

CLINICALJUDGE™

NGN NCLEX MASTER SERIES · 2026 EDITION

VACCINES

Immunology · Immunization Schedule · Cold Chain · Contraindications · Clinical Judgment

HIGH-YIELD NGN

Pharmacology

Pediatrics

Community Health

Fundamentals

Maternal-Newborn

Med-Surg

Infection Control

Safe Care

LEGEND ● CRITICAL / Contraindicated ● Pathophysiology / Mechanism ● Safe / Expected / Normal ● Complications / Live vaccines ● NCLEX Trap / Caution ● Medications / mRNA ● Patient Education

01 PATHOPHYSIOLOGY — HOW VACCINES WORK & VACCINE TYPES

MECHANISM OF IMMUNITY



Primary response: 7–14 days, IgM first, then IgG | Secondary response (booster): Faster, stronger, longer-lasting IgG (immunological memory)

● LIVE-ATTENUATED (WEAKENED)

Contains weakened live pathogen. Strongest immune response; closest to natural infection. **Requires intact immune system.**

MMR Varicella MMRV Rotavirus (oral) Yellow Fever
LAIV (FluMist)

⚠️ CONTRAINDICATED in pregnancy & immunocompromised

● INACTIVATED (KILLED)

Killed whole pathogen. Safer for immunocompromised and pregnant. Usually requires multiple doses/boosters.

IPV (Polio) IIV (Flu shot) Hep A Rabies HAV

✓ Safe in immunocompromised & pregnancy

● MRNA

Delivers genetic instructions to produce antigen (spike protein). Does NOT alter DNA. Novel platform with rapid development.

COVID-19 (Moderna) COVID-19 (Pfizer)

✓ Does NOT integrate into DNA; mRNA degrades quickly

● TOXOID

Inactivated bacterial toxin. Protects against toxin effects rather than the bacterium itself. Requires boosters.

DTaP / Tdap Td

✓ Safe in pregnancy (Tdap 27–36 wks gestation)

● SUBUNIT / PROTEIN

Contains specific protein pieces of pathogen. Highly targeted, fewer side effects. Often requires adjuvant for stronger response.

Hep B HPV (Gardasil) Pertussis (in DTaP) Shingrix
COVID (Novavax)

● CONJUGATE

Polysaccharide antigen linked to protein carrier. Converts T-independent to T-dependent response — effective in infants <2 yrs.

