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## Evaluation of an Emergency Department Provider Information Update on the Initiation of Suboxone with a Community Treatment Program Referral for Opioid Overdose and Opioid Use Disorder

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**Evaluation of an Emergency Department Provider Information Update on the Initiation of  
Suboxone with a Community Treatment Program Referral for Opioid Overdose and  
Opioid Use Disorder**

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### **Abstract**

Over 21 million people in the United States (U.S.) require substance use disorder (SUD) treatment; yet less than 4 million people receive treatment (Bressan & Kening, 2023). According to Thomas et al. (2022), opioid overdose deaths are increasing, and improving access to evidence-based treatment is critical. Hospital emergency departments (EDs) play a lifesaving in the emergency treatment of opioid overdoses; but can also serve as gateways to opioid treatment by healthcare providers for opioid addictions (Reuter et al., 2022). Mortality, after an ED visit for opioid overdose, is high (Thomas et al., 2022). Community resources are limited, thus making it difficult for patients to have follow-up care (Madras et al., 2020). Emergency departments (EDs) can serve as critical access points for the initiation of buprenorphine/naloxone or Suboxone for opioid overdoses or opioid use disorders (OUDs) (refs). The purpose of this project is to evaluate the impacts of an ED provider information update on the initiation of Suboxone, with a community treatment program referral, on patients treated for an opioid overdose (OD) and/or opioid use disorder (OUD) in an emergency department. The findings of this project will describe the impacts of low barrier treatment, including access to Suboxone and a referral to a community treatment program, on patients treated for an OD and/or OUD in the ED.

*Keywords:* opioid use disorder (OUD) and opioid overdose.

## **Evaluation of an Emergency Department Provider Information Update on the Initiation of Suboxone with a Community Treatment Program Referral for Opioid Overdose and Opioid Use Disorder**

The opioid epidemic was declared a national public health emergency in 2017 (Reuter et al., 2022) and the U.S. is facing a crisis of opioid related deaths (Thomas et al., 2022). The opioid epidemic continues to inflict significant morbidity and mortality. According to the CDC Wonder (2021), more than 932,000 people have died since 1999 from a drug overdose. The rate of drug overdose deaths involving synthetic opioids other than methadone increased 22%, while the rates of death involving heroin declined 32% between 2020 and 2021 (Spencer, Minino, and Warner, 2022). In 2017, a total of 967,615 nonfatal drug overdoses were treated in U.S. EDs (CDC, 2020).

The current state of the epidemic has been escalating over the past few years and several factors have contributed to the opioid epidemic (CDC, 2023). The CDC (2023) stated that the opioid crisis began in the 1999 and progressed in 3 phases:

**Phase 1:** In 1999, the U.S. saw a rise in prescription opioid overdose deaths.

**Phase 2:** In 2010, the U.S. saw a rise in overdose deaths involving heroin.

**Phase 3:** In 2013, the U.S. saw a significant increase in overdose deaths involving synthetic opioids, particularly those involving illicitly manufactured fentanyl.

Opioid overdoses and OUDs have become an increasingly public health concern for healthcare providers, patients, families, and communities.

The South Carolina (SC) Department of Health and Environmental Control (SCDHEC) (2021) reports that from 2012-2021, the total number of opioid drug overdose deaths in SC increased by more than 985 individuals, from 748 (2017) deaths to 1,733 (2021): an increase of more than 57%. SCDHEC (2021) also went on to report that opioids continue to be the second leading cause of overdose deaths in 2021.

The CDC (2023) reported on trends in ED visits in all suspected opioid overdoses. Data indicates that opioid overdoses have increased in SC since the beginning of the COVID-19 pandemic, most likely due to increased anxiety, social isolation, and depression (DHEC, 2019). Recent data shows that there was a +1% annual change in the US and an -11% change (no significant change) in SC opioid overdoses when comparing all ODs in June 2022 and June 2023. These statistics demonstrate that the opioid epidemic is not only a national concern, but one that is statewide as well.

Self Regional Medical Center, part of Self Regional Healthcare, is in Greenwood, SC. (Self Regional Healthcare, 2021). Self Regional Medical Center serves seven Lakeland region counties. These include Laurens, Greenwood, Abbeville, Edgefield, McCormick, Saluda, and Newberry counties with a population of more than a quarter of a million people (Self Regional Healthcare, 2021).

The DSM-5-TR (2022) states that an OUD is defined as a problematic pattern of opioid use leading to clinically significant impairment or distress. According to DSM-5-TR (2022) criteria, any two of the eleven listed diagnostic criteria must be met within a 12-month period to diagnose OUD; (Appendix A). According to DSM-5-TR (2022, p. 610-612), “Opioid use disorder can arise from prescription opioids or illicit opioids (e.g., heroin and, especially in recent years, fentanyl-related synthetic opioids).

