Introduction

- The United States (U.S.) is in the midst of opioid crisis
- Over half of the overdose deaths are from prescription opioids
- New Jersey is three times national average as per opioid abuse and overdosing
- Americans are the leading consumers of opioids
- Opioid abuse is uniform at all levels of income, gender, and age

Objective

- Evaluate opioid prescription practices in ER physicians
- Study changes in opioid prescription behavior after CDC guidelines established

Methods

- Before and after study
- Data from ER visits at local medical center
- Inclusion criteria: adults 18 years or older with mechanical low back pain
- Exclusion criteria: children, pregnant women, back pain from other causes
- Time period June 2015 – Dec 2016 (9 months before and 9 months after CDC guidelines
- 361 patients in 2015 and 1240 in the year 2016
- ICD 9 (724.2) and ICD 10 (M54.5) diagnoses used
- The variables: date of visit, age, gender, city, and the pain medications (type, strength, frequency and number of days) given at the time of discharge.
- SAS software used for analysis

Results

- 368 in pre-group, 9 months before CDC guidelines (March 2016)
- 602 in post-group, 9 months timeframe after CDC guidelines
- 466 females (48%) and 504 (52%) males
- Blacks (n=608, 64%), Hispanics (n=195, 20%), Whites 139 (14%) and rest (n=15, 2%)
- 7 patients with ICD 9 (0.7%) and 963 patients with ICD 10 diagnosis
- 81% visits from the city the medical center located
- no significant difference in the distribution of variables of age, sex, and race in the pre-group and post groups (p=0.51 for gender and 0.8 for race)

- 10% reduction in the number of opioid prescriptions given in the post group (165 (45%) in pre-group vs 210 (35%) in post-group, p= 0.0022)
- About 8% increase in prescription of NSAIDS in the post group (138 (37% in pre-group vs 259 (43%) in post group, p= 0.4267)
- 6% reduction noted in the number of days the opioids prescribed in the post group compared to pre-group with one-sided p-value of 0.0457

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<tr>
<th>NSAIDS</th>
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<th>OPIOIDS</th>
<th>Number (%)</th>
<th>No pain meds</th>
<th>Number (%)</th>
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<tbody>
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<td>Pre-group</td>
<td>138 (37)</td>
<td>165 (45)</td>
<td>65 (18)</td>
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<tr>
<td>Post-group</td>
<td>259 (43)</td>
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<td>Pre-group</td>
<td>140 (85.9)</td>
<td>23 (14.1)</td>
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<tr>
<td>Post-group</td>
<td>193 (91.9)</td>
<td>17 (8.1)</td>
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<td>Total</td>
<td>333</td>
<td>40</td>
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Conclusions

- There is significant reduction noted in the post group as per the opioid prescriptions and hopefully this trend continues in the future with the health care and local, state and federal health policies
- Multi-strategic solution should include change in physicians’ opioid prescription behavior and education/training

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