DAY 12 / 16 NCLEX-RN LABOR & DELIVERY SERIES · 2026 TEST PLAN

Preterm Labor, PPROM, Tocolytics, *Betamethasone* & Infection

An NGN clinical-judgment review of the most time-sensitive antepartum emergencies — built around the question: "What finding is most dangerous for the mother or fetus, and what should the nurse do first?"

FOCUS · 20 0/7 TO 36 6/7 WEEKS **CJMM** · 6-STEP MODEL APPLIED THROUGHOUT

SAFETY · MATERNAL–FETAL PRIORITY FRAMING

SECTION 01

High-Yield Overview

The framework that turns scattered facts into NGN clinical judgment.

Preterm labor (PTL) is regular uterine contractions *plus* documented cervical change (dilation and/or effacement) between **20 0/7 and 36 6/7 weeks** gestation. Contractions alone are not PTL — the cervix must change. **PPROM** (preterm premature rupture of membranes) is rupture before labor begins *and* before 37 weeks. Both diagnoses share one defining feature on the NCLEX: `the fetus is not ready to be born`, so the nursing priority is to **buy time safely** while protecting the mother from infection and the fetus from hypoxia and prematurity.

Three time-sensitive maternal–fetal goals drive every intervention in this lesson:

1. Delay birth long enough (ideally 48 hours) for antenatal corticosteroids to mature fetal lungs. **2. Protect the fetal brain** with magnesium sulfate for neuroprotection if <32 weeks. **3. Prevent and detect infection** — chorioamnionitis converts a "we can wait" situation into a "deliver now" emergency. When you see *maternal fever, fetal tachycardia >160, uterine tenderness, foul-smelling fluid, or elevated WBC*, tocolytics stop and delivery starts.

NGN questions on this topic test whether you can **recognize the pivot point**: when the goal shifts from *"keep the baby in"* to *"get the baby out safely."* Memorizing drug names is not enough — you must know which finding overrides the tocolytic, which finding overrides the steroid plan, and which finding overrides everything else and demands emergency delivery prep.

SECTION 02

10 Must-Know Rules

The hard rules that win partial-credit NGN items.

01 **PTL requires cervical change.** Contractions without dilation/effacement = preterm *contractions*, not preterm labor. Document cervical exam first to confirm the diagnosis.

02 **Never do digital cervical exams in PPROM.** Each digital exam introduces bacteria and shortens latency. Use a sterile speculum exam only.

03 **Confirm rupture three ways:** visible pooling on speculum, positive nitrazine (turns blue — alkaline), and ferning on microscopy. Avoid relying on patient report alone.

04 **Betamethasone 12 mg IM × 2 doses, 24 hr apart.** Given 24–34 weeks (and 34 0/7–36 6/7 if late preterm birth expected). Peak benefit is at 24–48 hours and lasts about 7 days.

05 **Magnesium sulfate for neuroprotection is given when birth is anticipated <32 weeks.** It reduces cerebral palsy. It is *not* primarily a tocolytic in modern protocols.

06 **Tocolytics buy 48 hours — that is all.** Their purpose is to allow corticosteroids to work and to enable maternal transport. They do not prevent preterm birth.

07 **Chorioamnionitis overrides tocolysis.** Maternal fever ≥38°C/100.4°F + fetal tachycardia + uterine tenderness = stop tocolytics, start antibiotics, prepare for delivery.

08 **Indomethacin is contraindicated ≥32 weeks** — premature closure of the ductus arteriosus. Use it only briefly before 32 weeks if used at all.

09 **Latency antibiotics in PPROM** (ampicillin + erythromycin or azithromycin × 7 days) prolong pregnancy and reduce neonatal sepsis. This is different from GBS prophylaxis given in active labor.

10 **Calcium gluconate 1 g IV slow is the antidote for magnesium toxicity.** First clinical signs of toxicity are loss of patellar reflex → respirations <12 → urine output <30 mL/hr → cardiac arrest.

SECTION 03

Maternal–Fetal Safety Table

Each row maps a finding to its danger and the first action.

FINDING	WHAT IT MEANS	MOTHER RISK	FETAL / NEWBORN RISK	PRIORITY NURSING ACTION	NOTIFY / ESCALATE
Regular contractions q10 min or more frequent at 30 wk	Possible preterm labor — needs cervical exam to confirm	Anxiety, fatigue, infection if cause is chorio	Preterm birth, RDS, IVH, NEC	External fetal monitor, IV access, lateral position, hydration if ordered, sterile speculum + cervical assessment	Provider for tocolysis, betamethasone, magnesium for neuroprotection
Sudden gush of clear fluid at 28 wk	Suspected PPROM	Chorioamnionitis, abruption	Cord prolapse, fetal infection, pulmonary hypoplasia (early/prolonged)	**Assess FHR first** (cord prolapse risk), then sterile speculum exam — never digital	Provider for confirmation, antibiotics, steroids; rapid response if cord palpated/visible
Visible/palpable umbilical cord at the introitus	Cord prolapse — true OB emergency	Emergency cesarean, hemorrhage	Severe hypoxia → fetal demise within minutes	Glove on, lift presenting part off cord with two fingers, knee-chest or Trendelenburg, do not remove hand until in OR	Call for help / rapid response, OR team, surgeon — emergency cesarean
Foul-smelling amniotic fluid + maternal T 38.4°C + FHR 175	Chorioamnionitis	Sepsis, postpartum endometritis, hemorrhage	Neonatal sepsis, pneumonia, encephalopathy	Notify provider immediately, IV antibiotics (ampicillin + gentamicin), antipyretic, **stop tocolytics**, prepare for delivery	Provider + neonatal team must be present at delivery
Meconium-stained fluid at 33 wk with PPROM	Possible fetal stress; uncommon in preterm — concerning	Infection, abruption	Meconium aspiration syndrome, hypoxia	Continuous EFM, notify provider, prepare neonatal resuscitation team — including suction setup	Neonatal team at delivery; pediatrician notification

