

DIANE'S NGN NCLEX 2026 VISUAL STUDY LIBRARY

GENITOURINARY · UROLOGIC EMERGENCY

Priapism

A prolonged, painful penile erection lasting more than 4 hours that is *not* associated with sexual desire or stimulation — a true urologic emergency with high risk of permanent erectile dysfunction if untreated.



EMERGENCY > 4 HRS

GENITOURINARY

SICKLE CELL · TRAUMA · DRUG-INDUCED

2026 NGN TEST PLAN

CONTENT SOURCING — *Priapism is not covered in your uploaded reference notes for this library. Material is drawn from standard NGN NCLEX 2026 references including Saunders Comprehensive Review, ATI Adult Medical-Surgical Nursing, Lippincott NCLEX-RN, the AUA/SMSNA Guideline on the Management of Priapism, and current evidence-based urology practice.*



DEFINITION & OVERVIEW

What is Priapism?

> 4h

TIME CUTOFF

Persistent erection lasting longer than 4 hours unrelated to sexual stimulation = medical emergency requiring ER evaluation.

2

TYPES

Ischemic (low-flow) — painful, rigid, true emergency (~95%). **Non-ischemic (high-flow)** — partial, painless, from trauma.

24h

TISSUE RISK WINDOW

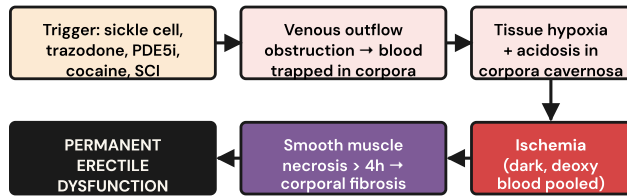
Ischemic priapism untreated beyond 24 hours risks corporal fibrosis and **permanent erectile dysfunction**.

2

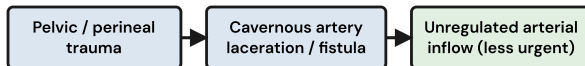
PATHOPHYSIOLOGY

How Priapism Develops

Ischemic (Low-Flow) Cascade



Non-Ischemic (High-Flow)



: ischemic = trapped deoxygenated blood & ischemia • non-ischemic = oxygenated arterial blood,

Why the > 4-Hour Rule Matters

- ◆ **0–4 hr:** Reversible smooth muscle dysfunction.
- ◆ **4–6 hr:** Aggressive intervention indicated; ischemia begins.
- ◆ **6–24 hr:** Endothelial damage, smooth muscle necrosis.
- ◆ **> 24 hr:** Corporal fibrosis → permanent ED in up to 90% of untreated cases.
- ◆ **Stuttering priapism:** Recurrent self-limited episodes (common in sickle cell) — still treat & prevent.

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CAUSES & RISK FACTORS

Who Gets Priapism?

Hematologic

- ◆ **Sickle cell disease** — #1 cause in children & young adults (sickled RBCs sludge in corpora)
- ◆ Leukemia
- ◆ Thalassemia
- ◆ Hypercoagulable states

Medications

- ◆ **Trazodone** (classic NCLEX trigger)
- ◆ **PDE-5 inhibitors** — sildenafil, tadalafil, vardenafil
- ◆ Prazosin, terazosin (α -blockers)
- ◆ Antipsychotics (chlorpromazine, olanzapine, risperidone)
- ◆ Intracavernosal ED injections (alprostadil, papaverine)
- ◆ SSRIs, anticoagulants

Other Triggers

- ◆ **Cocaine** (intranasal & topical), marijuana, alcohol
- ◆ Spinal cord injury / neurogenic
- ◆ Pelvic, perineal, or genital **trauma** (high-flow type)
- ◆ Pelvic malignancy or metastasis
- ◆ Total parenteral nutrition with fat emulsions
- ◆ Dialysis



