

## 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)