DIANE'S NGN NCLEX 2026 VISUAL STUDY LIBRARY

RESPIRATORY · SAFETY · PRIORITY CARE

RESPIRATORY SYSTEM · PRIORITY SAFETY TOPIC

Aspiration Pneumonia *Prevention*

Aspiration pneumonia is a preventable, high-mortality complication. NGN NCLEX 2026 emphasizes recognition of risk, priority positioning, swallow precautions, and clinical-judgment decisions when cues appear.

SOURCE NOTE

This topic was not covered in Diane's uploaded reference notes. Content was synthesized from **Saunders Comprehensive Review for the NCLEX (2026)**, **ATI Adult Medical-Surgical**, **Lippincott NCLEX-RN**, and **CDC guidelines** on healthcare-associated pneumonia prevention.

1 Definition & Overview

- **Aspiration pneumonia** = lung infection caused by inhaling foreign material (food, saliva, gastric contents, oropharyngeal secretions) into the lower airway.
- Begins as **chemical pneumonitis** (irritation from gastric acid), followed by **bacterial infection** from oral flora.
- **Why it matters:** Leading cause of death in stroke, dementia, and post-operative patients. Prevention is a top NCLEX priority — most cases are avoidable with nursing care.

🚨 **Silent aspiration can occur with *NO* cough or choke — especially in neuro-impaired and elderly clients. Absence of symptoms ≠ absence of risk.**

⚠ Who Is at Risk?

Stroke / CVA	↓ LOC / Sedation
NG / Feeding Tube	GERD / Reflux
Dysphagia	Elderly
Post-Anesthesia	Trach / Vent

2 Pathophysiology — How Aspiration Becomes Pneumonia

1. Impaired airway protection (↓ gag, ↓ cough, dysphagia)

2. Food, fluid, or gastric contents enter lower airway

3. Bacterial colonization from oral flora & gastric contents

4. Inflammatory response in lung tissue (alveolar damage)

5. Aspiration Pneumonia (hypoxia, sepsis risk)

Right lower lobe is the most common site — the right mainstem bronchus is wider and more vertical, so aspirated material falls there first.

3 Signs & Symptoms

EARLY CUES (DURING / JUST AFTER EATING)

- **Wet, gurgling voice** after swallowing
- **Coughing or choking** during meals
- **Pocketing food** in cheeks
- Throat clearing repeatedly
- Drooling, excessive saliva
- Prolonged chewing or delayed swallow
- Watery eyes during meals

LATE / PNEUMONIA RED FLAGS 🚨

- **Fever & chills**
- **Productive cough** — purulent, foul-smelling sputum
- **Tachypnea, dyspnea**, accessory muscle use
- **Crackles / wheezes** (often right lower lobe)
- **↓ SpO_2**, hypoxia, cyanosis
- **Altered mental status** (especially in elderly)
- Pleuritic chest pain, tachycardia

4 Priority Nursing Interventions (ABC + Safety)

POSITIONING & FEEDING

- ✓ **HOB ≥ 30–45°** during ALL meals & tube feedings
- ✓ Keep HOB elevated **30–60 min AFTER** meals/feedings
- ✓ Sit upright at **90°** for oral meals when possible
- ✓ Teach the **chin-tuck** swallow technique
- ✓ Offer **small bites**, slow pace, no rushing
- ✓ Quiet environment — minimize talking and distractions

ASSESSMENT & AIRWAY

- ✓ **NPO until swallow eval** if any dysphagia cue (post-stroke, post-extubation, ↓ LOC)
- ✓ Consult **Speech-Language Pathology** for bedside swallow assessment
- ✓ Use **thickened liquids** per SLP — thin liquids are highest risk
- ✓ Keep **suction equipment** at bedside for high-risk clients
- ✓ Monitor **SpO_2** during & after meals
- ✓ Auscultate lung sounds each shift