Hib PCV15/PCV20 MenACWY MenB

★ Key: Works in infants — pure polysaccharide vaccines (PPSV) do NOT

02 IMMUNIZATION SCHEDULE — PEDIATRIC & ADOLESCENT (CDC 2025-2026)

PEDIATRIC SCHEDULE — BIRTH TO 18 YEARS

VACCINE	TYPE	SCHEDULE / DOSES	ROUTE	NCLEX SIGNIFICANCE
Hep B	Subunit	Birth, 1–2 mo, 6–18 mo	IM	Birth dose within 24 hrs ; if mother HBsAg+: give HepB and HBIG within 12 hrs
DTaP	Toxoid	2, 4, 6 mo; 15–18 mo; 4–6 yr	IM	5-dose series; Tdap booster at 11–12 yr; Do NOT give DTaP to ≥7 yrs → use Tdap
IPV (Polio)	Inactivated	2, 4, 6–18 mo; 4–6 yr	IM or SC	Only IPV used in US (OPV eliminated). 4-dose series. Final dose ≥ 4 yrs AND ≥ 6 mo after prior dose
MMR	Live	12–15 mo; 4–6 yr	SC	LIVE → defer in pregnancy & immunocompromised. Contains neomycin → egg allergy NOT contraindication
Varicella	Live	12–15 mo; 4–6 yr	SC	LIVE → same restrictions as MMR. Can be given same day as MMR or 28+ days apart
PCV15 / PCV20	Conjugate	2, 4, 6, 12–15 mo	IM	Pneumococcal protection in infants. PPSV23 = adults/at-risk; PCV = children + high-risk adults
Hib	Conjugate	2, 4, (6), 12–15 mo	IM	Prevents bacterial meningitis (H. influenzae type b). No longer needed after 5 yrs unless asplenia
Rotavirus	Live (oral)	2, 4, (6 mo) — RV5 or RV1	PO	Oral LIVE vaccine. Do NOT administer if vomiting or GI illness. Max first dose age: 14 wks 6 days
HPV (Gardasil 9)	Subunit	11–12 yr (2 doses if <15 yr onset); 3 doses if ≥15 yr	IM	Prevents HPV 6,11,16,18,31,33,45,52,58. FDA-approved through age 45. Given regardless of sexual activity status
MenACWY	Conjugate	11–12 yr; booster 16 yr	IM	Meningococcal ACWY. Also at 2, 4, 6, 12–15 mo if high-risk (asplenia, complement deficiency)
MenB	Subunit	16–23 yr (shared clinical decision)	IM	Separate from MenACWY. Series: Bexsero ×2 or Trumenba ×3. College freshmen in dorms = high-risk
Influenza	Inactivated (IIV) or Live (LAIV)	Annual, ≥6 months of age	IM (IIV) or intranasal (LAIV)	LAIV (FluMist) → 2–49 yrs, healthy, NOT pregnant. Immunocompromised → IIV only. Give before flu season
Hep A	Inactivated	12–23 mo (2 doses, 6 mo apart)	IM	Also for adults at risk (travel, MSM, chronic liver disease, unhoused). 2-dose series, 6–18 mo apart

02B ADULT IMMUNIZATION SCHEDULE — KEY NCLEX VACCINES

ADULT & SPECIAL POPULATIONS

VACCINE	TYPE	INDICATION / SCHEDULE	NCLEX SIGNIFICANCE
Tdap / Td	Toxoid	Tdap once (if no prior); Td booster every 10 years; Tdap at 27–36 wks every pregnancy	Wound care: give Td if >5 yr since booster for dirty wounds; >10 yr for clean wounds. Tdap preferred if Td needed and never received Tdap
Shingles (Shingrix)	Subunit (RZV)	50+ yrs; 2 doses 2–6 mo apart. Also ≥19 if immunocompromised	Preferred over old live Zostavax (discontinued 2020). NOT live → safe in most. Temporary soreness/fatigue common; reassure
Pneumococcal (PCV20/PPSV23)	Conjugate / Polysaccharide	≥65 yrs; or 19–64 with chronic illness/immunosuppression/asplenia/smoking	Asplenia: vaccinate at least 2 weeks BEFORE splenectomy if elective. If emergency → give 2 wks post-op minimum
Influenza	Inactivated	Annual; high-dose (Fluzone HD) for ≥65 yrs	High-dose flu for elderly = stronger immune response. Healthcare workers must receive annual flu vaccine
RSV Vaccine	Subunit	≥60 yrs (shared decision); 32–36 wks gestation (maternal); nirsevimab (Beyfortus) for infants	New 2023–2024. Maternal RSV vaccine protects newborn passively. Single dose
MMR	Live	Adults born after 1957: 1–2 doses if no immunity. College, healthcare workers, international travel	Adults born before 1957 = presumed immune (lived through endemic era). HCW: 2-dose series required
Varicella	Live	2 doses (4–8 wks apart) if no evidence of immunity. HCW, pregnant household contacts	Avoid within 4 wks of pregnancy. Check IgG if history unclear. Post-exposure PEP: within 3–5 days

03 EXPECTED VS. CRITICAL SIGNS & SYMPTOMS AFTER VACCINATION

✓ EXPECTED / NORMAL REACTIONS

- Injection site:** Redness, swelling, tenderness at injection site — normal inflammatory response, resolves 1–3 days
- Low-grade fever:** <38.5°C / <101.3°F — sign of immune activation. Manage with acetaminophen
- Malaise, fatigue, fussiness** — especially after DTaP and COVID-19 mRNA vaccines. Expected 12–48 hrs
- Headache, myalgia** — common with influenza, Shingrix, COVID-19. Resolves within 1–2 days
- Persistent crying ≥3 hrs** in infants after DTaP — document, monitor, reassure parents
- Mild rash (7–14 days post-MMR)** — Koplik-like rash, non-contagious, expected immune response
- Erythema at IM site:** <5cm redness — acceptable. Document circumference