FINDING	WHAT IT MEANS	MOTHER RISK	FETAL / NEWBORN RISK	PRIORITY NURSING ACTION	NOTIFY / ESCALATE
Loss of patellar DTR + RR 10 in client on magnesium	Magnesium toxicity	Respiratory arrest, cardiac arrest	Fetal CNS/respiratory depression at birth	**Stop magnesium infusion**, administer calcium gluconate 1 g IV slow, support airway, continuous monitoring	Provider STAT; rapid response if respirations fail
Maternal HR 130, tremor, palpitations on terbutaline	Expected beta-2 side effects approaching toxicity	Pulmonary edema, arrhythmia, MI	Fetal tachycardia, hyperglycemia, hypoglycemia after birth	Hold the next dose, notify provider; assess lung sounds, EKG, glucose	Provider; cardiology if chest pain/EKG changes
Blood glucose 268 after second dose betamethasone in client with GDM	Steroid-induced hyperglycemia	DKA risk if severe, infection risk	Neonatal hypoglycemia after birth, macrosomia not typically acute	Q1–2 hr glucose checks, sliding-scale or insulin infusion per protocol, do not withhold the second steroid dose unless ordered	Provider for insulin adjustment
PPROM at 24 wk with positive fetal fibronectin	High risk of delivery within 7–14 days	Infection, abruption, depression/grief	Extreme prematurity, periviability	Hospitalize, latency antibiotics, betamethasone, magnesium neuroprotection when delivery imminent, family-centered counseling	Provider + neonatology consult for shared decision-making
Late decelerations during oxytocin augmentation after failed tocolysis	Uteroplacental insufficiency	Continued failure to progress, cesarean	Fetal hypoxia / acidosis	**Stop oxytocin**, reposition to left side, IV bolus per policy, O_2 10 L NRB if clinically indicated, notify provider	Provider STAT; prepare for operative delivery if Category III

SECTION 04

Red-Flag Cues

Findings that require an immediate, deliberate response — not a continued observation.

IMMEDIATE ASSESSMENT REQUIRED

- **FHR check first** after any rupture of membranes (cord prolapse risk window).
- Sudden severe abdominal pain with rigid uterus — rule out abruption.
- Maternal temperature ≥38°C / 100.4°F with PPROM.
- Fetal tachycardia >160 sustained for 10+ minutes.
- Loss of variability + recurrent late or prolonged decelerations.

REPOSITION FIRST

- Variable decelerations — try left lateral, then right lateral, then knee-chest.
- Recurrent late decelerations — left lateral position.
- Visible cord — knee-chest or Trendelenburg with hand elevating presenting part.

IV FLUID BOLUS (WHEN ORDERED)

- Maternal hypotension after epidural placement during tocolysis.
- Late decelerations with suspected dehydration or maternal hypovolemia.
- Prior to magnesium loading dose if protocol specifies.

Caution: Avoid aggressive crystalloids in magnesium therapy, terbutaline use, or PPROM with chorio — pulmonary edema risk is high.

STOP OXYTOCIN IMMEDIATELY

- Tachysystole (>5 contractions/10 min averaged over 30 min).
- Category III tracing (absent variability with recurrent lates, prolonged deceleration, or bradycardia; sinusoidal pattern).
- Uterine resting tone >20 mmHg between contractions.
- Any maternal seizure, severe hypertension, or suspected uterine rupture.

OXYGEN ONLY WHEN CLINICALLY INDICATED BY POLICY / FETAL STATUS

- Reserve maternal O_2 10 L NRB for confirmed Category II/III tracings unresponsive to repositioning, fluids, and stopping oxytocin.
- Routine O_2 for variability changes alone is no longer supported by current evidence.

ACTIVATE RAPID RESPONSE / PREPARE FOR EMERGENCY BIRTH

- Cord prolapse — emergency cesarean.
- Suspected abruption with maternal instability or fetal distress.
- Eclamptic seizure in a preterm client on magnesium.
- Category III tracing not responding to intrauterine resuscitation.
- Magnesium toxicity with respiratory failure.

SECTION 05

Medication Safety

Each card answers: why → what to assess → most dangerous effect → hold criteria → antidote → teaching → trap.

Betamethasone *(Celestone Soluspan) — antenatal corticosteroid*

HIGH-ALERT · PREGNANCY

WHY GIVEN

Accelerates fetal lung maturity (surfactant production), reducing RDS, IVH, NEC, and neonatal death. Given 24 0/7–34 0/7 weeks; may be given 34 0/7–36 6/7 weeks if late preterm birth is anticipated within 7 days.

DOSE

12 mg IM q24h × 2 doses (deep IM, gluteal or vastus lateralis). Dexamethasone 6 mg IM q12h × 4 doses is an alternative.

BEFORE GIVING

- Gestational age confirmed
- Maternal glucose baseline (especially GDM)
- Lung sounds (pulmonary edema risk if combined with tocolytics)
- Signs of active infection (caution — does not absolutely contraindicate)

MOST DANGEROUS EFFECTS

Maternal pulmonary edema when combined with tocolytics + fluids; **hyperglycemia** with possible DKA in diabetics; transient suppression of fetal HR variability and breathing movements.

MONITOR

- Glucose q1–4 h × 72 hr per protocol
- Lung sounds, SpO_2, respiratory rate
- FHR (variability may decrease 2–3 days)
- Signs of infection

TEACHING

Two injections 24 hours apart maximize benefit. Steroid effect peaks at 24–48 hours; full benefit lasts ~7 days. Decreased fetal movement for 1–2 days after dose is expected and not necessarily dangerous, but report.

ANTIDOTE / REVERSAL

None. Manage hyperglycemia with insulin; manage pulmonary edema with diuretics + oxygen + restriction of further fluids.

NCLEX TRAP

"Decreased fetal heart rate variability after betamethasone" — students often pick *"notify provider STAT"*. The expected transient decrease in variability for 24–72 hours is **not** equivalent to a Category II/III tracing requiring intervention. Reassess in the context of baseline, accelerations, and decelerations.

Magnesium Sulfate *— fetal neuroprotection (and limited tocolysis)*

HIGH-ALERT · IV

WHY GIVEN

Primary use: **fetal neuroprotection** when delivery is anticipated <32 weeks (reduces cerebral palsy). Secondary use: short-term tocolysis (≤48 hr).

DOSE

Loading: **4–6 g IV over 20–30 min.** Maintenance: **1–2 g/hr** until birth or up to 12–24 hr for neuroprotection. Use a dedicated infusion pump with smart-pump library.

BEFORE GIVING

- Baseline DTRs (patellar), RR, BP, LOC, SpO_2
- Urine output (often Foley)
- Creatinine — magnesium is renally cleared
- Pulmonary exam — caution with cardiac disease

MOST DANGEROUS EFFECT

Magnesium toxicity → respiratory and cardiac arrest. Early sign: loss of patellar reflex. Therapeutic 4–7 mEq/L; toxicity begins ≥7 mEq/L; cardiac arrest ≥12 mEq/L.

HOLD / NOTIFY PROVIDER

- RR <12 / min
- Absent or markedly diminished DTRs
- Urine output <30 mL/hr (or <100 mL / 4 hr)
- SpO_2 <95% or somnolence
- Mg level >7 mEq/L

ANTIDOTE

Calcium gluconate 1 g (10 mL of 10%) IV over 3 min. Have it at the bedside. Stop the magnesium infusion first.

MONITOR

- RR, BP, HR, SpO_2 q15–60 min
- DTRs q1–2 h
- Strict I/O — hourly via Foley
- Continuous EFM
- Mag level per protocol (often q4–6 h)

TEACHING

Feeling warm, flushed, and sleepy is expected. Report shortness of breath, blurred vision, chest pain, or feeling "unable to breathe." After birth, the newborn may be sleepy and have low tone for 24–48 hr.

