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🚩 =Critical Situation. Call Rapid Response Team (RRT). Code may be Imminent. May need to go to the cath lab, the OR, or be transferred to the ICU.

Definition: Pulmonary Edema is a critical condition. Fluid accumulates in the alveoli, impairing gas exchange and leading to hypoxia and inadequate ventilation. It represents life-threatening respiratory compromise requiring immediate medical and ventilatory support.

Subjective, Objective, Risk Factor Cues/Symptoms, and Analysis of Cues

Subjective Cues/Symptoms	Objective Cues/Symptoms	Risk Factor Cues/Symptoms	Analysis of Cues
- Chest heaviness, Severe SOB - Air hunger, feels like suffocation - Orthopnea (worse when lying flat, requires 1, 2, or 3 pillows to breathe) - Paroxysmal nocturnal dyspnea (PND)	- Hypoxemia (low SpO₂) - Crackles/rales heard - Pink, frothy sputum - Tachypnea, Tachycardia - Use of accessory muscles	- Cardiomyopathy ↑BP, MI, Heart failure - Renal failure/fluid overload - Valvular heart disease - Excess IV fluid administration	🚩 Severe dyspnea, orthopnea, air hunger, hypoxemia, crackles, tachypnea, pink frothy sputum, and accessory-muscle use signal acute pulmonary edema advancing to respiratory failure due to sudden alveolar fluid overload.

🚩 **Potential Complications:** include acute hypoxic respiratory failure, cardiac arrest, multi-organ dysfunction, and death. Ongoing hypoxia may also lead to cerebral injury, dysrhythmias, and hemodynamic collapse.

Prioritized Hypotheses

- Acute Decompensated Heart Failure - Cardiogenic Pulmonary Edema from MI	- Fluid Overload (Renal Failure or Excess IV Fluids) - Hypertensive Emergency with Pulmonary Edema	- Valvular or Structural Cardiac Failure - Acute Respiratory Distress Syndrome (ARDS)
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Diagnostic Test & Purpose

Arterial Blood Gas (ABG)	Evaluates oxygenation, ventilation, and acid–base status in respiratory failure.
Chest X-ray	Confirms pulmonary edema, assesses lung fields, and identifies cardiac or alternative causes.
Pulse Oximetry	Provides continuous monitoring of oxygen saturation and response to therapy.
B-type Natriuretic Peptide (BNP)	Differentiates cardiogenic pulmonary edema from non-cardiac causes.
Echocardiogram	Assesses ventricular function and valvular disease that can cause pulmonary edema.
Electrocardiogram (ECG)	Identifies ischemia or dysrhythmias precipitating decompensation.
Basic Metabolic Panel (BMP)	Evaluates renal function and electrolytes affecting fluid balance and ventilation.
Serum Lactate	Assesses tissue hypoxia and severity of systemic compromise.

Medication	Classification	Purpose
Furosemide (Lasix)	Loop Diuretic	Removes excess fluid, decreases pulmonary congestion, and improves oxygenation.
Nitroglycerin (Nitrostat)	Vasodilator (Nitrate)	↓ preload and afterload, pulmonary capillary pressure, and dyspnea.
Morphine (MS Contin)	Opioid Analgesic	Decreases anxiety, preload, and sensation of air hunger in acute pulmonary edema.
Albuterol (Proventil)	Bronchodilator	Improves airflow and reduces bronchospasm, contributing to respiratory distress.
Norepinephrine (Levophed)	Vasopressor	Supports blood pressure in patients with cardiogenic shock or severe hypotension.
Dobutamine (Dobutrex)	Inotropic Agent	Improves cardiac contractility and output in cardiogenic pulmonary edema.
Methylprednisolone (Solu-Medrol)	Corticosteroid	Reduces inflammation in non-cardiogenic pulmonary edema or ARDS.

Patient-Centered Nursing Care Plan

**Please note that the "related to" component of the Nursing Diagnosis has been removed from these sheets to accommodate the wide variability among patients and to align with The Joint Commission's emphasis on patient-centered care.*

Nursing Diagnosis*	Evidence-Based Nursing Interventions & Rationales	Evaluation/Expected Outcomes
Impaired Gas Exchange	Apply O ₂ ; initiate CPAP/BiPAP as ordered; position in high-Fowler's; monitor SpO ₂ and ABGs. Rationale: O ₂ Sat is a quick, accurate, noninvasive way to monitor respiratory status. Fluid in alveoli impairs diffusion; oxygen and positive pressure ventilation improve alveolar gas exchange.	SpO ₂ ≥94%; ABGs improving; dyspnea reduced.
Ineffective Breathing Pattern	Assess RR, accessory muscle use. Coach slow, pursed-lip breathing. Prepare for intubation if fatigue or altered mental status (AMS) present. Rationale: Tachypnea and fatigue precede respiratory collapse; early support prevents failure.	RR normalized; decreased Accessory muscle use.
Excess Fluid Volume	Strict I&O; daily weights. Weigh daily with the same type of clothing, after voiding and before breakfast. Administer diuretics as ordered. Assess lung sounds and edema. Rationale: Removing excess volume lowers pulmonary capillary pressure and edema. Consistency in weighing the patient is crucial.	Crackles diminished; net negative balance achieved.

