



HFNC:

- ↓ WOB by ↑ functional residual capacity & ↑ mucociliary clearance
- May ↓ the need for nCPAP/intubation

When to consider starting HFNC:

- Persistence of hypoxia ($SpO_2 < 90\%$)* & lack of response to low flow O_2
- Severe disease &/or signs of impending respiratory failure:
 - Lethargic and / or fatigued
 - WOB - Nasal flaring, grunting, marked recession
 - Recurrent apnoea

Settings:

- <12Kg : 2L/Kg/min
- >12 Kg : 2L/Kg/min for first 12 Kg + 0.5L/kg/min for each Kg thereafter
- Max 50L/min

How to start:

- ↑ flow to target over a few min. then reassess
- If $SpO_2 \geq 90\%$ *, start at FiO_2 21%
- If $SpO_2 < 90\%$ * start at FiO_2 50%
- Titrate FiO_2 to keep $SpO_2 \geq 90\%$ *
- NG tube to (decompress stomach), vent 4 hrly

Feeding:

- NG / OG tube feeds – wait 2hrs then max. 2/3 maintenance feeds if stable
- Continuous for first 2 hrs then 2hrly bolus
- If clinically improving, turn to low flow temporarily for trial oral feeds as tolerated, then back to previous flow setting

Weaning:

- Active weaning is encouraged once patient is stable
- Aim for at least one wean or attempt at stopping HFNC per nursing shift
- Go back to previous step if deteriorates

Oximetry:

- Stop continuous oximetry once $SpO_2 \geq 90\%$ * off O_2 for 2 hours
- Brief dips below 90%* are expected, & not a reason to start supplemental O_2

When on HFNC consider escalation of care to senior review/ICU if:

- PEWS > 8
- No improvement within 1-2 hours of starting HFNC
- $FiO_2 > 50\%$ to maintain $SpO_2 > 90\%$ *
- Persistent or recurrent apnoeas
- Lethargy or reduced consciousness
- Other risk factors such as congenital heart disease or neuromuscular disease

