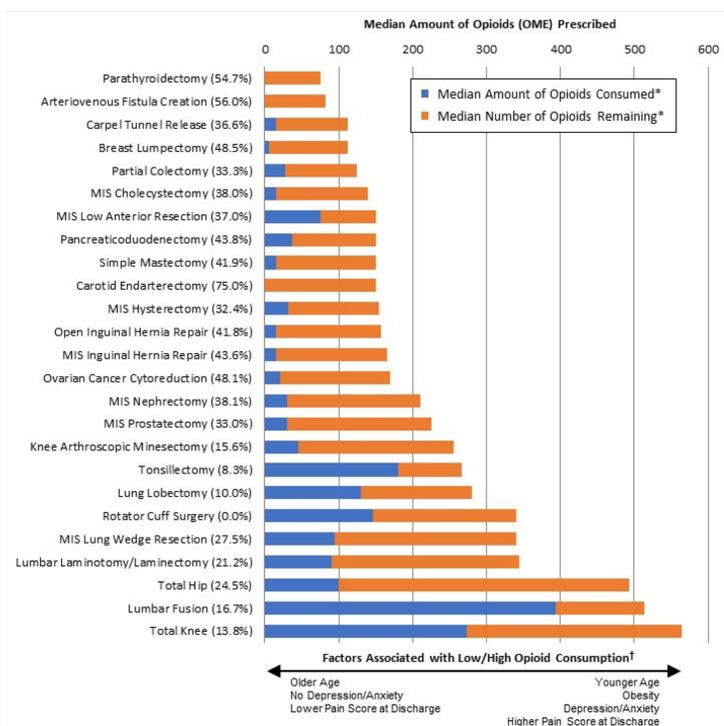


Background & Introduction

- In the setting of the growing national opioid epidemic, Thomas Jefferson University Hospital (TJUH) instituted a new hospital-wide policy on opioid prescribing in August, 2018.
- The policy instituted a new notification system within the electronic medical record (EMR), which would alert prescribers when they were placing orders for large doses of opioids.
- The policy was intended to reduce unnecessary or excessive opioid prescriptions and shape better pain management practices across the hospital.
- 42%-71% of all opioid prescriptions go unused by patients^{1,2}



*Data reported at time of survey (mean 27.6 ± 4.1 days after discharge) and includes 10.4% patients still taking opioids at time of survey. Mean number of days patients reported taking opioids after surgery was 5.4±6.0 (range 2.1 to 12.0 by procedure) days.
*Factors associated with bottom and top quartile opioid use within each procedure (p<0.05). Sex, race, cancer diagnosis and prolonged length of stay (defined at top quartile within each procedure) were not associated with opioid consumption (p>0.05).

Figure reproduced from: Thiels C, Ubl D, Yost K, Dowdy S, Mabry T, Gazelka H, Cima R, Habermann E. Significant Numbers of Patients Require No Opioids After Discharge: Results of a Prospective Multicenter Initiative Aimed at Developing Opioid Prescribing Guidelines for 25 Elective Surgeries. *American Surgical Association 2018 Annual Meeting*.

Objectives & Hypothesis

Objectives: The purpose of this study was to determine whether changes in hospital policy can effectively reduce the quantity of opioids prescribed as well as the final amount of opioids that patients use within TJUH's Otolaryngology - Head and Neck Surgery department.

Hypothesis: A hospital-wide EMR-based notification intervention will not be sufficient to change prescribing behaviors.

Methods

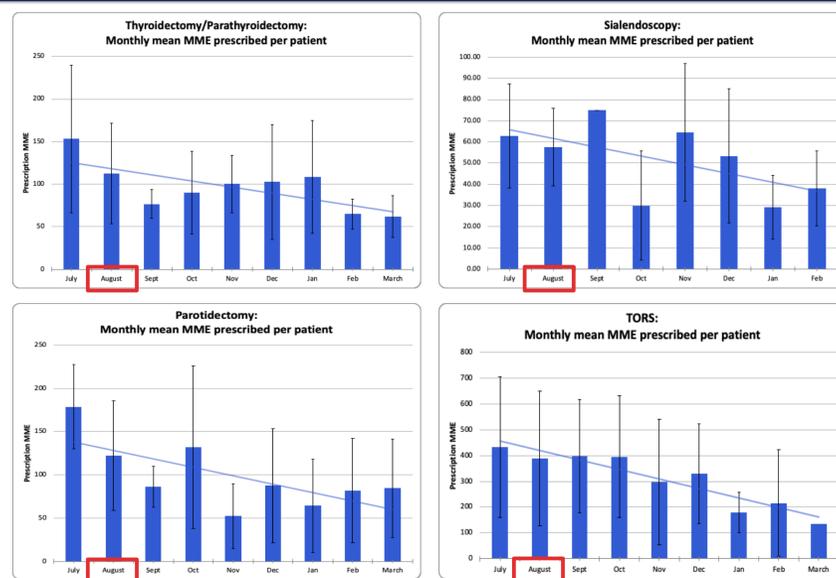
- Prospective data on opioid use in patients (n= 169) who underwent either a thyroidectomy or parathyroidectomy, a parotidectomy, a sialendoscopy, or transoral robotic surgery (TORS) was collected via patient surveys before and after the institutional policy change.

Table 1

Surgery	Number of Patients Before Policy Change	Number of Patients After Policy Change
Thyroidectomy/ Parathyroidectomy	7	38
Parotidectomy	14	26
Sialendoscopy	8	23
TORS	9	12

- Electronic medical records (EMR) were used to collect data including patient demographics, comorbid medical conditions, surgical attending, and tobacco use.
- Primary outcomes measured were the amount of opioid medication prescribed by providers and the amount of opioid medication taken by patients.
- Both outcomes were assessed in patients pre and post policy change, and were measured in morphine milligram equivalents (MME) to standardize across medications.
- Pre and post MME prescriptions and usage were compared within same-surgery groups.
- This study is limited in that we cannot fully distinguish between behavior change related to the institutional-wide policy change versus heightened awareness due to departmental-wide opioid research.

Results



- Across all four surgery groups, there was a decrease in the average quantity of MME prescribed per patient. There was also a decrease in the quantity of MME used by patients among three surgery groups.

Results (cont.)

Table 2

	Pre 8/28 Policy Change		Post 8/28 Policy Change		p-value
	Mean % of Prescription Unused	sd	Mean % of Prescription Unused	sd	
Thyroid/ Parathyroid- ectomy	83.81%	19.14%	68.77%	33.09%	0.14
Parotidect- omy	67.32%	30.44%	52.26%	39.28%	0.20
Sialendo- scopy	66.46%	36.58%	68.47%	34.73%	0.90
TORS	27.58%	36.74%	40.58%	37.53%	0.46

- There was no significant difference in the average unused percent of total prescribed MME before and after the policy change.

Conclusions

- This data supports that within the TJUH Otolaryngology - Head and Neck Surgery department, a policy on opioid prescribing practices was effective in reducing MME prescribed to and used by patients.
- The percent of MME that is unused remains constant, indicating that patient's usage is relative to the amount prescribed.
- Lower prescribed doses will likely result in decreased opioid usage by patients, or by the same principal, patients will use larger quantities when they are prescribed more.
- These findings illustrate a method to incite departmental behavioral change in a cost-effective manner (i.e. without a large budget/extensive resources).

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Acknowledgements

We would like to acknowledge and thank the Jefferson Otolaryngology-Head & Neck surgery department and staff for their participation in and support of this project.