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## Background

The Anesthesia Preoperative Evaluation Clinic (APEC) accomplishes several goals<sup>1,2</sup>:

- patient optimization before surgery
- risk stratification
- maximal utilization of resources
- team communication and collaboration

The significant role of the Anesthesia Preoperative Evaluation Clinic (APEC) is evident<sup>3,4</sup>:

- by the reduction in surgical cancellations the cost reduction
- opportunities for clinical research and quality assurance.
- Shortening of the timeframe of the visits

All these factors eventually lead to cost reduction.<sup>5,6</sup> In this investigation, we present the results of a practice monitoring in the Memorial Hermann Hospital TMC-Houston from May 2008 to March 2014.

## Methods

- The Memorial Hermann Hospital TMC-Houston APEC evaluates preoperatively the adult and pediatric population of the day surgery unit (DSU).
- Patients are assessed either in Clinic or by phone assessment.
- A continuous monitoring of cancellations- database exists since May 2008. A medical director was assigned in June 2008 and nurse phone triage was initiated in March 2012.
- Classification of the patients according to reason of cancellation based on existing literature<sup>7</sup> and ASA status started in April 2013.
- Primary endpoint was to report the cancellation rate according to the type of assessment.
- Secondary endpoints were the rate of cancellation according to specific reasons and the waiting times.
- Descriptive statistics and one-way ANOVA with Turkey's analysis was performed.

### Categories of surgery cancellations<sup>7</sup>

1	Patient/System error
2	Misadventure
3	Clinical deterioration between APEC and surgery
4	Clinical disagreement
5	Undetermined

## Results

- From May 2008 to June 2014, 38108 adult patients that attended the DSU of Memorial Hermann Hospital TMC-Houston were recruited on the study.
- Preoperative assessment was performed in the clinic and by phone in 46.68% and 32.61% of the patients respectively, whereas no assessment was performed in 20.33%. Overall Cancellation Rate in our cohort was 3.33%. Data stratification showed that clinic, phone and no assessment were correlated with 27.08% 27.77% and 45.19% cancellation rates respectively.
- Further, analysis of data showed differences in cause related cancellations between the assessment groups (Figure 1).
- Time spent in the clinic and waiting time were stable for the study period with a mean equal to 133.62 minutes (SD=45, 24) and 67.6 minutes (SD=47) accordingly.

