Provider Fact Sheet: Augmentation of labour

The treatment guidelines in this document are based on WHO recommendations in its "Managing complications in pregnancy and childbirth: A guide for midwives and doctors" (2003)

Unsatisfactory progress in labour is diagnosed when:

- The latent phase is longer than 8 hours.
- Cervical dilatation is to the right of the alert line on the partograph.
- The woman has been experiencing labour pains for 12 hours or more without delivery (prolonged labour).

Why focus on augmentation of labour?

Labour augmentation involves the stimulation of uterine contractions to produce delivery after the onset of spontaneous labour. Labour augmentation with uterotonic drugs is officially indicated when the skilled birth attendant diagnoses "hypotonic uterine dysfunction"--a condition in which the contractions of labour become ineffective at producing cervical dilation. Following this rationale, **labour augmentation should be contraindicated in normal labours**. Yet, although obstetric texts warn against its dangers, normal labours are commonly augmented throughout the world and the decision to augment labour is influenced by beliefs of individual health care providers as well as women in labour and their families.

What are the dangers of augmenting labour with uterotonic drugs (oxytocin or misoprostol)?

When labour is augmented with a uterotonic drug, the quality and quantity of uterine contractions are greatly affected. The contractions tend to be longer, stronger, and with shorter relaxation periods between. While augmentation with uterotonic drugs plays a major role in shortening labour, but there are grave risks associated with it, including:

- the increased pressure of the contractions can, and often does, compress the umbilical cord and cut down the baby's oxygen supply which may lead to foetal distress, asphyxia, and foetal death
- uterine rupture and abruptio placentae
- increased pain for the mother of the uterotonic-induced contractions is likely to increase her stress and anxiety levels
- oxytocin is a strong antidiuretic, even at low doses; its combination with the IV fluids can result in water intoxication
- uterine fatigue after childbirth which is associated with uterine atony and postpartum haemorrhage

What are the most common causes of unsatisfactory progress in labour?

In some cases, the woman may not yet be in true labour.

Misdiagnosing false labour or prolonged latent phase leads to unnecessary induction or augmentation, which may fail. This may lead to unnecessary caesarean operation and amnionitis.

If the woman is in true labour, consider the following possible causes:

- **Patient** – dehydration, anxiety, pain
- **Passenger** – malposition, malpresentation, macrosomia (big baby)
- **Passage** – pelvis or small tissue
- **Power -** uterine contractions (contractions too weak or too infrequent to cause cervical dilatation) or maternal expulsive efforts (**inadequate uterine activity**)

When should labour be augmented with uterotonic drugs?

Before making a decision to augment labour, the provider should make a careful assessment of the woman and foetus and evaluate the partograph.

If **contractions are inefficient** and false labour, **cephalopelvic disproportion and obstruction have been excluded**; the most probable cause of prolonged labour is inadequate uterine activity. When inadequate uterine activity is diagnosed (less than three contractions in 10 minutes, each lasting less than 40 seconds), the woman should be immediately transferred to a health care facility with an operating theatre and personnel that can prescribe and supervise augmentation of labour.

Labour should be augmented only after a thorough examination of the mother and fetus. A physician or skilled birth attendant should perform a cervical examination immediately prior to the initiation of oxytocin infusion or administration of misoprostol. Personnel who are familiar with the effects of uterotonics and who are able to identify both maternal and foetal complications should be present during administration. Once labour augmentation has begun, the woman should never be left alone and maternal vital signs, uterine contractions, and foetal heart tones monitored at least every 30 minutes.

A physician who can perform caesarean delivery should be readily available in the event problems arise.

What are contraindications to augmenting labour with uterotonic drugs?

Labour augmentation with any uterotonic drug should ***never*** be attempted:

- When labour is progressing normally
- When there is cephalopelvic disproportion, transverse foetal lie, umbilical cord prolapse and the fetus is alive, multiple gestation, vasa praevia or complete placenta praevia
- In a facility without an operating theatre and a physician who can perform caesarean delivery
- In a facility without personnel to closely monitor the woman and baby
- In a facility without personnel who can identify both maternal and fetal complications during administration

Safety concerns

- Never administer oxytocin intramuscularly (IM) during labor.
- When 25 mcg tablets of misoprostol are not available, do not break higher dose tablets (usually 200 mcg) and administer for induction or augmentation.

If unsatisfactory progress in labour is diagnosed:

- Make a rapid evaluation of the condition of the woman and fetus and provide supportive care.
- Test urine for ketones and treat with IV fluids if dehydrated.
- Review the partograph.
- Manage according to the cause of unsatisfactory progress in labour