Oxytocin

**Class:** Oxytocic Agent

**Indications:**
Induction of labor in patients with a medical indication; stimulation or reinforcement of labor; adjunctive therapy in management of abortion; to produce uterine contractions during the third stage of labor; control of postpartum bleeding.

**Available dosage form in the hospital:**
OXYTOCIN 10 IU/1ML AMP, OXYTOCIN 5 IU AMP

**Dosage:**
**Note:** I.V. administration requires the use of an infusion pump.

- **Induction of labor: Manufacturer's labeling:** I.V.: 0.5-1 milliunits/minute; gradually increase dose in 30-60 minute intervals by increments of 1-2 milliunits/minute until desired contraction pattern is established; dose may be decreased after desired frequency of contractions is reached and labor has progressed to 5-6 cm dilation. Infusion rates of 6 milliunits/minute provide oxytocin levels similar to those at spontaneous labor; rates >9-10 milliunits/minute are rarely required. Higher dose regimens (example, initial dose 2-6 milliunits/minute) with larger incremental dose increases (example, 1-6 milliunits/minute) have also been proposed; decrease or discontinue dose for abnormal or excessive uterine contractions (ACOG, 2009).

- **Postpartum bleeding:**
  - I.M.: Total dose of 10 units after delivery of the placenta.
  - I.V.: 10-40 units by I.V. infusion in 1000 mL of intravenous fluid at a rate sufficient to control uterine atony.

- **Adjunctive treatment of abortion:** I.V.: 10-20 milliunits/minute; maximum total dose: 30 units/12 hours.

**Common side effect:**
Frequency not defined.

**Fetus or neonate:**
Cardiovascular: Arrhythmias (including premature ventricular contractions), bradycardia.
Central nervous system: Brain or CNS damage (permanent), neonatal seizure.
Hepatic: Neonatal jaundice.
Ocular: Neonatal retinal hemorrhage.
Miscellaneous: Fetal death, low Apgar score (5 minute)

**Mother:**
Cardiovascular: Arrhythmias (including premature ventricular contractions), hypertensive episodes.
Gastrointestinal: Nausea, vomiting.
Genitourinary: Pelvic hematoma, postpartum hemorrhage, uterine hypertonicity, tetanic contraction of the uterus, uterine rupture, uterine spasm.
Hematologic: Afibrinogenemia (fatal).
Miscellaneous: Anaphylactic reaction, subarachnoid hemorrhage; severe water intoxication with convulsions, coma, and death is associated with a slow oxytocin infusion over 24 hours

**Pregnancy Risk Factor:** C (manufacturer specific)