NCLEX TRAP

Mistaking *"warm flushing and headache"* (expected) for toxicity. **The specific toxicity triad is: absent DTRs + RR <12 + urine output <30 mL/hr.** Also: do not give calcium gluconate before stopping the magnesium drip — both actions are needed, but stopping the cause comes first.

Nifedipine *(Procardia) — calcium channel blocker, first-line tocolytic*

PO

WHY GIVEN

Inhibits uterine smooth muscle contraction by blocking calcium entry. First-line tocolytic in many institutions because of oral route and favorable safety profile.

DOSE

Loading: **20–30 mg PO**, may repeat in 30–90 min. Maintenance: 10–20 mg PO q4–6 h up to 48 hr.

BEFORE GIVING

- Baseline BP and HR — hold if SBP <90
- Hydration status (do not aggressively pre-bolus)
- Check for concurrent magnesium (additive hypotension)

MOST DANGEROUS EFFECTS

Maternal hypotension, reflex tachycardia, headache. **Severe hypotension with concurrent IV magnesium** — additive. Pulmonary edema is rare but reported.

HOLD / NOTIFY

- BP <90/50
- HR >120
- Chest pain, dyspnea, severe headache

ANTIDOTE

Supportive — IV fluids, position changes, calcium gluconate for severe overdose.

TEACHING

Sit/lie down for 1 hour after each dose. Report dizziness, palpitations, severe headache. Do not crush or chew extended-release forms.

NCLEX TRAP

Sublingual nifedipine causes rapid, dangerous BP drops — questions may offer “administer sublingually for faster effect.” Always oral. Also watch for combined use with magnesium — the test may not show both on a single med list; check the MAR carefully.

Indomethacin *(Indocin) — NSAID tocolytic*

PO / PR

WHY GIVEN

Prostaglandin synthesis inhibitor; reduces contractions. Reserved for short-term use (≤48 hr) before 32 weeks.

DOSE

50–100 mg loading PO or PR, then 25–50 mg q4–6 h up to 48 hr.

BEFORE GIVING

- Confirm gestation **<32 weeks**
- Renal function (creatinine)
- Amniotic fluid volume baseline
- No history of GI bleed, bleeding disorder, or NSAID allergy

MOST DANGEROUS EFFECTS

Premature closure of the fetal ductus arteriosus (especially ≥32 weeks or with use >48 hr) → pulmonary hypertension and right heart failure in the fetus/newborn. **Oligohydramnios** from decreased fetal urine output.

HOLD / NOTIFY

- Gestational age ≥32 weeks
- Decreased amniotic fluid index on ultrasound
- Maternal GI symptoms / bleeding
- Use >48 hr

ANTIDOTE

None — discontinue. Echocardiogram for fetus if indicated.

TEACHING

Take with food. Report black/tarry stools, abdominal pain, decreased fetal movement.

NCLEX TRAP

"Continue indomethacin tocolysis at 33 weeks" — wrong. Even if it's effective, the gestational age limit is firm. Also: watch for combined indomethacin + low amniotic fluid on a flow sheet.

Terbutaline *(Brethine) — beta-2 agonist (acute use only)*

SUBQ · BLACK-BOX WARNING

WHY GIVEN

Relaxes uterine smooth muscle. Used for **acute, short-term** management of tachysystole or hyperstimulation, or briefly during transport. Not for prolonged tocolysis (FDA black-box).

DOSE

0.25 mg subQ, may repeat in 15–30 min. Maximum 48–72 hr total use.

BEFORE GIVING

- Baseline maternal HR — hold if >120
- Cardiac history (no use with arrhythmia, heart disease, hyperthyroidism)
- Glucose baseline
- Lung sounds

MOST DANGEROUS EFFECTS

Maternal tachycardia, palpitations, chest pain, arrhythmias, MI, pulmonary edema. Hyperglycemia. Fetal tachycardia and neonatal hypoglycemia.

HOLD / NOTIFY

- HR >120 sustained
- Chest pain or dyspnea
- Tremor severe enough to impair function
- Use approaching 48–72 hr

ANTIDOTE

Discontinue; supportive care; beta-blocker for severe tachyarrhythmia per provider.

TEACHING

Tremor, palpitations, and feeling jittery are common. Report chest pain, shortness of breath, severe palpitations. Not used at home for prolonged tocolysis.

NCLEX TRAP

Selecting “administer for ongoing tocolysis at home” — this carries an FDA black-box warning against prolonged or home use. Only correct uses on the NCLEX: *acute hyperstimulation, short bridge during transfer.*

Ampicillin + Erythromycin (or Azithromycin) *— PPROM latency antibiotics*

IV → PO · 7-DAY COURSE

WHY GIVEN

Prolong pregnancy in PPROM, reduce chorioamnionitis, neonatal sepsis, and IVH. **Different from GBS prophylaxis** given during labor.

REGIMEN

Ampicillin 2 g IV q6h × 48 hr → amoxicillin 250 mg PO q8h × 5 days; PLUS erythromycin 250 mg IV q6h × 48 hr → 333 mg PO q8h × 5 days. Azithromycin 1 g PO × 1 is an alternative to erythromycin.

BEFORE GIVING

- Allergy assessment (penicillin)
- Renal function
- Baseline temp, HR, FHR

MOST DANGEROUS EFFECT

Anaphylaxis to penicillin class. C. difficile colitis with prolonged use.

MONITOR

- Temperature q4h — rising = chorioamnionitis suspect
- FHR for tachycardia
- Uterine tenderness
- Fluid color and odor

REVERSAL

Epinephrine for anaphylaxis; vancomycin/oral fidaxomicin for C. diff.

TEACHING

Complete the entire 7-day course even if feeling well. Report sudden fever, contractions, foul discharge, or chills.

NCLEX TRAP

Confusing PPROM latency antibiotics with intrapartum GBS prophylaxis. **Latency** = ampicillin + erythromycin × 7 days to prolong pregnancy. **GBS prophylaxis** = penicillin G IV in active labor (or cefazolin / clindamycin / vancomycin for allergy).

Penicillin G *— intrapartum GBS prophylaxis*

IV · IN LABOR

WHY GIVEN

Prevent neonatal early-onset GBS sepsis. Given when GBS status positive, unknown with risk factors (preterm, ROM ≥18 hr, fever, previous GBS infant), or GBS bacteriuria in pregnancy.

DOSE

Penicillin G **5 million units IV loading**, then 2.5–3 million units IV q4h until birth. Cefazolin 2 g → 1 g q8h if mild PCN allergy; clindamycin or vancomycin if severe PCN allergy (with susceptibility testing).

BEFORE GIVING

- Allergy history (severity matters)
- Confirm GBS indication
- Time of ROM (counts toward adequacy)

ADEQUATE COVERAGE

At least **two doses** (≥4 hours before birth) is considered adequate. Document time of each dose precisely.

