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FOR BCCNM REGISTERED MIDWIVES

Guideline for managing the second stage of labour

Preamble

Midwives have an important responsibility to safeguard the interests of maternal and fetal health during labour and birth. The British Columbia College of Nurses and Midwives (BCCNM) offers this guideline to assist midwives with assessment and informed decision-making in the second stage of labour.

BCCNM expects that midwives use their best clinical judgment in assessing and responding to each client's labour, both in hospital and out-of-hospital settings, and incorporate appropriate monitoring of both client and fetal well-being within the plan of care. This guideline should be used in combination with additional standards, policies and guidelines including but not limited to BCCNM's *Indications for Discussion, Consultation and Transfer of Care*, and current national, provincial and local fetal health surveillance guidelines. Decisions about management should be made taking into account the total clinical picture, transferring hospital capacity and community standards.

The onset of second stage

The second stage of labour begins with full dilation of the cervix and ends with the birth of the baby. The expulsive phase is marked by the urge to bear down and may not coincide with full dilation. It is commonly believed that pushing when cervical dilation is not complete can be both unproductive and damaging to the cervix, especially in nulliparas. However, Enkin et al (2000) reassure that in the presence of a rim of cervix and a strong desire to push, little or no harm is likely if this instinctive urge is followed and there is progress. Full dilation can be confirmed by careful vaginal exam or be assumed when the presenting part is visible at the introitus.

RECOMMENDATIONS

- If the client expresses a desire to push when there is reason to believe the cervix may not be fully dilated, dilation should be checked by vaginal examination (Enkin et al, 2000).

- If the client is less than 8 cm dilated and has an irresistible urge to bear down, assist the client to avoid pushing and consider a change in position for comfort. If the urge to push remains uncontrollable, consider regional analgesia (Enkin et al, 2000).

The latent phase of second stage

The latent phase of second stage is the period after reaching full dilation where the client experiences a decrease in strength and frequency of contractions and no urge to push. Some do not have a latent phase in second stage, while others may experience this phase lasting up to an hour. The latent phase can provide an opportunity for maternal rest prior to the active phase of pushing.

RECOMMENDATIONS

- The fetal heart should be auscultated at least every 15 minutes during the latent phase (PSBC 2014).
- If the latent phase lasts longer than an hour and encouraging the client to push does not produce a spontaneous urge and progress in descent, augmentation may be considered (BCCNM 2017).

The active phase of second stage

The active phase of second stage begins after full dilation of the cervix accompanied with regular contractions and an urge to push.

Pushing during active second stage

Research supports a spontaneous, client-led approach to bearing down in the second stage of labour (Enkin et al., 2000). Bearing-down efforts are usually brief (4-6 seconds), with infrequent or short periods of breath-holding. These efforts increase in intensity and duration as the second stage progresses. A study amongst nulliparas who were encouraged to push spontaneously reported a mean duration of second stage of 45 minutes and none exceeded 95 minutes (Enkin et al., 2000). Where spontaneous pushing does not result in progressive descent of the presenting part, a more directive approach, including upright positioning, may assist the client to use their contractions more effectively. Upright positions have been found to shorten the duration of second stage and lower the likelihood of operative vaginal birth, abnormal FHR and episiotomy, but increase the likelihood of perineal trauma and blood loss greater than 500 mL (Gupta, Hofmeyr, & Shehmar, 2012).

RECOMMENDATIONS

- The fetal heart should be auscultated after every contraction, or at least every five minutes (PSBC 2014).
- Clients should be encouraged to push according to their comfort and preference (Lemos et al, 2017).

- Encourage upright positioning and directed pushing when progress is not achieved with natural bearing-down efforts. With upright positioning such as standing or use of a birth chair, a change in position immediately after birth may reduce the risk of postpartum hemorrhage (Gupta et al., 2012).

Assessment and documentation of progress in the second stage

The relationship of the presenting part to the brim of the pelvis should be assessed and charted by both abdominal palpation and/or vaginal examination after each hour of active pushing unless the fetal head is visible at the introitus. Abdominal examination may reduce the number of vaginal exams that are necessary. It is important to assess moulding of the fetal head in addition to determining descent and position during vaginal examination, especially if progress is slow and/or cephalopelvic disproportion is suspected.

Delivery

Clients give birth in a variety of positions. Either gentle support of the perineum or a "hands off" approach with verbal coaching and encouragement can be used by the midwife.

Duration of the second stage of labour

When there is progress and no evidence of maternal or fetal compromise, imposing an arbitrary limit on second stage is unnecessary. With progressive descent of the presenting part, management will be based on the same principles of monitoring maternal and fetal health that apply during the first stage of labour. When maternal and fetal conditions are satisfactory and there is evidence of descent, operative interventions are unlikely to be required.

