

• NCLEX-RN 2026 • MATERNAL-NEWBORN • GESTATIONAL TROPHOBLASTIC DISEASE

Molar Pregnancy (*Hydatidiform Mole*)

A pregnancy that isn't a pregnancy — abnormal trophoblastic proliferation produces grape-like vesicles inside the uterus, sky-high hCG, no viable fetus, and a real risk of progressing to choriocarcinoma. High-yield for prioritization, OB pharm, and "before-20-weeks" red flags.

TOPIC FILE

Nº 27

OB • SHEET 1 OF 3

01 Definition & overview

WHAT IT IS • WHY IT MATTERS

WHAT IT IS

An **abnormal pregnancy** where chorionic villi proliferate into fluid-filled, grape-like vesicles in the uterus. A form of **Gestational Trophoblastic Disease (GTD)** — a benign tumor of the placenta with **no viable fetus**.

WHY IT MATTERS NCLEX

- **5–20%** of complete moles progress to **choriocarcinoma** (malignant)
- Causes hemorrhage, DIC, and embolization
- Mimics — then must be distinguished from — preeclampsia & hyperemesis

RISK FACTORS

- Maternal age **<20 or >35**
- Previous molar pregnancy (1–2% recurrence)
- History of miscarriage
- Low dietary **carotene & folate**
- Asian heritage (higher incidence)

Two types — and the NCLEX loves to ask which is which.

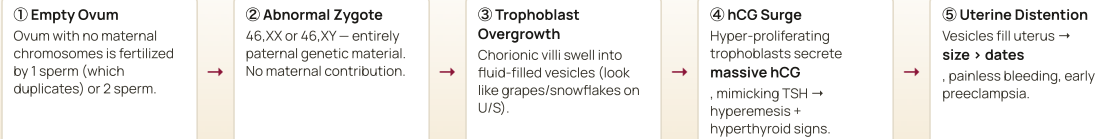
COMPLETE • 46,XX (ALL PATERNAL) • NO FETUS

FEATURE	COMPLETE MOLE	PARTIAL MOLE
Fertilization	Empty ovum + 1 sperm (duplicates) or 2 sperm	Normal ovum + 2 sperm
Karyotype	46,XX or 46,XY — all paternal DNA	69,XXY (triploid)
Fetal tissue	None — no fetus, no fetal heart tones	Some abnormal fetal tissue / nonviable fetus
hCG level	Markedly elevated (often >100,000 mIU/mL)	Less elevated, may be normal-ish
Cancer risk	5–20% → choriocarcinoma	<5% → choriocarcinoma
U/S finding	"Snowstorm" • "cluster of grapes"	Focal cystic spaces + fetal parts

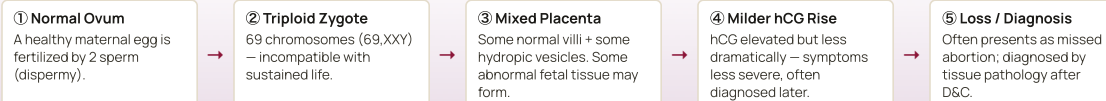
02 Pathophysiology *simplified*

STEP-BY-STEP MECHANISM

COMPLETE MOLE *Empty egg meets sperm → all paternal DNA → no fetus, just vesicles*



PARTIAL MOLE *Two sperm + normal egg → triploid embryo that cannot survive*



• CONTINUED • SIGNS • INTERVENTIONS • PHARMACOLOGY

Molar Pregnancy — *clinical action*

03 Signs & symptoms

EARLY • LATE • RED FLAGS

EARLY

WK 6–12

- **Vaginal bleeding** — dark brown “prune juice” or bright red (often first sign)
- **Hyperemesis gravidarum** — severe N/V from sky-high hCG
- **Uterus larger than dates** for gestational age
- **No fetal heart tones** (complete mole)
- Positive pregnancy test (+ extreme hCG)
- Pelvic pressure / fullness

LATE • SEVERE

WK 12–20

- **Hyperthyroidism signs** — tachycardia, tremor, heat intolerance (hCG mimics TSH)
- Severe **anemia** from chronic bleeding
- **Theca-lutein ovarian cysts** — palpable, enlarged ovaries from hCG overstimulation
- **hCG > 100,000 mIU/mL**
- Trophoblastic pulmonary embolization (rare)

