

# College of Midwives of Manitoba

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## **STANDARD, LIMITS AND CONDITIONS FOR PRESCRIBING AND ADMINISTERING UTEROTONICS\***

The following standard, limits and conditions apply to the category of Uterotonics as per Schedule B, Part 1 of the *Midwifery Regulation*. **This list is inclusive.** Midwives may not independently prescribe and administer any other uterotonic agent unless, on the advice of the College's Standards Committee, this Standard is amended. This Standard provides indications, routes of administration and upper dosage limits where appropriate, for drugs which may be prescribed, ordered and administered by midwives in the category of Uterotonics.

Following this Standard is mandatory for all registered midwives.

*Note re: consultation: If bleeding is unresponsive to therapy, emergency transport to hospital and consultation with a physician is required.*

- **Carboprost tromethamine**

(Hemabate®). For treatment of postpartum hemorrhage due to uterine atony that is unresponsive to conventional methods of management. It is used only after oxytocin and ergonovine maleate, where available, have been attempted.

*Dosage:* The usual dosage is 250 mcg I.M. This may be repeated at 15 to 90 minute intervals on the basis of response up to a cumulative dose of 2 mg (8 doses). Peak serum concentrations occur 15 to 60 minutes after injection and the duration of action is 4 to 6 hours.

*Adverse effects:* Include nausea, vomiting, diarrhea, chills, shivering, transient elevated temperature, transient bronchoconstriction, headache, flushing and moderate increase in blood pressure. Adverse effects are generally temporary and end when the therapy is discontinued.

*Contraindications:* Active cardiac, pulmonary or renal disease; hypersensitivity to prostaglandins; active pelvic inflammatory disease.

*Use Cautiously in clients with a history of asthma.*

*Special Precautions for Storage:* Must be refrigerated between 2° and 8° Celsius.

- **Ergonovine maleate**

For the treatment of postpartum uterine atony or postpartum haemorrhage uncontrolled by the use of oxytocin.

*Dosage:* Usual dose is 0.25 mg IM or IV (diluted in 5ml normal saline – slow administration over 1 minute). This may be repeated at 5 minute intervals on the basis of response up to a cumulative dose of 1.25 mg (5 doses).

*Adverse effects:* Rare when given IM. Occasional nausea and vomiting. Risk of severe uterine cramping and hypertension when given IV.

*Contraindications:* Allergy to ergots; hypertension, heart disease; eclampsia.

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\* Adapted from CMBC's *Standards, Limits & Conditions for Prescribing, Ordering & Administering Drugs*

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*Use Cautiously in clients with a history of asthma.*

*Special Precautions for Storage:* Must be refrigerated between 2° and 8° Celcius.

- **Misoprostol**<sup>†</sup>

(Cytotec©) For treatment of postpartum uterine atony or postpartum hemorrhage, used only after oxytocin and ergonovine maleate, where available, have been attempted.

*Dosage:* Usual dose is 400 to 1000 mcg sublingually and/or rectally. It can also be given orally, but is generally not tolerated as well. It has a half-life of 20 to 40 minutes. Misoprostol is supplied as either 100 or 200 mcg per tablet. Misoprostol is a water soluble, viscous liquid. The inactive ingredients of tablets are hydrogenated castor oil, hydroxypopyl methylcellulose, microcrystalline cellulose, and sodium starch glycolate.

*Adverse reactions:* Most common (especially with oral administration): Diarrhea; abdominal pain; fever and shiver: Less common: nausea; flatulence; headache; dyspepsia; vomiting; constipation.

*Contraindications:* Misoprostol should not be taken by anyone with a history of allergy to prostaglandins.

- **Oxytocin**<sup>‡</sup>

The first line drug of choice for use intramuscularly or intravenously to prevent or treat postpartum uterine haemorrhage.

*Dosage:* Usual dose is 10 Units IM or 5 Units IV push, or 20 to 50 Units added to 1000 cc of IV fluid and administered at a rate of 250 ml/hr.

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<sup>†</sup> The use of Misoprostol for the induction of labour is currently under evaluation. Its use for induction of labour in the presence of a living fetus is restricted to clinical trials. Midwives CANNOT prescribe or order Misoprostol for this application. However, where a physician has ordered Misoprostol for induction of labour in a non-viable pregnancy, the midwife may continue to be involved in the woman's care.

<sup>‡</sup> Midwives may not administer oxytocin as IV infusion for induction or augmentation of labour without a physician's order (as per Schedule B Part 2) and appropriate training. Oxytocin as IV infusion for induction or augmentation of labour is used in hospital only.