where the perineum appears to be intact, this allows the practitioner to assess whether there has been any damage to the internal/external sphincter muscles.

The degree of trauma identified should be documented and any 3rd/4th degree tears referred to an obstetrician.

The repair of the tear should commence as soon as possible to reduce blood loss and risk of infection. **See Perineal repair guideline**
http://staffnet.plymouth.nhs.uk/Portals/1/Documents/Trust%20Documents/Maternity/Intrapartum/Perineal%20trauma%20including%203rd%20and%204th%20degree%20tear.pdf

11. Cord Bloods at Delivery

Cord bloods may be necessary at delivery for a number of reasons including;

- Acid-base measurement
- Rhesus negative mother

For further information on the cord bloods required for rhesus negative mothers please see the Anti D guideline.

A paired sample of blood is taken from the umbilical artery and vein for acid-base measurement at deliveries where there has been suspicion of fetal compromise or where there has been neonatal resuscitation.

Where there is has been suspected fetal compromise and the baby is born in good condition it is acceptable to take cord gases following deferred cord clamping.

12. Record Keeping

It is expected that each episode of care is recorded clearly in a contemporaneous, chronological manner by all health care professionals as per Hospital Trust Policy. This is in-keeping with standards set by governing bodies such as the NMC and the GMC.

All entries must have the date and time and the first signed entry on every new page should have a clear printed name next to it.

The following should be documented in labour:

- Signature banks.
- All maternal observations undertaken on admission.

- Documentation of all risk assessments and timing, to include medical conditions, anesthetic history, previous obstetric history, any lifestyle or safeguarding issues.
- If risks are identified then the documentation of transfer of care should take place.
- All maternal observations in the 1st, 2nd and 3rd stage of labour should be documented.
- All women who have continuous electronic fetal monitoring should have significant events documented on the CTG.
- The CTG should be categorised once every hour by the midwife, and a 'fresh eyes' sticker should be completed by a second practitioner as an independent assessment.
- The partogram should be maintained throughout labour.
- The time and outcome of the labour should be documented at the end of the CTG, which should then be filed in the fetal monitoring envelope and signed and dated.
- One print out of cord bloods should be filed in the maternal notes, and the other print out in the newborn notes.
- The birth register should be completed accurately and all computer systems updated accordingly.
- Any Datix forms arising from events in labour or at delivery should be completed promptly and documented in the woman's notes.

Appendix 1 Recommendations for Consultant Led Care

Medical conditions indicating increased risk suggesting consultant led care

Disease area	Medical condition
Cardiovascular	Confirmed cardiac disease Hypertensive disorders
Respiratory	Asthma requiring an increase in treatment or hospital treatment Cystic fibrosis
Haematological	Haemoglobinopathies – sickle-cell disease, beta-thalassaemia major History of thromboembolic disorders Immune thrombocytopenia purpura or other platelet disorder or platelet count below 100 000 Von Willebrand's disease Bleeding disorder in the woman or unborn baby Atypical antibodies which carry a risk of haemolytic disease of the newborn
Infective	Risk factors associated with group B streptococcus whereby antibiotics in labour would be recommended Hepatitis B/C with abnormal liver function tests Carrier of/infected with HIV Toxoplasmosis – women receiving treatment Current active infection of chicken pox/rubella/genital herpes in the woman or baby Tuberculosis under treatment
Immune	Systemic lupus erythematosus Scleroderma
Endocrine	Hyperthyroidism Diabetes Type I, II and GDM Addisons disease Cushings disease
Renal	Abnormal renal function Renal disease requiring supervision by a renal specialist
Neurological	Epilepsy Myasthenia gravis Previous cerebrovascular accident
Gastrointestinal	Liver disease associated with current abnormal liver function tests
Psychiatric	Psychiatric disorder requiring current inpatient care

Other factors indicating increased risk suggesting consultant led care

Disease area	Medical condition

Previous complications	Unexplained stillbirth/neonatal death or previous death related to intrapartum difficulty Previous baby with neonatal encephalopathy Pre-eclampsia requiring preterm birth Placental abruption with adverse outcome Eclampsia Uterine rupture Primary postpartum haemorrhage requiring additional treatment or blood transfusion Retained placenta requiring manual removal in theatre Caesarean section Shoulder dystocia
Current pregnancy	Multiple birth Placenta praevia Pre-eclampsia or pregnancy-induced hypertension Preterm labour or preterm prelabour rupture of membranes Placental abruption Anaemia – haemoglobin less than 85 g/L at onset of labour Confirmed intrauterine death Induction of labour Substance misuse Alcohol dependency requiring assessment or treatment Onset of gestational diabetes Malpresentation – breech or transverse lie Body mass index at booking of greater than 35 kg/m2 Recurrent antepartum haemorrhage
Fetal indications	Small for gestational age in this pregnancy (less than fifth centile or reduced growth velocity on ultrasound) Abnormal fetal heart rate (FHR)/Doppler studies Ultrasound diagnosis of oligo-/polyhydramnios
Previous gynaecological history	Myomectomy

