Evaluate opioid prescribing trends for ElderPlace, a Program for All-inclusive Care for the Elderly (PACE)

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Evaluate opioid prescribing trends for ElderPlace, a Program for All-inclusive Care for the Elderly (PACE)

Jacqueline Figueras, PharmD; Loann Wong, PharmD, BCGP; Sharon Leigh, PharmD, BCPS

Background

- Providence ElderPlace in Oregon is the fifth-largest PACE program in the country that offers wraparound nursing home-eligible medical and social services to over 1600 community-dwelling seniors who are medically frail with complex medication regimens.
- Many elderly patients suffer from chronic non-malignant pain which may affect their function and quality of life.
- The Centers for Disease Control and Prevention (CDC) reports a 7.7% increase in drug overdoses and opioid deaths in the aging population from 2013 to 2014.
- In 2015-2016 elderly adults obtained an annual average of 774 Morphine Milligram Equivalents (MME) of outpatient prescriptions for chronic & acute pain.
- Multiple comorbidities and age-related changes may affect distribution, metabolism, and elimination, older adults are at increased risk of adverse drug events and reactions.
- Physician prescribing practices has been shown to play an important role in high rates of prescription opioid use and misuse.

Purpose

- To determine trends in opioid prescribing for chronic pain in geriatric patients enrolled with Providence ElderPlace in Oregon

Objectives

- Discuss trends in opioid prescribing for chronic pain in geriatric patients at Providence ElderPlace
- Determine if opioids are being safely prescribed at Providence ElderPlace
- Identify potential gaps that can be addressed to improve opioid prescribing safety

Methodology

- Institutional Review Board (IRB) exempt
- Retrospective electronic health record (EHR) based study of multiple ElderPlace clinic sites in Oregon.
- All patients meeting inclusion criteria were included
- Study population:
  - Providence ElderPlace participants on routine opioids for chronic pain only (>6 months).
- Study period:
  - March 1, 2020 – October 1, 2020
- Exclusion criteria:
  - Palliative care Stage 2 and Stage 3
- Outcomes:
  - Primary: Trends in opioid prescribing using surrogate markers such as:
    - Average MEDD
    - Functional goals of therapy
    - Alternative therapy offered/provided
    - Informed consent
    - ElderPlace protocol use
  - Safety: Falls and opioid-related hospitalizations

Results

Table 1. Patient baseline characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>(n=168)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age, years, mean</td>
<td>76 (range 57-97)</td>
</tr>
<tr>
<td>Sex, female, No. (%)</td>
<td>127 (75.6)</td>
</tr>
<tr>
<td>Palliative Care, No. (%)</td>
<td>None 108 (64.3) Stage 1 60 (35.7)</td>
</tr>
<tr>
<td>Pain History, No. (%)</td>
<td>Opioid use prior to enrollment 117 (69.6) Scheduled 69 (49) PRN 48 (41.0) Active PRN opioid prescription 72 (42.9)</td>
</tr>
<tr>
<td>PRN = as needed</td>
<td></td>
</tr>
</tbody>
</table>

Graph 1. Opioid use

- Non-CII
- CII
- Other
- Morphine, 24
- Oxycodone, 76
- Norco, 51
- Hydrocodone, 1
- Methadone, 1
- Oxycodone + methadone, 2
- codeine, 1
- tramadol, 1
- hydromorphone, 1
- methadone, 1

Clinical Outcomes

Table 2. Primary outcomes by surrogate marker

<table>
<thead>
<tr>
<th>Outcome</th>
<th>No. (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MDED, mg/day, mean</td>
<td>33.6 (range 2.5-360)</td>
</tr>
<tr>
<td>Defined functional goals</td>
<td>70 (41.7)</td>
</tr>
<tr>
<td>Alternative therapy offered</td>
<td>161 (95.8)</td>
</tr>
<tr>
<td>Informed consent</td>
<td>23 (13.7)</td>
</tr>
<tr>
<td>Protocol followed</td>
<td>10 (6.0)</td>
</tr>
</tbody>
</table>

Graph 2. Number of patients per MEDD by palliative stage class

<table>
<thead>
<tr>
<th>MEDD (mg/day)</th>
<th>Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 25</td>
<td>56</td>
</tr>
<tr>
<td>25-49</td>
<td>35</td>
</tr>
<tr>
<td>50-119</td>
<td>37</td>
</tr>
<tr>
<td>≥ 120</td>
<td>16</td>
</tr>
</tbody>
</table>

Safety Outcomes

Table 3. Falls and hospitalizations

<table>
<thead>
<tr>
<th>Outcome</th>
<th>No. (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Falls ≤ 1</td>
<td>78</td>
</tr>
<tr>
<td>1 - 2</td>
<td>44 (59.8)</td>
</tr>
<tr>
<td>3 - 4</td>
<td>4 (8.2)</td>
</tr>
<tr>
<td>&gt; 5</td>
<td>1 (2.0)</td>
</tr>
<tr>
<td>Hospitalizations</td>
<td>67</td>
</tr>
<tr>
<td>Opioid-related</td>
<td>18 (46.6)</td>
</tr>
</tbody>
</table>

Discussion

Patient Population

- Total of 610 people were originally enrolled in the study.
- After screening, 168 patients were utilized to determine the clinical and safety outcomes.
- At baseline, patients were of average of geriatric age (≥65 years old)
- Mean age was 76 years (range 57-97 years).
- Majority of patients were not of palliative care status.
- Opioid use prior to joining ElderPlace was 69.6% of the study population with majority of use being scheduled narcotics.
- The most used opioid medications were oxycodone and hydrocodeine-acetaminophen followed by morphine.
- Additional opioid medications used chronically were tramadol, codeine, fentanyl, hydromorphone, and methadone.

Outcomes

- The average morphine equivalent daily dose was 33.6 mg per day.
- 91, 53, 17 and 7 patients required <25 MEDD, 25-49 MEDD, 50-119 MEDD, and >120 MEDD respectively.
- Only 41.7% of the patient population had defined functional goals.
- 95.8% of patients had alternative forms of pain management (non-controlled medications, topicals, physical therapy, acupuncture, etc.) in addition to opioids.
- 23 (13.7%) patients provided informed consent and 10 followed the current ElderPlace protocol.
- Total of 78 falls occurred in 49 different patients. Of those patients 89.8% had 1-2 falls, 8.2% had 3-4 falls, & 2% had >5 falls.
- Total of 67 hospitalizations occurred in 37 different patients- of those, only 18 were opioids related.
- Falls were more frequent in Palliative Care Stage 1 patients.

Study Limitations

- Retrospective, non-randomized study
- Risk of information bias since clinical outcomes determined via chart review
- Short study time frame
- Unable to assess compliance, efficacy of current therapy, and use of PRN medications
- Did not assess cause of falls
- Specific goals were not defined to determine success

Conclusions

- This study was performed to evaluate trends in opioid prescribing for chronic pain at Providence ElderPlace in Oregon.
- Overall, ElderPlace has high compliance at providing alternative therapy in addition to opioids for pain management, but minimal compliance with following the PACE guideline
- Low percentage of patients on opioids experienced falls or hospitalizations during the study period. No clear correlation between average MEDD and safety outcomes.
- Room for improvement includes determining clear functional goals in relation to pain and obtaining a signed written medical risk notice (which will enhance ElderPlace protocol use).

References


