Legislative Impact on Inpatient Opioid Prescribing Practices

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Introduction

The purpose of this study is to investigate the impact recent legislation has had on inpatient prescribing practices of opioids for patients admitted to the trauma service.

Background and Significance

- Opioid addiction in the United States has reached epidemic proportions.
- It is reported that one person dies every twelve minutes in the United States from an opioid overdose.
- The medical community is now focusing on alternative non-addictive medications to replace opioids for the treatment of acute pain.
- Historically, pain management methods for the treatment of trauma patients has used opioids as the principle medication for pain relief.
- In February of 2017, New Jersey (NJ) passed into law Senate Bill 3 which changed the healthcare provider's ability to prescribe opioids for the treatment of acute pain by decreasing prescription durations from thirty days to five days.

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Methods

Design: Retrospective chart review of patients admitted to the trauma service.

Setting: American College of Surgeons verified Level I Trauma Center in New Jersey.

Sample: 2,043 charts were reviewed (1,688 met criteria). All patients were admitted to the trauma service.

Measures: This retrospective review studied opioid medication use in pain management practices for the trauma patient prior to (2016), and since (2018) the enactment of New Jersey Senate Bill 3, which restricts the prescribed use of opioids. Morphine Milligram Equivalents (MME) were used to normalize the data across various opioid medications.

Analysis: Descriptive statistics were evaluated to determine if there is a difference in opioid prescribing practices and patient consumption in patients admitted to the trauma service as a result of the enactment of NJ Senate Bill 3.

Results

ISS, MME, & LOS for Opioid Use between 2016 and 2018

	Years		
	2016 (n=854)	2018 (n=834)	P Value
Age ± SEM	55.7 ± 0.70	59.9 ± 0.69	<0.001†
Gender			0.038^
Male	544	514	
Female	310	320	
ISS ± SEM	9.09 ± 0.19	10.6 ± 0.21	<0.001†
Average MME/day ± SEM	14.1 ± 0.48	8.78 ± 0.33	<0.001†
Total MME/stay ± SEM	77.0 ± 3.7	44.8 ± 2.5	<0.001†
LOS ± SEM	4.34 ± 0.14	4.41 ± 0.13	0.718†

Note. ISS = Injury Severity Score; LOS = length of stay. MME = Morphine Milligram Equivalents. † p-value calculated using 2 sample student's t-test. ^p-value calculated using Chi-Square. SEM = standard error of measurement.

Limitations

- This study excluded patients prescribed opioid drips, fentanyl patches, and methadone.
- Data for opioid or alternative medication prescribed versus actual consumptions was not collected.
- Pain was unable to be evaluated due to the inconsistency in documentation of pain scores.

Discussion

2016 NJ reported 1,971 opioid deaths.

2018 NJ reported 2,906 opioid related deaths

32% increase.

The results of this study for this trauma center showed a statistically significant reduction in opioid consumption in 2018. This has not had an immediate impact in decreasing opioid related deaths.

Implications for practice: Need for non-addictive alternative and pain management clinical guidelines.

Patient Care: Decreased use of opioids should result in less opportunity for patient addiction.

Policy: Legislation can work to support clinical solutions and should not be driving clinical practice.

Economy & Social Benefit: Reducing the use of opioids could result in lower opioid addiction which would lower the cost of opioid addiction treatment. There would be an overall benefit to the economy, society, and medical community.

Recommendations: Continued evidence-based research by practitioners should be instrumental in driving legislation. Medical professionals, legislators, community leaders, and the community itself must work in a collaborative fashion to employ meaningful and multifaceted solutions to solve the opioid crisis

References

- See List