Oral Defense Announcement
University of Missouri – St. Louis Graduate School
An oral examination in defense of the dissertation for the degree
Doctor of Nursing Practice with an emphasis in Family Nurse Practitioner

Ashleigh Hunkins

B.S. Exercise Science, Truman State University, 2013
B.S. Nursing, Goldfarb School of Nursing, 2014

Post-Cesarean Section Pain Management Using a Prebuilt Computerized Order Entry Set

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Place: Remote

Abstract
Problem
Electronic medical records (EMR) have helped to decrease common medication errors. Although, prescribing errors are still elevated. Creating pre-built order sets can decrease medication errors in the post-operative period for postcesarean section women.

Methods
This quality improvement project used an evidence-based approach to create new order sets following the current post-cesarean pain management guidelines. Order sets were implemented as a saved computerized provider order entry (CPOE) option in the EMR. All women undergoing a cesarean section from January 15, 2021 through April 14, 2021 received the new order sets. A retrospective data review was conducted to view the duplicate medication errors pre and post-implementation between the dates of October 15, 2021 and April 14, 2021.

Results
Before implementation of the new order sets, there were 239 cesarean deliveries and eight errors reported (72.73%) via Safety and Environmental Management Systems (SEMS) reports and 45 errors (64.29%) reported via pharmacy intervention reports. After implementation of the new order sets, there were 281 cesarean deliveries and reported errors via both SEMS reports and pharmacy intervention reports were decreased to 3 (27.27%) and 25 (35.71%) respectfully. The top medication errors reported via pharmacy reports pre-implementation were duplicate acetaminophen (N = 14, 29.79%) and overlapping ibuprofen and ketorolac (n=11, 23.40%) and post-implementation were duplicate ondansetron IV (n=11, 7.93%) and duplicate acetaminophen (n=8, 27.59%). Similarly, the only medication error reported pre-implementation via SEMS reports was overlapping ibuprofen and ketorolac (n=8, 100%) and post-implementation the errors were duplicate acetaminophen (n=1, 33.3%), overlapping ibuprofen and ketorolac (n=1, 33.3%), and duplicate oxycodone (n=1, 33.3%).

Implications for Practice
A standard pain management regimen via an order set can provide post-cesarean section pain control and can decrease medication errors. By decreasing duplicate and overlapping medication errors, healthcare providers are keeping patients safe from harmful, preventable mistakes. Using pre-built order sets can decrease provider error and thus medication errors.

Defense of Dissertation Committee
Alicia Hutchings, Ph.D., RN, CNE, Chairperson
Vanessa Loyd, DNP, Ph.D., RN
Emily Cooke, PharmD