Opioid utilization: member characteristics and costs when varying Centers for Medicare and Medicaid Services identification criteria

**Background**

- Approximately two million people annually use prescription opioids for non-medical reasons. These individuals are at risk for drug abuse or dependence. In 2010, the Centers for Medicare and Medicaid Services (CMS) set opioid utilization and overdose thresholds. In 2011, CMS medical and pharmacy claims have the potential for miscoding and undercoding.

- In 2013, White and colleagues evaluated the costs of non-abusing opioid use and the frequency of opioid-only claims. They found a higher rate of opioid-only claims in the Medicare population.

- In their investigation, White and colleagues also found that members meeting all CMS HR criteria had a higher rate of opioid-only claims when compared to those meeting only the MED threshold.

**Methods**

- **Pharmacy data**
  - 12.5 million commercially insured members were identified to those with at least one opioid claim during 1H2013.
  - Medical claims were queried during 1H2013 to identify members with a chronic disease diagnosis. Members ages 65 years and continuously enrolled during 1H2013 were included in the analysis of the MED criterion.
  - The population was further limited, using 2013 CMS supplemental guidance methods. Members that met the MED threshold (defined as MED >120 for at least 90 consecutive days) were included.
  - All high-risk (HR) opioid use was identified using the National Association of Boards of Pharmacy (NABP) number. Pharms associated with opioid claims was identified using the National Provider Identifier (NPI) and the number of pharmacies or ≤3 prescribers with ≤3 pharmacies or ≤3 prescribers were associated with opioid claims was identified using the National Association of Boards of Pharmacy (NABP) number.
  - All pharmacy claims were filtered to identify members with at least one opioid claim. All opioid-only claims were identified using the National Association of Boards of Pharmacy (NABP) number.

- **Medical data**
  - Pharmacy claim costs were further limited to opioid-only claims.
  - The opioid utilization analysis was performed using the following criteria:
    - **MED threshold only** = met CMS MED threshold of >120 for 90 consecutive days
    - **MED threshold only** = met CMS MED threshold of >120 for 90 consecutive days
    - **All CMS HR criteria** = met MED threshold of >120 for 90 consecutive days with >3 days supply entered as 5 tablets/day

- **Medication utilization**
  - All members were categorized into four groups:
    - Members meeting all CMS HR criteria.
    - Members meeting only the MED threshold.
    - Members meeting the MED threshold only.
    - Members not meeting at least one of the CMS HR criteria.

- **Cost analysis**
  - Total medical and pharmacy costs were calculated per member.
  - A statistical comparison was performed using the chi-squared test for categorical variables and student’s t-test for continuous variables. Statistical significance was set at p<0.01 due to multiple comparisons.

**Results**

- During the timeframe, 5,046,485 commercially insured members ages 18 to 64 were included. Of these members, 42 (18.7%) were found to have had one opioid claim.
- More than 60% of opioid-only claims were found to have had one opioid claim during the study period.
- The population was further limited, using 2013 CMS supplemental guidance methods. Members that met the MED threshold (defined as MED >120 for at least 90 consecutive days) were included. As example of the MED criterion is shown in (Figure 1).

**Objective & Purpose**

To compare population characteristics, diagnoses and cost of care among commercially insured members meeting all CMS HR criteria and members that only met the MED threshold. The primary research questions were as follows:

1. Are members meeting all CMS HR criteria and members that met only the MED threshold similar?
2. Do members meeting all CMS HR criteria and members that met only the MED threshold have similar rates of diagnoses?
3. Are the costs of care, including total medical and pharmacy costs, similar among members meeting all CMS HR criteria and members that met only the MED threshold?
4. Are members meeting all CMS HR criteria and members that met only the MED threshold similar in terms of drug utilization, including total daily, weekly, and monthly opioid utilization?

**Conclusions**

- The population was further limited, using 2013 CMS supplemental guidance methods. Members that met the MED threshold (defined as MED >120 for at least 90 consecutive days) were included. As example of the MED criterion is shown in (Figure 1).

**Limitations**

- Administrative medical and pharmacy claims have the potential for encoding and therefore the data may be biased by coding errors or administrative errors.
- Members may pay for opioids out of pocket or obtain them through friends and family. This end of the spectrum of utilization cannot be captured by medical claims. Furthermore, access to medical benefits may not ensure that cash payments are not included in the medical data. Therefore, the CMS analysis may reflect more complete utilization than the opioid-only claims data may represent.

**References**