There is no good evidence about the absolute time limits of physiological labour (Downe 2004; NICE 2007; Zhang et al 2010). Most researchers who have examined this area have shown that, the second stage of labour can last for up to three hours or so before the risk of maternal and/or fetal compromise begins to increase (Albers 1999; Allen et al 2009). In the presence of regular contractions, maternal and fetal well-being, and progressive descent, considerable variation during second stage is to be expected. (Marshal & Raynor, 2014, p. 370).

Labour and vaginal birth depend upon the dynamic relationship between the fetus, the maternal pelvis, and uterine and maternal power. Failure of descent may be due to inadequate or incoordinate uterine contractions, malposition or malpresentation of the fetus or cephalopelvic disproportion. Malpresentation may be resolved by encouraging a variety of positions. Augmentation and/or epidural anesthesia may also assist in correcting malpresentation. Timely consultation and use of augmentation and/or epidural can often help avoid an operative birth.

Regional analgesia and second stage

Epidural analgesia can influence bearing-down efforts. There should be no set time limit on duration of second stage in the presence of maternal and fetal well-being and progressive descent when maternal sensation is affected by regional analgesia. In fact, delayed pushing up to 2 hours after full cervical dilatation in nulliparas receiving epidural analgesia is safe and may lower the risk of difficult deliveries (Fraser et al., 2000). Choice of position for pushing should be based on preference, comfort and efficacy.

Dystocia in the active second stage

Second-stage dystocia is defined as greater than one hour of active pushing with no descent of the presenting part. Descent of less than 1 cm per hour in the second stage is associated with increased rate of operative delivery, maternal stress and anxiety, maternal infection and postpartum hemorrhage.

Currently, 32% of the cesarean sections performed in BC are attributed to dystocia of labour which includes cephalopelvic disproportion, breech, malposition and malpresentation (PSBC, 2013). Dystocia primarily affects nulliparas and is the most common problem associated with labour.

Prolonged second stage of labour

The risk of postpartum hemorrhage, maternal and perinatal morbidity, low 5-minute Apgar score or admission to the neonatal care unit increases with prolonged second stage. Prolonged second stage is defined as:

Nulliparous – lack of progress for three hours with regional anesthesia, or two hours without regional anesthesia.

Parous – lack of progress for two hours with regional anesthesia or one hour without regional anesthesia.

Consultation is required and continuous electronic fetal monitoring (EFM) recommended for prolonged second stage (PSBC 2014). If labour is taking place in an out-of-hospital setting and second stage is likely to be prolonged (birth is not imminent), the amount of time it takes to transport to the hospital should be taking into account in order to facilitate timely consultation and access to monitoring and/or intervention.

RECOMMENDATIONS FOR THE PREVENTION AND MANAGEMENT OF DYSTOCIA AND PROLONGED SECOND STAGE OF LABOUR

- Encourage the provision of emotional support during labour.
- Support the client in choosing a position in which to give birth.
- Pushing should generally not be encouraged unless an urge to do so is felt. If there is no urge to push after one hour during second stage, reassess the contractions, fetal

presentation and descent, and consider amniotomy and the use of oxytocin if contractions are not adequate.

- Consider delayed pushing if the fetal head is in the transverse or posterior position. In nulliparas with epidural at full dilation, one can use delayed pushing for a maximum of two hours or can encourage immediate pushing. Studies demonstrated there were fewer difficult births, 22.5% vs 17.8% with delayed pushing. This was most significant in those whose fetus was less than station +2 or in a posterior position (Hartmann et al., 2012).
- Continue epidural analgesia if it has been initiated, as research indicates that it does not increase the incidence of assisted vaginal birth. Discontinuing an epidural during second stage may result in the return of pain which may be perceived as worse than if no pain relief had been provided (Toledo, McCarthy, Ebarvia, & Wong, 2008).
- Do not sent time limits for the second stage as long as progress is being made. The setting of a time limit for the second stage in the presence of progress and absence of suspected fetal compromise is not well-evidenced.
- During active second stage, assess descent after each hour of pushing unless the fetal head is visible at the introitus, and consider a proactive approach to incoordinate uterine contractions, malposition or malpresentation.
- If labour is taking place out of hospital, consider the length of time it takes to transport to hospital and available hospital resources to facilitate timely access to monitoring and/or interventions if indicated.
- Avoid early intervention with operative delivery if fetal health surveillance is normal.
- Use gentle perineal support and warm compresses, and/or a "hands off" approach (Asheim, Nilsen, Lukasse, & Reinar, 2011).
- Use episiotomy only to expedite birth in situations of an abnormal fetal heart rate or maternal distress, or in the rare instance when the fetal head is at the perineum for a sustained period of time without further progress.

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