🚨 CRITICAL / REPORTABLE REACTIONS

- Anaphylaxis:** Urticaria, throat tightening, hypotension, bronchospasm within 15–30 min → EPINEPHRINE 0.3 mg IM (thigh) STAT — Report to VAERS
- Encephalopathy:** Altered LOC, seizures within 7 days of pertussis vaccine → STOP series, report to VAERS
- Hypotonic-Hyporesponsive Episode (HHE):** Sudden pallor, limpness, unresponsiveness — contraindicates further DTaP
- High fever ≥40.5°C (≥105°F)** within 48 hrs of DTaP → Report; evaluate for other cause; future DTaP is precaution
- Thrombocytopenia** within 6 wks of MMR → Abnormal bruising/petechiae. Report to VAERS
- Inconsolable crying ≥3 hrs** — beyond expected threshold; requires evaluation
- Large local reaction >10cm** or Arthus reaction (severe local necrosis) — document; evaluate subsequent dosing

📄 **VAERS (Vaccine Adverse Event Reporting System):** Healthcare providers are legally required to report specific adverse events to VAERS regardless of attribution. Anyone can report. VAERS is a *signal-detection* system, NOT proof of causation. Key reportable events: anaphylaxis, encephalopathy, seizure, death, intussusception (rotavirus), shoulder injury (SIRVA), Guillain-Barré syndrome (influenza).

04 LAB VALUES & SCREENING — VACCINE-RELATED NCLEX SIGNIFICANCE

IMMUNOLOGY LABS & PRE-VACCINE SCREENING CRITERIA

LAB / MARKER	NORMAL VALUE	CRITICAL THRESHOLD	NCLEX SIGNIFICANCE
CD4+ T-Cell Count	500–1,500 cells/ μL	<200 cells/μL	<200 = severe immunocompromised → CONTRAINDICATE all live vaccines. ≥200 = may tolerate some live vaccines (clinical judgment)
WBC Count	4,500–11,000/μL	<1,000/μL (neutropenia)	Severe leukopenia → defer all vaccines. Chemotherapy patients: delay until WBC recovers (typically 3 months post-chemo)
Platelet Count	150,000–400,000/ μL	<50,000/μL	Thrombocytopenia: risk of hematoma at IM site → use SC if possible, or defer. MMR can cause thrombocytopenic purpura
HBsAg (Hep B surface antigen)	Negative	Positive	Positive mother → infant receives HepB + HBIG at birth within 12 hrs. Test infant at 9–12 months to confirm seroconversion
Anti-HBs (Hep B antibody)	≥10 mIU/mL = immune	<10 mIU/mL = non-immune	Check 1–2 months after series. Healthcare workers: verify titers. Non-responder → repeat series, then re-test
Varicella IgG Titer	Positive = immune	Negative = susceptible	Screen HCW, pregnant women, adults with unclear history. Negative during pregnancy → vaccinate postpartum
Pregnancy Test (urine/serum hCG)	Negative	Positive	Screen before giving ANY live vaccine (MMR, Varicella, LAIV). Advise avoiding pregnancy 4 weeks post-live vaccine
Temperature (pre-vaccine screen)	<38°C / 100.4°F	≥38°C = defer routine vaccines	Moderate/severe febrile illness = defer vaccine (precaution, not absolute contraindication). Minor illness: proceed

04B COLD CHAIN — STORAGE & HANDLING (HIGH-YIELD)