TUBE FEEDING SAFETY

- ✓ **Verify NG placement** before every feeding (pH, length, x-ray for new tubes)
- ✓ Check **gastric residual** per facility protocol
- ✓ **Hold feeding** if HOB cannot stay elevated
- ✓ Flush tube before/after meds and feedings
- ✓ Continuous feedings: pause for repositioning, suctioning, transport

ORAL & GENERAL CARE

- ✓ **Oral care q2–4h** — reduces oral bacterial load (proven to prevent VAP & aspiration pneumonia)
- ✓ Use **chlorhexidine** rinse for ventilated/ICU clients
- ✓ Avoid sedatives, opioids, or anticholinergics right before meals when possible
- ✓ **Reassess** swallow function after any neuro change
- ✓ Document tolerance, intake, and any coughing/choking events

ABC priority: If active aspiration is witnessed → STOP feeding → suction → position upright → assess airway/breath sounds → notify HCP → obtain SpO_2 and chest x-ray order.

5 Pharmacology — Prevention & Treatment

DRUG / CLASS	MECHANISM	KEY SIDE EFFECTS	NURSING CONSIDERATIONS
Pantoprazole / Omeprazole ***(PPIs)***	↓ Gastric acid production → ↓ severity of chemical pneumonitis if aspirated	Headache, ↓ Mg^{2+}, ↑ C. difficile risk, ↑ pneumonia risk with long-term use	Give **30 min before breakfast**; do not crush ER tablets; reassess long-term need
Famotidine ***(H_2 Blocker)***	Blocks histamine-2 receptors → ↓ gastric acid	Headache, confusion (elderly), dizziness	Renal dose adjustment; safer alternative when PPIs not tolerated
Metoclopramide ***(Prokinetic)***	↑ Gastric emptying & lower esophageal sphincter tone → ↓ reflux/aspiration	**Extrapyramidal symptoms**, tardive dyskinesia (BLACK BOX), drowsiness	Limit to ≤12 weeks; monitor for involuntary movements; **avoid in bowel obstruction**
Chlorhexidine 0.12% ***(Oral Antiseptic)***	Reduces oropharyngeal bacterial load → ↓ aspiration pneumonia risk	Tooth staining, altered taste, mucosal irritation	Swish & spit (do not swallow); standard for ventilated & high-risk clients
Broad-Spectrum Antibiotics ***(e.g., piperacillin-tazobactam, ceftriaxone + clindamycin)***	Treat established aspiration pneumonia (cover oral anaerobes + gram-negatives)	Diarrhea, C. difficile, nephrotoxicity, allergic reactions	Obtain **cultures before first dose** when possible; monitor renal function; full course completion

6 NCLEX Test Traps ⚠

COMMON WRONG ANSWER

"Elevate HOB *slightly* for feedings"

CORRECT ANSWER

HOB 30–45° MINIMUM during all feedings & for 30–60 min after — flat or low-Fowler's increases aspiration risk dramatically.

COMMON WRONG ANSWER

"Resume regular diet after stroke once the client is awake and alert."

CORRECT ANSWER

Keep client **NPO until swallow evaluation** is performed — alertness does NOT confirm safe swallow function.

COMMON WRONG ANSWER

"Encourage water and thin liquids to stay hydrated."

CORRECT ANSWER

Thin liquids carry the HIGHEST aspiration risk. Use **thickened liquids** per SLP. Nectar → honey → pudding consistency as needed.

COMMON WRONG ANSWER

"Patient isn't coughing during meals — swallowing is fine."

CORRECT ANSWER

Silent aspiration occurs without cough or choke. Watch for wet voice, ↓ SpO_2, low-grade fever, and changes in mental status instead.

COMMON WRONG ANSWER

"Tube feeding running at goal — no need to verify placement."

CORRECT ANSWER

Verify NG placement before EVERY feeding/medication (pH, external length, x-ray for new tubes). Migration is common.

COMMON WRONG ANSWER

"Oral care is for comfort and hygiene."

CORRECT ANSWER

Oral care q2–4h is an infection-control intervention — reduces oral flora that cause aspiration pneumonia. Evidence-based, expected in care plans.

