Title: Feasibility of Implementation of an Emergency Department Discharge Opioid Taper Protocol

Introduction: In 2016, over 4700 people died from opioid overdose in Pennsylvania. To reduce the risk of adverse outcomes from opioid use, ACEP clinical guidelines state that opioid prescriptions at discharge should be for the lowest practical dose for less than one week. Prescribers should also consider the patients’ risk factors for harmful use of these medications. In this quality improvement project initiated in August 2018, our emergency department (ED) implemented single-click, tapered opioid discharge prescription orders in the electronic ordering system. While most emergency providers are cognizant of reducing overall number of opioids at discharge, the use of specific discharge opioid tapering protocols warrants further investigation.

Methodology: The hospital opioid stewardship committee and the electronic medical record (EMR) team developed new single-click orders for three ED opioid tapers: hydrocodone/acetaminophen, oxycodone, and oxycodone/acetaminophen. Each includes a prescription for seven 5-mg pills with instructions for tapered use over three days: 1 pill every 6 hours on day one, 1 pill every 12 hours on day two, and 1 pill on day three. Education was then provided on these orders to residents, advance practice clinicians, and attendings. The use of tapers within the EMR was tracked via a data analytics dashboard to determine the percentage of opioid discharge prescriptions utilizing the tapers from August 2018- March 2019. Also, average morphine milligram equivalent doses (MMED) for ED providers were tracked, with a goal of maintaining average MMED per discharge prescription under 50 for all providers taken together.

Results: In July 2018, 0% of 493 total ED discharge opioid prescriptions utilized a taper, and the average MMED for ED providers was 34.67. After implementation, average MMED per discharge prescription remained under the goal of 50 MMED: 37.94. The percentage of opioid prescriptions that utilized the taper and average MMED for all ED providers by month were as follows: August 2018: 51/474=10.76% (MMED=38.5); September 2018: 138/388=35.57% (MMED=37.02); October 2018: 129/387=33.33% (MMED=37.84); November 2018: 121/372=32.53% (MMED=36.53); December 2018: 136/362=37.57% (MMED=38.66); January 2019: 174/387=44.96% (MMED=41.86); February 2019: 158/354=44.63% (MMED=37.82); March 2019: 146/353=41.36% (MMED=35.30).

Conclusion: We conclude that implementing three different opioid 3-day/7-tablet taper options is feasible and increased the frequency of ED discharge opioid prescriptions that utilized a tapering dose. This change may improve patient safety by decreasing the risk of adverse outcomes related to opioid use, and it ensures discharge prescriptions are less than 50 MMED, as mandated by many commercial pharmacies for acute opioid prescribing.