RED FLAGS

CRITICAL

- ◆ **Passage of grape-like vesicles** — pathognomonic
- ◆ **Preeclampsia BEFORE 20 wks** — always think mole first
- ◆ Heavy hemorrhage → hypovolemic shock
- ◆ Snowstorm pattern on ultrasound
- ◆ Persistent ↑ hCG after evacuation → **choriocarcinoma**
- ◆ Chest pain / dyspnea → metastasis to lung

PRE-ECLAMPSIA < 20 WK = MOLE

HCG > 100,000

SIZE > DATES

“PRUNE JUICE”

NO FETAL HEART TONES

SNOWSTORM ON U/S

04 Priority nursing interventions

ABCS • SAFETY • PRIORITIZATION

ASSESS

Bleeding — count & weigh pads; assess for hemorrhage and signs of shock (↓BP, ↑HR, pallor, cool/clammy skin).

MONITOR

Vital signs — frequent BP/HR; watch for **early preeclampsia** (BP, headache, visual changes, edema, proteinuria).

PREPARE

Suction curettage (D&C) — definitive treatment to evacuate the mole. Type & crossmatch blood before procedure.

ESTABLISH

Large-bore IV access (18g) and have isotonic fluids/blood products available — risk of hemorrhage is high.

ADMINISTER

RhoGAM within 72 h if Rh-negative — prevents alloimmunization for future pregnancies.

TREND

Serial β-hCG — weekly until negative ×3, then monthly for **6–12 months**. Rising hCG = choriocarcinoma.

ASSESS

Thyroid status — high hCG mimics TSH; watch for tachycardia, tremor, heat intolerance.

SCREEN

CXR baseline — chest x-ray to rule out lung metastasis from choriocarcinoma.

EDUCATE

Strict contraception 6–12 months (OCPs preferred). **NOT IUD** — perforation risk in newly evacuated uterus.

SUPPORT

Grief & emotional care — this is a pregnancy loss with added cancer surveillance burden. Acknowledge both.

05 Pharmacology essentials

DRUG • MECHANISM • SIDE EFFECTS • CONSIDERATIONS

DRUG / CLASS	MECHANISM	KEY SIDE EFFECTS	NURSING CONSIDERATIONS
Oxytocin (Pitocin) UTEROTONIC	Stimulates uterine contraction post-evacuation to ↓ bleeding.	Water intoxication, hypotension, tachycardia, uterine hyperstimulation.	HOLD until AFTER evacuation — pre-evacuation use causes trophoblastic emboli . Monitor I&O, fundal tone.
Methotrexate FOLATE ANTAGONIST • CHEMO	Blocks DNA synthesis in rapidly dividing trophoblast cells → treats choriocarcinoma .	Bone marrow suppression, hepatotoxicity, mucositis, photosensitivity.	AVOID folic acid. Monitor CBC, LFTs, BUN/Cr. Sun protection. Reliable contraception during & after.
Rh₀(D) Immune Globulin (RhoGAM) IMMUNOGLOBULIN	Prevents maternal anti-Rh antibody formation in Rh-negative women.	Local site reaction, low-grade fever.	Give within 72 hours of evacuation if mother is Rh-negative (mother is Rh-, father unknown/+).
Combined Oral Contraceptives ESTROGEN + PROGESTIN	Suppress LH/FSH → prevent pregnancy and suppress endogenous hCG-like LH activity.	Nausea, breakthrough bleeding, ↑ clot risk, mood changes.	Preferred contraceptive for 6–12 months follow-up. New pregnancy would mask rising hCG.
Labetalol / Hydralazine ANTIHYPERTENSIVE	Beta-blocker / direct vasodilator — used if early preeclampsia develops.	Hypotension, bradycardia (labetalol), reflex tachycardia (hydralazine), headache.	Hold for HR < 60 (labetalol) or SBP < 100. Monitor BP before/after dose. Patient supine.
Misoprostol PROSTAGLANDIN E ₁	Cervical ripening prior to suction curettage (selective use).	Cramping, diarrhea, nausea, bleeding.	Used pre-procedure only if needed. Not first-line for mole evacuation — D&C is primary.