Medical conditions indicating individual assessment when planning care pathway

Disease area	Medical condition

Cardiovascular	Cardiac disease without intrapartum implications
Haematological	Atypical antibodies not putting the baby at risk of haemolytic disease Sickle-cell trait Thalassaemia trait Anaemia – haemoglobin <95 g/L at onset of labour
Infective	Hepatitis B/C with normal liver function tests
Immune	Non-specific connective tissue disorders
Endocrine	Unstable hypothyroidism such that a change in treatment is required
Skeletal/neurological	Spinal abnormalities Previous fractured pelvis Neurological deficits
Gastrointestinal	Liver disease without current abnormal liver function Crohn's disease Ulcerative colitis

Other factors indicating individual assessment when planning care pathway

Disease area	**Medical condition**
Previous complications	Stillbirth/neonatal death with a known non-recurrent cause Pre-eclampsia developing at term Placental abruption with good outcome History of previous baby more than 4.5 kg Extensive vaginal, cervical, or third- or fourth-degree perineal trauma Previous term baby with jaundice requiring exchange transfusion
Current pregnancy	Antepartum bleeding of unknown origin (single episode after 24 weeks of gestation) Body mass index at booking of 35 kg/m2 Blood pressure of 140 mmHg systolic or 90 mmHg diastolic on two occasions Clinical or ultrasound suspicion of macrosomia Para 4 or more Recreational drug use Under current outpatient psychiatric care Age over 40 at booking
Fetal indications	Fetal abnormality
Previous gynaecological history	Major gynaecological surgery Cone biopsy or large loop excision of the transformation zone Fibroids

Appendix 2 – Birth Place Study

Table 1 - Rates of spontaneous vaginal birth, transfer to an obstetric unit and obstetric interventions for each planned place of birth: low-risk multiparous women (sources: *Birthplace 2011*; *Blix et al. 2012*)

	Number of incidences per 1,000 multiparous women giving birth			
	Home	**Freestanding midwifery unit**	**Alongside midwiferyunit**	**Obstetric unit**
Spontaneous vaginal birth	984*	980	967	927*
Transfer to an obstetric unit	115*	94	125	10**
Regional analgesia (epidural and/or spinal)***	28*	40	60	121*
Episiotomy	15*	23	35	56*
Caesarean birth	7*	8	10	35*

Instrumental birth (forceps or ventouse)	9*	12	23	38*
Blood transfusion	4	4	5	8

* Figures from Birthplace 2011 and Blix et al. 2012 (all other figures from Birthplace 2011).

** Estimated transfer rate from an obstetric unit to a different obstetric unit owing to lack of capacity or expertise.

*** Blix reported epidural analgesia and Birthplace reported spinal or epidural analgesia.

Table 2 - Outcomes for the baby for each planned place of birth: low-risk multiparous women

	Number of babies per 1,000 births

	Home	Freestanding midwifery unit	Alongside midwifery unit	Obstetric unit
Babies without serious medical problems	997	997	998	997
Babies with serious medical problems*	3	3	2	3

* Serious medical problems were combined in the study: neonatal encephalopathy and meconium aspiration syndrome were the most common adverse events, together accounting for 75% of the total. Stillbirths after the start of care in labour and death of the baby in the first week of life accounted for 13% of the events. Fractured humerus and clavicle were uncommon outcomes (less than 4% of adverse events). For the frequency of these events (how often any of them actually occurred), see appendix A.

Table 3 – Rates of spontaneous vaginal birth, transfer to an obstetric unit and obstetric interventions for each planned place of birth: low-risk nulliparous women (sources: Birthplace 2011; Blix et al. 2012)

	Number of incidences per 1,000 nulliparous women giving birth

	Home	Freestanding midwifery unit	Alongside midwifery unit	Obstetric unit
Spontaneous vaginal birth	794*	813	765	688*
Transfer to an obstetric unit	450*	363	402	10**
Regional analgesia (epidural and/or spinal)***	218*	200	240	349*
Episiotomy	165*	165	216	242*
Caesarean birth	80*	69	76	121*
Instrumental birth (forceps or ventouse)	126*	118	159	191*
Blood transfusion	12	8	11	16

* Figures from Birthplace 2011 and Blix et al. 2012 (all other figures from Birthplace 2011).