MOST DANGEROUS EFFECT

Anaphylaxis — be prepared with epinephrine.

REVERSAL

Epinephrine IM 0.3 mg for anaphylaxis; airway management.

TEACHING

Antibiotic protects the baby. Mild infusion-site discomfort is normal. Report rash, itching, swelling, or wheezing.

NCLEX TRAP

“GBS-positive client in preterm labor — give penicillin only if cervix is dilated.” False. GBS prophylaxis starts **as soon as labor is diagnosed** or as soon as PPROM occurs in known GBS-positive client — regardless of dilation.

SECTION 06

Fetal Monitoring in the Preterm Client

Preterm tracings have different expected ranges — do not over-interpret.

PARAMETER	TERM EXPECTATION	PRETERM CONSIDERATION	CONCERN IN PTL / PPROM
Baseline FHR	110–160 bpm	Often runs higher (140–160) under 32 wk; baseline above 160 is more easily reached	Sustained >160 for ≥10 min — think infection, dehydration, drug effect (terbutaline), hypoxia
Variability	Moderate (6–25 bpm)	Less developed CNS — minimal variability more common <28 wk; betamethasone can transiently decrease variability for 24–72 hr	Persistent absent variability with recurrent decels — Category III concern
Accelerations	≥15 × 15 sec	**<32 weeks: ≥10 bpm × 10 sec qualifies**	Absence of any accelerations + minimal variability — assess uteroplacental status
Early decels	Mirror contractions; benign (head compression)	Same significance; uncommon in early preterm labor before descent	Reassuring — no action needed
Variable decels	Cord compression — try repositioning	More common with PPROM (oligohydramnios)	Recurrent or severe (<70 bpm >60 sec) — escalate; rule out cord prolapse
Late decels	Uteroplacental insufficiency — pathologic	Same significance; more concerning given preterm fetal vulnerability	Stop oxytocin, reposition, fluids, oxygen if indicated by policy, notify provider
Prolonged decels	FHR drops ≥15 bpm × 2–10 min	Same — but consider cord prolapse first in PPROM	Vaginal exam to rule out cord; intrauterine resuscitation; prepare for delivery if >10 min
Contraction pattern	2–5 / 10 min in active labor	PTL — any regular pattern <37 wk needs cervical assessment	Tachysystole (>5/10 min averaged over 30 min) on tocolytics — adjust therapy or stop oxytocin
Category I	All four reassuring: baseline normal, moderate variability, +/- accels, no late/variable decels	Continue routine monitoring	Continue plan of care
Category II	Indeterminate — anything not I or III	Most common in real practice; requires evaluation but not necessarily immediate delivery	Intrauterine resuscitation, treat cause, increase surveillance

PARAMETER	TERM EXPECTATION	PRETERM CONSIDERATION	CONCERN IN PTL / PPROM
Category III	Absent variability + recurrent lates / variables / bradycardia; *or* sinusoidal pattern	True emergency at any gestational age	Intrauterine resuscitation + **expedited delivery** — usually cesarean

INTRAUTERINE RESUSCITATION SEQUENCE — MEMORIZE

- **S**top oxytocin
- **P**osition — left lateral first; knee-chest if variable/cord
- **I**V fluid bolus (lactated Ringer's) per policy
- **O**xygen 10 L NRB *only when clinically indicated by policy/fetal status*
- **V**aginal exam — rule out cord, assess progress
- Notify provider

*Mnemonic: **S-P-I-O-V-N** — "Stop the pit, position, IV, O_2 if needed, vaginal exam, notify."*

SECTION 07

Advanced NGN Practice Questions

Twelve mixed-format items. Each rationale teaches the clinical-judgment step being tested.

01

MULTIPLE CHOICE | CJ · Recognize Cues

A nurse is admitting a client at 30 weeks' gestation reporting "back cramping for the past 4 hours." Which finding most clearly establishes the diagnosis of preterm labor rather than preterm contractions?

A. Contractions every 8 minutes lasting 40 seconds

B. Maternal report of pelvic pressure and increased vaginal discharge

C. Cervical change from 1 cm / 30% to 2 cm / 60% effaced over 2 hours ✓ CORRECT

D. Positive fetal fibronectin assay at 30 weeks

RATIONALE

C is correct. Preterm labor requires *both* regular contractions *and* documented cervical change between 20 0/7 and 36 6/7 weeks. Cervical change is the defining diagnostic criterion.

A describes contractions only — without cervical change this is preterm *contractions*, not preterm labor. **B** describes premonitory symptoms but does not confirm cervical change. **D** identifies risk of preterm birth within 7–14 days but does not by itself establish active preterm labor.

TRAP · Cervical change is the definition

02

SELECT ALL THAT APPLY | CJ · Analyze Cues

A client at 31 weeks with PPROM has the following findings. Which require immediate notification of the provider? **Select all that apply.**

- **A** Temperature 38.3°C / 100.9°F — ✓ CORRECT
- **B** Fetal heart rate baseline 178 bpm × 12 minutes — ✓ CORRECT
- **C** Lochia rubra-appearing scant discharge (clear–pink) on the pad
- **D** Foul-smelling amniotic fluid — ✓ CORRECT
- **E** Maternal HR 92, BP 116/72
- **F** Uterine tenderness on palpation between contractions — ✓ CORRECT
- **G** Mild Braxton Hicks contractions every 20 minutes

RATIONALE

A, B, D, F are correct. Maternal fever, fetal tachycardia ≥160 sustained, foul fluid, and uterine tenderness are the classic triad-plus of **chorioamnionitis**, which mandates immediate provider notification, antibiotics, antipyretic, and preparation for delivery. Tocolytics are *contraindicated*.

C is a normal small amount of clear-pink fluid common with PPROM. **E** reflects normal vital signs. **G** describes infrequent contractions not meeting PTL criteria.

TRAP · 4 chorio cues = decision to deliver

03

MATRIX / GRID

CJ · Prioritize Hypotheses

A nurse is reviewing tocolytic options. Indicate which medication is **appropriate** for each clinical situation.

CLINICAL SITUATION	NIFEDIPINE	INDOMETHACIN	MAGNESIUM SULFATE	TERBUTALINE
Preterm labor at 26 weeks, no contraindications	**YES**	**YES**	**YES (neuroprotection)**	no
Tachysystole during oxytocin induction at 39 wk	no	no	no	**YES**
Preterm labor at 33 weeks	**YES**	no (≥32 wk)	no (neuroprotection ≤31 6/7)	no (not for prolonged use)
PTL with chorioamnionitis suspected	no	no	no	no
Client with BP 86/52 and HR 116 at 29 wk	no (hypotension)	**YES (no hemodynamic effect)**	no (additive hypotension w/ Nif)	no (worsens tachycardia)

RATIONALE

Match drug pharmacology to the clinical situation. Key boundaries to memorize: **Indomethacin only <32 weeks; Magnesium for neuroprotection only when delivery anticipated <32 weeks; Terbutaline only acute / short-term** (FDA black-box against prolonged use); **Nifedipine avoid with hypotension; any chorioamnionitis = no tocolytics** — the goal becomes delivery.

