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**Conclusion:** The root cause analysis identified multiple opportunities to improve the safety of patients that have G6PD deficiency. One strategy included the implementation of a pharmacist screening process and to date, all patients screened were low risk. In the future, this model may be expanded to other medications that are identified as high risk of causing hemolytic anemia in patients with G6PD deficiency.

**Submission Category:** Safety/Quality

**Poster Type:** Evaluative Study

**Session-Board Number:** 40-T

**Poster Title:** *Retrospective review of administration patterns for intravenous (IV) hydromorphone before and after modification of pain order sets within a regional medical center*

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**Purpose:** Patient exposure to opioid medications within the hospital setting has been a safety concern for many years. Focus on safe opioid prescribing, quality pain management and reviewing performance improvement data is now a Joint Commission standard for hospitals. This project is a retrospective review of dose administration patterns for intravenous (IV) hydromorphone before and after a multidisciplinary review and modification of pain order sets within a regional medical center.

**Methods:** In October 2016, an anesthesiologist and pharmacist led multidisciplinary team implemented evidenced-based standardization of all pain medications ordered through order sets in the electronic medical record (EMR). The primary outcome was to assess the percentage change of administered IV hydromorphone doses that were greater than or equal to 2 mg during the pre-implementation and post-implementation of the pain order set. Patients with an inpatient status during the study time frames were included. The institutional review board approved this retrospective analysis of inpatient medical administration records in the EMR for each dose of IV hydromorphone administered during the study periods. Data was analyzed for administration of IV hydromorphone between pre (July-Sep 2016) and post (Jan-Mar 2017) implementation of the order sets. Using SAS software, analysis completed included Chi-square (percentage of IV hydromorphone dose administrations greater than or equal to 2 mg, overall and by unit), Student's t-test (average dose of IV hydromorphone administrations) and Analysis of Variance (average IV hydromorphone dose administrations by units). Stratification variables included: patient gender, age, and ethnicity; administration done by traveler vs. non-traveler registered nurse; inpatient hospital department; time of day; day of week; and month of year.

**Results:** A total of 6,525 inpatients received 14,201 administrations of IV hydromorphone with 6948 administrations in the pre-implementation group and 7,253 in the post-implementation of the pain order sets. The percentage of inpatient dose administrations of IV hydromorphone greater than or equal to 2 mg was 18.8% in the pre-group and 12.5% in post-group ( $p < 0.0001$ ). Of the medical care units analyzed, five out of the eight showed statistically significant decreases in the IV hydromorphone dose. The three units which did not show statistical significance, did show a decreasing trend in IV hydromorphone dose administered. The analysis of seven critical care units showed statistically significant decreases in two of the units.

**Conclusion:** The implementation of evidenced-based standardized pain order sets showed a statistically significant decrease in the percentage of inpatient administrations of IV hydromorphone doses greater than or equal to 2 mg. Additionally, five medical units and two critical care units showed a statistically significant decrease in dose administration size. Patient satisfaction scores, pain scores and adverse events were not analyzed for this project. There is still opportunity to increase utilization of the pain orders sets. Efforts to continue to optimize pain management is a continual process improvement project.

**Submission Category:** Safety/Quality

**Poster Type:** Descriptive Report

**Session-Board Number:** 41-T

**Poster Title:** *Telepharmacy: multidisciplinary approach to TB shelter DOT audits via Doxy.Me*

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**Purpose:** American Society of Health Systems Pharmacist advocates that telepharmacy be applied to pharmacy operations to improve patient outcomes, expand healthcare and enhance patient safety. In the face of healthcare reform, public health has become a primary resource for various health conditions. Budget constraints have resulted in innovative methodologies for delivery of healthcare to the most vulnerable constituents. Public Health Departments' responsibilities include evaluation of case management tuberculosis (TB) cases and suspects. Directly Observed Therapy (DOT) is an effective strategy for ensuring patient adherence and reduction of outbreaks. Recently, DOT has advanced to include telemedicine via video DOT.

**Methods:** Doxy.Me™ is used at Fulton County Board of Health (FCBOH) to conduct video DOT for selected clients and DOT medication audits. Through collaborative efforts, FCBOH's Pharmacy and TB outbreak response team are conducting a 6-month pilot program utilizing Doxy.Me. Monthly medication audits utilizes the "DOT BAG/Medication/Documentation Audit Tool". This tool is divided into two categories: "Medications & Med Boxes" and "Documentation". The Medication & Med Boxes category has 7 criteria: 1) correct client's name, address, phone number; 2) current medication order present in med bag; 3) DOT sheet dated with current month; 4) DOT sheet match current PE orders; 5) Medications ordered match medications in med bag; 6) Expiration date current on each medication; and 7) at least 3 doses remaining.

**Results:** Preliminary results from July-September 2017 (N= 89 clients) of the 7 criteria and/or addressed by the pharmacist are the following: correction of addresses, (10/89); closure notifications,(6/89); DOT sheet was not dated with current month,(5/89); DOT log did not match PE sheet, (4/89); and med bag not present at audit, (3/89).

**Conclusion:** Telepharmacy is an innovative approach providing solutions to healthcare delivery when staffing is limited.























**Conclusion:** Issues related to ordering practices, sampling, use intensity, and interpretive skill applied to tacrolimus blood level testing indicate need for reeducation and increased attention to detail in order to judiciously use these levels as a means to improve patient care. Steps toward this goal will likely involve multifaceted efforts to increase discernment in application of tacrolimus monitoring and to reduce repetitive laboratory testing.