Evaluation of Opioid Prescribing Habits and Morphine Milligram Equivalent (MME) Trends at Aurora Health Care

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PROBLEM

- Opioid overdose deaths in the US were 6 times greater in 2017 (47,600 deaths) than 1999.2
- 191 million opioid prescriptions written in US in 2017 (average daily MME of 45.3 per prescription)3
- Wisconsin: 926 opioid-related overdose deaths in 20172,3

Wisconsin Opioid Overdose Deaths:

![Graph showing opioid overdose deaths from 2001 to 2019]

METHODS

1) Dashboard definitions and metrics were identified for reporting in the dashboard. Metrics were adopted from literature reviews of successful opioid dashboards at other health systems and in harmony with CDC opioid prescribing guidelines.6,7
2) Validation of MME calculations in the electronic health record
3) Reports were developed allowing for baseline reporting during November 2018 to March 2019. The data was filtered by provider, specialty, and service area and then manipulated for reporting on the dashboard.

RESULTS

- Opioid Orders by Month - Aurora Only
- Total Monthly MME Prescribed Aurora Health Care

![Graph showing opioid orders by month and total MME prescribed]

Chronic Opioid & Opioid Naive Patients:

- Chronic Opioid Patient: Patient that has taken opioids most days over 3 month period per CDC guidelines
- Opioid Naive Patient: 2 consecutive months of no opioid prescriptions per Medicare

![Graph showing chronic and opioid naive patients]

DISCUSSION

During a 5-month period at Aurora Health Care (AHC):

- 147,281 opioid prescriptions were written with an average daily MME of 40.6 (2017 US ave: 45.3 MME)2
- 23% of opioid prescriptions ≥ 50 daily MME
- Average total monthly MME was 17,486,750 million
- 30% and 16% of patients on opioids talked a daily MME ≥ 50 and ≥ 90, respectively
- Average of new chronic opioid patients per month: 1,097
- Opioid naïve patients: 35% of prescriptions ≥ 7 day supply

Furthermore, the dashboard has been an essential tool for providing breakdowns of prescriber habits and specialty specific trends at the request from leadership.

LIMITATIONS

- Extensive manual manipulation
- Underrepresentation of concurrent BZD and opioid use
- Patient’s total daily MME accuracy of concurrent opioid prescribing per month
- Identification of palliative care prescriptions

CONCLUSIONS

The dashboard identifies trends and areas for improvement in prescribing opioids with the intention to encourage safe and appropriate prescribing for Aurora Health Care patients.

REFERENCES


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