△ Note: **Methylergonovine (Methergine)** is contraindicated if HTN/preeclampsia is present — always check BP before any uterotonic. **IUDs are contraindicated** during the follow-up period due to perforation risk in a recently evacuated uterus.

Molar Pregnancy — *exam armor*

06 NCLEX *test traps* ⚠

WHERE STUDENTS LOSE POINTS

⚠ **Preeclampsia *before* 20 weeks?** NOT typical preeclampsia — think **molar pregnancy first**. True preeclampsia is after 20 wks.

⚠ **"Size greater than dates" ≠ automatic twins.** Differentials include **mole**, polyhydramnios, multiples, LGA, incorrect dates.

⚠ **Don't give oxytocin BEFORE evacuation** — risk of **trophoblastic pulmonary embolization**. Give it *only after* the uterus is evacuated.

⚠ **Hyperemesis + extreme hCG?** Mole and twin pregnancy both cause it — ultrasound distinguishes.

⚠ **IUD ≠ acceptable contraception** post-evacuation — perforation risk. **OCPs are preferred**; barrier methods OK.

⚠ **Tachycardia/tremor in a pregnant patient?** Could be hCG-driven hyperthyroidism in mole, not just anxiety.

⚠ **Pregnancy is forbidden for 6–12 months.** A new pregnancy raises hCG and **masks** rising hCG from choriocarcinoma.

⚠ **"Prune juice" discharge** is a hint for **mole**, not just an old bleed. Pair with size > dates and high hCG.

⚠ **hCG must reach ZERO and stay there.** Falling but not zero = not done. Rising again = malignancy until proven otherwise.

⚠ **Methylergonovine + HTN = NO.** If BP elevated (mole patients often have early preeclampsia), choose oxytocin instead.

07 Patient *education*

DISCHARGE TEACHING

● Follow-up is non-negotiable

- Serial **β-hCG**: weekly until negative ×3, then **monthly × 6–12 months**.
- Keep **every** appointment — choriocarcinoma can develop after evacuation.
- Report rising hCG, persistent bleeding, or new symptoms immediately.

● Contraception rules

- No pregnancy for 6–12 months** — must use reliable contraception.
- Use**: oral contraceptives (preferred), barrier methods.
- Avoid**: IUD (uterine perforation risk in newly evacuated uterus).

● When to call the provider

- Heavy bleeding, passing tissue, severe abdominal pain
- Persistent nausea/vomiting, chest pain, shortness of breath
- Headache, visual changes, severe swelling (preeclampsia signs)
- Coughing up blood (lung metastasis red flag)

● Future pregnancies & feelings

- Recurrence risk is **~1–2%** — most future pregnancies are normal.
- Wait the full surveillance period before trying again.
- Early U/S in next pregnancy to confirm normal gestation.
- This is a real loss — grief counseling and support groups help.

08 Memory *boosters*

MNEMONICS • PATTERNS • PICTURES

GRAPES

⇨ CLINICAL SIGNS OF MOLAR PREGNANCY

G Grape-like vesicles passed vaginally (pathognomonic)

R Really high hCG — often >100,000 mIU/mL

A Anemia from ongoing vaginal bleeding

P Preeclampsia appearing BEFORE 20 weeks

E Emesis — hyperemesis gravidarum (severe N/V)

S Size of uterus larger than dates

MOLAR

⇨ MANAGEMENT & CARE PRIORITIES

M Monitor hCG serially — until zero ×3, then monthly 6–12 mo

O OCPs for contraception — *not* IUD

L Labs — CBC, type & cross, thyroid, baseline CXR

A Avoid pregnancy 6–12 months (masks rising hCG)

R Remove with suction curettage (D&C) — definitive Tx

PATTERN: U/S FINDINGS

- "**Snowstorm**" = complete mole
- "**Cluster of grapes**" = vesicles
- No gestational sac / no FHT (complete)

QUICK TRIAD TO SPOT A MOLE

- Vaginal bleeding (prune-juice)
- Uterus > dates + ↑↑ hCG
- Pre-eclampsia before 20 wks

IF HCG RISES AFTER EVACUATION...

- Suspect **choriocarcinoma**
- Treat with **methotrexate**
- Surveil for lung mets (CXR)

*If you remember **three things**: hCG must hit zero • no pregnancy for a year • early preeclampsia = mole.*

⇨ HIGH YIELD