473881 - PEDIATRIC PERIOPERATIVE SCREENING FOR SLEEP APNEA PRIOR TO ADENOTONSILLECTOMY

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Introduction: Adenotonsillectomy (T&A) is a common out-patient surgery in children associated with Obstructive Sleep Apnea (OSA) and postoperative respiratory complications. Recent ASA guidelines for the perioperative management of patients with OSA suggest using clinical scores to identify patients at risk for OSA [1]. The applicability of these guidelines to children undergoing T&A is not clear. Our objectives were to describe the awareness and implementation of these guidelines to predict the need for postoperative admission in children undergoing T&A.

Methods: After ethics approval a survey was distributed to members attending the Pediatric Anesthesia Conference at the Toronto Hospital for Sick Children in November 2007. In addition to demographic data, the survey asked questions concerning the awareness and implementation of the ASA and similar guidelines to manage children undergoing T&A. Questions included specific reference to useful literature and clinical signs, symptoms and lab values important to predict the need for postoperative admission. Availability of preoperative screening PSG and overnight pulse oximetry (OPO) was gathered. Reliability and content validity were accounted for in the survey.

Results: 100 completed surveys (54% response rate) were returned. The median year of anesthesia residency completion was 1994, 80% of the respondents practiced in free standing pediatric or tertiary level centers and on average 75 % of their practice was related to pediatrics. The majority of respondents (74%) were aware of the ASA guidelines, 68% implemented them and 44% used additional guidelines/clinical scores. Only 11% of respondents denied using any type of guideline or scoring system. Interest to develop pediatric clinical scoring systems to substitute for PSG is displayed in Table 1. The respondents indicated that perioperative apnea/oxygen desaturation (28%), the presence of co-morbid illnesses (22%) and age (15%) were the parameters most likely to influence consideration for postoperative admission when PSG and OPO were unavailable. The majority (66%) felt that intraoperative information could be used to help predict the need for postoperative admission. Availability of PSG and OPO was reported by 34% and 36% of the respondents respectively.

Discussion: The ASA practice guidelines for OSA are familiar to pediatric anesthesiologists. Reluctance to adopt the guidelines outright may reflect their lack of validation and the potential for falsely elevated perioperative risk in children undergoing T&A. Also, there is little consensus on whom to test (for OSA) and how to apply the results in the perioperative management decision making processes [2-4]. Objective OSA diagnosis is limited by available PSG services. Our survey results indicate a need to validate clinical scores to substitute for PSG and predict the need for postoperative admission in children undergoing T&A. Parameters for the latter may include age, perceived apnea/oxygen desaturation, co-morbid illnesses and intraoperative information.

References: [1] Anesth 2006;104:1081-9. [2] Arch Otolaryngol Head Neck Surg. 2007; 133: 216-22 [3] Pediatrics. 2004; 114: 33-43 [4] Anesth Analg. 2006; 103:1115-21

Perceived need to validate clinical scores

	Strongly agree N (%)	Agree N (%)	Neutral N (%)	Disagree N (%)	Str0ngly Disagree N (%)
Need to validate clinical score to substitute for PSG?	43(43)	41(41)	10(10)	4(4)	2(2)
Need to validate clinical score to predict postoperative admission?	59(59)	30(30)	9(9)	2(2)	0(0)