** Estimated transfer rate from an obstetric unit to a different obstetric unit owing to lack of capacity or expertise.

*** Blix reported epidural analgesia and Birthplace reported spinal or epidural analgesia.

Table 4 Outcomes for the baby for each planned place of birth: low-risk nulliparous women (source: Birthplace, 2011)

	Number of babies per 1,000 births			
	Home	**Freestanding midwifery unit**	**Alongside midwifery unit**	**Obstetric unit**
Babies without serious medical problems	991	995	995	995
Babies with serious medical problems*	9	5	5	5

* Serious medical problems were combined in the study: neonatal encephalopathy and meconium aspiration syndrome were the most common adverse events, together accounting for 75% of the total. Stillbirths after the start of care in labour and death of the baby in the first week of life accounted for 13% of the events. Fractured humerus and clavicle were uncommon outcomes – less than 4% of adverse events. For the frequency of these events (how often any of them actually occurred), see appendix A.

Table 5 Primary reasons for transfer to an obstetric unit (source: Birthplace, 2011)

Primary reason for transfer to an obstetric unit* (* Main reason for transfer to an obstetric unit for each woman (there may be more than 1 reason).	**Number of women transferred (% of total transferred from each setting)**		
	From home (n=3,529)	**From a freestanding midwifery unit (n=2,457)**	**From an alongside midwifery unit (n=4,401)**
Delay during first or second stage of labour	1,144 (32.4%)	912 (37.1%)	1,548 (35.2%)
Abnormal fetal heart rate	246 (7.0%)	259 (10.5%)	477 (10.8%)
Request for regional analgesia	180 (5.1%)	163 (6.6%)	585 (13.3%)
Meconium staining	432 (12.2%)	301 (12.2%)	538 (12.2%)
Retained placenta	250 (7.0%)	179 (7.3%)	203 (4.6%)
Repair of perineal trauma	386 (10.9%)	184 (7.5%)	369 (8.4%)
Neonatal concerns (postpartum)	180 (5.1%)	63 (2.6%)	5 (0.0%)

Other	711 (20.1%)	396 (16.2%)	676 (16.3%)

Monitoring and Audit

Auditable standards:
Documentation of all maternal observations in 1st stage of labour and completed partograms & MEOWs chart
Documented rationale for commencement of CTG
Appropriate documentation of referral to include times and reason
Fresh eyes sticker completed hourly in active labour
Frequency of audit:
Annual
Responsible person:
Senior labour ward midwife

Cross references

Monitoring of fetal wellbeing during labour (2017)
http://staffnet.plymouth.nhs.uk/Portals/1/Documents/Trust%20Documents/Maternity/Intrapartum/The%20monitoring%20of%20fetal%20well-being%20during%20labour.pdf

Anti D guideline
http://staffnet.plymouth.nhs.uk/Portals/1/Documents/Trust%20Documents/Maternity/Intrapartum/Perineal%20trauma%20including%203rd%20and%204th%20degree%20tear.pdf

Pain relief in labour (2016)
http://staffnet.plymouth.nhs.uk/Portals/1/Documents/Trust%20Documents/Maternity/Intrapartum/Pain%20Relief%20in%20Labour.pdf

Augmentation of labour guideline
http://staffnet.plymouth.nhs.uk/Portals/1/Documents/Trust%20Documents/Maternity/Intrapartum/Augmentation%20of%20Labour.pdf

Perineal trauma guideline
http://staffnet.plymouth.nhs.uk/Portals/1/Documents/Trust%20Documents/Maternity/Intrapartum/Perineal%20trauma%20including%203rd%20and%204th%20degree%20tear.pdf

NMC Code of Conduct
https://www.nmc.org.uk/standards/code/

References

Intrapartum Care for Healthy Women and Babies [CG190] (2014, updated 2017).

Author	Aimee Adams - Lead Midwife for Normality, Guideline Committee.		
Work Address	Maternity Unit, Derriford Hospital, Plymouth, Devon, PL6 8DH		
Version	8		
Changes	• Diet in labour – women can be encouraged to eat light meals. • Deferred/ optimal cord clamping in active management of 3rd stage • Notice should be given to women's birth preferences • Fresh eyes sticker should be completed as an independent assessment of the CTG at the same time as the classifying midwife • Gastric acidity and use of H_2 receptor antagonists • Oxygen saturations and respirations should be performed within an hour of administration of opioids and 4 hourly following.		
Date Ratified	January 2021	**Valid Until Date**	May 2023