NCLEX 2026 · HIGH-YIELD REFERENCE

Uterotonics / *postpartum bleeding*

SYSTEM · REPRODUCTIVE / OB | CATEGORY · PHARMACOLOGY & PARENTERAL THERAPIES | PRIORITY · ABC + SAFETY

1 DEFINITION & OVERVIEW

Drugs that *clamp down* the uterus.

What

Medications that stimulate uterine smooth-muscle contraction to control bleeding or drive labor.

Why

A contracted uterus compresses spiral arteries at the placental site — the body's #1 way to stop postpartum bleeding.

Stakes

Postpartum hemorrhage (PPH) is the leading cause of maternal death worldwide. Uterotonics are life-saving.

2 PATHOPHYSIOLOGY — SIMPLIFIED

Why a *boggy* uterus bleeds.

1. **Placenta detaches** — Open spiral arteries at the placental site.
2. → **Uterus must contract** — Muscle fibers squeeze vessels shut (living ligature).
3. → **Atony = boggy fundus** — No contraction → vessels stay open → hemorrhage.
4. → **Uterotonic given** — Binds receptors → Ca^{2+} release → forceful contraction → hemostasis.

3 SIGNS & SYMPTOMS OF PPH

When to reach for a uterotonic.

Early / Mild

- Boggy, soft, or difficult-to-locate fundus
- Fundus displaced above umbilicus or off-midline (think full bladder)
- Steady trickle of bright red lochia
- Increased pad count; clots larger than a golf ball

Late / Severe 🚨

- 🚨 Saturating a perineal pad in < 1 hour
- 🚨 EBL > 500 mL vaginal / > 1000 mL C-section
- 🚨 HR > 110, BP < 90/60 (late sign)
- 🚨 Pale, cool, clammy skin; delayed cap refill
- 🚨 ↓ LOC, restlessness, ↓ urine output < 30 mL/hr

- Mild tachycardia, slight anxiety

4 PRIORITY NURSING INTERVENTIONS

Do this — in order.

1. **Assess fundus FIRST**
   Tone, location, midline? Boggy = act now.
2. **Massage the boggy fundus**
   One hand supports the lower uterine segment; never massage a firm fundus.
3. **Empty the bladder**
   A full bladder displaces the uterus and prevents contraction.
4. **Administer uterotonic**
   Per protocol: oxytocin first line; escalate if no response.
5. **Quantify blood loss**
   Weigh pads (1 g = 1 mL); don't just eyeball.
6. **Monitor VS & LOC q15 min**
   Watch for shock; trend trumps a single number.
7. **Secure large-bore IV × 2**
   18-gauge; warm crystalloids; type & cross for blood products.
8. **Notify provider / rapid response**
   Don't delay — PPH can kill in minutes.

5 PHARMACOLOGY — THE BIG 4

Know the drug, know the contraindication.

1ST LINE

Oxytocin (Pitocin)

SYNTHETIC POSTERIOR PITUITARY HORMONE

MOA	Stimulates uterine smooth-muscle contraction via oxytocin receptors.
USE	Induction/augmentation of labor; routine prevention & tx of PPH.
DOSE	10–40 units in 1 L LR, IV titrated; or 10 units IM after placenta.
SE	Tachysystole, water intoxication (ADH-like), hyponatremia, hypotension with IV push.
NURSING	Always on an IV pump; continuous FHR during labor; strict I&O; stop infusion if > 5 contractions / 10 min or non-reassuring FHR.

HTN = NO

Methylergonovine (Methergine)

ERGOT ALKALOID

MOA	Direct, sustained uterine contraction.
USE	PPH from uterine atony *after* delivery only.
DOSE	0.2 mg IM q 2–4 h (avoid IV — severe HTN).
SE	HTN, severe headache, seizures, chest pain, N/V.
NURSING	Check BP before every dose — **hold if BP > 140/90**.

Contraindications
Hypertension, preeclampsia, eclampsia, cardiac disease.

ASTHMA = NO

Carboprost (Hemabate)

PROSTAGLANDIN F2A

MOA	Potent uterine contraction via prostaglandin receptors.
USE	PPH refractory to oxytocin.
DOSE	250 mcg IM q 15–90 min (max 2 mg).
SE	Bronchospasm, N/V, diarrhea (very common), fever, flushing.

PGE1

Misoprostol (Cytotec)

PROSTAGLANDIN E1 ANALOGUE

MOA	Cervical ripening + uterine contraction.
USE	PPH, cervical ripening, labor induction, medical abortion.
DOSE	600–1000 mcg PR / SL / PO for PPH.
SE	Fever, shivering, chills, diarrhea, N/V.

NURSING Screen for asthma; pre-medicate with antiemetic/antidiarrheal; auscultate lungs.

Contraindications
Active asthma, pulmonary disease.

NURSING Heat-stable (good for low-resource areas); monitor temp; counsel on cramping.

Contraindications
Prior C-section or uterine scar when used for induction (rupture risk).

6 NCLEX TEST TRAPS

Where students lose points.

	TRAP	CORRECT
⚠	Giving Methergine without checking BP.	BP > 140/90 → **hold** and call provider. Oxytocin is safe in HTN.
⚠	Giving Hemabate to a patient with asthma.	Screen for wheezing / hx asthma. Prostaglandins cause bronchospasm.
⚠	Firm fundus + heavy bleeding? Give a uterotonic.	Firm fundus + bleeding = suspect a **laceration or retained placenta**, not atony.
⚠	Massaging a firm, midline fundus.	Only massage a **boggy** fundus; over-massage causes fatigue and more atony.
⚠	Assessing the fundus without emptying the bladder first.	Full bladder displaces the uterus up & to the right and mimics atony.
⚠	IV push of oxytocin.	Rapid IV push → hypotension & arrhythmia. Always diluted, on a pump.

7 PATIENT EDUCATION

Send her home knowing these.

♡
Watch the pad
Call if saturating a pad in under an hour or passing clots larger than an egg.

◐
Lochia changes
Rubra (red) → serosa (pink-brown) → alba (yellow-white). Reversal = call.

✦
Cramping is OK
Uterotonics & breastfeeding cause afterpains — use ordered analgesics.

♨
Fever = call
Temp > 100.4 °F (38 °C) or foul-smelling lochia signals infection.

⚘
Breastfeed early
Nipple stimulation releases natural oxytocin → firmer uterus, less bleeding.

✕
Avoid NSAIDs?
Generally safe postpartum — but confirm with provider if HTN or on methergine.

8 MEMORY BOOSTERS

Stick it to your brain.

The Big 4 uterotonics

O M C M

- → **O** xytocin — first line, always on a pump
- → **M** ethergine — **M** ean BP → avoid if HTN
- → **C** arboprost (Hemabate) — **C** hest tightens → avoid in asthma
- → **M** isoprostol (Cytotec) — **M** elts the cervix; heat-stable

Quick-Fire Associations

PIT = PEE LESS
Oxytocin has ADH-like effect → water intoxication, hyponatremia.

ERGOT = ELEVATED BP
Methergine constricts vessels everywhere — hold if HTN.

F FOR FLATULENCE
Prostaglandin F2α (Hemabate) = diarrhea + bronchospasm.

FIRM & MIDLINE = HAPPY
Boggy or deviated = bladder or bleeding.

4 T'S OF PPH
Tone · Trauma · Tissue · Thrombin.

END OF CARD · REVIEW, DON'T MEMORIZE