

RT

Radiation Therapy

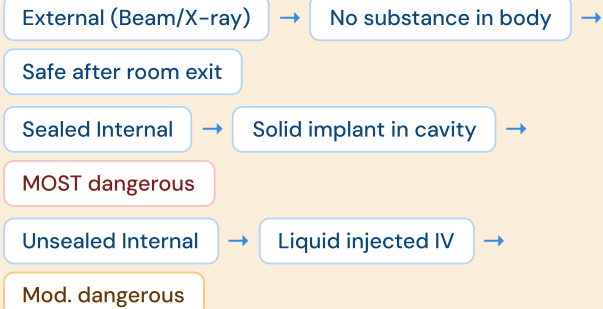
Oncology · Fundamentals of Nursing Care

NGN NCLEX 2026

1 — DEFINITION & OVERVIEW

- › Uses ionizing radiation to destroy cancer cells or slow their growth
- › Three forms: **External**, **Sealed Internal**, **Unsealed Internal**
- › Danger to nurse varies by type — external is SAFE to nurse after treatment room exit; sealed is MOST dangerous

2 — TYPES: STEP-BY-STEP LOGIC



3 — SIDE EFFECTS

- › Pruritis (itching)
- › Erythema (redness)
- › Burning sensation
- › Sloughing of skin **Red Flag**
- › Anorexia, N/V, Diarrhea
- › Bone marrow depression **Red Flag**

4 — SKIN CARE (EXTERNAL RT)

- › **Avoid:** zinc oxide, talcum powder, any metal-containing ointments
- › **Use:** plain water only — no soaps
- › Pat skin dry gently
- › Cornstarch for itch relief is OK

5 — PRIORITY NURSING INTERVENTIONS

- › Apply time, distance, shielding (sealed RT)
- › No pregnant nurses near sealed implants
- › Wear gloves — radioactive iodine urine
- › Special urine disposal protocol
- › Monitor for bone marrow suppression (CBC)
- › Educate on skin care restrictions

6 — SEALED VS UNSEALED SAFETY

Three principles for sealed internal RT:

- ⌚ Time (minimize)
- ↔ Distance (maximize)
- 🛡️ Shielding (use lead)

7 — NCLEX TEST TRAPS ⚠️

External RT → nurse is NOT at risk after the patient leaves the treatment room (no radioactive substance in body)

Sealed internal = MOST dangerous, NOT unsealed — students commonly flip this

Sealed Pregnant nurse = NEVER allowed
Unsealed Pregnant nurse = maybe, avoid body secretions

Radioactive iodine (unsealed) → precaution focus is on **urine**, not body in general

No soaps during external RT skin care — plain water ONLY

8 — CLINICAL JUDGMENT (NCJMM)

RECOGNIZE CUES

Skin erythema, itching, bone marrow suppression, nausea; patient has sealed implant in body

ANALYZE CUES

Identify RT type → determine nurse risk level and appropriate precautions needed

PRIORITY ACTION

Apply time/distance/shielding; keep pregnant staff away; use gloves with radioactive iodine urine

EXPECTED OUTCOME

Staff safe from radiation exposure; patient skin integrity maintained; no infection from marrow depression

9 — MEMORY BOOSTERS

TDS — the 3 safety principles:

Time • Distance • Shielding

Danger ranking (highest → lowest):

Sealed Internal → Unsealed Internal → External

Skin care memory trick:

"Water only, pat dry, cornstarch for itch — *no metals, no powder*"