CHANGES IN PROVIDER PRESCRIBING PATTERNS AFTER IMPLEMENTATION OF AN EMERGENCY DEPARTMENT PRESCRIPTION OPIOID POLICY

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INTRODUCTION

- Prescription drug overdose deaths in the past decade, with >13,000 deaths nationally since 2007.
- Among individuals who abused prescription opioids upon entering methadone treatment, 13% reported obtaining their opioids from EDs.
- Pre-scription opioid pain relievers are the leading cause of over-dose deaths in the United States, accounting for 73.8% of prescription drug overdose deaths in 2008.
- ED visits for prescription opioid misuse or diversion account for an estimated 950,000 ED visits each year.
- Potentially important factors in this increase include:
    - deregulation of prescription opioids in the mid-1990s
    - promotion of pain control initiatives as the fifth vital sign by The Joint Commission in 2001 with associated changes in provider prescribing patterns and
    - creation of a long-acting formulation of oxycodone

GOALS OF THIS INVESTIGATION

- Our objective was to determine the effectiveness of implementing an opioid prescription policy on reducing opioid prescribing patterns at an urban, teaching, non–university-affiliated hospital.

STUDY DESIGN

- We performed a pre- and post-intervention time series study in which ED opioid prescription rates were compared during a 7-year period. The primary outcome was the ED opioid prescription rate, defined as the number of ED visits with an opioid prescription at discharge, as a proportion of the total number of ED visits. A secondary outcome was the dispensing quantity (number of tablets or capsules prescribed per prescription).
- included patients aged 18 years and older who had an ED visit between January 2007 and June 2014 and who were not admitted to the hospital or the observation unit.

INTERVENTION

- We adopted prescribing guidelines between fall 2010 and spring 2011 based on Washington ED Opioid Abuse Work Group set of guidelines, in line with other medical systems within Washington state.
- Implementation of the guidelines included development of patient education pamphlets and provider education focused on changing practice patterns. It was gradually implemented and universally adopted by all providers over the course of 2011.

RESULTS

- **After the intervention, there was a 39.6% decrease in the proportion of ED visits resulting in a discharge opioid prescription** (from 25.7% to 15.6%, absolute decrease 10.2 percentage points; 95% CI 9.6–10.7; $p < 0.001$, Table 2).
- The decrease in proportion of visits with an opioid was sustained for 2.5 years of follow-up.\
- We also identified a significant change in the number of pills per opioid prescription after the intervention. The mean number of pills per prescription decreased 14.8%, from 19.5 to 16.6 (absolute decrease 2.9; 95%CI 2.6–3.1; $p < 0.001$).
- The decrease in prescription size was temporally associated with the intervention and was also sustained for 2.5 years of follow-up.

- To show that the decrease in the number of pills prescribed was not the result of staff turnover, we compared changes in the number of pills for only providers who had practiced in the ED during the entire time period (2007–2014; n = 12).

DISCUSSION

- The study provides evidence of the effectiveness of an ED opioid prescribing policy with reductions in the rate of opioid prescribing and the number of doses per prescription in the setting of state initiatives aimed at reducing opioid prescriptions.
- The improvements were sustained through 2.5 years after the intervention. Prescriptions for oxycodone decreased most dramatically, with lesser decreases in hydrocodone, now the most commonly prescribed opioid and a designated Schedule III drug at the time with a lower potential for abuse.

Washington ED Opioid Prescribing Guidelines (Abridged)

1. One medical provider should provide all opioids to treat a patient's chronic pain
2. **The administration of intravenous and intramuscular opioids in the ED for the relief of acute exacerbations of chronic pain is discouraged**
3. Emergency medical providers should not provide replacement prescriptions for controlled substances that were lost, destroyed, or stolen
4. Emergency medical providers should not provide replacement doses of methadone for patients in a methadone treatment program
5. Long-acting or controlled-release opioids (such as OxyContin®, fentanyl patches, and methadone) should not be prescribed from the ED
6. EDs are encouraged to share the ED visit history of patients with other emergency physicians who are treating the patient using an Emergency Department Information Exchange (EDIE) system
7. Physicians should send patient pain agreements to local EDs and work to include a plan for pain treatment in the ED
8. Prescriptions for controlled substances from the ED should state that the patient is required to provide a government-issued picture identification (ID) to the pharmacy filling the prescription
9. EDs are encouraged to photograph patients who present for pain-related complaints without a government-issued photo ID
10. EDs should coordinate the care of patients who frequently visit the ED using an ED care coordination program
11. EDs should maintain a list of clinics that provide primary care for patients of all payer types
12. EDs should perform screening, brief interventions, and treatment referrals for patients with suspected prescription opioid abuse problems
13. The administration of Demerol® (meperidine) in the ED is discouraged
14. For exacerbations of chronic pain, the emergency medical provider should contact the patient's primary opioid prescriber or pharmacy. The emergency medical provider should only prescribe enough pills to last until the office of the patient's primary opioid prescriber opens 15. **Prescriptions for opioid pain medication from the ED for acute injuries, such as fractured bones, in most cases should not exceed 30 pills**
16. ED patients should be screened for substance abuse prior to prescribing opioid medication for acute pain
17. The emergency physician is required by law to evaluate an ED patient who reports pain. The law allows the emergency physician to use their clinical judgment when treating pain and does not require the use of opioids

Figure 1. Washington Emergency Department (ED) Opioid Prescribing Guidelines (Abridged).