Beth Israel Lahey Health
Beth Israel Deaconess Medical Center

Implementing an Opioid Stewardship Program to Manage Injectable Opioid Shortage

BIDMC Opioid Stewardship Team

TAP TO GO BACK TO KIOSK MENU

Introduction/Problem

- Drug shortages pose significant public health and safety concerns. National tracking of drug shortages began in 2001. A significant increase in drug shortages was noted over time. The injectable opioid shortage, particularly bolus-dosed IV, reached a critical level at Beth Israel Deaconess Medical Center (BIDMC) in early 2018.
- Injectable opioid shortages are particularly challenging given the range of use in different patient care settings as well as the scope of clinical indications. Injectable opioids are broadly used in general medical/surgical inpatient settings, peri-procedural inpatient and ambulatory settings, and operating rooms. Use s include acute, acute on chronic and chronic pain as well as procedural sedation. Alternative medication options for pain management may not always be appropriate or effective.
- Opioids have different pharmacokinetic and pharmacodynamic parameters, therefore using them interchangeably without taking into consideration patient as well as drug specific characteristics can lead to adverse events. The interchange of one injectable opioid for another is prone to errors due to inappropriate dose conversion as well as pharmacokinetic differences that may predispose to drug accumulation in patients with renal or hepatic dysfunction.
- Given the severity of the shortage and potential impact on patient care, a novel approach to management of the opioid shortage was needed.

Aim/Goal

The goal was to develop consensus on judicious use of injectable bolused dose IV opioids and to reserve injectable opioids to the appropriate patient population and settings.

The Team

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The Interventions

A multi-pronged approach was used to reduce injectable opioid use. Strategies implemented included:

- Optimization of injectable opioid supply in automated dispensing cabinets based on usage patterns in patient care areas
- Pharmacy and Therapeutics (P&T) Committee approval of evidence based criteria for intravenous-to-oral (IV-to-PO) conversion of opioids
- Communications to all caregivers on the opioid shortage
- Changes to the computerized provider order entry (CPOE) system to guide providers to use oral alternatives when appropriate and provide guidelines on dose conversion
- Pharmacists review of medication orders for injectable opioids. Pharmacists recommended alternative drug routes, agents and/or a multi-modal approach to pain management as appropriate.
- Instituting an Opioid Stewardship Team on April 13, 2018 to review and approve all ongoing orders for injectable opioids outside of the Emergency Department, operative/procedural areas and obstetric environment.

Results / Progress to Date

Visual communication cues were used to inform clinical staff of the impact of the drug shortage on the supply of various injectable opioids and dosage forms. This information was available on the hospital's portal and frequently updated.

A visual example of communication to staff on the status of injectable opioid shortages

For more information, contact:
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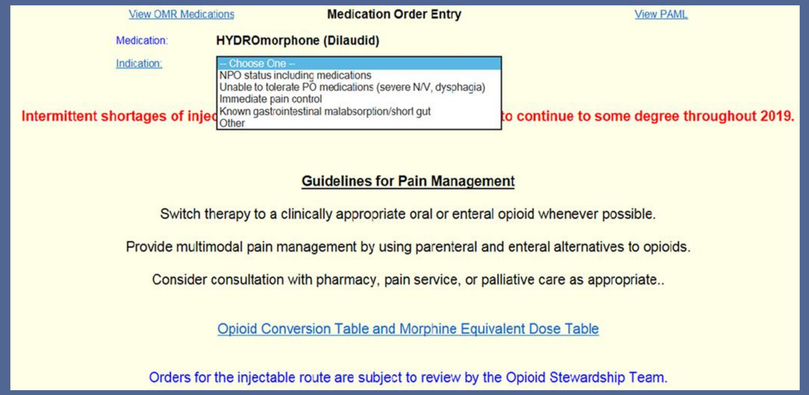
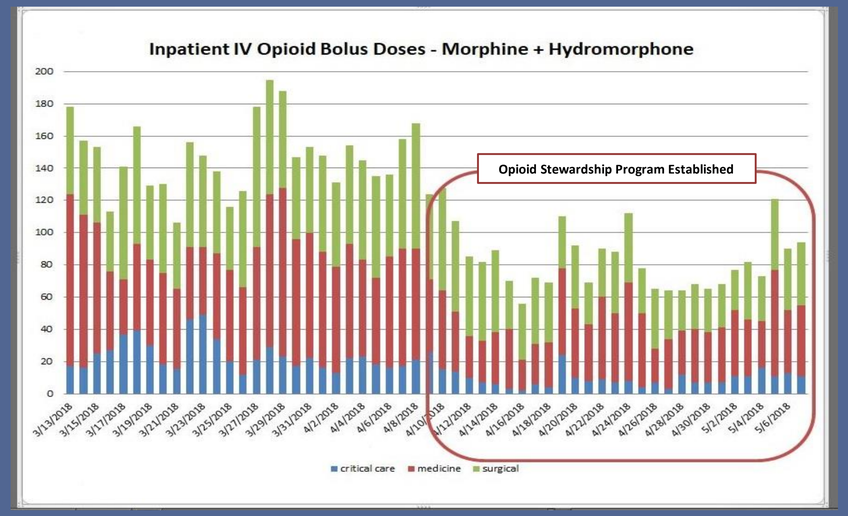
More Results/Progress to Date

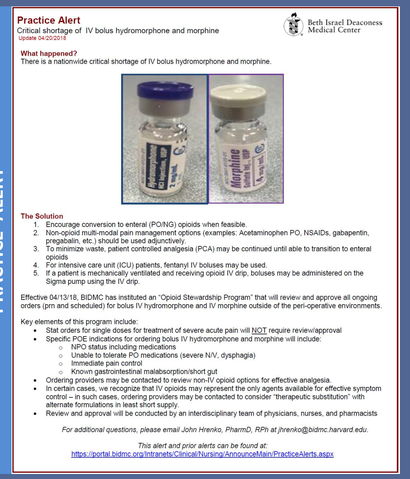


CPOE changes to guide judicious use of injectable opioids

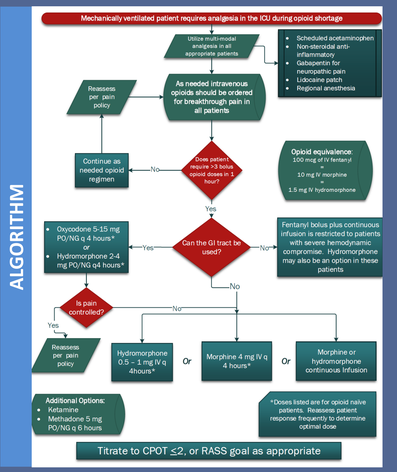


The impact of the Opioid Stewardship Program on injectable opioid use

PRACTICE ALERT



ALGORITHM



Examples of educational materials provided to staff

Lessons Learned

- Many post-operative order sets contained orders for injectable opioids, which introduced an unnecessary burden on Pharmacy staff to intervene on a higher number of orders. Existing order sets could not be altered in the time frame needed to respond to this critical shortage.
- The need to engage Post-Anesthesia Care Unit (PACU) nurses in this effort was identified. Their engagement in this process would have been valuable in anticipating changes to pain management strategies in peri-operative settings.

Next Steps

- Data on the use of injectable opioids will be analyzed over time to identify the effect of the Opioid Stewardship Program on long-term prescribing patterns. An initial review of multi-modal pain management options indicated an increase in the use of non-steroidal anti-inflammatory medications and gabapentinoids. An in-depth evaluation of the utilization of non-opioid pain management alternatives is needed.

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