TRAP · Gestational age thresholds for indomethacin and magnesium

04

BOW-TIE | CJ · Generate Solutions + Take Action

A client at 28 weeks with PPROM 4 hours ago suddenly reports "something is between my legs." Vital signs maternal: 122/74, HR 96, FHR 78 bpm × 4 min. Complete the bow-tie diagram by identifying the most likely condition and the priority actions.

ACTIONS TO TAKE

1. Glove and lift presenting part off cord with two fingers; do not remove until in OR
2. Place in knee-chest or steep Trendelenburg
3. Call for help / activate rapid response — prepare for STAT cesarean

Most likely condition

Umbilical cord prolapse

PARAMETERS TO MONITOR

1. Continuous fetal heart rate
2. Maternal vital signs and SpO_2
3. Time from prolapse to delivery (decision-to-incision)

RATIONALE

Sudden fetal bradycardia after rupture of membranes, with the mother reporting something "between the legs," is cord prolapse — the most acute fetal emergency of labor. The nurse must **elevate the presenting part off the cord and prepare for emergency cesarean.** Wrapping the cord with saline gauze is acceptable if exposed, but warming/drying is no substitute for delivery. Oxygen by face mask may help, but it does not relieve mechanical cord compression.

TRAP · Repositioning to left lateral will not help cord prolapse — only relieves cord compression by lifting the presenting part

05

ORDERED RESPONSE | CJ · Take Action

A client receiving magnesium sulfate at 2 g/hr for fetal neuroprotection becomes drowsy with RR 8, absent patellar reflexes, and urine output 18 mL in the last hour. Place the nurse's actions in priority order.

1. **Stop the magnesium sulfate infusion immediately.**
2. Call for help / rapid response and remain at bedside.
3. Administer **calcium gluconate 1 g IV slow push** over 3 minutes.
4. Support airway, apply oxygen, and place pulse oximeter; prepare for bag-mask ventilation if needed.
5. Reassess vital signs, DTRs, urine output; obtain stat magnesium level.
6. Notify the provider and document the event, response, and ongoing fetal status.

RATIONALE

The first action is always to **stop the offending cause**. Calling for help comes immediately after because magnesium toxicity can progress to respiratory and cardiac arrest within minutes. **Calcium gluconate is the antidote** — give after stopping the drip and ensuring help is present so airway can be managed if needed.

TRAP · Giving calcium gluconate before stopping the drip = wrong sequence

06

DROP-DOWN / CLOZE | CJ · Generate Solutions

Complete the statement by selecting the correct option in each bracket:

"For a client at 30 weeks with confirmed PPROM and no signs of infection, the nurse anticipates administering **[A]** for fetal lung maturity, **[B]** for fetal neuroprotection if delivery becomes imminent, and a 7-day course of **[C]** to prolong pregnancy and reduce neonatal sepsis. Digital cervical exams will be **[D]**."

A: betamethasone · misoprostol · oxytocin · terbutaline
B: calcium gluconate · magnesium sulfate · nifedipine · ondansetron
C: azithromycin alone · ampicillin + erythromycin · penicillin G alone · vancomycin
D: performed every 2 hours · avoided · performed only by the nurse · alternated with sterile speculum

CORRECT SELECTIONS

A · Betamethasone (12 mg IM × 2 doses 24 hr apart) — corticosteroid for fetal lung maturity 24–34 wk.
B · Magnesium sulfate — fetal neuroprotection when birth anticipated <32 wk (reduces cerebral palsy).
C · Ampicillin + erythromycin (azithromycin may substitute for erythromycin) — latency antibiotics × 7 days. Penicillin G alone is for intrapartum GBS prophylaxis, not latency.
D · Avoided — every digital exam in PPROM increases infection risk and shortens latency. Use sterile speculum.

TRAP · Latency antibiotics ≠ GBS prophylaxis

07

PRIORITIZATION | CJ · Prioritize Hypotheses

A nurse is caring for four antepartum clients. Which client should the nurse assess **first**?

A. A client at 32 weeks on magnesium for neuroprotection, with patellar reflexes 2+ and RR 16
B. A client at 28 weeks with PPROM 6 hours ago, now reporting "pressure" and a sudden change in FHR from 142 to 96 ✓ CORRECT
C. A client at 34 weeks with mild gestational hypertension, BP 138/86, no headache
D. A client at 30 weeks who received first dose of betamethasone 8 hours ago and reports mild flushing

RATIONALE

B is correct. A sudden FHR drop after PPROM with new pressure sensation strongly suggests **cord prolapse** — minutes matter. **A** shows therapeutic magnesium without signs of toxicity. **C** is stable mild range hypertension without severe features. **D** describes expected steroid effects.

TRAP · Choosing the highest BP or magnesium client over fetal bradycardia

08

CASE-STYLE | CJ · Analyze Cues

A 27-year-old G2P1 at 31 weeks is admitted with PPROM 18 hours ago. Current data: T 38.5°C, P 118, BP 110/68, RR 22, FHR baseline 172 with minimal variability, no accelerations, occasional variables. WBC 18,400, fluid is greenish-yellow with foul odor. Which interpretation is most accurate?

A. Expected findings 18 hours after PPROM; continue current plan.

B. Likely magnesium toxicity; hold magnesium and call provider.

C. Chorioamnionitis with non-reassuring fetal status; expedite delivery. ✓ CORRECT

D. Preterm labor; initiate tocolytic therapy.

RATIONALE

C is correct. Maternal fever ≥38°C + maternal tachycardia + fetal tachycardia + foul-smelling fluid + elevated WBC = chorioamnionitis. Minimal variability with absent accelerations and recurrent variables suggests fetal compromise. **Tocolytics are contraindicated**; delivery is the treatment.

A ignores all the danger cues. **B** does not match (no respiratory depression, no DTR loss). **D** would worsen outcomes.

TRAP · Continuing tocolysis when chorio develops

09

MEDICATION SAFETY | CJ · Take Action

A nurse is preparing to administer indomethacin 50 mg PO to a client in preterm labor. Which assessment finding requires holding the medication and notifying the provider?

A. Maternal heart rate 96 bpm

B. Gestational age now confirmed at 32 weeks 3 days by ultrasound ✓ CORRECT

C. Mild dependent edema

D. Maternal report of mild headache relieved with Tylenol

RATIONALE

B is correct. Indomethacin is contraindicated ≥32 weeks because of **premature closure of the fetal ductus arteriosus**. The drug must be held and the provider notified to choose another tocolytic. **A, C, D** are not red flags for indomethacin.

