ANXIOLYTICS

Anti-Anxiety Medications — NCLEX-RN Pharmacology Mastery

💊 CNS Depressants | 🧠 Neuro / Psych System | ⚠️ High-Alert Medications | 📘 NGN 2026 Test Plan

🟨 1. DRUG OVERVIEW

- **Generalized Anxiety Disorder (GAD)** — chronic worry lasting ≥ 6 months
- **Panic disorder** — sudden, intense episodes
- **Acute anxiety / agitation** — PRN use, ER, pre-op
- **Alcohol withdrawal** — benzos prevent seizures, delirium tremens (DTs)
- **Status epilepticus** — IV lorazepam (Ativan) or diazepam (Valium) = first-line
- **Muscle spasms / skeletal relaxation** — diazepam
- **Procedural sedation** — midazolam (Versed)
- **Insomnia (short-term)** — limited, due to tolerance/dependence
- **PTSD, OCD, social anxiety** — SSRIs / SNRIs (first-line long-term)

🟥 2. MECHANISM OF ACTION

BENZODIAZEPINES (-zepam, -zolam):
Bind GABA-A receptor → ↑ **FREQUENCY** of Cl^- channel opening → hyperpolarization → ↓ neuronal firing → **CNS depression**

BUSPIRONE (BuSpar):
Partial 5-HT1A serotonin agonist → modulates serotonin & dopamine → ↓ anxiety
⚡ *NO GABA activity = non-sedating, non-addictive*

SSRIs / SNRIs (first-line chronic):
Block reuptake of serotonin (± norepinephrine) → ↑ synaptic levels → ↓ anxiety over 4–6 weeks

HYDROXYZINE (Vistaril / Atarax):
H1 histamine antagonist → sedation + anxiolysis → non-addictive, PRN safe

BARBITURATES (rarely used now):
↑ **DURATION** of Cl^- channel opening → deeper, more dangerous CNS depression → narrow therapeutic range

💎 **KEY DISTINCTION:** Benzos = ↑ frequency (safer). Barbiturates = ↑ duration (deadlier). Both use GABA, but benzos need endogenous GABA to work → ceiling effect = safer overdose profile.

3. THERAPEUTIC EFFECTS

- ↓ subjective anxiety, worry, restlessness, panic
- ↓ muscle tension, skeletal muscle relaxation
- Sedation, drowsiness, sleep induction (benzos)
- Anterograde amnesia (useful pre-op with midazolam)
- Seizure cessation (benzos — within minutes IV)
- Prevention of alcohol withdrawal seizures / DTs
- **Patient reports:** calmer, sleeping better, fewer panic attacks
- **Objective signs:** ↓ HR, ↓ BP, relaxed posture, coherent speech

🟩 4. SIDE EFFECTS & ADVERSE REACTIONS

✅ COMMON

- Drowsiness, sedation, dizziness
- Confusion (esp. elderly)
- Ataxia, slurred speech, unsteady gait
- Dry mouth, blurred vision
- Fatigue, headache
- Orthostatic hypotension
- Anterograde amnesia
- Tolerance / dependence

🚨 SERIOUS / LIFE-THREATENING

- **Respiratory depression** (RR < 12)
- **Benzo + Opioid = BLACK BOX** → fatal respiratory failure
- **Withdrawal seizures** — can kill if stopped abruptly
- Paradoxical agitation (elderly, kids)
- Coma, cardiovascular collapse
- Serotonin syndrome (SSRIs/SNRIs)
- Falls & hip fractures (Beers List)
- Teratogenic — cleft lip/palate (Cat D)
- Suicidal ideation (SSRIs — black box < 24 y/o)

🚨 **BENZO TOXICITY TRIAD:** Sedation → Slurred speech → Slow breathing (RR < 12). Progresses to stupor → coma. **ANTIDOTE = FLUMAZENIL (Romazicon).**

🟪 5. PRIORITY NURSING CONSIDERATIONS

- → **ASSESS** RR, LOC, BP, HR, pulse ox *before & after* each dose
- → **MONITOR** for sedation scale, fall risk, mental status
- → **HOLD** if RR < 12, SBP < 90, excessive sedation, or new confusion
- → **NOTIFY** provider for respiratory depression, paradoxical reaction, suicidal ideation
- → **NEVER** give with opioids, alcohol, or other CNS depressants without caution
- → Have **FLUMAZENIL** + oxygen + bag-valve-mask available for IV benzos
- → Fall precautions: bed low, call light, non-skid socks, ambulate with assist
- → **Taper slowly** — never D/C abruptly (withdrawal seizures = deadly)
- → Pregnancy category D (benzos) — avoid in pregnancy / lactation
- → Schedule IV controlled substance — count, lock, document

🛑 **CONTRAINDICATIONS:** severe respiratory depression, sleep apnea, narrow-angle glaucoma, myasthenia gravis, acute alcohol intoxication, pregnancy, severe liver disease.