VACCINE STORAGE REQUIREMENTS — NCLEX MUST-KNOW

CATEGORY	TEMP RANGE	VACCINES	NCLEX SIGNIFICANCE
Refrigerated 🧊	2°C – 8°C (36°F – 46°F)	MMR, Varicella, DTaP, IPV, Hep A, Hep B, Hib, PCV, Rotavirus, HPV, Meningococcal, Influenza (IIV)	Most vaccines. Must NEVER freeze refrigerated vaccines (inactivates). Store in center of fridge, not door
Frozen ❄️	-50°C to -15°C (-58°F to 5°F)	Varicella (can be refrigerated short-term), MMRV, Yellow Fever, some COVID mRNA	MMRV and Varicella: may be stored in freezer. Thaw before use. Once thawed, must use within time window
Ultra-Cold 🧊	-90°C to -60°C (-130°F to -76°F)	Pfizer COVID-19 (original formulation)	Requires special ultra-cold storage. Thaw at room temp ≤25°C for ≤2 hrs or refrigerator 2–8°C ≤10 days
Room Temp (VVM) ☀️	Up to 25°C (77°F)	Some formulations in low-resource settings (Vaccine Vial Monitor)	VVM = color indicator on vial. If inner square is darker than outer circle → discard. Do NOT use

❗ **Cold Chain Break — Priority Actions:** (1) Do NOT use vaccine — quarantine immediately (2) Document time/temperature excursion (3) Contact manufacturer or state VFC program (4) Do NOT discard without guidance (vaccine may still be viable) (5) Educate patients who may have received compromised vaccine → may need re-vaccination

05 PRIORITY NURSING ACTIONS — VACCINE ADMINISTRATION

- 1 VERIFY CONTRAINDICATIONS & SCREEN VIS**
Review medical history for live vaccine contraindications; confirm pregnancy status; provide Vaccine Information Statement (VIS) — legally required in US. Document lot #, manufacturer, site, route.
- 2 PREPARE VACCINE CORRECTLY**
Check expiration date, lot #, inspect for color/clarity changes. Reconstitute lyophilized vaccines (MMR, Varicella) with supplied diluent ONLY. Never mix different vaccines in same syringe unless FDA-approved combination.
- 3 ADMINISTER BY CORRECT ROUTE & SITE**
IM: anterolateral thigh (infants), deltoid (children/adults). SC: outer upper arm or thigh. Oral: rotavirus. Intranasal: LAIV. Inject at 90° (IM) or 45° (SC). No aspiration required for IM vaccines per CDC.
- 4 OBSERVE POST-VACCINATION 15–30 MINUTES**
All patients: 15-min observation for syncope/anaphylaxis. History of severe allergic reaction or anaphylaxis to prior dose → 30-min observation. Have epinephrine 1:1000 drawn and ready.
- 5 MANAGE IMMEDIATE ADVERSE REACTION**
Anaphylaxis: Epinephrine 0.3 mg (adult) or 0.15 mg (child) IM in anterolateral thigh → call 911 → position supine with legs elevated → O₂ → IV access → diphenhydramine as second-line only.
- 6 DOCUMENT & REPORT**
Document in immunization registry (IIS). Report adverse events to VAERS within required timeframe. Update immunization record — paper (yellow card) or digital. Record: date, vaccine name, lot #, site, route, VIS given.
- 7 PATIENT & FAMILY EDUCATION**
Review expected reactions; when to call provider; importance of completing series; upcoming schedule. Remind parents: no aspirin in children (Reye's); use acetaminophen or ibuprofen for fever/pain post-vaccine.
- 8 IMMUNOCOMPROMISED HOUSEHOLD CONTACTS**
If family member is immunocompromised (e.g., on chemo, HIV), rotavirus-vaccinated infant: change diaper with gloves 4 weeks post-vaccine (shed in stool). Live vaccine recipients: avoid contact with severely immunocompromised for 2–4 wks.

