

## Awake Intubation with BiPAP in A Patient With Respiratory Distress

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## ED Calls, Scenario is:

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*"We defer airway management to you, she is becoming progressively worse and her family confirms she is a full code, surgery present and believes a surgical airway would be very technically challenging"*



- 64yo critically ill female
- PMH: CHF, pacemaker dependent, ESRD, severe scoliosis/torticollis
- Clinical Picture: lethargy, respiratory distress, hypoxia, hypercarbia, CPAP to maintain SPO2 >90 %

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## Problems, Solution, Plan

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- Needs awake intubation with spontaneous ventilation, no sedation, good topicalization
- Small nares, difficult entry into oropharynx
- Surgical airway deemed impossible
- Plan wire-guided airway exchange with pediatric bronchoscope (FOS)
- BiPAP to keep SpO2 >90%



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**Approach**



- Anesthesia facemask modified with 22mm OD bronchoscopic adaptor
- Lidocaine/oxymetazoline nebulized into BiPAP circuit with acorn nebulizer
- Nares dilated with lidocaine jelly soaked airways
- Glottis topicalized with MADgic device

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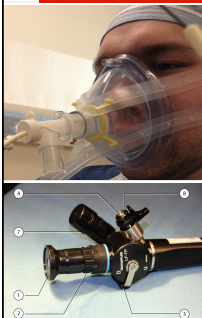
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- BiPAP maintained during bronchoscopy
- FOS passed into nares and airway
- Severe tracheomalacia noted
- Guide wire passed through FOS and into airway
- FOS removed, 14 Fr Cook airway exchange catheter passed over guide wire

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- A 6.0 cuffed ETT easily passed over the 14 Fr Cook airway exchange catheter
- Airway secured, breath sounds confirmed and EtCO2 was obtained
- Patient tolerated procedure well, SpO2 maintained throughout

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### Clinical Advantages



- Technique allows instrumentation and securing of the airway while BiPAP maintains saturation and pneumatically stents airway
- 22 mm airway adaptor allows orthogonal access to nares

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