

Pediatric Respiratory Failure

There is **NOT** a universally accepted definition for respiratory failure in the pediatric populationⁱ. Respiratory failure is the inability to provide O₂ and remove CO₂ at a rate that meets metabolic demands.

Acute Respiratory Failure (ARF)

- Not all patients with acute respiratory failure require intubation and mechanical ventilation.
- Any of the following interventions meet the criteria for acute respiratory failure.
 - Supplemental oxygen with a FiO₂ > 30-35% to maintain oxygenation (SpO₂ ≥ 90%)
 - Room air = FiO₂ 0.21, 2L NC 0.28, 3L NC 0.32ⁱⁱ
 - High-flow nasal cannula, vapotherm or non-rebreather mask oxygen, CPAP or BiPAP

Chronic Respiratory Failure (CRF)

- **Continuous** home oxygen or ventilator support (mechanical vent or nasal BiPAP) **or**
- Having baseline SaO₂ < 88% on room air or pCO₂ > 50 with a normal pH due to a respiratory condition

Acute on Chronic Respiratory Failure

- Chronic respiratory failure is worsening of SaO₂ and/or pCO₂ with symptoms

Documentation Caveat: ICD-10-CM does not dictate which criteria a provider must use, **BUT** auditors question clinical validation. If a patient has respiratory failure, it must be justified in the documentationⁱⁱⁱ.

Respiratory Failure Compared to Respiratory Distress:

- Respiratory insufficiency or respiratory distress is sometimes documented when the child clinically meets criteria for respiratory failure. These are lower-weighted, therefore use ***respiratory failure*** when the child meets criteria.
- In ICD-10-CM, respiratory failure is divided into: acute respiratory failure, chronic respiratory failure or acute and chronic respiratory failure.
 - Each of these divisions is subdivided into: With hypoxia, with hypercapnia or unspecified.

ⁱ <https://acdis.org/system/files/resources/35450%20Pediatric%20Respiratory%20Failure%20White%20Paper.pdf>

ⁱⁱ International Symposium on Intensive Care and Emergency Medicine. The Extended Study of Prevalence of Infection in Intensive Care (EPIC II), May 2007. www.tinyurl.com/OxygenCharts

ⁱⁱⁱ Coding Clinic, 4th Q, 2016, pp. 147-149

Note: This does not apply to children in the newborn period. There are specific documentation and coding conventions for respiratory failure in newborns.