06 IF → THEN CLINICAL DECISION RULES

- | | | |
|--|---|---|
| IF
Patient is pregnant | → | THEN — SAFE
Give inactivated vaccines: Influenza (IIV), Tdap (27–36 wks), Hep B, Hep A if indicated, COVID-19 (mRNA), RSV vaccine at 32–36 wks. AVOID all live vaccines (MMR, Varicella, LAIV) |
| IF
Patient is severely immunocompromised (CD4 <200, on high-dose steroids ≥2wks, active chemo, solid organ transplant) | → | THEN — CRITICAL
HOLD all live vaccines (MMR, Varicella, LAIV, Rotavirus, Yellow Fever). Give inactivated & subunit vaccines. Shingrix (RZV) is non-live → OK in immunocompromised ≥18 yrs |
| IF
Mother is HBsAg POSITIVE and delivers infant | → | THEN — WITHIN 12 HRS
Administer Hep B vaccine AND HBIG (Hepatitis B Immune Globulin) 0.5 mL IM in separate sites within 12 hours of birth. Do NOT withhold even if premature/low birthweight |
| IF
Patient has egg allergy (any severity) | → | THEN — UPDATED GUIDANCE
MMR and Varicella: Give normally — egg allergy is NOT a contraindication. Influenza: Give in medical setting with 15–30 min observation if severe egg allergy (anaphylaxis history). Yellow Fever: Refer to specialist |
| IF
Patient received blood product, Ig, or IVIG recently | → | THEN — DELAY LIVE VACCINES
Defer MMR and Varicella: 3 months (IGIM) to 11 months (IVIG high-dose) depending on product/dose. Blood/packed RBCs: defer 3 months. Check CDC table for specific intervals |
| IF
Patient had anaphylaxis after previous dose of vaccine | → | THEN — CONTRAINDICATED
PERMANENTLY contraindicated to that vaccine. Refer to allergist/immunologist. Document in medical record. Report to VAERS if not already done |
| IF
Elective splenectomy is planned for asplenic patient | → | THEN — VACCINATE EARLY
Give PCV20/PPSV23, MenACWY, MenB, Hib at LEAST 14 days BEFORE surgery for optimal immune response. Post-splenectomy if already done: give as soon as possible (≥2 wks post-op) |
| IF
2 or more live vaccines are to be given at same visit | → | THEN — SAME DAY OR 28+ DAYS APART
Multiple live vaccines: give simultaneously (same visit, different sites) OR wait ≥28 days between. If given <28 days apart, revaccinate the second one after 28 days. Exception: MMRV (combination given as one) |

07 8-TRAP NCLEX PITFALL GRID — COMMON VACCINE TEST MISTAKES

01

"Give MMR to immunocompromised patient with low-grade fever"

The trap: selecting MMR when immunocompromised. Low-grade fever alone doesn't stop inactivated vaccines, but patient immune status is the priority concern.

✓ HOLD MMR; give inactivated alternatives

02

"Egg allergy = MMR contraindicated"

This is OUTDATED guidance. MMR is grown in chick embryo fibroblasts, NOT egg white. Modern guidance: egg allergy is NOT a contraindication to MMR or Varicella.

✓ Give MMR regardless of egg allergy

03

"Aspirin is fine for post-vaccine fever in children"

NEVER give aspirin to children <18 for viral illness symptoms — risk of Reye's syndrome. This applies post-live vaccine as well.

✓ Use acetaminophen or ibuprofen only

04

"The same syringe can be used for 2 IM vaccines to save sticks"

Do NOT mix different vaccines in the same syringe unless they are an FDA-approved combination product (e.g., MMRV, Pediarix). Mixing can inactivate vaccines.

✓ Separate syringes, different sites

05

"Refrigerated vaccine froze in transit → use it anyway"

Freezing inactivated vaccines (Hep B, DTaP, PCV, IPV, Hib) destroys them — causes protein aggregation. Use Shake Test for suspected frozen aluminum-adsorbed vaccines.

✓ Quarantine; do not use until assessed

06

"Adults born before 1957 need MMR vaccine"

Persons born before 1957 are presumed immune to measles, mumps, rubella (lived through natural epidemic era). Exception: healthcare workers — recommend 2-dose MMR regardless of birth year.

