Evidence Table

Guideline Title: Continuous Positive Airway Pressure (CPAP)/Automatic Positive Airway Pressure (APAP), and Non-invasive Ventilation (NIV)

The Royal **Children's**

Hospital Melbourne

Reference	Evidence level (I-	Key finding, outcomes or recommendations
	VII)	
Annane D, Orlikowski D, Chevret S, Chevrolet J, & Raphaël J. (2007). Nocturnal mechanical ventilation for chronic hypoventilation in patients with neuromuscular and chest wall disorders. Cochrane database of systematic reviews. Issue 4. Art No: CD001941.	II	Suggests NIV alleviates symptoms of chronic hypoventilation due to neuromuscular disease Comparison of different types of nocturnal ventilation, measuring both short-term and long-term reversal of daytime hypercapnia, improvement of lung function and sleep breathing disorders
Pierce, L. (2007). Management of the Mechanically Ventilated Patient. (2nd Ed). Mosby: St Louis.	VII	Clinical examination Troubleshooting, airway management and positioning techniques
Pilbeam, S & Cairo, J. (2006). Mechanical Ventilation: Physiological & Clinical Applications.(4th Ed). Mosby: St Louis.	VII	Identifies differences in paediatric ventilation; allowing for changes to growth and development Clinical assessment Indications and contraindications in using non-invasive mechanical ventilation Monitoring requirements
Simonds, S. (2006). Recent Advances in Respiratory Care for Neuromuscular Disease. Chest.130:1879-1886	IV	Improvements to quality of life, symptom alleviation and management Physiology
Shah, P. Ohlsson, A & Shah, J. (2008). Continuous negative extrathoracic pressure or continuous positive airway pressure for acute hypoxemic respiratory failure in children. Cochrane database of systematic reviews. Issue 1. Art No: CD003699	III	Use of NIV in the paediatric environment Clinical assessment and management
Suresh, S., Wales, P., Dakin, C., Margaret-Anne, H. and Cooper, D. (2005). Sleep-Related Breathing Disorder in Duchenne Muscular Dystrophy: Disease Spectrum in the Paediatric Population. Journal of Paediatics	V	The prevalence of SRBD in DMD is significant. Polysomnography is recommended in children with symptoms of OSA, or at the stage of becoming wheelchair-bound. In patients with the early stages of respiratory failure, assessment with polysomnography-identified sleep hypoventilation and assisted in initiating NIV.

and Child Health. Sept.41(9-10) pp500-503		
Machaalani, R., Evans, C., and Waters, A. (2016). Objective Adherence to Positive Airway Pressure Therapy in and Australian Paediatric Cohort. Sleep and Breathing. Dec. 20(4) pp1327-1336	IV	Adherence with BiLevel was greater than for CPAP. Over half of our population continue to utilise PAP therapy 1 year later, and amongst these cases, adequate adherence was maintained.
Pugalenthi et al. (2015). Compliance to Non-Invasive Continuous Positive Airway Pressure Ventilation in Children with Obstructive Sleep Apnoea. European Respiratory Journal. 46(59)	V	Objective monitoring of CPAP compliance is important in the management of children with OSA.