DEVELOPMENT OF AN INSTRUCTIONAL LEAFLET REGARDING ACQUISITION OF VIDEO EVIDENCE TO AID THE DIAGNOSIS OF PAEDIATRIC OBSTRUCTIVE SLEEP APNOEA

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Parental mobile phone video clips are increasingly used to aid in the clinical diagnosis of OSA. Development of an information leaflet for parents aims to improve the quality of the clips provided and the provision of these clips at clinic.

Objectives
• Untreated obstructive sleep apnoea (OSA) can have significant long-term complications for children. Many parents can accurately describe apnoeas or sleep disordered breathing behaviour but a significant number are unable to provide a clear description, or are unsure.
• Simple overnight pulse oximetry has comparatively low sensitivity making it unreliable as a confirmatory.
• The use of formal polysomnography has significant cost implications and may cause significant delays in treatment.

Method
• For otherwise healthy children where the history for obstructive sleep apnoea (OSA) was unclear, we asked parents to provide short video clips of potential apnoea episodes to help secure a diagnosis and reduce the requirement for further investigations (n=21).
• Children with significant obstruction were listed for surgery, with concerning cases undergoing polysomnography to guide perioperative care.
• Post-operative improvements in T14 scores were then assessed in these children.

Results (n=21)

• In 14 patients, the provision of a parental video clip secured the otherwise unclear diagnosis of OSA and obviated the requirement for further investigation.
• In 4 patients the video clarified that the child had no significant sleep disordered breathing.
• In 3 cases, factors seen in the video necessitated respiratory studies prior to surgery.
• T14 scores showed significant improvement in total and obstructive symptoms, indicating successful patient selection.
• To improve the effectiveness of the videos and reduce repeat clinic attendances we developed an information leaflet advising on acquisition of the footage.

Conclusions
The development of a pre-appointment information leaflet has helped ensure that suitable recordings are brought to the first appointment where a definitive management plan can be made. In our unit, parents are now able to upload their recordings to their online clinical record in advance of the clinic appointment. We aim to audit the provision of video clips before and after introduction of the leaflet to ascertain whether it has provided clinical benefit.

Cost saving vs PSG = 18 x £800 = £14,400

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