Evaluating the Impact of a Targeted Clinical Decision Support Opioid Toolkit on Naloxone Prescribing and Differences Among Provider Specialties in a Rural Health System

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Background
- Only 1-in-70 high-risk patients receive a naloxone prescription despite an increase in naloxone prescribing since 2017.
- Prescribing rates remain low despite clear guidelines to co-prescribe naloxone to high-risk patients. Prescribing rates are disproportionately low among certain provider specialties.
- A common strategy used to increase naloxone prescribing is to embed a naloxone alert into the electronic health record (EHR) system.
- An EHR-based clinical decision support (CDS) functionality was implemented at a rural health system in Wisconsin to alert prescribers about high-risk patients through a “naloxone co-prescribing alert”.
- The alert was activated in February 2020.

Research Objective
- To evaluate the impact of a CDS opioid toolkit on naloxone prescribing.
- To describe the process map to understand barriers and facilitators.
- Examine naloxone prescribing among different provider specialties.

Methods
- Monthly trends of the number of high-risk patients provisioned and prescribed naloxone were examined using Time-Series Analysis.
- Data: Provisioning and prescribing data contained in the EHR from January 2020-March 2021.
- Outcome measures:
  - Number of patients provisioned naloxone.
  - Number of naloxone prescriptions written.
  - Specialties of naloxone prescribers.
- Semi-structured interviews were conducted with prescribers to understand the facilitators and barriers to prescribe naloxone.

Results & Implications
- The targeted CDS-opioid toolkit has been successful in identifying high-risk patients and prompting the providers to initiate provider-patient communication about naloxone provisioning and prescribing.
- Though barriers have occurred, there has been an overall increase in the number of patients with naloxone provisioned and number of naloxone prescriptions written.
- Provider specialties that are most commonly prescribing naloxone:
  - Family Practice: The number of prescriptions written increased from 6 prescriptions before the alert to 44 afterwards.
  - Internal Medicine: The number of prescriptions written increased from 3 prescriptions before the alert to 9 afterwards.

Discussion
- Reminding providers about patients “at risk”, prompting providers to initiate a conversation about naloxone provisioning and prescribing are significant benefits of the CDS-opioid toolkit.
- There is a need to address the barriers in future research and develop methods to discuss naloxone use with patients and to reduce stigma associated with naloxone dispensing and use.

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Notable Quotations from a provider: “I think it helps me get closer to my goal of having the naloxone on everybody and I have on opioids that are on more than 50 MMEs a day. I think it’s been helpful to remind me to do that. And I think the more we see it, the more I remember it when I am with patients.”

“I know that my prescribing of naloxone has gone up since the alert has been there.”

Figure 1. Number of High-Risk Patients Provisioned Naloxone

Figure 2. Number of High-Risk Patients Prescribed Naloxone