Dysfunctional labour


Ratified by SIT: 21st December 2011
Latest date for review: September 2014

Definitions

First stage

Slow progress in labour is defined as failure of the cervix to dilate by 2 cm in 4 hours or a slowing of progress for multiparous women (NICE 2007).

Slow progress in the active phase of labour is described as “primary dysfunctional labour” whereas cessation of cervical dilatation following a normal portion of active phase dilatation is termed “secondary arrest” of labour.

Second stage

Many argue that there should be no specific time limit providing monitoring of the fetus shows no evidence of distress and progress is not obviously arrested. The NICE Intrapartum guidelines (2007) give the following guidance.

Onset of Active Second Stage of Labour

The baby’s head is visible

Expulsive contractions with a finding of a fully dilated cervix or other signs of full dilatation.

Alternatively maternal effort may be taken into account e.g. from commencement of maternal pushing and full dilatation of the cervix to the birth of the baby.

The latter differentiates an active second stage from an early or passive second stage. This may be useful when a woman enters the second stage with the baby’s head still relatively high in the pelvis i.e. with no urge to push or with epidural analgesia.

Delay in second stage

• Nulliparous women:
  • Birth would be expected to take place within 3 hours of the start of the active second stage in most women.

  • A diagnosis of delay in the active second stage should be made when it has lasted 2 hours and women should be referred to a healthcare professional trained to undertake an operative vaginal birth if birth is not imminent.
Parous women:
- Birth would be expected to take place within 2 hours of the start of the active second stage in most women.
- A diagnosis of delay in the active second stage should be made when it has lasted 1 hour and women should be referred to a healthcare professional trained to undertake an operative vaginal birth if birth is not imminent.

Introduction
Labour is monitored by observing progressive effacement and dilatation of the cervix and descent of the presenting part against time in conjunction with the frequency and duration of uterine contractions.

The first stage of labour is divided into 2 phases, an initial latent phase during which cervical effacement and dilatation up to 3 cm occur, followed by an active phase when the cervix dilates from 3 cm to full dilatation (10 cm) with a mean rate of 1 cm per hour.

Primary dysfunctional labour affects approximately 26% of nulliparae and 8% of multiparae. While there is no specific aetiology 80% of nulliparae and 90% of multiparae will respond to oxytocin, suggesting that poor uterine activity is a significant factor.

Secondary arrest of labour affects approximately 6% of nulliparae and 2% of multiparae. Often there is lack of response to oxytocin augmentation and if full dilation is achieved there is a significant risk of difficult instrumental delivery. It is more likely that there are cephalo-pelvic mechanical problems.

Remember the Four “Ps” which influence progress in labour (ALSO)
- Psyche
  (antenatal education, support in labour)
- Passenger
  (size of baby, presentation and position)
- Powers
  (in active phase of labour, efficient uterine contractions)
- Passageway
  (pelvic abnormalities, relative or absolute cephalo-pelvic disproportion)
## Procedure in the event of slow progress in labour

<table>
<thead>
<tr>
<th>Action</th>
<th>Rationale</th>
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</table>
| 1. It is mandatory to document the time of diagnosis of established labour in the notes and every woman should have a partogram on which all information is to be recorded. All vaginal examinations must be recorded. | The use of a partogram as a complete record of labour allows easy interpretation of the course of the labour  
- for management during labour  
- for later discussion with colleagues  
- for review in subsequent pregnancy |

### First stage of labour

| 2. Consider and correct potential causes:  
  - Mobilisation if feasible  
  - Ensure a supportive person is present in the labour room at all times  
  - Empty bladder  
  - Correct ketosis if present  
  - Obtain adequate analgesia, consider epidural if not sited  
  - Assess for the presence of excessive moulding or caput |  
| Repeat vaginal examination 2 hours later expecting at least 1 cm progress  
Offer continuous EFM even if not using oxytocin |  
|  
| Ambulation may improve progress in labour  
Emotional support has been proven to improve the progress of labour  
A full bladder may delay the progress of labour  
Can cause inadequate contractions  
Pain can delay progress in labour  
The presence of these may indicate that there is cephalo-pelvic disproportion |  
| Progress of <1cm indicates continued delay |  
| A prolonged labour is a risk factor for fetal distress |
| 3. | If membranes intact consider rupturing membranes (ARM)  
| | Repeat vaginal examination 2 hours later expecting at least 1 cm progress  
| | Inform the woman that ARM will shorten her labour by about an hour but may increase the strength and pain of her contractions (NICE 2007)  
| | Progress of <1 cm indicates continued delay  
| 4. | Consider an oxytocin infusion (see Guideline 42 – oxytocin infusion)  
| | • Assess for presence of malposition or malpresentation some of which may be corrected by judicious use of oxytocin  
| | • Inadequate contractions (short, infrequent or incoordinate).  
| | ♦ Nulliparae  
| | Consider starting oxytocin or increasing rate if in progress. Even if the contractions appear adequate a trial of oxytocin should be considered.  
| | ♦ Multiparae  
| | Oxytocin may only be commenced after assessment by the Registrar in person.  
| | ♦ Repeat vaginal examination 4 hours later expecting at least 2 cm progress  
| | This will bring forward the time of birth but will not influence the mode of birth or other outcomes (NICE 2007)  
| | • Brow presentations especially fronto-posterior usually require a caesarean section. In the event of delay in progress a breech presentation should always be delivered by caesarean section.  
| | ♦ In nulliparae, oxytocin may be safely given to correct slow progress. Assessment of contraction strength is difficult without an intrauterine pressure catheter and may be deceptive.  
| | ♦ In multiparae, oxytocin may be given with caution, after excluding other causes of slow progress such as disproportion. Oxytocin in this situation may result in uterine rupture.  
| | ♦ Progress of <2 cm indicates continued delay  

