



**TAKING THE COMPLEXITY OUT OF  
COMPLICATED SLEEP-DISORDERED BREATHING.**

**Titration Guide  
for BiPAP® autoSV™ Sleep Therapy System**

with Encore® Pro SmartCard®



# TITRATION PROTOCOL FOR BiPAP autoSV

Time should be invested before the titration is started to assess interface options.

Used to treat obstructive component:

$$EPAP = IPAP_{min} - CPAP$$

$$EPAP < IPAP_{min} - BiPAP$$

Switch to  
BiPAP autoSV

Acclimation Zone

Patient cannot tolerate CPAP titration due to central apnea emerging during OSA titration

Patient that demonstrates periodic breathing or central sleep apnea during diagnostic sleep study

**EPAP:** last pressure that relieved obstructive apnea  
**IPAP<sub>min</sub>:** same as EPAP  
**IPAP<sub>max</sub>:** 10 cm H<sub>2</sub>O above EPAP  
**Rate:** Auto  
**Rise time:** 2 or 3

**EPAP:** 4 cm H<sub>2</sub>O  
**IPAP<sub>min</sub>:** same as EPAP  
**IPAP<sub>max</sub>:** 10 cm H<sub>2</sub>O above EPAP  
**Rate:** Auto, **OR** if RR is less than 10 BPM, fixed rate of 10 BPM  
**Rise time:** 2 or 3

Wait 20 minutes for patient to stabilize

Titration Zone

Observe for Obstructive Apnea

If No

Observe for partial airway obstruction such as hypopnea or periodic breathing

If No

Observe for Central Apnea

If Yes

If Yes

If Yes

If No

Raise EPAP, IPAP<sub>min</sub> and IPAP<sub>max</sub> by 1 cm H<sub>2</sub>O to maintain the delta

If consistently at IPAP<sub>max</sub>, increase by 2 cm H<sub>2</sub>O.  
 If this does not eliminate the events, set fixed BPM rate to 2 less than spontaneous BPM rate.  
 Start I time at a minimum of 1.2 sec.

Set Fixed Rate to a minimum of 10 BPM or 2 below spontaneous respiratory rate.  
 Start I time: 1.2 sec.

Prescription Zone

## BiPAP autoSV Prescription

EPAP = \_\_ cm H<sub>2</sub>O

Rate = \_\_ BPM

IPAP<sub>min</sub> = \_\_ cm H<sub>2</sub>O

Rise Time = \_\_ sec

IPAP<sub>max</sub> = \_\_ cm H<sub>2</sub>O

I Time = \_\_ sec (only with fixed rate)

## CENTRAL SLEEP APNEA (CSA) IS DEFINED AS:

1. An apnea hypopnea index (AHI) greater than 5; **AND**
2. Central apneas/hypopneas greater than 50% of the total apneas/hypopneas; **AND**
3. Central apneas or hypopneas greater than or equal to 5 times per hour; **AND**
4. Symptoms of either excessive sleepiness or disrupted sleep.

## COMPLEX SLEEP APNEA (CompSA) IS DEFINED AS:

A form of central apnea specifically identified by the persistence or emergence of central apneas or hypopneas upon exposure to CPAP or an EO470 device when obstructive events have disappeared. These patients have predominately obstructive or mixed apneas during the diagnostic sleep study occurring at greater than or equal to 5 times per hour. With use of a CPAP or EO470, they show a pattern of apneas and hypopneas that meets the definition of CSA described above.

While Respironics is pleased to provide you with this Titration Guide that complements our BiPAP autoSV device, we must caution you that Respironics is not licensed to practice medicine. The protocols contained in this Titration Guide cannot be relied on as medical advice, nor should they be used as a substitute for your institution's established protocols.

The logo for Respironics, featuring a stylized white wave above the word "RESPIRONICS" in a bold, white, sans-serif font.

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