TRAP · The gestational-age cutoff is the most testable fact

10

STRIP INTERPRETATION | CJ · Analyze Cues

At 29 weeks PPROM, the EFM shows: baseline 145, moderate variability, no accelerations for the last 20 minutes, repetitive variable decelerations with the lowest point at 75 bpm × 50 seconds with each contraction. Contractions every 3 minutes. Which intervention should the nurse perform first?

A. Notify the provider for immediate cesarean

B. Reposition the client to lateral or knee-chest position ✓ CORRECT

C. Increase the IV fluid rate to 250 mL/hr

D. Administer oxygen at 10 L via non-rebreather mask

RATIONALE

B is correct. Variable decelerations indicate **cord compression** — repositioning is the first and often most effective intervention. With PPROM, oligohydramnios increases cord-compression risk. After repositioning, if persistent, then perform a sterile vaginal exam to rule out cord prolapse, give IV fluids, consider oxygen per policy/fetal status, and notify provider.

A is premature; this is Category II, not Category III. **C, D** may be added but are not the first action.

TRAP · Treating variable decels like late decels

11

EMERGENCY ACTION CJ · Take Action

A client at 26 weeks with PPROM 30 minutes ago has a sudden, deep prolonged deceleration of FHR to 60 bpm lasting 5 minutes. During sterile vaginal exam, the nurse palpates a pulsating cord at the cervix. Which action takes **priority**?

A. Withdraw the gloved hand and document the finding.

B. Maintain pressure with gloved hand to lift the presenting part off the cord while help is summoned. ✓ CORRECT

C. Apply warm saline-soaked gauze to the cord and reassess in 5 minutes.

D. Increase oxytocin infusion to expedite vaginal delivery.

RATIONALE

B is correct. In cord prolapse, the only mechanical maneuver that relieves cord compression while preparing for cesarean is to elevate the presenting part with the examining hand. **Do not remove the hand until in the OR.** Position the client knee-chest or steep Trendelenburg.

A abandons the fetus. **C** may be done if the cord is visible externally, but is secondary to elevation. **D** would worsen compression.

TRAP · Choosing "document" over "intervene"

12

SATA / TEACHING

CJ · Evaluate Outcomes

A client at 30 weeks is being discharged after stabilization for preterm contractions. Which statements indicate effective teaching? **Select all that apply.**

- **A** "I will call my provider if I have more than 4 contractions in an hour." ✓ CORRECT
- **B** "I should restrict all fluids to prevent more contractions."
- **C** "I'll go to the hospital if I have leakage of fluid, even if it's small." ✓ CORRECT
- **D** "Decreased fetal movement is something I need to report right away." ✓ CORRECT
- **E** "As long as I stay on bed rest, I cannot get a blood clot."
- **F** "Burning with urination or fever could trigger preterm labor and I should call." ✓ CORRECT
- **G** "I can take ibuprofen for my back pain at home."

RATIONALE

A, C, D, F are correct. Standard teaching: report ≥4–6 contractions/hr, any leakage of fluid, decreased fetal movement, signs of UTI or fever (infection is a leading PTL trigger).

B — dehydration worsens contractions; clients should maintain adequate hydration. **E** — strict bed rest *increases* VTE risk; modified activity is now preferred. **G** — NSAIDs at home during pregnancy are not recommended without provider guidance (and contraindicated ≥30 weeks for ductus arteriosus risk).

TRAP · Bed rest now considered harmful

SECTION 08

Unfolding NGN Case Study

Six clinical-judgment steps on a single evolving patient.

Case · Antepartum Triage

Maria Ortega, G3P2, 29 weeks 4 days

NURSE'S NOTE · 22:14

29 4/7 wk G3P2 presents with sudden gush of clear fluid 90 minutes ago at home, now reporting "tightening" every 6 minutes. Two previous term vaginal deliveries. GBS status unknown this pregnancy. No prenatal complications. Denies bleeding. Reports good fetal movement until 30 minutes ago. Last meal 4 hours ago. Allergies: NKA.

VITAL SIGNS & FETAL MONITORING · 22:25

BP	118 / 72 mmHg
HR	102 bpm
Temp	37.4°C / 99.3°F
RR / SpO_2	20 / 98% RA
FHR baseline	158 bpm
Variability	Moderate
Accelerations	Present (≥10 × 10 sec)
Decelerations	Occasional variables, lowest 110, <30 sec
Contractions	Every 6 min, 35–45 sec, mild–moderate by palpation
Resting tone	Soft

STERILE SPECULUM EXAM · 22:35

Pooling of clear fluid in vaginal vault. **Nitrazine positive (turned blue).** Ferning present on microscopy. Cervix visualized at **2 cm dilated, 70% effaced**. No bleeding. *No digital exam performed.*

PROVIDER ORDERS · 22:45

1. Admit to L&D. Continuous EFM. Bed rest with bathroom privileges.
2. IV: LR at 125 mL/hr.
3. **Betamethasone 12 mg IM × 2 doses, 24 hr apart.**
4. **Magnesium sulfate 4 g IV load over 30 min, then 1 g/hr × 12 hr** for fetal neuroprotection.
5. **Ampicillin 2 g IV q6h + Azithromycin 1 g PO × 1** (latency).
6. **Penicillin G 5 million units IV load, then 2.5 million units q4h** until birth or GBS-negative result (unknown GBS status with PTL).
7. Type & screen, CBC, CMP, urinalysis, vaginal/rectal GBS culture.

8. Notify provider for fever ≥38°C, FHR >160 × 10 min, recurrent decels, change in fluid color/odor, or worsening contractions.

LABORATORY RESULTS · 23:10

WBC	12,800 (mild elevation expected)
Hgb / Hct	11.4 / 33.6
Platelets	196,000
Creatinine	0.7
Urinalysis	Trace leukocytes, otherwise unremarkable

CLIENT STATEMENT · 23:20

"I'm scared. With my first two I went full term — they were both nine pounds. I don't know what to do if the baby comes now."

STEP 1 · RECOGNIZE CUES

WHICH FINDINGS ARE RELEVANT TO THE PRIORITY DIAGNOSIS?

Relevant cues to flag: Sudden gush of fluid · positive nitrazine + ferning + pooling · regular contractions every 6 min · cervix 2 cm / 70% · gestation 29 4/7 wk · GBS status unknown · maternal HR 102 (mildly elevated) · FHR baseline 158 (upper-normal for preterm) · occasional variable decels (oligohydramnios risk).

Not yet concerning but to watch: WBC 12.8 (mildly elevated, expected with steroids and labor) · maternal temp 37.4 (normal-high).

STEP 2 · ANALYZE CUES

WHAT IS THE MOST LIKELY CLINICAL PICTURE?

