

# Opioid Prescribing in a Cross Section of US Emergency Departments

Jason A. Hoppe, DO; Lewis S. Nelson, MD; Jeanmarie Perrone, MD; Scott G. Weiner, MD, MPH\*; for the Prescribing Opioids Safely in the Emergency Department (POSED) Study Investigators<sup>†</sup>

\*Corresponding Author. E-mail: [sgweiner@partners.org](mailto:sgweiner@partners.org), Twitter: @ScottWeinerMD.

**Study objective:** Opioid pain reliever prescribing at emergency department (ED) discharge has increased in the past decade but specific prescription details are lacking. Previous ED opioid pain reliever prescribing estimates relied on national survey extrapolation or prescription databases. The main goal of this study is to use a research consortium to analyze the characteristics of patients and opioid prescriptions, using a national sample of ED patients. We also aim to examine the indications for opioid pain reliever prescribing, characteristics of opioids prescribed both in the ED and at discharge, and characteristics of patients who received opioid pain relievers compared with those who did not.

**Methods:** This observational, multicenter, retrospective, cohort study assessed opioid pain reliever prescribing to consecutive patients presenting to the consortium EDs during 1 week in October 2012. The consortium study sites consisted of 19 EDs representing 1.4 million annual visits, varied geographically, and were predominantly academic centers. Medical records of all patients aged 18 to 90 years and discharged with an opioid pain reliever (excluding tramadol) were individually abstracted by standardized chart review by investigators for detailed analysis. Descriptive statistics were generated.

**Results:** During the study week, 27,516 patient visits were evaluated in the consortium EDs; 19,321 patients (70.2%) were discharged and 3,284 (11.9% of all patients and 17.0% of discharged patients) received an opioid pain reliever prescription. For patients prescribed an opioid pain reliever, mean age was 41 years (SD 14 years) and 1,694 (51.6%) were women. Mean initial pain score was 7.7 (SD 2.4). The most common diagnoses associated with opioid pain reliever prescribing were back pain (10.2%), abdominal pain (10.1%), and extremity fracture (7.1%) or sprain (6.5%). The most common opioid pain relievers prescribed were oxycodone (52.3%), hydrocodone (40.9%), and codeine (4.8%). Greater than 99% of pain relievers were immediate release and 90.0% were combination preparations, and the mean and median number of pills was 16.6 (SD 7.6) and 15 (interquartile range 12 to 20), respectively.

**Conclusion:** In a study of ED patients treated during a single week across the country, 17% of discharged patients were prescribed opioid pain relievers. The majority of the prescriptions had small pill counts and almost exclusively immediate-release formulations. [Ann Emerg Med. 2015;66:253–259.]

Please see page 254 for the Editor's Capsule Summary of this article.

A **feedback** survey is available with each research article published on the Web at [www.annemergmed.com](http://www.annemergmed.com).

A **podcast** for this article is available at [www.annemergmed.com](http://www.annemergmed.com).

0196-0644/\$-see front matter

Copyright © 2015 by the American College of Emergency Physicians.

<http://dx.doi.org/10.1016/j.annemergmed.2015.03.026>

## INTRODUCTION

### Background

Pain is the most common reason for an emergency department (ED) visit; almost two thirds of patients seeking ED care do so for acute pain or acute exacerbations of chronic pain.<sup>1,2</sup> Emergency physicians frequently treat pain with opioid pain relievers.<sup>3</sup> Unfortunately, opioid misuse, addiction, overdose, and diversion have reached epidemic proportions in the United States.<sup>4</sup> The contribution of ED prescribing to problematic opioid use is not clearly

defined. Also, the rate of ED opioid prescribing and the attributes of ED opioid prescriptions have not been directly studied on a large scale, to our knowledge.

### Importance

Opioid pain relievers are an accepted treatment for outpatient management for patients with moderate to severe acute pain.<sup>5</sup> ED providers care for patients with a spectrum of pain severity and causes, and nationally emergency physicians are among the most frequent prescribers of opioid pain relievers in patients younger than 40 years.<sup>6</sup> A recent study found that approximately one third of all ED patients receive

<sup>†</sup>All members are listed in the [Appendix](#).

