

### Introduction:

- This is phase II of QI project on PONV prevention that was initiated at our institution in response to increased number of unplanned postoperative admissions and prolonged PACU stay due to PONV
- During phase I, intraoperative administration of antiemetic medications to high risk patients for PONV had been evaluated
  - It was concluded that appropriate antiemetic prophylaxis were not administered to these patients
  - Guideline for PONV prophylaxis was implemented on February of 2017

### Global Aim:

- Eliminate unplanned admission and prolonged PACU stay due to PONV

### Smart Aim:

- Decrease unplanned admission and prolonged PACU stay due to PONV by 50% and 25% respectively for a 6-month period

### Key Drivers:

- Provide knowledge and encourage providers in adhering with evidence-based accepted PONV guideline for high risk patients and surgical procedures

### Interventions:

- Measure compliance to the implemented PONV prophylaxis guideline for 7 months
- Focus on high risk surgeries for PONV: adenoidectomy, tonsillectomy, tympanoplasty, inguinal hernia repair, and orchiopexy.
- Record and compare the number of unplanned admissions due to PONV before and after the implementation of the guideline
- Record and compare PACU recovery times for all the high risk PONV groups before and after the implementation of the guideline

### Compliance Results:

- From February 2017 through August 2017, compliance to PONV prophylaxis guideline was 95% (1502 out of 1581 patients) (Table 1).
- The compliance was lower for those patients who underwent inguinal hernia repair and orchiopexy (Table 2)
- Average recovery times decreased by 20% for 7-month study period after the implementation of the guideline (Figure 3).

**Table 1. Percent compliance with PONV Guideline per month.**

Month	# of Patients	# with PONV meds in OR	Percent Compliant
February-17	229	216	94%
March-17	235	220	94%
April-17	201	194	97%
May-17	214	203	95%
June-17	273	256	94%
July-17	257	247	96%
August-17	172	166	97%
Grand Total	1,581	1,502	95%

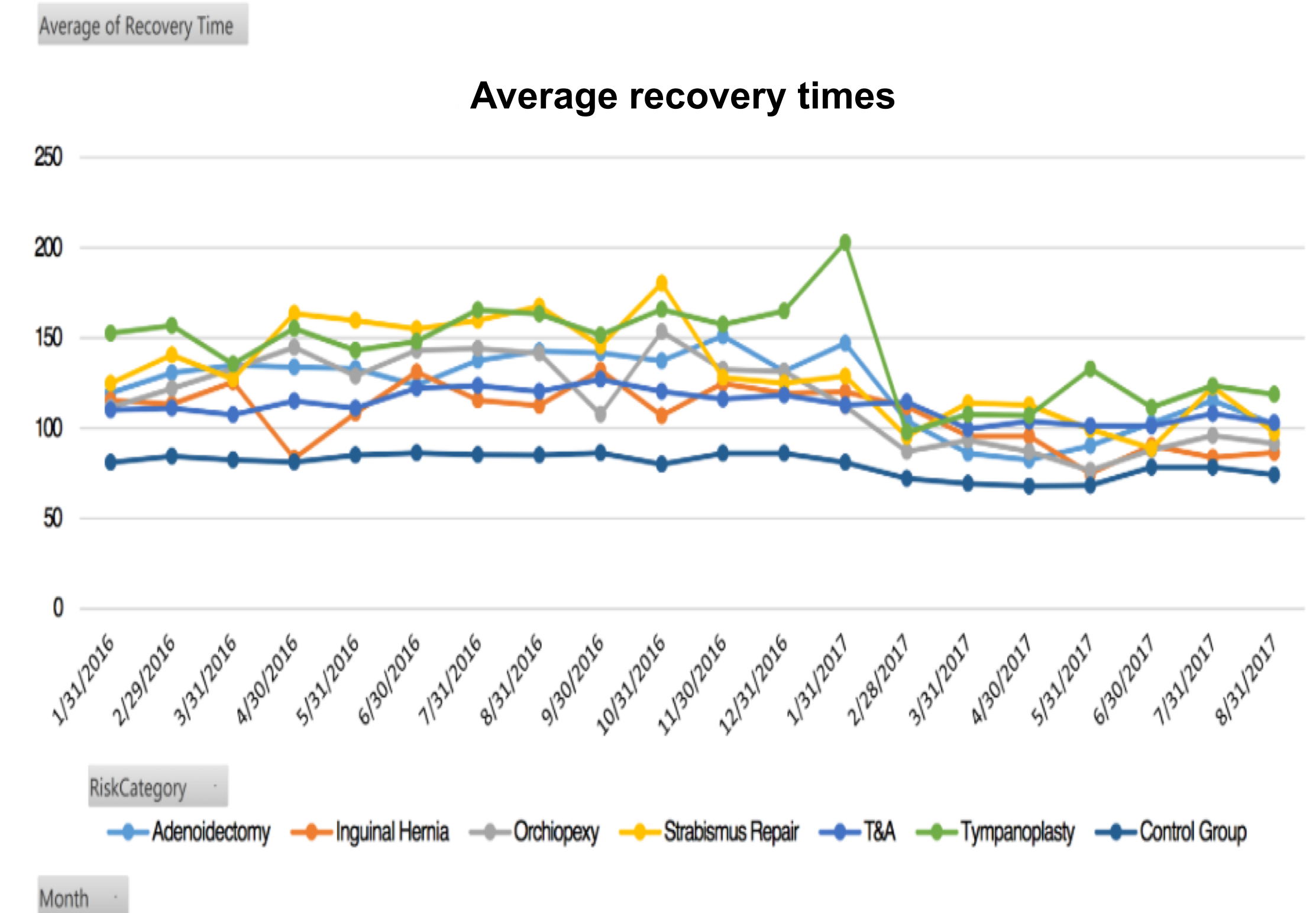
**Table 2. Percent compliance to the guideline by surgery type**

Procedure Category	# of Patients	# with PONV meds in OR	Percent Compliant
Adenoidectomy	410	397	97%
Inguinal Hernia	157	126	80%
Orchiopexy	112	82	73%
Strabismus Repair	115	113	98%
T&A	705	702	100%
Tympanoplasty	82	82	100%
Grand Total	1,581	1,502	95%

### Discussion:

- We have observed reduced number of unplanned admissions due to PONV after implementation of the PONV guideline by more than 50% (only one patient had an unplanned admission due to PONV during the 7 month time period)
- There was a 20% decrease in average recovery times observed as well (Figure 3).

**Figure 3.**



### Recommendations:

- Compliance needs to be improved for patients undergoing inguinal hernia repair and orchiopexy.