Diagnosis: PPROM at 29 4/7 weeks with early preterm labor. Pooling + nitrazine + ferning = confirmed rupture. Cervical change documents PTL. No current evidence of chorioamnionitis (afebrile, FHR within preterm-normal range, no uterine tenderness or foul fluid). Variable decels are mild and intermittent — consistent with oligohydramnios.

STEP 3 · PRIORITIZE HYPOTHESES

WHAT IS THE PRIORITY THREAT?

Priority: Imminent preterm birth with risk of neonatal RDS, IVH, and neurologic morbidity — combined with infection risk and cord-prolapse risk from PPROM. The two highest-priority interventions are **(1) corticosteroids for lung maturity** and **(2) magnesium for fetal neuroprotection**. Latency antibiotics and GBS prophylaxis follow closely. All other interventions (analgesia, comfort) are lower priority right now.

STEP 4 · GENERATE SOLUTIONS

WHAT PLAN SUPPORTS THE PRIORITY?

1. Establish continuous EFM and IV access. 2. Administer first dose of **betamethasone 12 mg IM**. 3. Begin **magnesium sulfate loading dose 4 g IV over 30 min**, then maintenance 1 g/hr × 12 hours; place Foley for I/O. 4. Begin **ampicillin + azithromycin** latency course. 5. Begin **penicillin G** for GBS prophylaxis (unknown status with PTL). 6. **No digital cervical exams** — minimize speculum exams. 7. Notify neonatology, prepare warmer and resuscitation equipment. 8. Offer emotional support, explain plan in plain language, include partner if present.

STEP 5 · TAKE ACTION — TWO HOURS LATER

REASSESSMENT AT 01:30

UPDATE · 01:30

Temp	**38.2°C / 100.8°F**
Maternal HR	**124 bpm**
FHR baseline	**178 bpm × 14 min**
Variability	Minimal
Uterine tenderness	**Now present between contractions**
Fluid	**Cloudy with mild odor**
DTRs / RR	2+ patellar / RR 14
Urine output (last hr)	38 mL

Interpretation: Chorioamnionitis has developed. Magnesium is therapeutic (no toxicity). Tocolysis (if active) must stop — but in this case magnesium is being used for neuroprotection, not tocolysis, and the team must now expedite delivery. The nurse should:

- Notify provider STAT
- Administer antipyretic (acetaminophen)
- Continue antibiotics; provider may broaden to chorio-coverage (ampicillin + gentamicin ± clindamycin)
- Continue magnesium for neuroprotection until birth (do not stop solely for chorio)
- Prepare for preterm delivery; notify neonatology / NICU
- Reassess FHR continuously; intrauterine resuscitation as needed

STEP 6 · EVALUATE OUTCOMES

WHAT OUTCOMES INDICATE EFFECTIVE CARE?

- Maternal: temperature trending down with antipyretic + antibiotics; HR <110; no new bleeding; stable BP; intact DTRs; RR >12; urine output >30 mL/hr.
- Fetal: FHR baseline returning toward 140–160 with moderate variability; no recurrent late or prolonged decels until delivery.
- Neonatal at delivery: Apgar response to standard resuscitation; team prepared for surfactant if needed; neonatal sepsis workup initiated.

- Psychosocial: client and family verbalize understanding, ask questions, feel supported.

SECTION 09

What Should the Nurse Do First?

Five mini-scenarios — each rationale explains why that action precedes the others.

01 *A client at 30 weeks suddenly reports "fluid leaking" while ambulating to the bathroom.*

> **First action — assess fetal heart rate.** The single highest fetal risk after any rupture of membranes is cord prolapse, which presents with abrupt bradycardia. Confirm FHR before performing any other assessment. Then place the client on continuous EFM and perform sterile speculum exam.

02 *A client on magnesium sulfate 2 g/hr is found drowsy with RR 9 and absent patellar reflexes.*

> **First action — stop the magnesium infusion immediately.** Removing the cause is the highest-priority step. Then call for help, administer calcium gluconate 1 g IV slow, and support the airway. Order of operations matters on the NCLEX.

03 *A client at 28 weeks with PPROM has recurrent variable decels to 70 bpm × 60 seconds.*

> **First action — reposition (left lateral, then knee-chest if no improvement).** Variable decelerations are cord compression. Repositioning is the most effective and immediate first action. Then perform sterile vaginal exam to rule out prolapse, increase IVF per policy, consider oxygen per policy if status worsens, and notify provider.

04 *A client at 31 weeks PPROM develops T 38.4°C, FHR 175, and foul-smelling fluid.*

> **First action — notify the provider.** Chorioamnionitis demands immediate physician involvement to start broad-spectrum antibiotics and expedite delivery. Tocolytics (if running) stop. The nurse anticipates antipyretic, IV antibiotics, neonatal team activation.

05 *A client at 26 weeks with PPROM 30 min ago has FHR sudden drop to 60 bpm and the nurse palpates a cord on vaginal exam.*

> **First action — keep the gloved hand in place lifting the presenting part off the cord; call for help / activate rapid response while remaining at the bedside.** Do not withdraw the hand. Position knee-chest or Trendelenburg. Prepare for emergency cesarean.

SECTION 10

Stop, Hold, or Escalate

Five high-frequency NCLEX scenarios where the nurse must act decisively.

⛔ STOP OXYTOCIN	**Tachysystole with Category II tracing during induction at 36 wk with prior PTL history.** >5 contractions/10 min averaged over 30 minutes with late decels = stop oxytocin, reposition, IV fluid, oxygen if indicated by policy, notify provider. Consider terbutaline 0.25 mg subQ for acute hyperstimulation.
🛑 HOLD MEDICATION	**Indomethacin ordered at 32 weeks 3 days.** Indomethacin is contraindicated ≥32 weeks (premature closure of fetal ductus arteriosus). Hold the dose and notify the provider to select an alternative tocolytic (e.g., nifedipine).
📞 NOTIFY PROVIDER	**Client on magnesium with patellar reflexes 1+ (down from 2+) and urine output 26 mL/hr.** Early magnesium toxicity. Hold the next dose, notify provider, obtain stat magnesium level. Calcium gluconate at the bedside as a backup.
⚡ RAPID RESPONSE	**Client on magnesium has RR 6 and is unresponsive.** Magnesium toxicity with respiratory failure. Stop the drip, call rapid response, support airway with bag-mask ventilation, administer calcium gluconate 1 g IV slow push, prepare for intubation.
🚨 PREPARE EMERGENCY BIRTH	**Cord prolapse confirmed at 28 weeks.** Maintain hand elevating presenting part, knee-chest position, summon OR team and neonatal team, prepare for STAT cesarean. Document time of prolapse and decision-to-incision. Wrap exposed cord with saline-soaked gauze; do not push back in.

SECTION 11

Common NCLEX Traps

Five traps you'll see in this content area — and how to avoid them.