💎 **DRUG INTERACTIONS:** opioids, alcohol, antihistamines, antipsychotics, muscle relaxants (all additive CNS depression). **Grapefruit juice** ↑ benzo levels (CYP3A4). **Buspirone + MAOI = hypertensive crisis.**

🟫 6. LABS & DIAGNOSTICS

- **LFTs (AST/ALT)** — benzos metabolized in liver; ↑ enzymes = ↓ dose
- **BUN / Creatinine** — renal clearance of metabolites
- **CBC** — baseline, rule out other causes of fatigue
- **Urine drug screen** — benzos detectable for days–weeks
- **Pregnancy test (hCG)** — before starting in women of childbearing age
- **Albumin** — benzos highly protein-bound → low albumin = ↑ free drug = toxicity
- **ABG / SpO_2** — if respiratory depression suspected
- **Serum drug level** — rare; clinical assessment is primary

💎 **CRITICAL VALUES:** SpO_2 < 90%, RR < 10, GCS drop ≥ 2 points → suspect toxicity → call RRT.

🟥 7. ADMINISTRATION & SAFETY

- **Routes:** PO, IV, IM, SL, rectal (diazepam gel for status epilepticus at home)
- **IV push:** give *slowly* (e.g., lorazepam ≤ 2 mg/min) — rapid push = apnea
- **IM diazepam:** erratic absorption — avoid if possible
- Have **resuscitation equipment** + **flumazenil** at bedside for IV benzos
- Continuous pulse ox + cardiac monitor for IV / procedural sedation
- **Do NOT crush** extended-release tablets (XR, ER, CR)
- **Short-term use** preferred for benzos (2–4 weeks ideal, < 4 months max)
- Schedule **IV controlled substance** — two-nurse waste, locked storage, count q shift
- **Buspirone:** take consistently with/without food (avoid grapefruit)
- **SSRIs:** give in AM to avoid insomnia; with food to ↓ GI upset

🚨 **HIGH-ALERT MEDICATION** — ISMP classifies IV benzos as high-risk. Double-check dose, route, rate. Two-RN verification for pediatric/geriatric doses.

8. PATIENT EDUCATION

- "**Do NOT stop suddenly** — withdrawal can cause seizures. Always taper with your provider."
- "**No alcohol**, opioids, sleep aids, or cold medicines without asking — can stop your breathing."
- "**No driving** or heavy machinery until you know how it affects you."
- "**Rise slowly** from bed or chair — you may feel dizzy."
- "Call 911 for: trouble breathing, extreme sleepiness, confusion, fainting."
- "**Buspirone takes 2–4 weeks** to start working — keep taking it daily, not as needed."
- "**SSRIs take 4–6 weeks** for full anxiety relief — do not stop early."
- "**Avoid grapefruit juice** — it can raise drug levels dangerously."
- "Tell every provider and dentist you take this medication."
- "Use **non-drug strategies**: CBT, deep breathing, exercise, therapy, sleep hygiene."
- "Not safe in pregnancy — use reliable contraception; tell provider if pregnant."
- "Store **locked away** — high risk of misuse / diversion."

9. NCLEX TEST TRAPS ⚠️

- **TRAP:** "Give buspirone for acute panic" → ❌ Buspirone has *slow onset* (2–4 weeks). Use a benzo for acute anxiety.
- **TRAP:** Confusing **flumazenil** (benzo reversal) with **naloxone** (opioid reversal). Don't mix them up!
- **TRAP:** Giving benzos to elderly → ✅ on **Beers List** (↑ falls, delirium). Question the order.
- **TRAP:** "Patient on benzos missed 3 doses at home, now shaking / anxious" → Think **withdrawal**, not worsening anxiety. Withdrawal = seizure risk.
- **TRAP:** Priority = ABCs, NOT anxiety. Respiratory depression > agitation in triage.
- **TRAP: Benzo + opioid = BLACK BOX**. Never assume it's safe just because both were ordered.
- **TRAP:** Alcohol withdrawal → give a **benzo** (NOT Antabuse, NOT naltrexone). CIWA-guided lorazepam is gold standard.
- **TRAP:** Buspirone + MAOI = **hypertensive crisis**. Buspirone + grapefruit = toxicity.
- **TRAP:** SSRIs + triptans / tramadol / St. John's Wort = **serotonin syndrome**.
- **TRAP:** "Patient says meds aren't working after 3 days" (SSRI/buspirone) → teach they take weeks; do NOT stop.
- **TRAP:** Paradoxical reaction — elderly patient becomes *more* agitated on benzo → HOLD and notify.
- **TRAP:** Question asks "most appropriate first intervention" for benzo overdose → **Airway & breathing FIRST**, then flumazenil.

