

AUTHORIZED BY: CPC Quality of Care Committee
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CATEGORY: ACP/PCP Medications
TITLE: **OXYTOCIN**

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Other Names:	<ul style="list-style-type: none">• <i>Pitocin, Syntocinon</i>
Classifications:	<ul style="list-style-type: none">• Oxytocic
Pharmacodynamics:	<ul style="list-style-type: none">• Oxytocin is in a class of medications called oxytocic hormones. It works by stimulating uterine contractions.
Onset:	<ul style="list-style-type: none">• IM : ~ 3-5 minutes• IV : almost immediate
Peak:	<ul style="list-style-type: none">• IM : ~ 3-5 minutes• IV : almost immediate
Duration:	<ul style="list-style-type: none">• IM : ~ 2-3 hours• IV : ~ 60 minutes
Indications:	<ul style="list-style-type: none">• Postpartum delivery AND/OR placental delivery• Induction of labour when indicated in term or near-term pregnancies.• Augmentation of labour in the first or second stage of labour when there is evidence of uterine hypocontractility or labour dystocia.• To produce uterine contractions during the third stage of labour and to control postpartum bleeding and hemorrhage.• Adjunctive therapy in the management of inevitable or incomplete abortion, or mid-trimester elective abortion.• Pregnant patient experiencing labour; OR• Post-partum patient immediately following delivery and/or placenta
Contraindications:	<ul style="list-style-type: none">• Allergy or sensitivity to oxytocin• Undelivered fetus• Current SBP \geq 160 mmHg OR• Suspected or known pre-eclampsia with current pregnancy• Eclampsia (seizure) with current pregnancy• > 4 hours post placental delivery
Precautions:	<ul style="list-style-type: none">• Fetal Distress• Hydramnois (too much amniotic fluid builds up during pregnancy)• Partial Placenta Previa• Prematurity• Borderline cephalopelvic disproportion• Conditions where there is a predisposition for uterine rupture (e.g. previous major surgery on Cervix or Uterus, cesarean section, over distension of the Uterus, grand multiparity, past history of Uterine sepsis or traumatic delivery.• Hypersensitivity: anaphylaxis.• Cardiovascular: hypotension, tachycardia, arrhythmia. Severe hypertension may occur following prophylactic administration of a vasoconstrictor in conjunction with caudal block anesthesia. Also fetal bradycardia.• GI: nausea, vomiting.• Uterine hyperstimulation. - Water intoxication and seizures with prolonged IV infusion of oxytocin with excessive fluid load.

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- Adverse Reactions:**
- Sinus bradycardia, tachycardia, premature ventricular complexes & other arrhythmias
 - Permanent CNS or brain damage, and death secondary to asphyxia
 - Neonatal seizure
 - Neonatal jaundice
 - Fetal death
 - Low Apgar score (5 min)
 - Uteroplacental hypoperfusion & variable deceleration of fetal heart rate
 - Fetal hypoxia
 - Perinatal hepatic necrosis
 - Fetal hypercapnia
 - Severe decreases in maternal systolic & diastolic blood pressure, increases in heart rate, systemic venous return & cardiac output, & arrhythmia
- Drug Interaction:**
- Apo morphine
 - fexinidazole
 - isoflurane
 - lefamulin
 - mefloquine
 - misoprostol
 - sevoflurane
- Clinical & Special Considerations:**
- A single dose of 10 units/1ml, via IM injection.
- Image & Preparations:**
- 10 Units/1ml
- References:**
- The Ottawa Hospital Parental Drug Therapy Manual
 - Lexicomp 2020 <http://online.lexi.com>
 - Compendium of Pharmaceuticals and Specialties 2022(CPS)
 - Special Project Palliative Care Medical Directive
 - <https://www.e-therapeutics.ca/search>
 - <https://www.pharmacists.ca/rxtx/en/contact-us/>
 - <https://reference.medscape.com/drug/oxytocin>

NOTE: The information contained herein does not supersede or negate the MoHLTC Provincial Advanced Life Support Patient Care Standards and should only serve as general information about the medication itself. For medication dosages, please refer to the current version of the Ontario Provincial ALS Patient Care Standards