**Editor's Capsule Summary***What is already known on this topic*

Prescriptive opioid use and harm increased during the past decades, prompting some to seek emergency department (ED) opioid prescribing limits.

*What question this study addressed*

What is the pattern of ED opioid deployment after discharge?

*What this study adds to our knowledge*

In a 1-week cross-sectional survey of 19 EDs across the United States, chart review revealed an opioid prescription frequency at discharge of 11.9% for all patients and 17.0% for discharged patients. The quantities were small (mean  $\approx$  15 tablets) and overwhelmingly for oral short-acting agents.

*How this is relevant to clinical practice*

ED opioid prescribing reduction efforts will likely have modest effect because opioids currently appear to be deployed with caution and aligned with short-term use goals.

*Future research we would like to see*

A longitudinal study of how ED opioid prescribing affects patients or creates future harm.

an opioid either administered in the ED or prescribed at discharge, up from 21% in a span of 10 years.<sup>7</sup> Prescribing behavior is complicated by the nature of emergency care, which is often provided without the benefit of an established patient-physician relationship and in an environment characterized by limited time and resources.

**Goals of This Investigation**

This study sought to describe the characteristics of opioid pain reliever prescriptions from a cluster of consecutive visits in a 1-week period across a large national sample of ED patients. Additionally, we sought to examine the indications for opioid pain reliever prescribing, doses provided both in the ED and prescribed at discharge, and characteristics of patients who received opioid pain relievers compared with other patients evaluated in the ED during this period.

**MATERIALS AND METHODS****Study Design and Setting**

This was a retrospective cohort study of consecutive ED visits in a 1-week period during October 2012. The

19 EDs participating in the study consortium were geographically distributed throughout the United States and were primarily academic (16/19) (Appendix E1, available online at <http://www.annemergmed.com>). Annual ED census ranged from 42,000 to 230,000 (median 80,000) and in total represented approximately 1.4 million visits per year. In accordance with a small sample of hospital data, we had hypothesized that approximately 10% to 15% of discharged patients in our sample would receive an opioid prescription. Institutional review board approval was obtained at each site.

**Selection of Participants**

Patients aged 18 to 90 years who presented to the participating EDs between 12:01 AM on October 15, 2012, and 11:59 PM on October 21, 2012, were eligible. Each site used an electronic medical record from which prescription data could be extracted automatically and patient records could be evaluated by the site investigators. Medical records of each patient discharged with an opioid pain reliever prescription underwent a manual review.

**Methods of Measurement**

A query for all ED visits during the study period was generated by a site investigator, and the following information was obtained: patient age, sex, insurance status, race/ethnicity, weekday (Monday midnight to Friday 11:59 PM) or weekend (Saturday midnight to Sunday 11:59 PM) arrival, Emergency Severity Index triage level, first documented pain score (0 to 10), chief complaint, disposition (discharge from ED or other), primary discharge diagnosis, and a determination of whether an opioid pain reliever prescription was given at discharge for the treatment of pain. Opioid pain reliever prescriptions were defined as any opioid pain reliever prescription provided for a painful condition (eg, oxycodone, hydrocodone, hydromorphone, codeine). Cases were excluded if an opioid was specifically prescribed for cough suppression. Tramadol was excluded because it is considered a less potent opioid and was not a scheduled medication during the study.

ED records of the patients discharged with an opioid pain reliever prescription underwent a manual chart abstraction by an investigator. Investigators entered information into a structured data collection tool with an explicit protocol and defined variables (usually from a drop-down box if categorical) with a standardized abstraction instrument. There was no formal abstraction training or blinding to the outcome. Each site investigator was responsible for training and data fidelity at his or her individual site. The following information was collected in a deidentified fashion and transferred to a centralized

Download English Version:

<https://daneshyari.com/en/article/3229152>

Download Persian Version:

<https://daneshyari.com/article/3229152>

[Daneshyari.com](https://daneshyari.com)