



## Veterans' Health

## Receipt of Prescription Opioids in a National Sample of Pregnant Veterans Receiving Veterans Health Administration Care



Aimee R. Kroll-Desrosiers, MS<sup>a,\*</sup>, Melissa Skanderson, MS<sup>c</sup>,  
Lori A. Bastian, MD, MPH<sup>c,d,e</sup>, Cynthia A. Brandt, MD, MPH<sup>c,e,f,g</sup>, Sally Haskell, MD<sup>b,c</sup>,  
Robert D. Kerns, PhD<sup>e,h,i,j</sup>, Kristin M. Mattocks, PhD, MPH<sup>a,k</sup>

<sup>a</sup> Department of Quantitative Health Sciences, University of Massachusetts Medical School, Worcester, Massachusetts

<sup>b</sup> Department of Internal Medicine, Yale University School of Medicine, New Haven, Connecticut

<sup>c</sup> VA Connecticut Healthcare System, West Haven, Connecticut

<sup>d</sup> Division of General Internal Medicine, University of Connecticut, Farmington, Connecticut

<sup>e</sup> Pain Research, Informatics, Multimorbidities, and Education Center, VA Connecticut Healthcare System, West Haven, Connecticut

<sup>f</sup> Yale Center for Medical Informatics, Yale School of Medicine, New Haven, Connecticut

<sup>g</sup> Department of Emergency Medicine, Yale School of Medicine, New Haven, Connecticut

<sup>h</sup> Department of Psychiatry, Yale School of Medicine, New Haven, Connecticut

<sup>i</sup> Department of Neurology, Yale School of Medicine, New Haven, Connecticut

<sup>j</sup> Department of Psychology, Yale School of Medicine, New Haven, Connecticut

<sup>k</sup> Research and Development, VA Central Western Massachusetts, Leeds, Massachusetts

Article history: Received 25 February 2015; Received in revised form 10 September 2015; Accepted 22 September 2015

### A B S T R A C T

**Background:** A growing number of reproductive-age women veterans are returning from Operations Enduring Freedom, Iraqi Freedom, and New Dawn (OEF/OIF/OND). In 2010, 42% of women veterans receiving Veterans Health Administration (VHA) services were aged 18 to 45. Prescription opioid use has increased among all veterans over the past decade; however, exposure among pregnant veterans has not been examined.

**Methods:** We identified 2,331 women who delivered babies within the VHA system between 2001 and 2010. Delivery, opioid prescribing history, and demographic and health-related variables were obtained from a national database of veterans receiving VHA services. Receipt of an opioid prescription was defined as any filled VHA prescription for opioids in the 280-day pregnancy window before delivery. We developed a multivariable logistic regression model adjusted for sociodemographic, service-related, psychiatric diagnosis, and physical health variables to examine the odds of filling an opioid prescription during the pregnancy window.

**Findings:** Ten percent of pregnant veterans received VHA prescription opioids during their pregnancy window. Significant factors associated with opioid prescriptions included presence of any psychiatric diagnosis (adjusted odds ratio [aOR], 1.67; 95% CI, 1.24–2.26), diagnosis of back problems (aOR, 2.94; 95% CI, 1.92–4.49), or other nontraumatic joint disorders (aOR, 2.20; 95% CI, 1.36–3.58).

**Conclusions:** This study suggests that a substantial proportion of women veterans received VHA prescriptions for opioids during pregnancy. Providers should be aware of the potential risks of prescription opioid use during pregnancy, assess for potential undertreatment of psychiatric diagnoses, and consider alternate pain management strategies when possible.

Published by Elsevier Inc. on behalf of the Jacobs Institute of Women's Health.

Funding statement: No competing financial interests exist.

\* Correspondence to: Aimee R. Kroll-Desrosiers, MS, Department of Quantitative Health Sciences, University of Massachusetts Medical School, 368 Plantation Street, Worcester, MA 01605. Phone: 1-508-856-3540; fax: 1-508-856-8993.

E-mail address: [aimee.kroll@umassmed.edu](mailto:aimee.kroll@umassmed.edu) (A.R. Kroll-Desrosiers).

Over the past 10 years, an increasing number of women have returned from serving in Operations Enduring Freedom (OEF), Iraqi Freedom (OIF), and New Dawn (OND). Among OEF/OIF/OND women veterans utilizing Veterans Health Administration (VHA) health care in 2010, 42% were between the ages of 18 and 45 (Frayne et al., 2012). The increasing number of young women veterans in VHA care has expanded the need for reproductive

health care services, including services related to pregnancy and childbirth. From 2008 to 2012, the number of infant deliveries paid for by the VHA increased by 44% (Mattocks et al., 2014).

Prevalence in the use of prescription opioids has surged across the United States in recent years, and use in veterans is no exception (Lew et al., 2009; Wu, Lang, Hasson, Linder, & Clark, 2010). Some evidence suggests that female veterans are more likely to receive prescription opioids compared with male veterans. Data from 2012 suggests a 42.9% rate of prevalent opioid receipt in women veterans compared with 32.9% in male veterans (Mosher et al., 2015). This greater proportion of prescription opioid use in women may be associated with the higher likelihood of women veterans being diagnosed with chronic pain and back, musculoskeletal, or joint conditions compared with men (Higgins et al., 2014), a difference that holds after adjustment for demographic characteristics (Haskell et al., 2012).