Opioid use disorder consists of signs and symptoms reflecting compulsive, prolonged self-administration of opioid substances either for a purpose other than a legitimate medical one or for use in a “non-medical” manner (i.e., greatly exceeding the amount prescribed for a medical condition...An attempt to achieve opioid intoxication may result in fatal or nonfatal opioid overdose. Opioid overdose is characterized by unconsciousness, respiratory depression, and pinpoint pupils...In the United States, problems associated with opioid use are most commonly first observed in the late teens or early 20s, with a longer interval between first opioid use and onset of disorder for prescription opioids than for heroin.”

Dydyk, Jain, and Gupta (2023, p. 3-4) stated that signs and symptoms of OUD include, “...opioid withdrawal with stopping opioid use, giving up essential life events for opioid use, and excessive time using opioids. The individual also has significant impairment or distress as a result of opioid use. Six or more items on the diagnostic criteria indicate a severe condition.” The signs and symptoms of OUD include drug-seeking behavior, legal or social ramifications due to opioid use, and multiple opioid prescriptions from various providers. Furthermore, various medical complications arise from the use of opioids, opioid cravings, increased opioid usage over time, and symptoms of opioid withdrawal upon stopping of the opioids (2023).

Although effective treatments exist, most people with an OUD are untreated, resulting in severe clinical and public health consequences (Thomas et al., 2022). According to the National Library of Medicine (2023), opioid intoxication symptoms include confusion, miosis, hypersomnia, nausea, euphoria, constipation, and decreased pain perception. For a suspected opioid overdose, upon physical exam, patients may have pinpoint pupils. The patient could be hypothermic or bradycardic, with limited responsiveness or unconsciousness (2023).

Opioids also pose health issues and problems for the public (Congressional Budget Office, 2022). OUD can lead to an increase in the amount and frequency of opioid use or failure to fulfill major responsibilities at work, home, or school, which can affect people's participation in the labor force and their ability to care for their children (Congressional Budget Office, 2022). Although treatment for OUD is available, patients use resources far less than behavioral health professionals recommend (Congressional Budget Office, 2022, Davis et al., 2021; Thomas et al., 2022). The CDC (2023) reported that the use and misuse of opioids during pregnancy can lead to serious negative health outcomes for pregnant women and their developing fetuses, including preterm birth, stillbirth, maternal mortality, and neonatal abstinence syndrome (NAS). Neonatal abstinence syndrome is a spectrum of clinical manifestations seen in neonates due to withdrawal from intrauterine drug exposure. It is more commonly associated with maternal opioid use (CDC, 2023; Anbalagan & Mendez, 2023). Pro et al. (2022) suggested that a survey of patients in treatment for OUD found that 94% chose to use heroin because prescription opioids were more difficult to obtain or more expensive.

Often, the ED is the first contact that a patient has with a healthcare provider following an opioid related overdose (Thomas et al., 2022). Reuter et al. (2022) stated that Suboxone has been shown to decrease mortality, reduce overdoses, increase treatment retention, and decrease the costs associated with addressing the opioid epidemic. Emergency departments can be effectively utilized to provide the initial Suboxone prescription following an opioid overdose or OUD. As part of their ED treatment, patients can also be referred to a treatment facility for further follow-up and management (2022).

Finally, Reuter et al. (2022) suggested that a majority of patients with an OUD do not have access to addiction medicine services. An OUD is a treatable condition.

Yet, four in five Americans with OUD do not receive any form of treatment (Madras et al., 2020). In 2018, SAMSHA, reported that 18.9 million people needed and did not receive substance use treatment. The gap in access to evidence-based care, including treatment with medications for OUD, stems in part from barriers to change within the health care system (Madras, 2020). For patients who experience an opioid overdose and/or are diagnosed with OUD, the ED represents acts a crucial point of access for these patients (Reuter et al., 2022).

### **Literature Review**

A focused literature on the initiation of Suboxone in the ED for opioid overdoses or OUD in/for adults was conducted from 2018-2023. The Medical Subject Heading (MeSH) terms were opioid use disorder (OUD), opioid overdose, adults (aged 18 years and older), and Emergency Department. Databases searched included CINAHL Plus with Full Text, PubMed, and MEDLINE with Full Text. The search yielded articles organized around three themes: (1) EDs are critical access points for patients with opioid dependence; (2) low-barrier care in the emergency department is important for patients with opioid dependence; and (3) the initiation of Suboxone in the ED improved morbidity and mortality for patients with OUD.

