

## 1.15 Outcomes in at home pulse oximetry in a paediatric respiratory centre.

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**Background:** Home pulse oximetry is a first line investigation for sleep disordered breathing (SDB) in children. These studies are reliant on parental/guardians education of study technique, potentially contributing to technically inadequate, non-diagnostic studies.

**Methods:** Data was assessed from a prospectively collected database from January 2018 to July 2023 of all scheduled home oximetry in a regional paediatric respiratory centre. Data assessed included total number of studies, failure and non-attendance rates.

**Results:** Over the sample period 2,386 studies were arranged. Of these 1,573 (65.9%) were completed. In 2020, 25.3% (97/383) of all planned studies were cancelled during the COVID-19 pandemic. Studies were technically inadequate in 33.6% of all completed studies (528/1573). Rates of technical inadequacy were highest in 2020 at 38.2% of completed studies (83/217) and 2021 at 37.8% (98/259). Inadequacy rates were lowest in 2023 at 27.4% (66/241). There was no statistically significant sustained trend over the sample period.

**Conclusions:** Rates of non-attendance and technical inadequacy were significant, with the latter highest during pandemic restrictions, which may have impacted parent/guardian education. A large amount of resources could therefore be more efficiently utilised. These results will be used to inform an audit cycle with implementation of further educational resources for parents/guardians.

**Keywords:** Sleep disordered breathing, SDB, home pulse oximetry

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**Conflict of Interest:** The authors declare that they have no conflict of interest.

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