7 Patient & Family Education

- ✓ **Sit fully upright (90°)** for every meal and snack
- ✓ Stay upright **30–60 min after eating** — no lying down right after meals
- ✓ Take **small bites**, chew thoroughly, eat slowly
- ✓ **Do not talk** while chewing or swallowing
- ✓ Minimize distractions — turn off the TV, avoid heavy conversation
- ✓ Use the **chin-tuck** technique if taught by SLP
- ✓ Take meds with **thickened liquids** if dysphagia present; crush pills or use liquids per HCP/pharmacy
- ✓ **Report immediately:** coughing/choking during meals, wet voice, fever, new shortness of breath
- ✓ Perform **oral care after every meal** and at bedtime
- ✓ Family members should know **aspiration warning signs** and how to position the client

8 Memory Boosters

"30-30-30"

30° HOB minimum · **30 min** upright after meals · check placement every **30 days** for long-term tubes

"S.A.F.E."

Sit upright · **A**ssess swallow · **F**eed slowly · **E**valuate breathing & SpO_2

"WET-COUGH-FEVER"

The aspiration triad: **WET** voice + **COUGH** during meals + **FEVER**/↓ SpO_2 = STOP & reassess

"Right Side, Big Slide"

Aspirated material slides into the **right lower lobe** first — listen carefully there for crackles.

9 NGN Clinical Judgment — Full NCJMM Scenario

CASE SCENARIO

72-year-old male, post-CVA Day 2. Right-sided weakness, mild expressive aphasia. SLP cleared client for honey-thick liquids and pureed diet earlier today. The nurse begins assisting the client with his first lunch tray. Mid-meal, the client coughs after taking a sip of thickened juice, voice sounds "gurgly," and SpO_2 drops from 96% to 91%. Temp 99.4°F, RR 22, HR 98.

Step 1

Recognize Cues

- ★ Coughing during meal
- ★ Wet/gurgly voice quality
- ★ SpO_2 dropped 96% → 91%
- ★ RR 22 (mildly elevated)
- ★ Post-CVA Day 2 — high-risk dysphagia history
- ★ Recently cleared diet (new swallow status)

Step 2

Analyze Cues

- ★ Cues point to **acute aspiration event**
- ★ Swallow function may have **changed since AM eval**
- ★ ↓ SpO_2 + wet voice = airway compromise
- ★ Risk for aspiration pneumonia within 24–72 hr
- ★ Possible silent aspiration occurring with subsequent sips

Step 3

Prioritize Hypotheses

- ★ **#1 Airway / Aspiration** — highest priority (ABC)
- ★ #2 Inadequate swallow function for current diet consistency
- ★ #3 Developing aspiration pneumonia
- ★ #4 Hypoxia secondary to airway obstruction

Step 4

Generate Solutions

- ★ **Stop oral intake** immediately
- ★ Maintain upright/high-Fowler's positioning
- ★ Apply oral suction if needed
- ★ Apply supplemental O_2 to maintain $SpO_2 \geq 94\%$
- ★ Auscultate lungs (focus right lower lobe)
- ★ Notify HCP & re-consult SLP
- ★ Anticipate orders: chest x-ray, ABG, NPO status

Step 5

Take Action

- ★ **STOP feeding;** remove tray
- ★ Keep HOB at 90°, suction oropharynx
- ★ Apply 2 L NC O_2 per protocol
- ★ Reassess SpO_2, RR, lung sounds q5–15 min
- ★ Notify HCP & document event
- ★ Place client NPO pending re-evaluation
- ★ Provide thorough oral care

Step 6

Evaluate Outcomes

- ★ **Effective:** SpO_2 returns to ≥ 95%, RR < 20, clear voice, lungs clear bilaterally, no further coughing
- ★ **Ineffective:** persistent ↓ SpO_2, crackles RLL, fever ≥ 100.4°F, productive cough → **escalate** & obtain chest x-ray
- ★ SLP performs **repeat swallow evaluation** before any PO intake resumes
- ★ Update plan of care & family education

Recognize cues early. Position correctly. Prevent the preventable.

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