✓ Born before 1957 = presumed immune

07

"mRNA vaccines alter the patient's DNA"

This is a common misconception. mRNA never enters the nucleus, cannot integrate into DNA, and degrades quickly after use. Clarify for patients refusing vaccine.

✓ mRNA stays in cytoplasm; no DNA change

08

"Give LAIV (FluMist) to a 30-year-old pregnant woman"

LAIV is contraindicated in pregnancy (live attenuated). Also contraindicated: immunocompromised, ≥50 yrs, children 2–4 yrs with wheezing history, people on aspirin therapy.

✓ Pregnant → IIV (injectable flu) only

08 NCLEX PATTERNS GRID — HOW VACCINES APPEAR ON NGN

PRIORITIZATION PATTERN

- "Which client should receive the vaccine FIRST?" → most vulnerable (e.g., immunosuppressed needing non-live vaccine, HBsAg+ mother's newborn)
- Newborn of HBsAg+ mother → Hep B + HBIG within 12 hrs (highest priority)
- Asplenia before surgery → vaccinate ≥14 days pre-op if elective

SAFE CARE / PRECAUTION PATTERN

- "Which action requires immediate follow-up?" → nurse giving MMR to pregnant patient
- Mixing vaccines in same syringe (unless approved combo)
- Using expired or improperly stored vaccine
- Not providing VIS before administration (legal requirement)

CONTRAINDICATION PATTERN

- Immunocompromised + live vaccine = WRONG
- Pregnant + live vaccine = WRONG
- Prior anaphylaxis to vaccine = ABSOLUTE contraindication
- Anaphylaxis to gelatin or neomycin → possible MMR contraindication

PHARMACOLOGY PATTERN

- Anaphylaxis → Epinephrine 1:1000 FIRST (NOT diphenhydramine)
- Tdap in pregnancy: 27–36 wks each pregnancy
- Hep B non-responder: 2nd series then re-test anti-HBs
- HBIG: must be given within 12 hrs (HBsAg+ mother) or 24 hrs (needlestick)

DATA INTERPRETATION (NGN)

- Lab result CD4 = 150 → DO NOT give MMR, Varicella, LAIV
- Anti-HBs <10 mIU/mL post-series → non-immune, needs re-series
- Temp 38.8°C pre-vaccine → defer routine immunizations (moderate illness)
- Platelet 40,000 → avoid IM injections; use SC or defer

SCHEDULING / INTERVALS (NGN)

- MMR + Varicella same day OR ≥28 days apart (never 14 days)
- Rotavirus: First dose must be ≤14 wks 6 days; last dose ≤8 months
- HPV <15 yrs at series start = 2 doses; ≥15 yrs = 3 doses
- Hep B: 0, 1–2, 6 month schedule — cannot compress final dose

08B CONTRAINDICATIONS VS. PRECAUTIONS — QUICK REFERENCE

ABSOLUTE CONTRAINDICATIONS (DO NOT GIVE)

- ✗ Severe allergic reaction (anaphylaxis) to prior dose or vaccine component
- ✗ Live vaccines in pregnancy (MMR, Varicella, LAIV, Yellow Fever)
- ✗ Live vaccines in severe immunocompromise (CD4 <200, active leukemia, SCID)
- ✗ DTaP: encephalopathy within 7 days of prior pertussis-containing vaccine (not due to another cause)
- ✗ Rotavirus: prior intussusception or history of SCID
- ✗ Live vaccines to infants of severely immunocompromised mothers (up to 6 months)

PRECAUTIONS (WEIGH RISK/BENEFIT — DELAY OR USE CAUTION)

- △ Moderate or severe acute illness with/without fever → defer until recovered
- △ History of Guillain-Barré ≤6 wks after influenza vaccine → precaution for future influenza
- △ Immunoglobulin or blood product received recently → delay live vaccines
- △ Pregnancy: some inactivated vaccines require risk/benefit discussion (Hep A, Hep B, HPV)
- △ High-dose fever ≥40.5°C within 48 hrs of prior DTaP → precaution (not absolute CI)
- △ Progressive neurologic disorder (infantile spasms) → defer DTaP until stabilized
- △ Thrombocytopenia or thrombocytopenic purpura after MMR → precaution for 2nd dose

