

Inhaled Nitric Oxide

Overview

A selective pulmonary vasodilator that improves oxygenation by dilating pulmonary vessels in well-ventilated alveoli, thereby improving V/Q matching.

iNO

Indications

- Acute hypoxemic respiratory failure
- Moderate to severe ARDS
- Pulmonary arterial hypertension (PAH)
- Oxygenation Index (OI) ≥ 25

Contraindications

- Ductal-dependent CHD (R $\rightarrow$ L shunt)
- Severe LV dysfunction
- Congenital methemoglobinemia

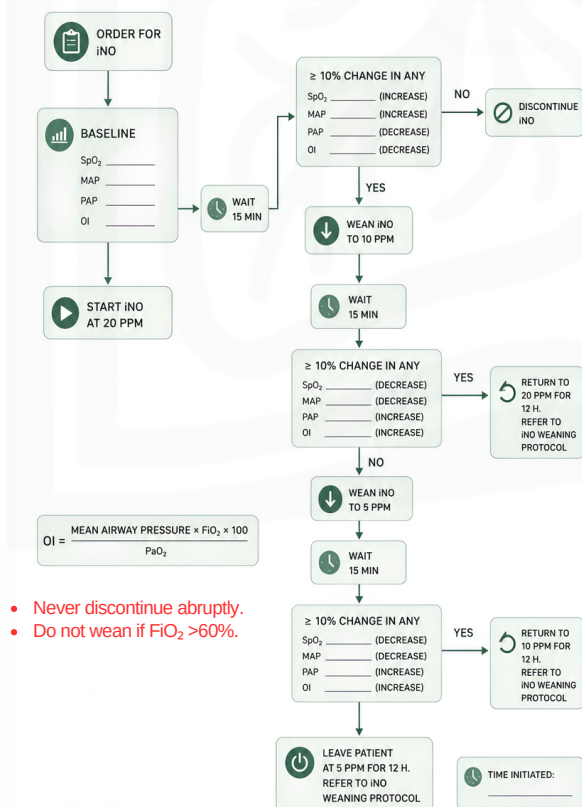
Complications

- Nitrogen dioxide (NO₂) toxicity $\rightarrow$ Lung tissue damage (keep NO₂ <2 ppm).
- Methemoglobinemia (MetHb) $\rightarrow$ Treat if MetHb >5%.
- Rebound pulmonary hypertension $\rightarrow$ Avoid abrupt discontinuation; wean gradually.
- Platelet dysfunction $\rightarrow$ Increased bleeding risk.
- Peroxyntirite formation $\rightarrow$ Cytotoxic tissue injury.
- Surfactant dysfunction $\rightarrow$ with high-dose iNO).
- Immunosuppression $\rightarrow$ Increased infection risk.
- Renal dysfunction

MOA



Initial Protocol



Weaning Protocol

