Nitric Oxide Calculator Flow Chart

Step 1 - What is the cylinder volume in L

Cylinder volume (L) = 0.18 × cylinder pressure (psi)

Do you know the oxygen/air flow?

No

Yes

Step 2 - Calculate oxygen/air

Step 3 - Now calculate iNOmax flow

iNO Calculator

***Nitric Oxide Cylinder Concentration is always 800 ppm**

$$\frac{\text{Desired dose (ppm)} \times \text{total ventilator flow (l/min)}}{\text{Cylinder concentration (ppm)}^{*} - \text{desired dose (ppm)}}$$

Step 4 - What is the cylinder duration

$$\frac{\text{Cylinder volume (L)} \div \text{iNOmax flow rate (l/min)}}{60 \text{ (mins)}}$$

For cylinder duration in minutes omit the division by 60

Consider stabilisation & transfer time

Step 2 – Total Ventilator Flow Calculations

Hamilton – Neonate = (ExpMinVol (l/min) x 2*) + 3 l/min#

Hamilton - Paediatric/Adult

≤ 8kgs IBW / ≤ 70cms height *= (ExpMinVol (l/min) x 2*) + 4 l/min#*

≥ 8kgs IBW / ≥ 70cms height *= ExpMinVol (l/min) + 4 l/min#*

Hamilton/Leoni - HiFlow = HiFlow set rate

Hamilton – CPAP/NIV = MinVol = Tidal Volume x Rate

Leoni SIMV/SIPPV = Tidal Volume x Rate

Leoni HFOV = MinVol (Flow) is always 7L/min

Leoni CPAP = MinVol (Flow) is always 12L/min

Cylinder Volume.....

Total Ventilator Gas Flow.....

iNOmax Flow.....

Cylinder Duration.....

Transfer Time.....