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 1999.1
• 191 million opioid prescriptions written in US in 2017 (average daily MME of 45.3 per prescription)2
• Wisconsin: 926 opioid-related overdose deaths in 20172,3

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.

BACKGROUND

Aurora Health Care’s Opioid Stewardship Committee (OSC) was created to optimize and standardize pain management in patients while minimizing the use of opioids and reducing the number of patients who develop opioid use disorder.5 In 2016, CDC established guidelines for prescribing opioids, but execution and awareness of the current guidelines is inconsistent across the system.4 An initiative of the Opioid Stewardship Committee is to ensure that all providers are following the CDC opioid prescribing guidelines. The goals of this committee are to:

1) Reduce the total amount of opioids prescribed in MMEs
2) Reduce the number of patients co-prescribed opioids and benzodiazepines (BZDs)
3) Minimize the number of patients started on chronic opioid agonist therapy (COAT), except end-of-life patients

OBJECTIVE

An opioid prescribing dashboard was designed and implemented to assess baseline practices and the goals of the Opioid Stewardship Committee. The opioid prescribing dashboard provides leadership visibility to MME prescribing trends and prescribing practices deviating outside the CDC opioid guidelines.

RESULTS

Monthly Opioid Orders Breakdown - Daily MME

<table>
<thead>
<tr>
<th>MME</th>
<th>Orders</th>
</tr>
</thead>
<tbody>
<tr>
<td>50 MME</td>
<td>25%</td>
</tr>
<tr>
<td>100 MME</td>
<td>20%</td>
</tr>
<tr>
<td>150 MME</td>
<td>15%</td>
</tr>
<tr>
<td>200 MME</td>
<td>10%</td>
</tr>
<tr>
<td>250 MME</td>
<td>5%</td>
</tr>
</tbody>
</table>

Total Daily MME for Patient Population

Chronic Opioid Patient: Patient that has taken opioids most days over 3 month period per CDC guidelines

Opioid Native Patient: 2 consecutive months of no opioid prescriptions per Medicare

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 tallied 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 prescriptions 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


5. Joint Commission on Accreditation of Healthcare Organizations. Joint Commission on Accreditation of Healthcare Organizations. Available at: https://www.jointcommission.org/assets/1/18/Tip_23296.pdf


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