Deviations in Preoperative Fasting Guidelines in Children

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Results and Discussion

The children were 10 days to 20 years old (median six years, mean±SD 6.87±4.98 years), with body weight ranging from three to 135 kg (median 21 kg, mean±SD 28.43±20.15 kg). Preoperative fasting times ranged from two to 28 hours (median 11 hours, mean±SD 10.26±4.51 hours) and the median deviation from the recommended preoperative fasting time was six hours (range -2 to 17 hours, mean±SD 5.86±3.61 hours). Both age and body weight were positively correlated with both fasting duration (Figure 1) and deviation from the recommendations (Figure 2)(P<0.01 for all Pearson's and Spearman's correlation coefficients ranging from 0.134-0.248).

There were significant differences between median fasting times and deviations from the recommendations between different hospital departments, with pulmonology and intensive care units having the shortest median fasting time and the smallest median deviation, while urology and gastroenterology were on the opposite side of the spectrum (Kruskal-Wallis, both P<0.001). The same was true for the ASA groups: ASA III children had the smallest and ASA I children had the largest median values for both fasting time and deviation from the recommendations (Figure 3)(Kruskal-Wallis, both P<0.001). As expected, the median fasting time as well as the median deviation from the recommendations were significantly lower in children with urgent operations when compared to children with elective operations (Figure 4)(Mann-Whitney, both P=0.007).

Conclusion

The prolonged fasting time in our hospital could be attributed to several factors. In order to reduce the deviations from fasting guidelines, anaesthesiologists need to improve their communication with the ward staff, as well as the organization of preanaesthetic visits.