Introduction

Routine clinical charts may poorly represent incidences of common comorbidities such as post-operative nausea and vomiting. Interest in quality improvement for PONV led to the realization that it was rarely documented and effectively unmeasured. Discussions with nursing teams revealed that documentation was difficult within the electronic medical record (EMR) with fragmented sections under multiple parameters or unstructured free text. This QI initiative sought to create a streamlined, simpler EMR documentation tool, and then validate its utility.

Methods

In collaboration with nursing staff and anesthesiologists, a change to the EMR was implemented. PONV documentation was elevated to the home screen of the PACU layout of the EMR as shown in Figure 1. Information about the patient’s PONV event was put into one form as shown in Figure 2 where as before the data was recorded in multiple sections within the EMR. Using the data of all operative patients at Saint Louis Children’s Hospital that subsequently went to the PACU from November 2015 until October 2016, documented diagnoses and treatments of PONV were averaged before and after the change in the EMR documentation in April 2016. Treatments were defined as patients receiving rescue medications of ondansetron, metoclopramide, diphenhydramine, and promethazine. The pre-EMR change diagnosis was defined by the emesis description documented by nurses. The post-EMR change diagnosis was defined by the emesis score and amount which would indicate a patient had some symptom or amount of nausea/vomiting.

Results

In the 5 months prior to the EMR change, PONV as diagnosed based on emesis description was documented in an average of 19.8 patients per month. Rescue PONV medication was administered in an average of 63.6 patients per month. After the EMR change, when diagnosing and treating PONV with the new parameter of emesis amount, PONV was documented in an average of 34.1 patients and treated in an average of 17.1 patients. PONV was diagnosed in an average of 28.7 patients and treated in an average of 16 patients when diagnosing and treating PONV based on the new parameter post-op nausea.

Discussion

Before our EMR change, we were treating on average more than 3 times the patients for PONV than we were documenting with the diagnosis of PONV. With the change in our EMR easing the documentation of PONV for our PACU nurses, when using the new parameters in our PONV documentation, we were documenting PONV in more patients than those receiving medication.

Conclusions

We are documenting more patients with emesis and post-op nausea than treating with rescue medication after the EMR change. This implies correctly that not all patients with some degree of PONV need rescue medication.