## Naloxone Prescription Upon Hospital Discharge An Interdisciplinary Approach

Kriti Thapa, MD, MPH & Nilbhi Patel, MD

Internal Medicine Residents
Strong Memorial Hospital

# **Project Background**

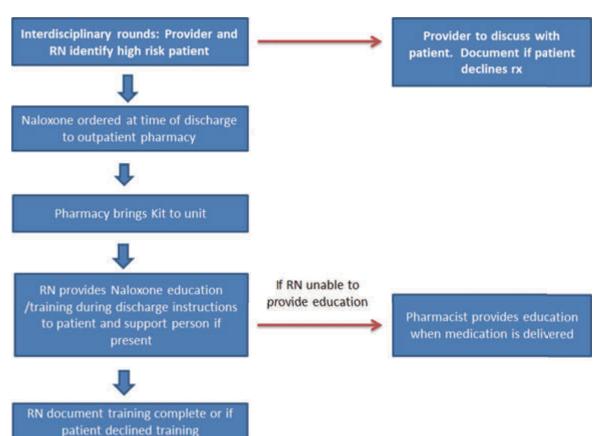
- Center for Disease Control & Prevention and the Surgeon General have issued guidelines recommending co-prescription of naloxone with opiates for a subset of patients
  - Those on opiate pain medications
  - Those with risk factors for opiate overdose
- Naloxone prescribing for high-risk patients is a risk mitigation strategy.
- Multidisciplinary quality improvement pilot project
  - Aim: to increase access to naloxone in the community by identifying patients at risk of an OAE (opioid adverse event) upon hospital discharge, targeting staff and patient education, and increasing the number of naloxone prescriptions.

### Program Description: At risk patient identification

Category A recommendation from the CDC Guideline for Prescribing Opioids for Chronic Pain:

- history of substance abuse
- co-administration of opioids and benzodiazepines
- prescription of ≥50 morphine milligram equivalents (MME)/day
- previous history of an overdose
- risk for returning to doses of opiates after a period of abstinence
- patients with a significant reduction in opiate dose upon discharge



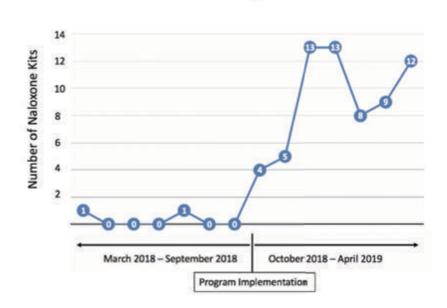


## **Program Evaluation**

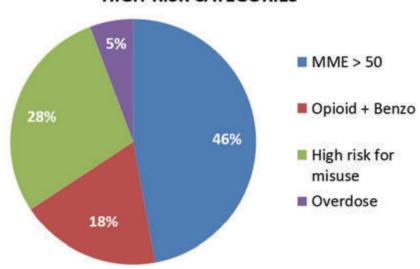
- Data was obtained from the hospital outpatient pharmacy records of naloxone nasal spray prescriptions at the time of discharge
- Patients who received naloxone after program implementation:
  - o mostly male (56%, n=36)
  - o mean age 51 ± 15 years
  - median hospital length of stay was 6 days
  - 59% were on chronic opioids prior to admission
- Co-payments
  - 85.9% of patients had a co-pay ranging from zero to one dollar
  - Seven patients (10.9%) had a co-pay ranging from two to thirty-five dollars and two patients
  - o 3% had a co-pay of higher than thirty-five dollars

# **Program Evaluation**

#### **Naloxone Presciptions**



#### **HIGH-RISK CATEGORIES**



### Limitations

- At-risk patients who were not included:
  - decreased opioid clearance and metabolism (ie: liver cirrhosis or chronic kidney disease)
  - discharged to skilled nursing facilities and thus already have access to naloxone
  - preferred to use an external pharmacy
  - receiving opioids for cancer-related pain
- Inability to measure how often naloxone is being used after discharge, partly due to limited access to external databases
- Ability to study how our intervention of increasing naloxone in the community is impacting the number of ED visits and deaths related to OAE