SIGNS & SYMPTOMS

Ischemic vs. Non-Ischemic

RED FLAGS 🚩

Feature	Ischemic (Low-Flow) 🚩 Emergency	Non-Ischemic (High-Flow)
Pain	Severe, throbbing — pain worsens with duration	Painless or minimal pain
Rigidity	Fully rigid corpora cavernosa, soft glans	Partial / not fully rigid
Onset	Spontaneous, hours-long	Hours to days after trauma; may be delayed
Aspirate	Dark, deoxygenated blood (low pH, low pO ₂)	Bright red, oxygenated blood
Tenderness	Marked corporal tenderness	Minimal
History	Sickle cell, meds, drugs, idiopathic	Straddle injury, perineal/pelvic trauma
Urgency	True emergency — intervene immediately	Less urgent; observe, may resolve spontaneously



Red-Flag Findings

- ◆ Erection > 4 hours unrelated to sexual stimulation
- ◆ Increasing penile pain & rigidity
- ◆ Inability to urinate (bladder distension)
- ◆ Pediatric / adolescent male with sickle cell & painful erection
- ◆ Recent trazodone, sildenafil, intracavernosal injection



Assessment Pearls

- ◆ Inspect: only corpora cavernosa rigid — glans & corpus spongiosum soft = ischemic
- ◆ Duration is the most important history question
- ◆ Ask about meds, recreational drugs, trauma, sickle cell status
- ◆ Cavernous blood gas confirms type: pO₂ < 30, pCO₂ > 60, pH < 7.25 = ischemic
- ◆ Color Doppler ultrasound differentiates flow types

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PRIORITY NURSING INTERVENTIONS

ABC-Framed Actions

A

Acute / Airway

- **Recognize** erection > 4 h as urologic emergency & **notify HCP / urology immediately**
- **Assess** ABCs, vital signs, pain (0–10), duration, trigger
- For **sickle cell crisis**: monitor airway, SpO₂, prepare for O₂ administration

B

Bedside Stabilization

- **Encourage voiding** — full bladder worsens condition
- **Apply ice pack** to perineum (ischemic) — promotes detumescence via vasoconstriction
- **Hydrate IV** (especially sickle cell) — NS or LR per orders
- **Administer analgesia** — IV opioids (morphine) for severe pain
- Hold suspected causative medications (trazodone, PDE5i, α-blockers)
- **Avoid heat** — worsens ischemia

C

Collaborative / Definitive

- **Prepare for corporal aspiration** & irrigation (urologist)
- Anticipate **intracavernosal phenylephrine** injection
- If > 24 h or failed treatment → prepare for **surgical shunt**
- Sickle cell: oxygen, hydration, analgesia, possible **exchange transfusion**
- Monitor for **compartment syndrome** of the penis
- Provide privacy, emotional support, reduce stigma

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PHARMACOLOGY

Drugs Used to Treat Priapism

Phenylephrine — intracavernosal

A₁-ADRENERGIC AGONIST · FIRST-LINE

Mechanism: Direct α_1 stimulation → smooth muscle contraction in corpora cavernosa → venous outflow restored → detumescence. Minimal β -effects = preferred over epinephrine.

DOSE

100–500 mcg every 3–5 min, max 1 mg/hr (per urology)

SIDE EFFECTS

Hypertension, reflex bradycardia, headache, palpitations, dysrhythmias

NURSING

Continuous BP & HR monitoring; caution with HTN, CAD, MAOIs; have emergency drugs available

Pseudoephedrine / Terbutaline — oral / SQ

SYMPATHOMIMETIC · STUTTERING PRIAPISM PREVENTION

Mechanism: α -adrenergic stimulation promotes detumescence; used for **at-home** management of brief or recurrent stuttering episodes (sickle cell).

DOSE

Pseudoephedrine 60 mg PO;
terbutaline 5–10 mg PO

SIDE EFFECTS

Tachycardia, tremor, anxiety, insomnia, HTN

NURSING

Patient education on recognizing failure to resolve in 1 hour → ER

Hydroxyurea — oral

ANTINEOPLASTIC · SICKLE CELL PROPHYLAXIS

Mechanism: Increases fetal hemoglobin (HbF) → reduces sickling & vaso-occlusive episodes including stuttering priapism.

