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**PURPOSE** - This titration protocol is designed a.) CONFIRM the diagnosis in patients suspected of having complex apnea, when a diagnosis has not recently been confirmed by CPAP titration study, and b.) provide specific guidelines for proceeding to ASV titration based on response to CPAP titration.

**POLICIES** - The initial portion of this titration study will be performed on CPAP to assure that CPAP alone will not be an adequate treatment for the patient’s sleep-disordered breathing. During the CPAP portion of the study, attempts will be made to adjust CPAP downward (to assure central apneas are not due to excessive CPAP pressure), or upward (if obstructive events are actually present). In patients with persistent central events or CSB, standard ASV titration will be conducted.

**PROCEDURES**

**I. Order/CMN**
   a. An order or CMN must be accompanied with H&P and previous PSG/Titrations.
   b. Hook up and preparation as per Adaptive Servo Ventilation (ASV) protocol. After lights out, patient is provided CPAP at “starting pressure” (if not designated on order, begin at 5cm).

**II. CPAP Titration will be performed first.**
   a. If central apneas are confirmed (5 in 15 minutes), reduce CPAP in 2cm increments, allowing 15 minutes at each setting.
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   c. If Cheyne Stokes breathing is confirmed, continue monitoring x 30 minutes to document the breathing pattern, then change to ASV support.
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   e. If adjustments in a or b result in elimination of disordered breathing, continue CPAP monitoring at this pressure and do not place patient on ASV.
III. Adaptive Servo Ventilation Titration
   a. Once decision is made, begin patient on initial settings as described under ASV titration policy. If EPAP pressure has not been ordered, place on EPAP min 5, EPAP max 20. If not specified otherwise, begin pressure support 2-15, max pressure 25, and set rate on auto setting.
   b. Monitor patient on these settings, and note presence or elimination of undesirable breathing pattern noted in section II.

IV. Failure to eliminate events.
   a. Follow standard protocol for ASV, and if persistent events (central, obstructive, CSB), notify physician on call.

V. ASV protocol will be followed in all other respects.