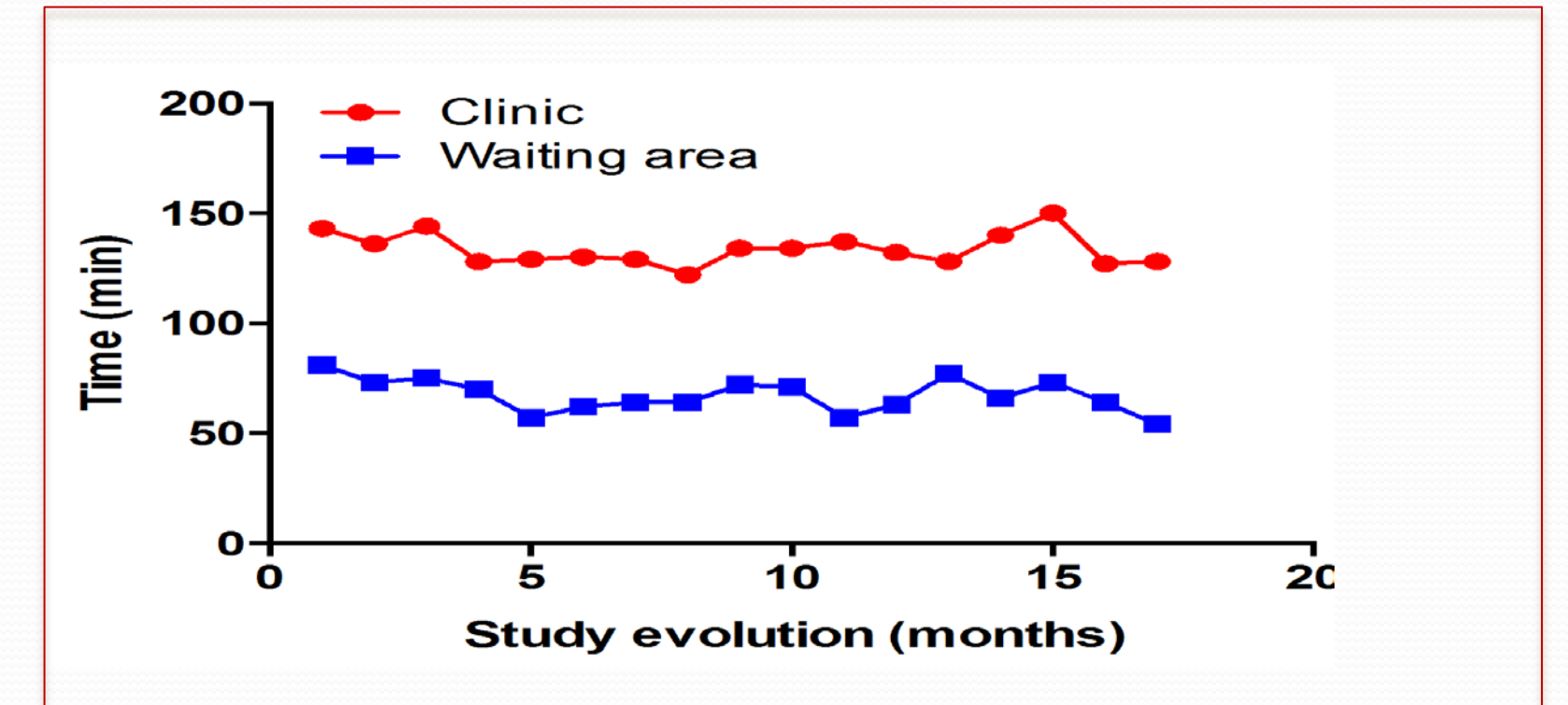


Fig. 2: Graph demonstrates time spend in the clinic (red line) and waiting area (blue line) during preoperative assessment.

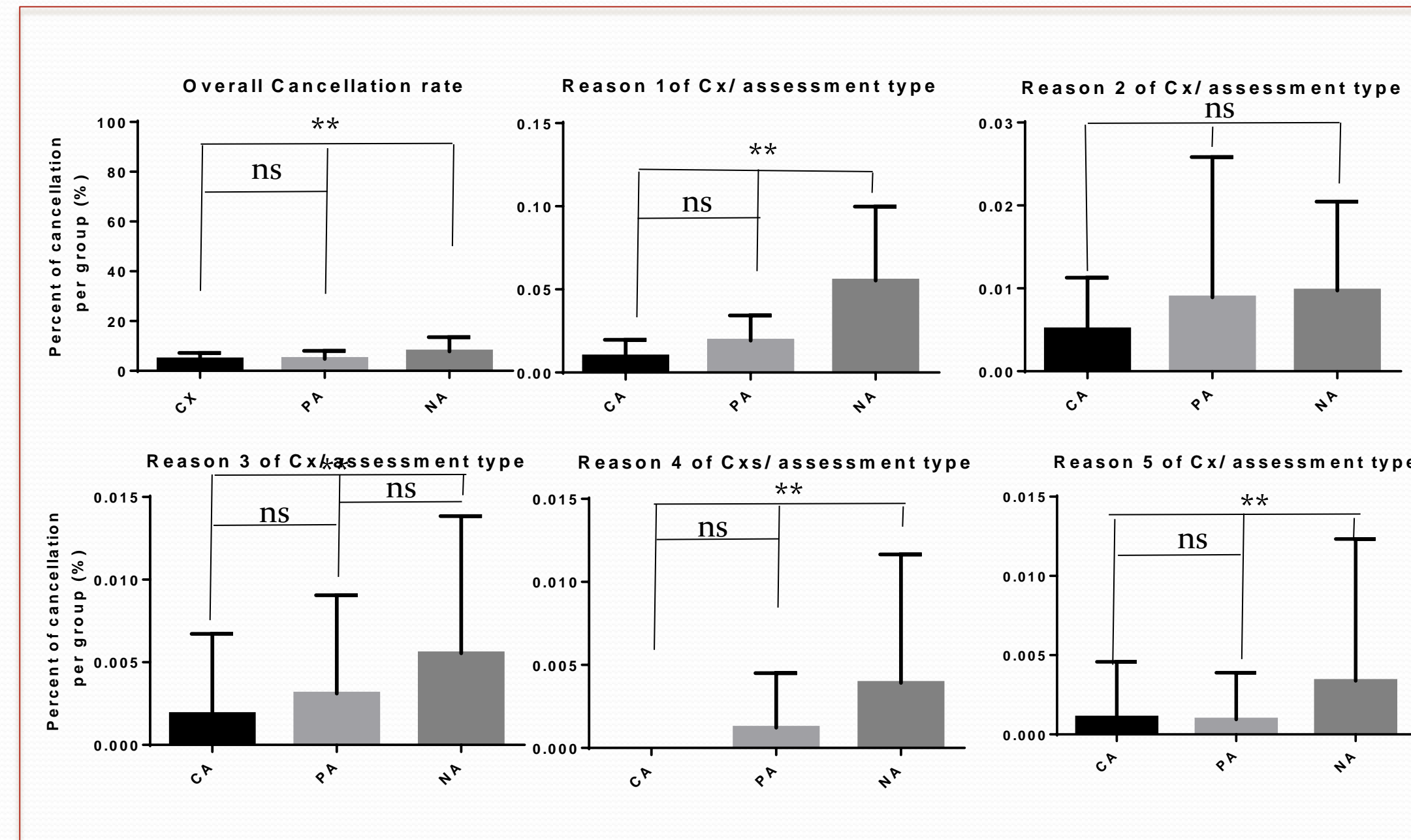


Fig. 1: Overall and cause specific cancellation per preoperative assessment group.

## Conclusions

- Preoperative assessment significantly reduces overall cancellation rates.
- Anesthesia-related reasons for surgery cancellation constitute a small percentage of total cancellations and continue to dramatically decrease.
- This highlights the significance of preoperative assessment in the clinic.

## References

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