Acute Opioid Use and Trends Related to Chronic Opioid Usage in Older Adults: A Retrospective Analysis of a Medicare PDP Population Using Real-World Claims Data

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Background

- Pain is a major national health problem and the most common reason why patients seek healthcare. Millions of Americans suffer from common chronic pain conditions-more than the number of people affected by diabetes, heart disease, and cancer combined. Uncontrolled pain incurs enormous societal and economic costs due to decreased productivity and increased health care costs, with the annual US cost of chronic pain estimated to be $560 to $630 billion (2010 US dollars [USD]).[1]
- However, one problem that has been overlooked in the midst of the opioid crisis is the rising misuse of opioids among older Americans. The United States Senate Special Committee on Aging has examined some of these challenges to reduce older Americans' dependence on opioid medications.[2] In 2017, one in three or 14.4 million Medicare Part D beneficiaries received an opioid prescription and according to the Department of Health and Human Services Office of Inspector General (HHS OIG). Furthermore, HHS OIG reported that in 2017 there were 76 million opioid prescriptions that were paid for by Medicare Part D and 1 in 10 Part D beneficiaries received opioids for 3 months or more.[3]
- In people aged 50 or older from 2002 to 2014 opioid misuse has doubled according to a report from The Substance Abuse and Mental Health Services Administration (SAMHSA).[4] As a response to this crisis, The Centers for Medicare and Medicaid Services (CMS) announced a Part D Opioid Overutilization Policy detailed in the 2019 Call Letter.[5]
- In a review of clinical evidence by the Centers for Disease Control and Prevention (CDC), it was found that opioid use for acute pain is associated with long-term opioid use, and that a greater amount of early opioid exposure is associated with greater risk for long-term use. As a result, CMS has established a days supply limitation for all opioid-naïve patients receiving an initial acute fill of an opioid medication. Of note, CDC defines opioid naïve as those who have not received a fill of any opioid prescription in ≥ 3 months and chronic users are defined as ≥ 3 months of continuous opioid use.[6]
- In 2016 a boxed warning was issued by the Food and Drug Administration (FDA) for all prescription opioid analgesics, opioid-containing cough products, and benzodiazepines warning about the serious risks associated with concurrent use of these medications. Furthermore, reduction of concurrent use of these CNS depressant medications is even more important in high-risk population to prevent adverse outcomes such as falls.[7] The CDC has specifically addressed concomitant benzodiazepine and opioid use patients ≥65 by stating that older adults are more likely than younger adults to experience co-morbid medical conditions and more likely to receive multiple medications, some of which might interact with opioids (such as benzodiazepines) and clinicians should use additional caution and increased to minimize risks of opioids prescribed for patients aged ≥65 years.[8]
- Finally, in 2017 a white paper was released by the Healthcare Fraud Prevention Partnership Program (HFPP) on Healthcare Payer Strategies to Reduce the Harms of Opioids. The HFPP is a voluntary, public-private relationship between the federal government (CMS), state agencies, multiple private payers, law enforcement, and healthcare anti-fraud associations. Described within this paper are effective strategies that HFPP has proposed to promote the distribution of naloxone and its use. A sampling of those examples includes eliminating prior authorizations requirements for naloxone and covering naloxone when the CDC recommended daily dose of opioids (≥90 MME) is exceeded and denying an opioid claim unless a claim for naloxone is on file for the patient.[9] According to the CDC, there were 70,237 opioid overdose deaths nationwide, making the need for increased awareness and use of naloxone even greater.[10]

Purpose

- The purpose of this retrospective claims analysis is to determine:
  - The percentage of opioid naïve patients who receive an acute fill (≤7 days supply) of an opioid medication and ultimately convert to a chronic user is lower compared to opioid naïve patients who receive an opioid fill of ≥8 days that ultimately convert to a chronic opioid user.
  - This study is also aimed to stimulate a discussion on various formulary management strategies to limit patients from overutilization of opioids.

Methods

This study is an observational retrospective analysis of pharmacy benefit manager (PBM) claims from January 1, 2017 to October 31, 2018 in a Medicare Part D Plan (PDP) population.

Study Population

The study population examines the Magellan Rx Management Medicare PDP line of business.

Primary Endpoint:

Evaluate the percentage of opioid naïve patients (defined as those who have not received a fill of any opioid prescription in ≥ 3 months) who receive an acute fill (defined as ≤7 day supply) of an opioid medication that ultimately convert to chronic opioid users (defined as ≥ 3 months of continuous opioid use) compared to the percentage of opioid naïve patients who were prescribed an opioid for ≥8 days.

Secondary Endpoints:

- Percentage of patients identified as a chronic opioid user concurrently using a benzodiazepine (defined as an overlapping supply of an opioid and benzodiazepine for 30 or more cumulative days per CMS) ≤7 day supply vs. ≥8 days supply initial fill.
- Percentage of patients identified as a chronic opioid user that have a fill for naloxone.
- Average copay for a patient's naloxone fill if it is filled.
- Average Morphine Equivalent Dose (MED) Per Day ≤7 day supply vs. ≥8 days supply initial fill.