Decreased Cardiac Output	Continuous telemetry and hemodynamic monitoring. (blood pressure, **MAP, heart rate, UO, mentation). Administer vasodilators/inotropes as ordered. Assess perfusion (UO, mentation). Rationale: <i>Optimizing preload/afterload and contractility improves forward flow (cardiac output) and oxygen delivery. Hypotension, tachycardia, decreased UO, or AMS can signal poor cardiac output and inadequate organ perfusion requiring immediate intervention. MAP is critical in pulmonary edema because it determines whether the organs— especially the brain, kidneys, and heart — are being adequately perfused while the lungs are failing.</i>	MAP**>72; UOP ≥30 mL/hr; mentation improved.
Anxiety	Stay with the patient; provide clear explanations. Administer anxiolytics/morphine as ordered. Rationale: <i>Anxiety increases sympathetic drive and oxygen demand; reassurance reduces the work of breathing.</i>	Patient calmer; reports less distress.
Risk for Aspiration	Keep HOB ≥30°. Suction – only if needed. Maintain NPO until stable. Rationale: <i>Aspiration worsens hypoxia; positioning and airway care reduce risk.</i>	No aspiration events: lungs remain clear.

🚩 Failure to Rescue (FTR) Guidelines for Condition Worsening and Actions to Improve Outcomes

- **Definition:** FTR is when a patient has subtle signs of condition worsening (e.g., vital sign changes, new symptoms, decreased UO), but the problem isn't recognized or acted upon in time — leading to a serious adverse outcome.
- 🚩 If the patient is not improving or subtly getting worse, review **Failure to Rescue (FTR)** guidelines that follow and notify the provider.
- 🚩 **What is the impact of this diagnosis on the FTR risk?** Pulmonary edema carries a very high FTR risk because patients can progress rapidly from dyspnea to hypoxic collapse. Any delay in recognizing worsening changes can result in sudden respiratory arrest and death.

🚩 Failure to Rescue Cues	🚩 Potential Complications	Why FTR Could Have Happened	🚩 Actions: Escalation of Nursing & Medical Care
🚩 Falling SpO ₂ despite oxygen therapy	🚩 Acute hypoxic respiratory failure	Oxygen needs are underestimated; delayed respiratory support	🚩 Increase O ₂ delivery; initiate CPAP/BiPAP; notify provider; activate Rapid Response
🚩 Rising respiratory rate with accessory muscle use	🚩 Imminent respiratory fatigue and collapse	The work of breathing is not reassessed frequently	🚩 Place patient in high-Fowler's; prepare for NIV or intubation; obtain ABG
🚩 New confusion, agitation, or lethargy	🚩 Cerebral hypoxia	Mental status change Misattributed to anxiety or meds	🚩 Perform focused neuro check; check SpO ₂ /ABG; escalate to provider/RRT
🚩 Pink frothy sputum or worsening crackles	🚩 Worsening pulmonary edema	Diuretic response not evaluated; fluid overload persists	🚩 Administer IV diuretics; restrict fluids; obtain STAT CXR
🚩 Hypotension after diuresis or vasodilation	🚩 Cardiogenic shock	Hemodynamics are not closely monitored	🚩 Start vasopressors/inotropes as ordered; insert arterial line; ?ICU transfer
🚩 Persistent dyspnea despite therapy	🚩 Impending respiratory arrest	Delayed airway decision	🚩 Prepare for endotracheal intubation; call anesthesia/critical care
🚩 Tachycardia with chest pain	🚩 Myocardial ischemia precipitating failure	The cardiac cause was not addressed	🚩 Obtain STAT ECG; notify cardiology; initiate ACS protocol

***MAP = SBP + 2 (DBP)/3 Where: SBP = Systolic blood pressure DBP = Diastolic blood pressure. Normal MAP: 🟡 70–100 mmHg

Resources:

- American Lung Association (1/12/2025), Everything You Need to Know About Pulmonary Edema. Retrieved 1/15/2026 from: <https://www.lung.org/blog/pulmonary-edema>
- Cleveland Clinic (2026). Pulmonary Edema. Retrieved January 2026 from: <https://my.clevelandclinic.org/health/diseases/24218-pulmonary-edema>
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- Mayo Clinic (2026). Pulmonary edema. Retrieved January 2026 from: <https://www.mayoclinic.org/diseases-conditions/pulmonary-edema/symptoms-causes/syc-20377009>
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