Oh No! How Long Have They Been NPO?

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Aspiration is a serious and potentially preventable complication of anesthesia (1,2). Thus, preoperative fasting, or being NPO (nil per os), is a mainstay of attempts to minimize this risk. In elective anesthetics in children, patients and caregivers receive instructions about pre-operative fasting from many different sources. Despite these instructions, anesthesiologists notice that patients seem to fast for longer than ASA guidelines (3) require. This results in often cranky and sometimes dehydrated children. We wish to better understand how caregivers make decisions regarding pre-operative fasting. Our primary objective was to determine if children truly fast for longer than required, and our secondary objective was to determine the reason(s) why.

We administered an RSRB approved survey to caregivers of pediatric patients undergoing elective procedures at our Pediatric Surgical Suite. This survey addressed our primary and secondary outcomes, collected patients’ ages, source(s) of their pre-operative instructions, and the time of day they were instructed to arrive. Survey answers were managed in the Research Electronic Data Capture (REDCap) tool hosted by University of Rochester.

We collected 347 surveys from caregivers of patients ages 1mo-18yrs. Overall, 88% of patients were found to be NPO for food longer than 8hrs before arrival, and 85% were NPO for clears longer than 3hrs. Patients who arrived before 0800 were NPO for both food and clears for longer than instructed more often than those who were told to arrive after 0800, but the greatest difference was with clears (P<0.01 and P<0.005, respectively). Patients who arrived before 1000 were also NPO for clears for longer than those who arrived after 1000 (P<0.0001). There was no difference between younger (ages 1-5yrs) and older (ages 5-18yrs) children with regard to NPO for solid foods (p=0.31) or clears (p=0.74).

We next sought to determine why patients fasted for so long. Caregivers report NPO instruction for food to be 8hrs, matching ASA guidelines. However, NPO instructions for clears were longer than 3hrs (average 5.5hrs) before their arrival (P<0.0001). In addition, many caregivers (72%) report that “eating/drinking did not fit into my child’s schedule, (s/he was asleep)” as the reason a child was NPO longer than required.

Extended pre-operative fasting is a source of discomfort, and dehydrated infants and children are at increased risk for difficult IV placement and hypotension at induction. At our academic center, pediatric patients are often NPO longer than required. Two reasons for this are caregivers receiving instructions to keep children NPO for clears longer than needed, and caregivers not wanting to
disturb usual sleep schedules. We will use this information to improve communication with caregivers and those instructing them to improve the comfort and safety of our patients.

References