09 NGN BOW-TIE CLINICAL JUDGMENT SUMMARY

BOW-TIE #1 — ANAPHYLAXIS AFTER VACCINE ADMINISTRATION

POTENTIAL CONDITIONS

CONDITION 1
Anaphylaxis to vaccine component (gelatin, neomycin, yeast, latex stopper)

CONDITION 2
Vasovagal syncope (anxiety-related, common in adolescents)

CONDITION 3
Anaphylaxis to prior vaccine dose (IgE-mediated hypersensitivity)

ACTION

HIGHEST PRIORITY NURSING ACTION

Administer Epinephrine 1:1000

PARAMETER TO MONITOR

MONITOR #1
Blood pressure (hypotension = anaphylaxis), O₂ saturation, respiratory rate, skin for urticaria/angioedema

MONITOR #2
Response to epinephrine within 5–15 min; repeat if inadequate response

NEXT INTERVENTION
Call emergency services, lay supine, elevate legs, O₂ 100%, IV access, document, report to VAERS

0.3 mg IM — thigh
STAT

BOW-TIE #2 — IMMUNOCOMPROMISED PATIENT REQUESTING SHINGLES VACCINE

POTENTIAL CONDITIONS

CONDITION 1

Patient on biologic therapy (TNF inhibitor) — moderately immunocompromised

CONDITION 2

Patient with HIV, CD4 $\geq$ 200 — age $\geq$ 50

CONDITION 3

Patient <50 yrs on high-dose corticosteroids ($\geq$ 20mg prednisone $\geq$ 14 days)

ACTION

HIGHEST
PRIORITY
NURSING
ACTION

Administer Shingrix (RZV)
— Non-live, safe for
immunocompromised $\geq$ 18 yrs

PARAMETER TO MONITOR

MONITOR #1

Confirm CD4 count $\geq$ 200 for HIV+ patients. Verify Shingrix (NOT old Zostavax live vaccine)

MONITOR #2

Injection site reactions (more common with Shingrix), systemic reactions (fatigue, fever) — typically 2–3 days

NEXT INTERVENTION

Schedule 2nd dose 2–6 months after 1st. Document in immunization registry. Educate on expected side effects

10 PATIENT EDUCATION CHECKLIST — PRE & POST VACCINATION

PRE-VACCINATION EDUCATION

- ☒ **Vaccine Information Statement (VIS):** Provide VIS for each vaccine being given. Legally required in the US per the NVICIA. Allow time for questions.
- ☒ **Purpose of vaccine:** Explain the disease being prevented, how the vaccine works, and the importance of completing the series.
- ☒ **What to expect during administration:** Brief pain/pressure at injection site; expect to remain 15–30 minutes afterward for observation.
- ☒ **Current medications:** Review for immunosuppressants, anticoagulants (bleeding risk at site), and recent Ig/blood products (may defer live vaccines).
- ☒ **Allergies:** Ask specifically about anaphylaxis to prior vaccines, neomycin, gelatin, yeast, latex. Egg allergy alone → proceed with monitoring.

POST-VACCINATION EDUCATION

- ☒ **Expected reactions:** Soreness, redness, swelling at site 1–3 days. Low-grade fever, fatigue, muscle aches 12–48 hours — sign of immune response, NOT infection.
- ☒ **Pain management:** Acetaminophen or ibuprofen for discomfort or fever. Apply cool damp cloth to injection site. **No aspirin in children** (Reye's syndrome risk).
- ☒ **When to seek care:** Call immediately if: difficulty breathing, swelling of face/throat, rapid heartbeat, dizziness, high fever, or behavior changes — may indicate serious reaction.
- ☒ **Live vaccine precautions (post-administration):** Avoid contact with severely immunocompromised household members 2–4 weeks. For rotavirus: caregiver should wash hands/use gloves for diaper changes for 4 weeks.
- ☒ **Pregnancy after live vaccine:** Advise avoiding pregnancy for $\geq$ 4 weeks (MMR, Varicella). Provide contraceptive counseling if appropriate.
- ☒ **Keep immunization records:** Maintain updated record (physical card + digital registry). Bring to every healthcare visit. Needed for school enrollment, travel, and employment.
- ☒ **Next scheduled vaccines:** Provide written schedule. Emphasize completing series — partial vaccination = reduced protection. Return date for next dose.