Among pregnant women in the United States, estimates of prevalence of prescription opioid use range from 1% to 21% (Bateman et al., 2014; Desai, Hernandez-Diaz, Bateman, & Huybrechts, 2014; Epstein et al., 2013; Keegan, Parva, Finnegan, Gerson, & Belden, 2010; Salihu, Mogos, Salemi, & Salinas, 2013). A study of insurance beneficiaries found that 14.4% of women were dispensed a prescription opioid during their pregnancy (Bateman et al., 2014). Studies on the risks of opioid use during pregnancy for the mother and baby have been somewhat indecisive, given the difficulties in assessing opioid exposure over the course of a pregnancy (Bateman et al., 2014; Chou et al., 2009). However, some studies have found maternal opioid exposure to be associated with an increased risk of fetal neural tube defects (Meyer, 2014; Yazdy, Mitchell, Tinker, Parker, & Werler, 2013), and among chronic users, development of opioid drug withdrawal symptoms, known as neonatal abstinence syndrome (Broussard et al., 2011; Meyer, 2014; Patrick et al., 2012, 2015). Neonatal abstinence syndrome manifests neurologically through symptoms such as tremors, irritability, and seizures, and through gastrointestinal symptoms including vomiting, dehydration, and diarrhea (Hudak & Tan, 2012).

Given the increasing rates of young women veterans receiving VHA services, the increase in prescription opioid use among veterans overall, and the prevalence of prescription opioid exposure during pregnancy in the general population, there is a need to quantify opioid prescribing patterns in pregnant veterans. Understanding the prevalence and risks of opioid prescriptions in pregnant veterans using VHA care is important to help improve preconception and pregnancy counseling around the risks and benefits of potentially teratogenic medications. Thus, our objectives were two-fold: 1) to describe the prevalence of opioid prescribing to pregnant veterans and 2) to examine predictors for receipt of opioids. We conducted an analysis of administrative data on women veterans enrolled in VHA health care from 2001 to 2010.

## Methods

### *Study Design and Data Source*

This study was conducted using data from the Women Veteran's Cohort Study, described previously elsewhere (Haskell et al., 2011; Scott et al., 2013). The study population was obtained from the OEF/OIF/OND roster received from the Department of Defense Manpower Data Center. The roster was merged with Veterans Affairs (VA) administrative data, including the VA National Patient Care Database, the VA Corporate Data Warehouse

(electronic health record data), and the VA Decision Support Systems database. The roster contains information on sex, race, date of birth, deployment dates, armed forces branch (Army, Navy, Air Force, Marines, or Coast Guard), and component (National Guard, Reserve, or active duty). Additionally, the VA National Patient Care Database and Decision Support Systems databases include information on health care use and cost, pharmacy and laboratory data, and diagnostic and procedure data for both inpatient and outpatient visits. VA fee basis files were used to examine veterans' receipt of pregnancy care from non-VA providers. This pooled database consists of 739,683 veterans who were enrolled in VHA health care at any point from 2001 to 2010.

### *Study Sample and Definition of Determinants of Pregnancy*

We obtained information on 87,491 women, 67,037 who were of reproductive age (18–45 years old) and had used VHA medical or mental health services at least once during the study period. Our study included 2,331 women who had record of an infant delivery paid for by the VHA during this time period. Each woman contributed only one delivery to this analysis; for those who had multiple deliveries in the database (10.3%), only the first delivery was retained. Deliveries were identified through the identification of diagnostic-related groups (DRGs) related to vaginal or cesarean deliveries (DRGs 370–375, 765–768, 774, 775). These DRGs were found within codes of the Major Diagnostic Category 14 – Pregnancy, Childbirth and Puerperium (Appendix A). This methodology of using DRGs has been used previously with these data (Mattocks et al., 2014).

### *Definition of Outcome*

Opioid prescriptions were identified by an active prescription fill during the pregnancy window of any of the included drugs of interest (Appendix B). We defined receipt of prescription opioids during pregnancy in two different ways. The primary definition, “any prescription” was defined as at least one filled prescription for opioids in the VHA prescription data in the 280 days before delivery. Defining variables based on a 280-day window has been done previously with similar VA pregnancy data to capture all services and prescriptions that may have taken place during pregnancy, from very early stages ending with delivery (Mattocks et al., 2010). Additionally, we defined “long-term prescriptions” as receipt of prescription opioids for 90 consecutive days or longer, with 30 days or less of a gap, during the 280-day pregnancy window. This 90-day time reference for chronic use is commonly used in the literature (Feinberg et al., 2014). Both prescription variables were coded dichotomously, yes versus no. Information on the indication for the prescription was not included in this analysis; therefore, the prescriptions defined here potentially include both analgesics and/or opioid agonist therapies for pregnant women with substance use disorders.

### *Demographic and Health-Related Factors*

We chose potential factors associated with receipt of an opioid prescription based on previous literature on predictors of exposure during pregnancy and available information in our data (Bateman et al., 2014; Desai et al., 2014; Epstein et al., 2013; Keegan et al., 2010). These factors included demographic characteristics, such as age at the time of delivery, race, ethnicity,

Download English Version:

<https://daneshyari.com/en/article/1092870>

Download Persian Version:

<https://daneshyari.com/article/1092870>

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