NCLEX-RN 2026 · CLINICAL JUDGMENT MEASUREMENT MODEL · HIGH-YIELD INFOGRAPHIC

Vaccines During *Pregnancy*

SYSTEM
MATERNAL-NEWBORN
CATEGORY
HEALTH PROMOTION
SUB-TOPIC
IMMUNIZATION

01 Definition · Overview

WHAT & WHY

- **Maternal immunization** protects the pregnant client AND provides **passive immunity** to the fetus/newborn via transplacental **IgG antibody** transfer.
- Vaccine choice depends entirely on **vaccine type**: **Inactivated, recombinant, toxoid, and mRNA = SAFE**. **Live-attenuated = CONTRAINDICATED** (theoretical risk of fetal infection & teratogenicity).
- Maternal antibodies last roughly **~6 months** in the newborn — bridging immunity until the infant can be actively vaccinated.

02 Pathophysiology · Simplified

MECHANISM

✓ INACTIVATED / RECOMBINANT / MRNA VACCINE — SAFE PATHWAY

STEP 1	→	STEP 2	→	STEP 3	→	STEP 4	→	STEP 5
Vaccine given IM (no live virus)		Maternal B-cells produce IgG		IgG crosses placenta		Fetus gains passive immunity		Newborn protected ~6 mo

✗ LIVE-ATTENUATED VACCINE — WHY IT'S CONTRAINDICATED

STEP 1	→	STEP 2	→	STEP 3	→	STEP 4
Live (weakened) organism injected		Organism replicates in maternal tissue		Theoretical placental crossing		Fetal infection / teratogenicity risk

At-a-Glance • Give vs Avoid

VISUAL REFERENCE

✓ RECOMMENDED — INACTIVATED / MRNA / RECOMBINANT

Tdap
27–36 WK · EACH PREGNANCY

Influenza (IM)
ANY TRIMESTER · IN SEASON

COVID-19
ANY TRIMESTER · MRNA

RSV (Abrysvo)
32–36 WK · SEP–JAN

✗ CONTRAINDICATED — LIVE-ATTENUATED

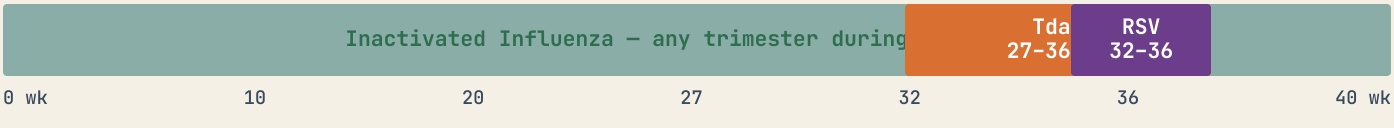
MMR
DEFER TO POSTPARTUM

Varicella
DEFER TO POSTPARTUM

Nasal Flu (LAIV)
LIVE — NEVER GIVE

HPV
DEFER TO POSTPARTUM

PREGNANCY TIMING WINDOW — WHEN TO GIVE



03 Adverse Reactions • Mild → Severe

ASSESS & MONITOR

COMMON · MILD (EXPECTED)

- Injection-site soreness, redness, warmth
- Low-grade fever (< 100.4°F / 38°C)
- Fatigue, myalgia, headache
- Mild swelling at deltoid site
- Self-resolving within 24–48 hr

RED FLAGS — SEVERE / RARE

- **Anaphylaxis** within 15–30 min of injection (wheezing, throat tightness, hypotension)
- **High fever > 102°F (38.9°C)** → maternal hyperthermia is teratogenic
- **Decreased fetal movement** following febrile reaction
- Severe injection-site reaction (extending past elbow/shoulder)
- Guillain-Barré symptoms — ascending weakness, paresthesia

ANAPHYLAXIS PROTOCOL: Stop administration · Position supine, legs elevated · IM **EPINEPHRINE 1:1000 (0.3–0.5 MG)** lateral thigh · Call rapid response · O_2 + IV fluids · Notify provider · Document on VAERS.