🟩 10. MEMORY BOOSTERS & MNEMONICS

- 💊 **"-PAM" & "-LAM"** endings = Benzodiazepines → *diazePAM, lorazePAM, alprazoLAM, midazoLAM, clonazePAM, temazePAM*
- 🧠 **GABA = "Getting All Buzzed Asleep"** → CNS depression mechanism
- 🔄 **FLUMAZENIL = "FLUshes out benzos"** (reversal agent) — think "Flu Ma z en il" for benzos, "Nal-ox-one" for opioids
- ⏳ **Buspirone = "Busy waiting"** → weeks to work, NOT for acute anxiety, NOT addictive
- 🚫 **"Benzos Breathe Badly"** → respiratory depression is the #1 killer
- 🍇 **"Grapefruit Grabs Benzos"** → inhibits CYP3A4 → ↑ drug levels → toxicity
- 🆘 **Benzo Toxicity = "3 S's"** → *Sedation, Slurred speech, Slow breathing*
- 🔻 **"Never Stop Suddenly"** → benzo withdrawal = seizures (mimics alcohol withdrawal — both use GABA)
- 👵 **"Benzos & Beers don't mix"** → Beers List drugs to avoid in elderly
- 🔺 **SSRI onset: "4 to 6"** → 4–6 weeks for full anxiety relief (vs 2–4 weeks for buspirone)

💊 MOST TESTED ANXIOLYTICS (NCLEX HIGH-YIELD)

Generic (Brand)	Class	Top NCLEX Use	Key Distinction
Lorazepam *(Ativan)*	Benzo	Alcohol withdrawal, status epilepticus	Short-intermediate acting, safe in liver disease (no active metabolites)
Diazepam *(Valium)*	Benzo	Seizures, muscle spasms, alcohol withdrawal	Long half-life; active metabolites → avoid in elderly
Alprazolam *(Xanax)*	Benzo	Panic disorder, acute anxiety	Fastest onset, short-acting = HIGHEST abuse potential
Midazolam *(Versed)*	Benzo	Procedural/conscious sedation	Rapid onset IV; causes anterograde amnesia — great pre-op
Clonazepam *(Klonopin)*	Benzo	Panic disorder, seizures	Long-acting; good for maintenance, not acute
Buspirone *(BuSpar)*	Non-Benzo	GAD (long-term)	2–4 wks onset, NO sedation, NO dependence — safe in recovery
Hydroxyzine *(Vistaril / Atarax)*	Antihistamine	PRN anxiety, itching, pre-op sedation	Non-addictive, safe in substance use history
Sertraline *(Zoloft)*	SSRI	GAD, panic, PTSD, OCD — first-line	4–6 wks onset; black box suicide warning < 24 y/o
Escitalopram *(Lexapro)*	SSRI	GAD, depression	Best tolerated SSRI; fewest drug interactions
Paroxetine *(Paxil)*	SSRI	Panic, social anxiety	Worst discontinuation syndrome; anticholinergic; Cat D
Venlafaxine *(Effexor XR)*	SNRI	GAD, panic	Monitor BP — can ↑ diastolic; severe withdrawal if stopped
Duloxetine *(Cymbalta)*	SNRI	GAD + neuropathic pain	Check LFTs; avoid in heavy alcohol use

Generic (Brand)	Class	Top NCLEX Use	Key Distinction
Propranolol *(Inderal)*	Beta-blocker	Performance/situational anxiety	Blocks physical symptoms (tremor, tachycardia); NOT for GAD

💎 **BIG-PICTURE COMPARISON:**

- **Acute anxiety / panic / withdrawal / seizures** → Benzodiazepine (fast, short-term)
- **Chronic GAD** → SSRI / SNRI (first-line) or Buspirone (non-addictive alternative)
- **PRN, history of addiction** → Hydroxyzine or Buspirone
- **Performance anxiety (public speaking)** → Propranolol

🧠 CLINICAL JUDGMENT SNAPSHOT (NCJMM)

⚠️ #1 PRIORITY RISK

RESPIRATORY DEPRESSION — especially with opioid co-administration (BLACK BOX). Airway compromise is the fastest killer. Sleep apnea + benzo = danger.

💥 WHAT HARMS PATIENT FIRST

Oversedation → hypoxia → respiratory arrest. In elderly: falls, hip fractures, delirium. In withdrawal: seizures can be fatal.

🩺 FIRST NURSING ACTION

ASSESS ABCs first (airway, breathing, circulation). Check RR, SpO_2, LOC *before* giving dose. If overdose → O_2 + RRT → prepare **flumazenil**. If withdrawal → seizure precautions + benzo replacement.

🎯 NGN PRIORITY SEQUENCE (if benzo overdose):

1. Airway — position, suction, OPA if needed
2. Breathing — O_2, bag-valve-mask if RR < 10
3. Circulation — IV access, fluids, cardiac monitor
4. Drug — Flumazenil 0.2 mg IV (caution: can precipitate seizures in chronic users)
5. Disposition — ICU monitoring, psych consult, safety planning

🎯 NGN PRIORITY SEQUENCE (if benzo withdrawal):

1. Seizure precautions — padded rails, suction, IV access
2. Vital signs q15 min — HR, BP, temp (autonomic instability)
3. CIWA-Ar scoring if alcohol co-use
4. Replace with long-acting benzo (lorazepam or diazepam) — taper slowly
5. Thiamine + folate if alcohol-related; monitor electrolytes