Development and implementation of take-home naloxone kit for patients admitted to the emergency department of a large tertiary care hospital

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Background

- In 2017, more than 70,000 people in the United States died from drug overdose; approximately 75% of unintentional opioid-overdose deaths occurred outside of a medical setting.
- Naloxone is an opioid antagonist that can rapidly reverse an opioid overdose when administered properly.
- Cost, legal concerns, and social stigma are barriers to naloxone access.
- Community overdose education and naloxone distribution (OEND) programs have demonstrated that take-home naloxone kits (THNK) increase reversal agent access and are associated with reduced opioid-overdose mortality rates.
- From January 2016 – June 2019, about 4,016 emergency department (ED) and urgent care visits in the Portland tri-county area (Clackamas, Multnomah, and Washington) were due to opioid overdose.
- The ED is a critical intervention point for providers and pharmacists to engage patients with or at-risk of opioid overdose and to provide evidence-based therapy such as a take-home naloxone kit.

Objectives

Primary Objective

- To develop and implement a take-home naloxone kit protocol in the ED of a large tertiary care hospital

Secondary Objective(s)

- To increase patient access to opioid reversal agent by prescribing and dispensing kits
- To provide safe medication use and naloxone administration technique education to patients, family members, and/or friends

Methodology

Study Design

- Retrospective quasi-experimental study, pre-post intervention
  - Pre-intervention: April 2017 – September 2019
  - Post-intervention: upon IRB approval – May 2020

Inclusion Criteria

- ≥ 18 years AND either of the following:
  - History of emergency medical care for intoxication or overdose
  - Identified risk of opioid overdose
- Pre-intervention: discharged with naloxone outpatient prescription
- Post-intervention: discharged with take home naloxone kit or prescription

Exclusion Criteria

- Pregnant women

Development Process

Project Timeline

- Evaluation primary literature on state
- Initial contact to chemical dependency specialist and ED physicians
- Phone meeting with primary literature authors
- Contact Oregon Health Authority for available state resources
- Evaluate cost of different naloxone formulations
- Implement protocol in the ED of a large tertiary care hospital
- A $10,000 grant approved
- Meet with the hospital CEO to discuss measurable outcomes
- Obtain support from Regional ED Medical Director, ED Medical Director, and Pharmacy Director
- Project presented to members of the regional pharmacy leadership team

Development

- A literature search was performed for evidence-based evaluation of strengths and limitations of similar study design.
- Key stakeholders were identified and engaged to determine their interest in the study and to gain support
- ED physicians to identify at-risk patients and prescribe THNK/prescription upon discharge
- ED nurses to provide education to patients, family member(s), or friend(s) prior to discharge
- Pharmacy informaticists and analysts to build THNK order set
- Pharmacy department to create THNK and store in Pyxis
- Intranasal naloxone was selected as formulation of choice based on convenient drug administration and ease-of-use for laypeople
- Operational and cost consideration were reviewed to purchase naloxone
  - Obtained $10,000 grant from a philanthropic arm of the hospital to support the initiative for uninsured and/or homeless patients
  - THNKs to include 2 intranasal naloxone (Narcan), a medication guide, and an educational insert.

Challenges

- Prolongation of protocol development due to various factors:
  - Determining the inclusion criteria
  - Coordinating with various stakeholders
  - Obtaining funds to purchase naloxone
  - Delay in IRB approval due to group of patients being identified as “high risk”
  - Implementation of protocol postponed given the current COVID-19 pandemic

Future Considerations

- Secure adequate funding for project prior to development of a study/protocol
- Develop a protocol to be reviewed and approved by Pharmacy and Therapeutics (P&T) committee prior to IRB submission to prevent delays

Next Step

- Adaptation of parts of the study to take place in two large tertiary care hospitals

References