Residents as key effectors of change in improving opioid prescribing behavior

Purpose
Reduction of opioid over prescription has become a common quality improvement target. Many of these prescriptions are written by housestaff, with education on best practices typically coming in an ad hoc, peer to peer setting. We aimed to reduce opioid overprescribing after common general surgical operations through a resident led quality improvement project that involved formal educational interventions and feedback on prescribing habits.

Methods
An interdisciplinary team consisting of surgical residents, faculty, anesthesiologists, pharmacists, advanced practice providers, and health informaticians, was formed to identify how current prescribing habits differed from best practices, and to identify the educational needs to bridge this gap. We then focused on multiple educational interventions, including department-wide grand rounds, case-based conferences with residents, and a dedicated didactic session on opioid prescribing. Feedback reports of opioid prescribing habits of the residents were developed. Residents' attitudes toward opioid prescribing was assessed using an anonymous survey before and after our interventions. We asked how many pills of Norco one would prescribe following discharge after laparoscopic cholecystectomy (LC), laparoscopic appendectomy (LA), inguinal hernia repair (IHR), thyroidectomy and parathyroidectomy (T/PT), and rectal exam under anesthesia (EUA). All metrics of opioid prescribing were converted to total milligrams of oral morphine equivalents (OME). Optimization of discharge instructions and order sets was performed, with key changes driven by the residents.

Results
After our educational intervention, residents' impression of the appropriate number of opioid pills necessary after common general surgical operations decreased, as measured by surveys pre and post intervention (Table 1). Early data regarding actual opioid prescribing behavior, has shown significant discrepancy from the survey responses, but do show some decrease in opioid prescribing for certain operations (Table 1)

Conclusions
Opioid prescribing is an ideal target for resident led education and quality improvement. Residents' attitudes towards appropriate opioid prescribing tends to differ from actual prescribing habits. Early data (<1 month post intervention) have not shown significant changes in prescribing habits, but we are continuing educational efforts structured around feedback reports.

Operation	**Survey Responses**			**Actual Prescriptions**		
	Pre	*Post*	*p-value*	*Pre*	*Post*	*p-value*
LC	84	62	0.002	163	94	0.13
LA	69	51	0.003	123	123	1.0
IHR	85	58	0.002	120	89	0.17
T/PT	62	30	<0.001	68	28	0.003
EUA	72	37	<0.001	117	127	0.78

Table 1. Comparison of survey responses of residents regarding total number of opioids required after selected operations vs actual prescribing habits pre and post educational intervention, converted to milligrams of oral morphine equivalent (OME).