Excluded From Data Analysis:

- Patients on naltrexone, buprenorphine and methadone medications and any patient prescribed an oncology medication typically dispensed from an outpatient pharmacy.
- Patients on clobazam, and diazepam rectal gel.

Data Analysis:

- SAS 9.4 was used for the data analysis and all included analyses are descriptive only.

Results

Baseline Characteristics

Opioid Naïve Patients: N=35,262 Opioid Naïve Patients Converted to Chronic User: N=8,323	Opioid Naïve: ≤7 Day Supply Converted to Chronic User[1] N=555	Opioid Naïve: ≥8 Day Supply Converted to Chronic User N=7,768
Average Age All Patients	66 (Range: 26-101)	65 (Range: 25-105)
Average Age Patients ≥65 years	75 (Range: 65-101)	73 (Range: 65-105)
Male %	38% (N=213)	37% (N=2,846)
Female %	62% (N= 342)	63% (N=4,922)

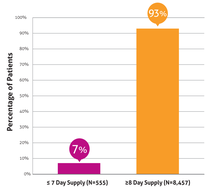
Secondary Endpoints

Opioid Naïve Patients: N=35,262 Opioid Naïve Patients Converted to Chronic User: N=8,323	Opioid Naïve: ≤7 Day Supply Converted to Chronic User[1] N=555	Opioid Naïve: ≥8 Day Supply Converted to Chronic User N=7,768
Benzodiazepine[2] Fill %	2.98% (N=248)	43% (N=3,554)
Naloxone Fill	0.46% (N=38)	8% (679)
Overall Average Naloxone Copay	$0.88	$0.88
Average Morphine Equivalent Dose Per Day (No Benzodiazepine)	42 MEQ	48 MEQ
Average Morphine Equivalent Dose Per Day (Benzodiazepine[2])	47 MEQ	59 MEQ

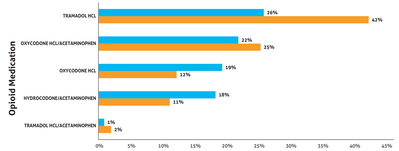
[1]Excludes patients on naltrexone, buprenorphine and methadone medications and any patient prescribed an oncology medication typically dispensed from an outpatient pharmacy

[2]Excludes patients on clobazam, and diazepam rectal gel

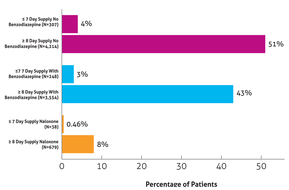
Percentage of Opioid Naive Patient Converted to Chronic Opioid Users



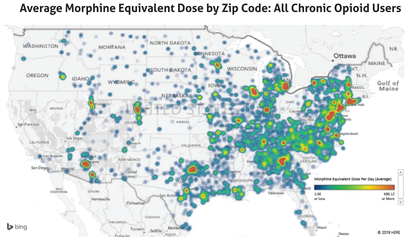
Top 5 Prescribed Opioids: ≤7 Day Supply vs. ≥8 Day Supply



Benzodiazepine and Naloxone Usage Among Chronic Opioid Users



Average Morphine Equivalent Dose by Zip Code: All Chronic Opioid Users



Conclusion

- Overall, the following conclusions can be made from this retrospective analysis:
  - A total of 35,262 patients were found to be opioid naïve and of those, 7% who received ≤7 days supply and 93% who received ≥8 days supply ultimately converted to a chronic opioid user, respectively.
  - The average morphine equivalent dose per day and use of a benzodiazepine was higher for chronic users prescribed a ≥8 day initial supply of opioids vs. those whose first fill was ≤7 days.
  - These results suggest that opioid patients who are ≥8 day supply of opioids on an initial fill are more likely to convert to a chronic user of opioids.
  - A positive finding of this data is that the overall average copay for a naloxone product was $0.88, however only 0.46% and 8% of chronic opioid patients prescribed an initial fill of ≤7 days and ≥8 days, respectively had a confirmed fill of this medication.
  - Females account for almost two-thirds of the chronic opioid users between both cohorts, suggesting that population may also be a potential target to prevent opioid and benzodiazepine misuse.
- In conclusion, we've identified multiple trends and new challenges which further demonstrate the importance of targeting opioid misuse and reduction of benzodiazepine usage among a Medicare Part D population of patients. In an effort to align with the objectives outlined in the 2019 CMS Call Letter, it is recommended that Magellan Rx PDP Plan implement these measures in an effort to reduce the ongoing opioid crisis. And, the hope is that this data will be used to stimulate further discussion on continuous development of formulary management strategies to limit patients from overutilization of opioids.

Limitations

- This study only analyzes retrospective claims data, therefore a diagnosis could not be identified due to lack of ICD codes which could further narrow the data and provide additional insight to the type of pain these opioids are being prescribed for.
- The data analyzed was only for adjudicated prescription claims through Magellan Rx, therefore there is no available information on prescription fills in which patients paid cash.
- All patients with a claim for oncology drugs were excluded on the assumption that opioids were being used to treat cancer-related pain.
- This data is limited to only states in which the Magellan PDP has members in and may not be entirely representative of the Medicare population of the United States as a whole.

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Disclosures

- This study was performed at Magellan Health, Inc. in collaboration with Pfizer®.