**How to start NIV for chest wall stiffness?** NIV initiation settings for chest wall stiffness patients: Mode **Pressure Support**

| Variable | Effect | Initial setting | Adjustment | How to monitor the setting? |
|---|---|---|---|---|
| Inspiratory Pressure / IPAP | Pressure support | 10 $cmH_2O$ | + 2 $cmH_2O$<br>Every 2 min up to the maximum tolerated | Respiratory rate<br>Patient's comfort |
| PEEP/EPAP | Counterbalance intrinsic PEEP | 4 $cmH_2O$ | + 1 $cmH_2O$<br>As long as an increase decreases the effort to start the breath | Upper airway obstruction during sleep |
| Rise time | The speed of delivery of the inspiratory phase of the breath | 3 | + 1<br>As long as the air comes too quick and creates overshoot | Synchronization: Flow overshoot |
| Inspiratory Trigger | Trigger the ventilator breath | 1 (most sensitive) | + 1<br>As long as auto trigger is present | Patients effort to trigger the ventilator<br>Synchronization: Ineffective inspiratory efforts and / or auto triggering |
| Expiratory trigger | Cessation of the breath in | 8 | ± 1<br>According to patient comfort | Synchronization: premature or late cycling |
| Min Insp Time | Ensure a minimal breath time | 0.4 s | | Asking the patient if when they make no effort to breathe if the breath in is long enough |
| Max Insp Time | End the mechanical breath if expiratory trigger fails | 2.0 s | Current time + 0.2 s | |
| Backup Rate | Ensure a minimal breaths per minute | 8 | Current rate - 4 | Asking the patient if the breaths are coming at the right speed |