### **Future Projects**

- Expanding the intervention to visiting nursing services, local nursing homes and long-term care facilities
- Automating the identification of high-risk patients in the computerized physician order entry system and electronic medical record
- Evaluation of the efficacy of these educational interventions

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#### References

- 1. Scholl L, Seth P, Kariisa M, Wilson N, Baldwin G. Drug and Opioid-Involved Overdose Deaths UnitedStates, 2013-2017. Morbidity and Mortality Weekly Report (MMWR) Report. ePub: 21 December 2018.
- 2. Singer, Patti. Monroe County opioid overdose deaths up more than 200 percent in two years. Democrat and Chronicle. 3 July 2018
- 3. Dunne RB. Prescribing naloxone for opioid overdose intervention. Pain Management. 2018; 8(3): 197–2084. Dowell D, Haegerich TM, Chou R. CDC Guideline for Prescribing Opioids for Chronic Pain. Morbidity and Mortality Weekly Report (MMWR) Recommendations and Reports. 18 March 2016; 65(1):1–495.
- 4. U.S. Department of Health and Human Services (HHS), Office of the Surgeon General. Facing Addiction in America: The Surgeon General's Spotlight on Opioids. Available at: https://www.surgeongeneral.gov/priorities/opioid-overdose-prevention/naloxone-advisory.html. Accessed September 2018.
- 5. Zschoche JH, Nesbit S, Murtaza U, et al. Development and implementation of procedures for outpatient naloxone prescribing at a large academic medical center. American Journal of Health-System Pharmacy. Nov 2018;75 (22): 1812-18207.
- 6. WinogradR, Davis C, Niculete M., Oliva E, Martielli R (2017). Medical providers' knowledge and concerns about opioid overdose education and take-home naloxone rescue kits within Veterans Affairs health care medical treatment settings. Substance Abuse. 2017; 38(2):135-1408.
- 7. Monroe County Department of Public Health. Opioid Overdose Prevention Training (Narcan/Naloxone). Available at:https://www.monroecounty.gov/opioids/.Accessed September 20189.
- 8. Walley AY, Xuan Z, Hackman HH, et al. Opioid overdose rates and implementation of overdose education and nasal naloxone distribution in Massachusetts: interrupted time series analysis. BMJ. 2013; 346:f17410.
- 9. Coffin PO, Behar E, Rowe C, et al. Nonrandomized InterventionStudy of Naloxone Coprescription for Primary Care Patients Receiving Long-Term Opioid Therapy for Pain. Ann Intern Med. 2016;165:245-25211.
- 10. New York State Department of Health. Naloxone Co-payment Assistance Program (N-CAP). Available at:https://www.health.ny.gov/publications/9826.pdf.Accessed September 201812.
- 11. Vu Q, Beselman A, Monolakis J, Wang A, Rastegar D. Risk factors for opioid overdose among hospitalized patients. Journal of Clinical Pharmacy and Therapeutics. 201813.
- 12. Doe-Simkins M, Quinn E, Xuan Z, et al. Overdose rescues by trained and untrained participants and change in opioid use among substance-using participants in overdose education and naloxone distribution programs: a retrospective cohort study.BMC Public Health. 2014; 14(1)
- 13. Van SP, YaoAL, Tang T, et al. Implementing an Opioid Risk Reduction Program in the Acute Comprehensive Inpatient Rehabilitation Setting. Arch Phys Med Rehabil. Aug 2019;100(8):1391-1399.
- 14. Braithwaite V, Nolan S. Hospital-Based Addiction Medicine Healthcare Providers: High Demand, Short Supply. Available at: https://journals.lww.com/journaladdictionmedicine/Abstract/2019/08000/Hospital\_Based\_Addiction\_Medicine\_Healthcare.1.aspx. Accessed October 2019.