Impact of a Managed Care Pharmacist Consultation Program on Controlled Substance Drug Cost, Emergency Room Visits and Hospitalizations

**Background**

- The Comprehensive Addiction and Recovery Act of 2016 (CARA) provides a framework for topical abuse prevention and treatment and includes provisions that highlight pharmacists’ role in combating the epidemic.
- The opioid crisis has led to a national focus on harm reduction and harm prevention. In the Prairie State, the Blue Cross and Blue Shield alliance developed a pharmacists consultation program on controlled substance use in order to continually monitor business risk. The pharmacists consultation program was designed to then reduce the use of controlled substances (CS) by providing key management to persistent users through phone calls and letters to the provider.
- Health managers should evaluate the impact of managed care pharmacists case management programs to improve continued funding and improvement of clinical programs for better decreasing member readmission rates.

**Objective**

- The primary objective of this analysis was to determine if a managed care (MC) consultation intervention was associated with cost savings from controlled substance drug costs, total costs, emergency room visits and hospitalizations.

**Methods**

- This study analyzes an integrated medical and pharmacy claims, quasi-experimental, interrupted time-comparison with a concurrent control group.
- Managed care pharmacist outreach was performed on potential CS users (i.e., CS over use in two consecutive quarters). The MC pharmacist reviewed all potential CS individuals and determined whether or not a consultation was required. An MC consultation was performed for the pharmacist, with members whose claims indicate higher abuse potential being worked first.
- A 2 by 2 equivalent-trials design of the MC pharmacist effect was identical to removing 16 CS prescriptions used, correcting for censoring and accounting for their activities at a cost of approximately $2.7 per prescription.
- The intervention group was from a 1:3 relative members control group where the MC pharmacist consultation program started in 2015.
- Intervention case management consultation identified with a lagging member to index, defined as the member who started study in 2015. Members were required to be continually followed from six months post index date to six months post index date.
- All existing controls were then standardized, included the member’s and plans paid amount to provide the unavoidable equivalent dose analysis.
- The appropriate number of members exceeding a MC for at least one six month period was calculated to back the intervention and control groups in the past and post periods.

**Statistical analysis**

- A generalised linear time series analysis was used to control for period, defined as a study prior to the intervention and the post period, defined as the duration from the intervention through the post period. Intervention group change pre to post is calculated and applied to all days of the opioid claim. The claim opioid cost were set together for the control and intervention group change pre to post.
- All biometric equivalent products were included.
- Average total cost was calculated and played pre to provide the unavoidable equivalent dose analysis.
- The appropriate number of members exceeding a MC for at least one six month period was calculated to back the intervention and control groups in the past and post periods.

**Results**

- The intervention group had 213 members in which a prescriber outreach was performed by a managed care pharmacist. The control group had 1,387 members. (Figure 1)
- Presence of medical claims with mental health or substance abuse diagnoses was not different between the intervention and control groups.
- Substance abuse diagnoses, (3.7% versus 2.4%) intervention group members and 2.9% versus 3.2% control group members, p = 0.4.
- Morphine equivalent dose analysis was performed on persistent CS users (i.e., CS over use in two consecutive quarters). The MC pharmacist reviewed all potential CS individuals and determined whether or not a consultation was required. An MC consultation was performed for the pharmacist, with members whose claims indicate higher abuse potential being worked first.
- When the index date was defined for the control group, members were required to be continuously followed from six months post index date to six months post index date.
- To ensure members were solely commercially insured, members with any claim for which Medicare paid a portion of the costs were excluded.

**Conclusions**

- These findings suggest value in having a managed care pharmacist consultative service telephone for the member, which can help reduce unnecessary costs. The consultation program was modeled on creating a significant consultation reduction cost reduction compared to a concurrent control group.
- A managed care pharmacist intervention is an evidence-based strategy to reduce costs in addition to creating significant consultation reduction cost reduction compared to a concurrent control group.
- The intervention group case management consultation was associated with a reduction of DEA schedule II claims and specifically, lower oxycodone and fentanyl costs among the intervention group change pre to post. The reduction was calculated and applied to all days of the opioid claim. The claim opioid cost were set together for the control and intervention group change pre to post.

**References**

- Additional tables and figures are provided in the appendix. All brand names are the property of their respective owner.