Background

- There has been a significant increase in the number of prescription opioids administered over the past two decades, resulting in a correlating increase in the number of individuals who report non-medical use of these medications. [1,2]
- 2012: KY HB 1 implemented mandatory registration and utilization of the KASPER system. [2]
- 2016: The AAP released a policy statement that recognized the problem of opioid misuse among adolescents has nearly doubled from 1991 to 2012, resulting in a recommendation for medication-assisted treatment.
- 2017: FDA releases a contraindication to the use of codeine and tramadol in children younger than 12.

Objective

- To determine if an upward trend exists in the frequency of oral opioid prescriptions provided to low-income children over time.
- To test if any demographic or claim-based variables impact the trajectory of opioid prescriptions over time.
- To identify the most common indications for which opioids are being prescribed to this population.

Methods

- Pharmacy and medical claims were utilized from the KY Medicaid Claims Database from 2012 through 2017; demographic data were obtained and an oral opioid prescription rate was calculated per 1,000 enrolled children for each year.
- The pharmacy and medical claims data were merged with data from the Medical Expenditure Panel Survey to calculate the average number of opioid prescriptions per person per year.
- The rate of opioid prescriptions was estimated by year, by age, and by sex.
- The study was conducted in Kentucky, USA, where opioid analgesics are commonly prescribed for the management of chronic pain conditions.

Results

- The rate of opioid prescriptions significantly increased over time from 56.3 per 1,000 enrollees to 37.5 per 1,000 enrollees (a 33% decrease, p<0.001) by 2017.
- Children of adolescent age, white NH race/ethnicity, female sex and non-metropolitan residence were prescribed opioids more frequently (p<0.0001).
- While 8-18% of prescriptions did not have an associated medical claim, this percentage steadily decreased from 181 per 1,000 filled opioid prescriptions in 2012 to 82 per 1,000 filled opioid prescriptions by 2017.
- The most common diagnosis category was post-operative for all study years; however, 41-45% of prescriptions fell into the “other” category, making it the second highest in all study years.

Limitations

- A few limitations of this study include its scope, retrospective utilization of a preset database and the inability to directly extrapolate a specific diagnosis for each opioid prescription.

Conclusions

- Visit-associated diagnosis codes would suggest that some indications for which opioids are being prescribed is concerning, given the known association between medical use and future addiction.
- While the number of children enrolled in KY Medicaid who filled at least one prescription opioid has decreased in recent years, 8% of children still did not have an associated medical visit within three days by the end of the study period.

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