INDICATION

Long-term prevention in sickle cell with recurrent priapism

SIDE EFFECTS

Bone marrow suppression, GI upset, teratogenic

NURSING

Monitor CBC; pregnancy precautions; report fever/infection signs

Adjunct Care — supportive

SICKLE CELL CRISIS-DRIVEN PRIAPISM

Goals: Oxygenation, hydration, analgesia, hemoglobin S reduction.

O₂ THERAPY

Maintain SpO₂ > 95% — reduces sickling

IV FLUIDS

NS or LR to reduce blood viscosity

ANALGESIA / TRANSFUSION

IV morphine for pain; exchange transfusion if refractory

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NCLEX TEST TRAPS ⚠️

Wrong vs. Right Thinking

❌ TRAP

"It's embarrassing — let the patient wait." Delaying care because of provider or patient discomfort.

✅ RIGHT

Priapism > 4 hours is a **urologic emergency**. Notify HCP immediately. Provide privacy *and* urgent intervention — both are required.

❌ TRAP

Applying a **warm compress** to "help relax" the area.

✅ RIGHT

Cold/ice pack to the perineum promotes vasoconstriction and detumescence in ischemic priapism. Heat worsens ischemia.

❌ TRAP

Selecting "**administer sildenafil**" or "**continue trazodone**" as an intervention.

✅ RIGHT

Hold causative medications. PDE5 inhibitors, trazodone, prazosin, and intracavernosal injections are common precipitants — discontinue and document.

❌ TRAP

Treating all priapism the same — assuming all cases need emergent aspiration.

✅ RIGHT

Ischemic = emergency; non-ischemic (traumatic, painless) often observed first. Cavernous blood gas & Doppler differentiate.

❌ TRAP

For a child with sickle cell + painful erection: focusing on the priapism alone.

✅ RIGHT

Treat the **underlying sickle cell crisis**: oxygen, IV hydration, analgesia, possible exchange transfusion — alongside urology consult.

❌ TRAP

Forgetting to assess urinary status because the focus is on the erection.

✅ RIGHT

Have the patient void — a full bladder can worsen priapism and obscure pelvic assessment. Inability to void is itself a red flag.

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PATIENT & FAMILY EDUCATION

Teach-Back Priorities



When to Seek Emergency Care

- ◆ Any erection lasting **more than 4 hours** — go to the ER, do not wait it out
- ◆ Painful or recurrent (stuttering) erections — schedule urology follow-up
- ◆ Inability to urinate during an erection episode
- ◆ Reassure: prompt treatment preserves future erectile function



Medication Safety

- ◆ Discuss all medications with the prescriber — never stop antipsychotics abruptly
- ◆ If on **trazodone, sildenafil, prazosin**, intracavernosal ED therapy: know the risk
- ◆ Avoid recreational drugs — especially **cocaine**, marijuana, alcohol misuse
- ◆ Carry a medication list to ER visits



Sickle Cell Self-Management

- ◆ Maintain **adequate hydration** daily (avoid dehydration triggers)
- ◆ Avoid temperature extremes, high altitude, low oxygen environments
- ◆ Take prophylactic medications (e.g., **hydroxyurea**) as prescribed
- ◆ Recognize stuttering episodes early — try voiding, hydration, ice, prescribed sympathomimetic; ER if > 1 hour



Psychosocial & Follow-up

- ◆ Normalize the conversation — reduce embarrassment & delays
- ◆ Refer for **sexual health counseling** if erectile dysfunction develops
- ◆ Encourage partner involvement & emotional support
- ◆ Adolescents: ensure caregiver knows the 4-hour rule

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MEMORY MNEMONICS

Quick Recall Tools



"PRIAPISM" — High-Yield Acronym

P

Painful, prolonged erection > 4 hours

R

Rigid corpora cavernosa, **soft** glans

I

Ischemia is the emergency type (low-flow)

A

Aspirate dark deoxygenated blood

P

Phenylephrine intracavernosal — first-line drug

I

Ice to perineum + void the bladder

S

Sickle cell is the #1 pediatric cause

M

Meds — trazodone, PDE5i, prazosin, antipsychotics



The 4-Hour Door

"4 hours = ER doors" — any erection beyond 4 hours = emergency visit. Each hour after 4 increases risk of permanent ED.