10B SPECIAL POPULATIONS — VACCINATION CONSIDERATIONS

NEONATES & PREMATURE INFANTS

- ✓ Hep B at birth: even if premature, if $\geq$ 2 kg or medically stable — give within 24 hrs
- ✓ Preterm <2kg of HBsAg-negative mother → delay Hep B until 30 days or discharge
- ✓ DTaP, Hib, PCV: start at 2 months chronological age (NOT corrected age)
- ✓ Premature infants: higher risk for invasive disease → prioritize vaccination

HIV-POSITIVE PATIENTS

- ✓ CD4 $\geq$ 200: May receive MMR, Varicella — assess benefit vs. risk
- ✓ CD4 <200: Contraindicated — live vaccines; give only inactivated
- ✓ Shingrix (RZV): Recommended $\geq$ 18 yrs with HIV regardless of CD4 count
- ✓ Annual flu IIV: Required. LAIV = contraindicated
- ✓ Pneumococcal: PCV20 or PCV15 + PPSV23 sequence; MenACWY if on ART

TRAVEL VACCINES

- ✓ Yellow Fever: Live; required for entry to some countries; valid 10 years
- ✓ Typhoid: Ty21a (oral, live) or ViCPS (inject, inactivated)
- ✓ Japanese Encephalitis: Inactivated; 2-dose series; travel to endemic Asia
- ✓ Meningococcal: Required for Hajj pilgrimage (MenACWY)
- ✓ Rabies pre-exposure: 3-dose series for high-risk travelers
- ✓ Plan $\geq$ 4–6 wks before travel for vaccine series completion

FINAL HIGH-YIELD SUMMARY — MEMORIZE THESE

CRITICAL "NEVER DO" LIST

- ✗ Give live vaccine to pregnant or severely immunocompromised
- ✗ Give aspirin to children post-vaccine
- ✗ Mix vaccines in same syringe (unless approved combo)
- ✗ Give DTaP to patients $\geq$ 7 years (use Tdap)
- ✗ Use frozen refrigerated vaccine (Hep B, IPV, PCV)
- ✗ Start rotavirus after 14 wks 6 days of age

ALWAYS DO LIST

- ✓ Provide VIS before administering ANY vaccine
- ✓ Observe all patients 15–30 min post-vaccine
- ✓ Have epinephrine drawn and ready at all vaccination sites
- ✓ Document: vaccine name, lot #, manufacturer, site, route, date
- ✓ Report adverse events to VAERS
- ✓ HBsAg+ mother → HepB + HBIG within 12 hrs

TOP NGN KEYWORDS

- ✓ "Neomycin allergy" → caution with MMR (NOT egg allergy)
- ✓ "Anaphylaxis" → Epinephrine FIRST, always IM thigh
- ✓ "Immunocompromised" → INACTIVATED only
- ✓ "Pregnant" → inactivated OK; live NEVER
- ✓ "Before 1957" → presumed immune to MMR
- ✓ "28 days" → minimum interval between two live vaccines

CLINICALJUDGE™

NGN NCLEX Master Series · Vaccines Edition 2026

Sources: CDC Advisory Committee on Immunization Practices (ACIP) · Pink Book · NCSBN NGN Test Blueprint 2026

PDF Export Instructions:

Open in Chrome or Edge → File → Print (Ctrl+P)

• Layout: **Landscape**

• Scale: **65–70%** or "Fit to page"

• ☒ Enable **"Background graphics"**

• Paper: Letter or A3 for best results

→ Save as PDF