04 Priority Nursing Interventions

ABCS · SAFETY · NCLEX PRIORITY

BEFORE — PRE-ADMINISTRATION

- **Assess** immunization history at first prenatal visit
- **Draw rubella titer** & varicella status at booking — if non-immune, plan postpartum vaccination
- **Verify** vaccine label: confirm "inactivated" or "recombinant" — never live
- **Screen** for egg allergy (some flu vaccines), latex allergy, prior anaphylaxis
- **Educate** on purpose, timing, expected vs concerning side effects

DURING — ADMINISTRATION

- **Administer** IM in deltoid (1–1.5" needle, 22–25 ga)
- Use **Z-track technique** if irritating
- **Document** lot #, manufacturer, expiration, site, date/time, route
- Provide **Vaccine Information Statement (VIS)** — federally required
- **Co-administration** is acceptable (Tdap + flu + RSV may be given same visit)

AFTER — MONITOR

- **Observe 15–30 min** for anaphylaxis
- **Monitor** for fever, injection-site reaction
- **Assess** fetal movement post-vaccination if febrile
- **Educate** on cold compress, acetaminophen for soreness
- **Report** serious events to VAERS

PRIORITY · NGN CLINICAL JUDGMENT

- **Recognize cues:** Verify vaccine type ↔ pregnancy status before administering
- **Analyze cues:** Live vaccine + pregnancy = STOP / HOLD
- **Prioritize hypothesis:** Airway in anaphylaxis > soreness
- **Generate solutions:** Tdap each pregnancy > relying on prior dose
- **Take action:** Administer Tdap at 27–36 wk; RSV at 32–36 wk
- **Evaluate outcomes:** No fetal distress; maternal antibody transfer confirmed

05 Pharmacology · Vaccine Profiles

DRUG DETAIL

VACCINE / CLASS	TIMING	MECHANISM	KEY SIDE EFFECTS	NURSING CONSIDERATIONS
Tdap (Adacel, Boostrix) *Inactivated toxoid*	27–36 wk EVERY pregnancy	Bacterial toxoids → maternal antibodies → transplacental protection from **pertussis** in newborn 0–2 mo	Arm soreness, low-grade fever, fatigue	Give **each** pregnancy regardless of prior dose. Counsel family/caregivers on cocooning.
Influenza (IIV) (Fluzone, Flublok) *Inactivated*	Any trimester during flu season	Inactivated virus → maternal IgG → reduces maternal pneumonia, preterm birth, neonatal flu	Arm soreness, low fever, malaise	Do NOT give LAIV (nasal spray) — it is live. Egg-free options available (Flublok).

VACCINE / CLASS	TIMING	MECHANISM	KEY SIDE EFFECTS	NURSING CONSIDERATIONS
COVID-19 (Pfizer, Moderna) *mRNA*	`Any trimester`	mRNA → spike protein → antibody production. mRNA degrades quickly, does not enter fetal DNA.	Arm soreness, fatigue, headache, low-grade fever	Reduces severe COVID, stillbirth, preterm birth. Boosters per current CDC guidance.
RSV (Abrysvo) *Recombinant subunit*	`32–36 wk` Sept – Jan	Recombinant F-protein → maternal antibodies → newborn protection from RSV first 6 mo	Arm soreness, fatigue, headache; small risk preterm labor	Single dose. Seasonal. **Not** given before 32 wk. Alternative: infant nirsevimab.
Hep B *Recombinant*	`If indicated`	Recombinant surface antigen → antibodies	Soreness, low fever	Safe if high-risk exposure. Newborn receives Hep B vaccine + HBIG if mother HBsAg+.
Rh(D) Immune Globulin (RhoGAM) *⚠ NOT a vaccine — passive antibody*	`28 wk + within 72 h delivery`	Passive anti-D IgG → destroys fetal Rh+ cells in maternal circulation → prevents alloimmunization	Site soreness, rare allergic reaction	Only for **Rh-negative** mothers. Also after miscarriage, amnio, abruption, trauma.

06 NCLEX Test Traps

⚠ COMMON CONFUSIONS

"The pregnant client wants the flu shot — which form?"
Inactivated IM flu = SAFE. LAIV (nasal FluMist) = LIVE = CONTRAINDICATED. Both are "flu vaccine" — route & type matter.

"Client had Tdap 2 years ago. Does she need another?"
YES. Tdap is given EVERY pregnancy at 27–36 wk regardless of last dose — passive antibodies must be freshly generated for THIS newborn.

"Rubella non-immune at first prenatal visit — vaccinate now?"
NO. MMR is live. Give POSTPARTUM (before discharge) — safe even while breastfeeding. Advise no pregnancy x 4 wk after.

