

MONITORING AIRWAY PRESSURES during Nasal High Flow Therapy

BASIC SETUP

for Nasal High Flow Therapy



ESSENTIALS of Nasal High Flow Therapy

- The prong to nare ratio should be approx. 50-60% occlusion, allowing for breathing to occur around the prongs.
- Flow rate must be high enough to:
 - 1. Meet infant inspiratory demand in order to decrease WOB
 - 2. Effectively wash out the NP space to reduce dead space
 - 3. Create an expiratory back pressure that will sustain a dynamic positive pressure effect



WHY MEASURE Nasal Pharyngeal Pressures during NHF?

- By measuring NP pressures, clinicians can ACCOUNT FOR THE VARIABLES INHERENT DURING NHF
- ENSURE ADEQUATE RESPIRATORY SUPPORT during therapy by safely administering appropriately high flows
- Potentially **REDUCE THE NEED FOR MORE INVASIVE THERAPEUTIC MODALITIES** to meet inspiratory demands
- BE ALERTED TO THERAPY DISCONNECTS
- And DOCUMENT ADMINISTERED PRESSURES.



USING THE NAPA LP-15, WE CAN MEASURE MEAN AIRWAY PRESSURES DURING NHF. HOW Can Nasal Pharyngeal Pressures be measured during NHF? The NP-Cath is a very thin catheter (2.5 Fr) that is inserted a couple of centimeters into the patient's nasal passageway.

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When the NAPA-LP15 is connected to the patient via the NP-Cath, nasalpharyngeal pressures generated during NHF can be measured and monitored safely.

CASE STUDY:

- For this patient, the flow is currently set at 3L/Minute.
- Mean upper airway pressures range from negative to positive due to fluctuations during inspiratory and expiratory efforts.
- The O₂ Sat is down.
- Negative pressure dips indicate that the flow is insufficient to meet respiratory demands.



How much should we increase the flow to ensure positive pressure support?

CASE STUDY:

- The flow rate is increased from 3 to 7 L/Minute.
- As a result, the patient's mean airway pressure increases to a dynamic positive pressure, presently shown reading at 4 cm/H₂O.
- The patient's O₂ Sat is back to normal.



EVERY PATIENT IS UNIQUE.

- Flow rate
- Prong to nares ratio
- Mouth opening
- Cannula placement
- Size of infant
- And respiratory rate

All these variables create a challenging environment for clinicians trying to determine delivered pressure during NHF.



The NAPA LP-15 MEASURES the mean airway pressure during NHF Therapy...

So YOU can MANAGE it.



Get In Touch

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info@drwmedical.com www.drwmedical.com For more information about NHF variables, appropriate flow ranges, and measuring pressure during NHF Therapy, please see these additional resources.

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- Roberts, C., & Hodgson, K. (2017). Nasal high flow treatment in preterm infants. *Maternal Health, Neonatology, and Perinatology*, 3:15.
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