

# Tocolysis (Acute) – Administration of terbutaline

## 1. Purpose

This procedure provides specific guidance on the use of terbutaline as acute tocolysis for management of hypertonus during induction of labour or spontaneous labour.

For general guidance on management of hypertonus, refer to the procedure [Hyperstimulation – Uterine, Management of](#) and: [Observations – Birth Centre – Adult Escalation Criteria and Response Framework](#).

## 2. Definitions

**Uterine tachysystole:** 5 or more contractions in 10 minutes over a 30 minute period.

**Uterine hypertonus:** contractions with a duration lasting more than 2 minutes; contractions of normal duration occurring with a relaxation time of less than 60 seconds.

Tachysystole and hypertonus may:

- occur with or without fetal heart rate (FHR) changes
- be spontaneous or stimulated following administration of prostaglandin E2 and/or exogenous oxytocin
- may or may not require tocolysis. This depends on the clinical situation.

## 3. Responsibilities

Midwifery and medical staff responsible for identifying and managing incidences of hyperstimulation during induction of labour or spontaneous labour. (insert link to Hyperstimulation- uterine, management of tachysystole and hypertonus)

## 4. Procedure

### 4.1 Initial management

Call for help:

- midwifery assistance
- 'Pink Alert': obstetric registrar and resident assistance required.
- Commence continuous electronic fetal monitoring if not already used

Intra-uterine resuscitative measures:

- discontinue IV oxytocin if being used
- change maternal position to lateral recumbent (usually works best on maternal left side, but if no response, reasonable to try maternal right side)

### 4.2 Tocolysis

#### Terbutaline<sup>1</sup>

Despite conservative management, if the FHR pattern remains abnormal in association with hypertonus, OR if there is a uterine scar, acute tocolysis should be considered using terbutaline.

#### Contraindications<sup>1</sup>

- Hypersensitivity to sympathomimetic amines (e.g. ephedrine) or any other ingredient.

#### Precautions<sup>1</sup>

- cardiovascular diseases
- hyperthyroidism
- Diabetes
- Hypokalaemia

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## Presentation

ampoule = 500microgram/mL

## Dose<sup>2</sup>

Single dose: 250micrograms IV or SC

The volume to be administered is 0.5mL SC if no IV access OR 0.5mL by slow IV injection., OR.

## Monitoring

Maternal blood pressure and heart rate

- Immediately before terbutaline administration
- At least every 15 minutes for 1 hour after terbutaline was administered

Fetal monitoring

- continuous electronic fetal monitoring

## Overdosage

### Symptoms<sup>1</sup>

Too frequent administration, as with other sympathomimetic agents, may cause nausea, headaches, changes in blood pressure, anxiety, tension, restlessness, insomnia, tremor, excitement, tonic muscle cramps, palpitations, tachycardia and cardiac arrhythmias. The symptoms and signs are those characteristic of excessive sympathetic stimulation.

### Laboratory findings

Hyperglycaemia and lactacidosis sometimes occur. Beta2-agonists may cause hypokalemia as a result of redistribution of potassium.

### Treatment<sup>1</sup>

The specific antidote for accidental overdosage with terbutaline sulfate is a cardioselective beta-adrenergic blocking drug such as metoprolol (5 to 10 mg by slow intravenous injection, repeated if necessary after five minutes). Beta-Blockers should be used with care because of the possibility of inducing bronchospasm in sensitive individuals.

## 4.3 Subsequent management

- If tocolysis is successful and there are no concerns regarding fetal wellbeing, refer to the following procedure: [Hyperstimulation – Uterine, Management of tachysystole and hypertonus](#).
- If there are concerns about fetal wellbeing, or absolute fetal compromise, and tocolysis has been ineffective and the woman is **not** fully dilated, a Code Green should be called (i.e. immediate caesarean section).
- If the woman's cervix is fully dilated and all conditions are fulfilled for assisted vaginal delivery, this should be expedited and a paediatrician should be requested to attend the delivery.

## 5. Evaluation, monitoring and reporting of compliance to this procedure

Compliance to this procedure will be monitored, evaluated and reported through review of incidents reported via VHIMS.

## 6. References

1. MIMS online <https://www.mimsonline.com.au/Search/Search.aspx>
2. Society of Hospital Pharmacists of Australia (AIDH). Australian Injectable Drugs Handbook. 4th Edition. 2008.
3. Pullen KM, Riley ET, Waller SA, Taylor L, Caughey AB, Druzin ML, El-Sayed YY. Randomized comparison of intravenous terbutaline vs nitroglycerin for acute intrapartum fetal resuscitation. *American journal of*

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*obstetrics and gynecology. 2007 Oct; 197:4:414.e1-6*

4. Kulier R, Hofmeyr GJ. Tocolytics for suspected intrapartum fetal distress. *Cochrane Database of Systematic Reviews 1998, Issue 2. Art. No.: CD000035. DOI: 10.1002/14651858.CD000035.*
5. de Heus R, Mulder EJ, Derks JB, Kurver PH, van Wolfswinkel L, Visser GH. A prospective randomized trial of acute tocolysis in term labour with atosiban or ritodrine. *European journal of obstetrics, gynecology, and reproductive biology. 2008 Aug; 139:2:139-45*

### 7. Legislation/Regulations related to this procedure

Not applicable.

### 8. Appendices

Procedure: [Hyperstimulation – Uterine, Management of](#)

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