CONFUSING PPROM LATENCY ANTIBIOTICS WITH INTRAPARTUM GBS PROPHYLAXIS 01

Latency = **ampicillin + erythromycin (or azithromycin)** × 7 days to prolong pregnancy. GBS prophylaxis = **penicillin G** in active labor (or cefazolin / clindamycin / vancomycin for allergy) to prevent neonatal sepsis. NCLEX items will list both on the MAR — read the indications, not just the drug.

TREATING VARIABLE DECELERATIONS AS IF THEY WERE LATE DECELERATIONS 02

Variables = cord compression → **reposition first** (left lateral, then knee-chest). Lates = uteroplacental insufficiency → **stop oxytocin first**, position, fluids, oxygen if indicated. The first action differs based on the cause.

MISSING MAGNESIUM TOXICITY BY FOCUSING ON "WARM AND FLUSHED" 03

Flushing, warmth, and mild headache are expected with magnesium. **Toxicity is identified by the triad: absent DTRs + RR <12 + urine output <30 mL/hr.** Lethargy, slurred speech, blurred vision, and SpO_2 drop are also red flags.

PERFORMING DIGITAL CERVICAL EXAMS IN PPROM 04

Digital exams introduce bacteria, shorten latency, and increase chorio risk. Use sterile speculum only — confirm rupture with pooling + nitrazine + ferning. The exception is when birth is imminent.

CONTINUING TOCOLYTICS AFTER CHORIOAMNIONITIS DEVELOPS 05

When maternal fever, fetal tachycardia, uterine tenderness, foul fluid, or rising WBC appear — the goal pivots from "keep baby in" to "deliver safely." **Tocolytics are contraindicated** in chorioamnionitis. Magnesium for neuroprotection is a separate decision and may continue depending on protocol and gestational age until delivery.

SECTION 12

End-of-Day Quick Review

Screenshot-ready summary of the high-yield essentials.

10 MUST-REMEMBER POINTS

1. PTL = contractions + cervical change, 20 0/7 to 36 6/7 wk.
2. PPROM = rupture before labor + before 37 wk.
3. No digital exams in PPROM.
4. Betamethasone 12 mg IM × 2 doses, 24 hr apart, 24–34 wk.
5. Magnesium for neuroprotection <32 wk.
6. Tocolytics buy 48 hours.
7. Indomethacin only <32 wk; <48 hr use.
8. Terbutaline only acute/short term — black box.
9. Calcium gluconate is the magnesium antidote.
10. Chorio = stop tocolytics, antibiotics, deliver.

5 RED-FLAG FINDINGS

1. Maternal T ≥38°C with PPROM
2. FHR >160 sustained × 10 min
3. Visible/palpable cord
4. RR <12 + absent DTRs on magnesium
5. Foul-smelling amniotic fluid

5 "NEVER DO THIS" RULES

1. Never do digital exams in PPROM.
2. Never give indomethacin ≥32 wk.
3. Never continue tocolytics with chorio.
4. Never give SL nifedipine.
5. Never push a prolapsed cord back in.

5 FETAL MONITORING CLUES

1. Preterm accels = ≥10 × 10 sec.
2. Steroids ↓ variability 24–72 hr — expected.
3. Variables in PPROM → cord compression / prolapse.
4. Sustained >160 + fever = chorio until proven otherwise.
5. SPIOVN = intrauterine resuscitation sequence.

5 MEDICATION SAFETY CLUES

1. Magnesium toxicity = absent DTRs + RR <12 + UOP <30 mL/hr.
2. Indomethacin → ductus closure risk ≥32 wk.
3. Nifedipine + magnesium = severe hypotension.
4. Latency abx ≠ GBS abx (read indication).
5. Betamethasone → hyperglycemia in GDM.

· · · END-OF-DAY SUMMARY · · ·

SECTION 13

Infographic Summary

One-page visual overview — designed to screenshot and revisit.

Day 12 · Preterm Labor & PPROM at a Glance

Recognize the pivot point: "keep baby in" → "deliver safely"

1 DEFINITIONS

- **PTL:** contractions + cervical change, 20–36 6/7 wk
- **PPROM:** rupture before labor + <37 wk
- Confirm rupture: pooling + nitrazine (blue) + ferning

2 THREE GOALS

- Steroids for lung maturity (48 hr to act)
- Magnesium for fetal neuroprotection <32 wk
- Prevent / detect infection

3 BETAMETHASONE

- 12 mg IM × 2 doses, 24 hr apart
- 24–34 wk (sometimes 34–36 6/7)
- Peak 24–48 hr, lasts ~7 days
- Watch glucose, lungs, FHR variability

4 MAGNESIUM

- 4 g load → 1–2 g/hr
- Monitor DTRs · RR · UOP · LOC
- Toxicity: absent DTR / RR<12 / UOP<30
- **Antidote: Calcium gluconate 1 g IV**

5 TOCOLYTICS — PICK BY PROFILE

- **Nifedipine** — first-line PO; hold if BP <90
- **Indomethacin** — only <32 wk, ≤48 hr
- **Terbutaline** — acute only, black-box
- **Magnesium** — neuroprotection <32 wk

6 ANTIBIOTICS — DON'T CONFUSE

- **Latency (PPROM):** ampicillin + erythromycin/azithro × 7 d
- **GBS prophylaxis (labor):** penicillin G IV
- **Chorio:** ampicillin + gentamicin (± clindamycin)

7 CHORIOAMNIONITIS RED FLAGS

- Maternal T ≥38°C / 100.4°F
- Maternal HR >120
- Fetal HR >160
- Uterine tenderness
- Foul-smelling fluid
- WBC ↑ → stop tocolytics, antibiotics, deliver

8 CORD PROLAPSE EMERGENCY

- Sudden fetal bradycardia after ROM
- Glove + lift presenting part off cord
- Knee-chest / Trendelenburg
- Do not remove hand until in OR
- STAT cesarean →

9 INTRAUTERINE RESUSCITATION · SPIOVN

- Stop oxytocin
- Position (left lateral / knee-chest)
- IV fluid bolus
- O_2 *if indicated by policy*
- Vaginal exam (rule out cord)
- Notify provider

FINDING	FIRST ACTION	WHY
ROM occurs	Assess FHR	Rule out cord prolapse
Variable decels	Reposition	Cord compression
Late decels on oxytocin	Stop oxytocin	Uteroplacental insufficiency
Magnesium + RR 8 + no DTRs	Stop magnesium → calcium gluconate	Toxicity
Cord palpated	Lift presenting part, call for help	Cord prolapse
Fever + foul fluid + FHR >160	Notify provider, prep for delivery	Chorioamnionitis
Indomethacin ordered at 32 wk	Hold and call provider	Ductus closure risk
Decreased FHR variability post-steroid	Monitor and reassess context	Expected transient effect

"When the cervix changes, prepare for birth. When fever and fetal tachycardia arrive, stop the tocolytics. When the cord drops, your hand goes in — and stays in."