Local management – Oximetry

CHECKLIST for general paediatrician with respiratory interest

Organise local triage system

- Inform colleagues of Gatekeeper Role for local oximetry service
- Review indications for sleep polygraphy study
- Is patient ventilated or using technology?
- Has the patient had a previous polygraphy study to characterise breathing pattern?
- Assess whether study requested is a diagnostic or a monitoring study
- Does patient need tertiary respiratory care as well as sleep assessment – one stop referral

What can be managed locally with oximetry

- ENT referrals in patients without comorbidity can be managed with oximetry locally
- Patients with CLD prematurity on weaning strategy can be managed with local oximetry
- Patients where annual sleep assessments are part of standard of care e.g. trisomy 21
- Some stable patients on technology

Generate sleep oximetry reports for Welsh Clinical portal

- Use national generic letter template for oximetry studies

Tertiary sleep service support for local oximetry network

- Local oximetry studies can be reviewed if difficult to interpret at weekly tertiary sleep meeting in Cardiff
- Build up gatekeeper role for General paediatric with respiratory interest

All Wales Paediatric Respiratory Network

Noah's Ark
Children's Hospital for Wales
Ysbyty Plant Cymru

Sleep Studies

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Criteria for cardiorespiratory sleep service referral

The following list outlines the broad criteria for sleep study referral at the Children's Hospital for Wales, with examples illustrating the complexity of patients seen for assessment.

1. **Suspected OSA** where there is uncertainty about intervention. This would include normal children and those with co-morbidities [e.g. Trisomy 21, CHARGE syndrome, di George syndrome, Cornelia de Lange syndrome, Crouzon, Aperts and other craniofacial syndromes, cleft palate syndromes, Pierre robin sequence, Prader -Wili syndrome on growth hormone, neurodisability and cerebral palsy, complex ENT e.g. subglottic stenosis and laryngeal reconstruction]
2. **Children with chronic lung disease** to assess respiratory insufficiency (e.g. oxygen requirement, need for NIV, need for trachy ventilation) [e.g. chronic lung disease of prematurity, post PICU, congenital disease e.g. Jeune's syndrome and other thoracic insufficiency syndromes, scoliosis, lung malformation, pulmonary hypoplasia, cardiac disease, tracheobronchomalacia, interstitial lung disease, bronchiolitis obliterans, cerebral palsy, suppurative lung disease and bronchiectasis]
3. **Investigation of suspected respiratory control disorders** (including infants presenting with suspected apnoea). [e.g. acute life-threatening event in neonate, congenital central hypoventilation syndromes, Chiari malformation, Dandy walker syndrome, Joubert syndrome, complex cortical malformation syndromes, posterior fossa pathology e.g. tumour, cyst, VP shunt, pre and post neurosurgery.]
4. **Children with neurological handicap with multiple hospital admissions with respiratory exacerbations** – for assessment of hypoxia, hypoventilation and benefits of respiratory support, pre-op assessment for spinal surgery. [e.g. cerebral palsy, neurodisability of any cause]
5. **Children with progressive neuromuscular weakness** – for assessment of hypoxia, hypoventilation and benefits of respiratory support [e.g. SMA 1,2,3, congenital myopathies, myotonic dystrophy, rigid spine syndromes, Duchenne and Becker muscular dystrophy. For assessment of respiratory insufficiency, need for ventilation and in perioperative management for spinal surgery]
6. **Assessment of children prior to and immediately after removal of tracheostomy and other complex ENT airway interventions** [e.g. vocal cord palsy, subglottic reconstruction, multi-level airways obstruction, tracheostomy insertion and removal]