

Does improving parental education improve cancellation due to NPO?

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Background

- Fasting before surgery is necessary to decrease the risk of aspiration in pediatric patients undergoing general anesthesia.
- Non-compliance with preoperative fasting guidelines can lead to delays or cancellation of surgery, which can have negative economic and emotional implications for the patient and their families.
- We evaluated rates of case cancellations and delays related to *nil per os* (NPO) violations before and after an educational effort at our institution.

Methods

- This study was exempt from Institutional Review Board approval as a quality assurance project.
- We evaluated delays and cancellations related to NPO at all anesthetizing locations in our institution in January-October 2016 to establish pre-intervention rate.
- Beginning late 2016, we distributed a new NPO infographic educational tool in the hospital and the community, and worked to revise nursing education related to NPO.
- We repeated analysis for January-October 2017 to determine whether delays and cancellations due to NPO were reduced.

Results

- 42,314 total cases in January-October 2016
 - 175 (0.41%) cancelled due to NPO
 - 113 (0.27%) delayed due to NPO
- 47,307 total cases in January-October 2017
 - 184 (0.39%) cancelled due to NPO
 - 133 (0.28%) delayed due to NPO
- Overall cancellation and delay rates due to NPO did not significantly decrease in 2017.
- NPO-related cancellations decreased in off-site procedural locations other than the dental clinic (from 0.61% to 0.25%, $p=0.002$).

Table. Rate of cancellations and delays due to NPO according to location between January-October 2016 and January-October 2017

Location	Cancellation N (%)			Delays N (%)			Total Cases N	
	2016	2017	P	2016	2017	P	2016	2017
Main operating rooms	75 (0.33%)	91 (0.38%)	0.311	77 (0.33%)	88 (0.37%)	0.531	23,025	23,868
Ambulatory surgery centers	38 (0.33%)	50 (0.42%)	0.305	21 (0.18%)	29 (0.24%)	0.347	11,369	12,006
Dental clinic	35 (0.99%)	23 (0.65%)	0.106	0 (0%)	0 (0%)	-	3,526	3,558
Other procedural locations	27 (0.61%)	20 (0.25%)	0.002	15 (0.34%)	16 (0.20%)	0.144	4,394	7,875

Conclusion

- Non-compliance with fasting guidelines remains a huge burden to the pediatric anesthesiologist and to patients and their families.
- We strive to educate not only our families, but also our health care team to provide the most accurate information related to NPO guidelines, to avoid unforeseen delays and cancellations.
- Our next steps are to make sure families are truly receiving, viewing, and understanding our educational materials.
- Although our numbers do not reflect improvement, our 2016 compliance to documentation for reasons of cancellation and delay was decreased.

References

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