"Client accidentally received MMR before knowing she was pregnant."
Not an automatic abortion indication. **Counsel** on theoretical risk, monitor pregnancy. Document on VAERS.

"Postpartum, breastfeeding — can she get MMR or varicella?"
YES. Live vaccines are SAFE during breastfeeding. Often given before hospital discharge if non-immune.

"Is RhoGAM a vaccine?"
NO. RhoGAM = passive antibody (immune globulin) — gives ready-made anti-D antibodies; doesn't trigger maternal immunity. Don't confuse on a vaccine question.

"Tdap or Td?"

Tdap. Lowercase "ap" = acellular pertussis — the whole point is pertussis protection for newborn. Td (no pertussis) does NOT protect newborn.

"HPV vaccine in pregnancy?"
DEFER to postpartum. Not live, but pregnancy safety data insufficient. If accidentally given — counsel, complete series postpartum.

"Yellow fever / smallpox / BCG in pregnancy?"
All LIVE — contraindicated. Yellow fever may be considered only if unavoidable high-exposure travel (risk-benefit).

"After flu vaccine, client has 102.8°F fever and decreased fetal movement."
Priority. Maternal hyperthermia is teratogenic. Notify provider, antipyretic, NST, hydration, monitor.

07 Patient Education

TEACH-BACK

WHY YOU NEED THESE VACCINES

- **Tdap protects your baby from whooping cough (pertussis)** — which can be fatal in infants < 6 mo.
- **Flu shot protects you AND baby** — pregnancy increases risk of severe flu and pneumonia.
- **RSV vaccine** protects baby's first 6 months — when RSV hospitalization risk is highest.
- **COVID-19** reduces severe illness, preterm birth, and stillbirth risk.

WHAT TO EXPECT & WHEN TO CALL

- Sore arm, mild fever (<100.4°F), fatigue x 24–48 hr is normal.
- Use cold compress; acetaminophen if needed (avoid NSAIDs in pregnancy).
- **CALL** for fever > 102°F, decreased fetal movement, trouble breathing, hives, swelling of face/lips.
- Continue all vaccines while breastfeeding — even MMR & varicella are SAFE.

COCOONING — PROTECT BABY

- Encourage **partner, grandparents, siblings, & caregivers** to get Tdap & flu shots.
- Anyone holding baby in first 6 mo should be up-to-date on vaccines.
- Do not delay newborn vaccination schedule.

AFTER PREGNANCY

- If non-immune to rubella or varicella: **get MMR / varicella before discharge.**
- **Avoid pregnancy x 4 weeks** after a live vaccine.
- Complete HPV series if < 26 yr postpartum.
- RhoGAM at delivery if Rh-negative and baby is Rh-positive.

08 Memory Boosters • Mnemonics

PATTERN RECOGNITION

RECOMMENDED IN PREGNANCY

"T•I•C•R"

T — Tdap (27–36 wk)
I — Inactivated Influenza (any trimester)
C — COVID-19 (mRNA, any trimester)
R — RSV (32–36 wk, seasonal)

AVOID — LIVE VACCINES

"MMR • V • LF"

MMR — Measles, Mumps, Rubella
V — Varicella (chickenpox)
L — LAIV (live nasal flu)
F — Fever-causing live: yellow fever, smallpox, BCG, oral typhoid

QUICK RULE

"LIVE = LOSE IT"

If the vaccine contains a **L**iving organism →
Lose it during pregnancy.
→ Defer to **postpartum** (safe with breastfeeding).
→ Wait **4 weeks** before conceiving after a live vaccine.

TIMING WINDOWS

"27 • 28 • 32"

27–36 wk → Tdap
28 wk → RhoGAM (if Rh-neg)
32–36 wk → RSV (Sept–Jan)
Any trimester → Flu (IIV), COVID

PATTERN — IF IT'S "DEAD," IT'S SAFE

Inactivated · Toxoid · Recombinant · mRNA · Subunit = no living organism = safe to cross into pregnancy.

Attenuated (weakened-live) = still alive = can replicate = AVOID.

COCOONING REMINDER

"Wrap the baby in a vaccinated cocoon" —
Mother gets Tdap → Family gets Tdap → Caregivers get flu shot → Baby is protected until old enough to receive own vaccines.