

COPD Exacerbation Nursing Care Plan

Aligned with GOLD 2024 recommendations.

QUICK ANSWER

Priority COPD-exacerbation diagnoses: impaired gas exchange → ineffective breathing pattern → ineffective airway clearance → activity intolerance → anxiety. Target SpO₂ 88–92%. Core interventions: nebulized albuterol/ipratropium, 5-day prednisone, antibiotics if purulent sputum, BiPAP for pH < 7.35 / PaCO₂ > 45. Smoking cessation and pulmonary rehab are the highest-yield long-term interventions.

Assessment

Subjective: worsening dyspnea, ↑ sputum volume/purulence, wheezing, fatigue.

Objective: tachypnea, accessory-muscle use, tripod position, prolonged expiration, wheezes, SpO₂ ↓, ABG respiratory acidosis, FEV1 ↓, barrel chest.

Priority NANDA-I diagnoses

1. Impaired gas exchange AEB SpO₂ 86%, PaCO₂ 58, pH 7.31.
2. Ineffective breathing pattern.
3. Ineffective airway clearance.
4. Activity intolerance.
5. Anxiety related to dyspnea.

NOC outcomes

- SpO₂ 88–92% (COPD target — higher risks CO₂ retention).
- pH ≥ 7.35 within 24 h; PaCO₂ trending toward baseline.
- Uses pursed-lip breathing during activity.
- Demonstrates correct MDI/spacer technique.
- Verbalizes smoking-cessation plan.

NIC interventions and rationale (GOLD 2024)

- **O₂ to SpO₂ 88–92% (Venturi mask preferred)** — higher SpO₂ suppresses hypoxic drive and worsens hypercapnia.
- **Nebulized albuterol + ipratropium q4–6 h** — first-line bronchodilators in exacerbation.
- **Systemic corticosteroids (prednisone 40 mg × 5 days)** — shortens recovery, reduces relapse.
- **Antibiotics if Anthonisen criteria met** (↑ dyspnea + ↑ sputum volume + ↑ purulence).
- **NIV (BiPAP) for pH < 7.35 and PaCO₂ > 45** — reduces intubation and mortality.
- **Tripod / upright positioning.**
- **Teach pursed-lip and diaphragmatic breathing.**
- **Smoking cessation + NRT/varenicline + behavioral support** — single most important long-term intervention.
- **Refer to pulmonary rehab; vaccinate (flu, pneumococcal, RSV).**

Evaluation

Day 4: SpO₂ 90% on 2 L NC, pH 7.38, PaCO₂ 48. Correct MDI + spacer technique; committed to nicotine patch and pulmonary rehab.

Frequently Asked Questions

Why SpO₂ 88–92% in COPD?

Chronic CO₂ retainers depend partly on hypoxic drive. Correcting SpO₂ above 92% can suppress that drive and precipitate worsening hypercapnia and CO₂ narcosis.

When should BiPAP start?

Are inhaled corticosteroids used in exacerbation?

Systemic corticosteroids are standard in exacerbation. ICS remain part of chronic maintenance for high-exacerbation phenotypes.

Related Resources

→ [Pneumonia care plan](#) → [Heart failure care plan](#) → [Full care plan library](#)