Poor progress in labour (Obs 38)  
Due for review September 2014
5. Delivery **before full dilatation**

<table>
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<tr>
<th>Item</th>
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<tbody>
<tr>
<td>If CTG abnormalities develop associated with fetal acidosis (diagnosed by FBS) delivery by caesarean section is required</td>
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<tr>
<td>If there is no progress in labour despite the above measures, delivery by caesarean section should be considered</td>
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<tr>
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<tr>
<td>A compromised fetus requires delivery</td>
<td></td>
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<tr>
<td>This may indicate disproportion</td>
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**Second stage of labour**

6. Consider and correct potential causes:

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<tbody>
<tr>
<td>Empty bladder</td>
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<tr>
<td>Rupture membranes if intact</td>
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<tr>
<td>Prolongation is common with the use of epidural anaesthesia. Administration of oxytocin may reduce instrumental deliveries but should not be used routinely in the absence of delay.</td>
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<tr>
<td>Full bladder may delay the progress of labour</td>
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<tr>
<td>This may accelerate delivery</td>
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<tr>
<td>This has been attributed to a failure of the usual increase in uterine activity due to absence of the normal surge of oxytocin seen in second stage secondary to abolition of Ferguson reflex (stretching of cervix and upper vagina) Care must be exercised when dealing with multiparae because of risk of uterine rupture</td>
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<tr>
<td>Assess for other causes of delayed labour</td>
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<td>Improved contractions may help correct the position</td>
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<td>The labour is not normal and so requires obstetric input</td>
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<td>Oxytocin should only be used after review in person by an obstetrician.</td>
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<tr>
<td>Malposition may be corrected by judicious use of oxytocin</td>
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<td>Continue obstetric review every 15-30 minutes</td>
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Poor progress in labour (Obs 38)
Due for review September 2014
7. Delivery - once spontaneous delivery appears an unlikely outcome

- If there is more than 1/5 head palpable abdominally, excessive caput and moulding or the head does not descend with contractions, caesarean section is the best mode of delivery.
- If there has been prolonged first and second stages then operative vaginal delivery should be performed in theatre prepared for caesarean section
- In the case of prolonged second stage where maternal exhaustion is the major cause of failure to deliver instrumental delivery in the labour room is reasonable

- Attempted vaginal delivery is likely to fail or result in trauma to mother and/or baby.
- These facts warn of a potentially difficult delivery (see also Instrumental Delivery Guideline Obs 32)
- There is no need to transfer to theatre when the instrumental delivery seems likely to be straightforward (see Instrumental Delivery Guideline Obs 32)

**References**


ALSO Course syllabus Third edition.


NICE clinical guideline no 55. Intrapartum care. Care of healthy women and their babies during childbirth. September 2007
**Process for audit**

- An audit will be undertaken at least every 3 years which will audit compliance with this guideline. The audit will include as a minimum set of standards the following criteria which relate to use of oxytocin:
  
  a. assessment prior to commencement of oxytocin
  
  b. dose schedules including frequency of increment (“according to guidelines” will be acceptable)
  
  c. monitoring arrangements for both the woman and the fetus
  
  d. requirement to document an individual management plan in the health record when oxytocin commences
  
  e. when oxytocin should be stopped

- The audit will be presented at a monthly departmental multidisciplinary audit meeting following which an action plan will be formulated to correct any deficiencies identified and a date for re-audit planned.

- The implementation of the action plan will be reviewed at the monthly audit meeting 3 months after presentation.