

The use of Oxytocin for the Augmentation of Labour

Scope

This guideline is applicable to all women who require the use of Oxytocin. A regional approach, particularly where training medical staff are rotating, to Oxytocin use is advised in order to aid patient safety and consistency in clinical care.

It is acknowledged that there are financial and organisational challenges aligning to the same delivery device (i.e. infusion pump) in all units. This protocol uses the same Oxytocin dosages and increment regimes for both infusion pumps and syringe drivers, whilst accepting different dilutions.

Key abbreviations

Abbreviation	Meaning
IU	International Units
mls	Millilitres
mU	milliUnits
mU/ml	milliUnits per millilitre
mU/min	milliunits per minute
ml/hr	millilitres per hour

Indications for Oxytocin

Oxytocin may be administered for augmentation of labour when the rate of progress in labour is suboptimal – see the relevant labour guideline.

Assessment and review by a doctor is required prior to commencing oxytocin

in a multiparous woman in labour or a women with a previous caesarean section (or other uterine scar).

Preparation of Oxytocin

- For the **infusion pump** prepare 30 IU of Oxytocin diluted in 500 mls of sodium chloride to make up a concentration of 60 mU/ml.
- For the **syringe driver** prepare 5 IU of Syntocinon in 41 mls of 0.9% sodium chloride to give an approximate concentration of 120 mU/ml.

Connecting the infusion

- Administer Oxytocin through either an infusion pump or a syringe driver using a Y-connector. This acts as non-return valve to minimise the risk of oxytocin being forced up into a second infusion or as an additional bolus.
- Start the infusion at 1 mU/min and double the rate every 30 minutes until 32 mU/min (see Table 1 and Table 2).
- With this dosing regime 1 mU/min = 1 ml/hr

Table 1.

Infusion increments and titration regime for Infusion pump

Make up 30 IU of Syntocinon in 500mls of 0.9% sodium chloride to give an approximate concentration of 60 mU/ml.

Dose of Oxytocin mU/min	Infusion rate of Oxytocin mls/hr
1 mU /min	1ml/hr
2 mU min	2 ml/hr
4 mU /min	4 mls/hr
8 mU/min	8 mls/hr
16 mU/min	16 mls/hr
24 mU/min	24 mls/hr
32 mU/min	32 mls/hr

Discuss the case with the obstetric registrar/consultant beyond this.

Table 2.

Infusion increments and titration regime for Syringe driver

Make up 5 IU of Syntocinon in 41 mls of 0.9% sodium chloride to give an approximate concentration of 120 mU/ml.

Dose of Oxytocin mU/min	Infusion rate of Oxytocin mls/hr
1 mU /min	0.5 ml/hr
2 mU min	1 ml/hr
4 mU /min	2 mls/hr
8 mU/min	4 mls/hr
16 mU/min	8 mls/hr
24 mU/min	12 mls/hr
32 mU/min	16 mls/hr

Discuss the case with the obstetric registrar/consultant beyond this.

Infusion increments

- The infusion rate should be increased no more frequently than every 30 minutes until adequate contractions are achieved.
- Aim for 4-5 contractions in 10 minutes, with at least 1 minute in between contractions. Contractions are to be no less than 3 in a 10 minute period. Contractions should not exceed 5 contractions in a 10 minute period.
- In a parous woman or a woman with previous uterine surgery, once contractions are established it may be possible to slow or stop the Oxytocin infusion.
- If there are CTG concerns seek the advice of the midwife co-ordinator or obstetric registrar/consultant.

References

1. National Institute for Health and Clinical Excellence. (2014) Intrapartum Care – Care for Healthy women and their babies during childbirth. Clinical Guideline 190. <https://www.nice.org.uk/guidance/cg190>