Blood Color Cue

"Dark = Danger, Red = Rest." Dark aspirate = ischemic (act fast). Bright red aspirate = high-flow trauma (less urgent).



Drug Pattern

Most causative meds **relax smooth muscle** (PDE5i, α -blockers, trazodone, antipsychotics). Treatment uses an **α -agonist (phenylephrine)** to **contract** it.

10 NGN CLINICAL JUDGMENT SCENARIO

NCJMM 6-Step Application

SCENARIO

A 19-year-old male with a history of sickle cell disease (HbSS) presents to the ED at 0245 with his mother. He reports a painful, persistent erection that began approximately 5 hours ago after waking from sleep. He denies sexual activity, trauma, or recreational drug use but admits he was started on **trazodone 100 mg PO at bedtime** three nights ago for insomnia. He rates pain 9/10. Vital signs: T 99.4°F, HR 118, RR 22, BP 148/92, SpO₂ 94% on room air. On exam: corpora cavernosa fully rigid, glans soft, marked tenderness. He has not voided in 6 hours.

1

Recognize Cues

Relevant: erection > 4 h, severe pain 9/10, rigid corpora with soft glans, sickle cell history, new trazodone, tachycardia, HTN, SpO₂ 94%, no recent void. **Irrelevant:** temperature is near-normal.

2

Analyze Cues

Cues cluster as **ischemic priapism**: prolonged duration, classic rigid-corpora/soft-glans pattern, severe pain. Dual triggers — **sickle cell vaso-occlusion + trazodone-induced α-blockade**. Tachycardia & HTN reflect pain & sympathetic response; low-normal SpO₂ raises sickling risk.

3

Prioritize Hypotheses

#1 Ischemic priapism (urologic emergency, tissue at risk). **#2 Acute sickle cell vaso-occlusive crisis** (priapism subtype). **#3 Acute pain**. **#4 Urinary retention**. Less likely: high-flow priapism (no trauma, fully rigid & painful).

4

Generate Solutions

Goals: detumescence within 4–6 h of arrival, preserve future erectile function, resolve sickle crisis, control pain. Options: notify urology STAT, **hold trazodone**, IV access, IV NS, O₂ to keep SpO₂ > 95%, IV morphine, ice to perineum, encourage voiding, prepare for corporal aspiration + intracavernosal phenylephrine, anticipate possible exchange transfusion.

5

Take Action

1) **Notify urology & HCP immediately**. 2) Place 2 large-bore IVs, start NS at maintenance + bolus. 3) O₂ via nasal cannula 2 L/min, recheck SpO₂. 4) Administer IV morphine per order. 5) Apply ice pack to perineum. 6) Have patient attempt to void. 7) Hold trazodone & flag chart. 8) Prepare aspiration tray & phenylephrine. 9) Maintain privacy & reassure patient and mother.

6

Evaluate Outcomes

Expected: detumescence within 1 h of aspiration/phenylephrine; pain ≤ 3/10; SpO₂ > 95%; HR/BP trending down; patient voids; no signs of compartment syndrome; sickle crisis resolving. **Reassess** q15 min during phenylephrine, then per protocol. **Escalate** if no detumescence after repeated phenylephrine or if duration approaches 24 h → surgical shunt evaluation.

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Sources: Saunders Comprehensive Review for the NCLEX-RN · ATI Adult Medical-Surgical Nursing · Lippincott NCLEX-RN · AUA/SMSNA Guideline on the Management of Priapism · current evidence-based urology practice