### **Emergency Departments as Critical Access Points**

Emergency Departments were recognized to serve as critical access points for SUD and/or treatment of an opioid overdose or OUD. Bressan and Kenig (2023) stated that individuals with SUDs often access care in the ED setting. Nearly half of all ED visits in the US are related to SUDs (Bressan & Kenig, 2023; Harris et al., 2020). Zhang et al. (2021) reported that all adult ED visits (N = 27,609) in the US in 2016-2017, 11.1% of patients had a SUD.



According to Davis et al. (2021), ED visits for opioid overdoses have increased significantly over the past few years. In 2017, EDs treated more than 305,000 opioid-involved overdoses, a 30% increase from 2016. Mortality following an ED visit after an opioid overdose is high (Thomas et al., 2022). According to Thomas et al. (2022) a study of patients in Massachusetts EDs found that 5% of patients who survived an opioid overdose died within one year of ED discharge. Of these, 20% occurred within one month of the ED visit and 5% of those (1.1% of all deaths) were within two days (2022).

### **Low-Barrier Care in the ED and Opioid Use Disorder**

Historically, the role of the ED regarding patients with OUD has been acute stabilization and referral for outpatient treatment or to address medical complications (Pourmand et al., 2021; SAMSHA, 2021; Walter et al., 2021). Over time, the EDs role has developed into treatment, e.g., initiation of Suboxone while in the ED or Narcan take home packs (THPs) (Thomas et al., 2022).

Low-barrier OUD care in the ED should be focused on removing as many obstacles as possible between patients and addiction services. A low-barrier approach in the ED may include initiating MOUD and connecting patients with ongoing care, directly referring patients to community providers or community treatment centers, and offering harm reduction efforts such as overdose education and naloxone as take-home emergency medication (Thomas et al., 2022). An example of a barrier to care in the ED is the misconception about treatment, e.g., giving patients MAT is just “substituting one opioid for another” (Bressan & Kenig, 2023).

Additionally, a possible barrier to care was identified by Im et al. (2020) in regard to providers’ attitudes in initiating Suboxone in the ED.

In a mixed-methods study, Im et al. (2020) reported that most ED providers in their study did not feel prepared to initiate Suboxone in the ED and had differing perspectives on what role the ED should play in treating OUD. However, most providers did feel that a Suboxone-based intervention would be feasible with institutional support, including training opportunities, protocol support within the EHR, counseling and support staff, and a referral system for outpatient follow-up (2020).

Lagisetty et al. (2019) reported that there were significant disparities in OUD treatment access and engagement based on race and payment. “After accounting for payment method, sex, and age, we found that Black patients had statistically significantly lower odds of receiving buprenorphine prescription at their visits (adjusted odds ratio, 0.23; 95% CI, 0.13-0.44)” (2019, p. 979). According to Goedel et al. (2020), racial segregation predicts differences in access to MAT, and even at the regional level, neighborhood demographic makeup drives disparities in access to both medications (Hansen et al, 2013). While there has been an overall uptake of buprenorphine as a treatment for OUD, a Roberts et al. (2018) found that Suboxone is primarily accessible to white people, and those who have employer-based insurance. Often, prescribers of Suboxone only accept cash payments (2021). Disparities, noted to cause barriers to Suboxone access, are race, age, payment method, and sex, specifically communities with higher income and low percentages of racial/ethnic minorities (Lagisetty et al., 2019). Thomas et al. (2022) stated that effective OUD treatment needs to be available and accessible with as few barriers as possible to save lives.

Approaches to providing low-barrier care can take several forms.

Bressan and Kenig (2023) discussed the California Bridge Program, a SUD and resource program, which is built on three fundamental goals: (1) to create low-barrier treatment; (2) connections to care and community; and (3) a culture of harm reduction. According to Thomas et al. (2022), a low barrier approach to treatment has the following qualities: (1) same-day treatment entry; (2) harm reduction; (3) flexibility; and (4) treatment availability in a variety of clinical settings, e.g., primary care, community-based settings, and EDs.

In their description of a low-barrier approach in the ED, Thomas et al. (2022) discussed the importance of initiating medications for opioid use disorder (MOUD); connecting patients with ongoing care by directly referring patients to community providers for OUD treatment; and offering harm reduction efforts, such as overdose education and Narcan as take-home emergency medication. In short, low-barrier care can be summarized into 3 key points (1) make it as easy as possible for patients to obtain treatment for OUDs, (2) ensure patients remain in treatment for OUD, and (3) make community resources easily accessible (Thomas, 2022).

### **Suboxone Initiation in the ED**

Reuter et al. (2022) reported that MOUD has become the state-of-the-art treatment modality for the ED management of OUD. Bressan and Kenig (2023) went further and stated that Suboxone has become the “gold standard” for medication assisted therapy (MAT) for OUD. There is overwhelming evidence that Suboxone is a safe and effective medication in treating OUD (Pourmand et al., 2021). Impacts from a retrospective chart review by Le et al. (2021) concluded that as the opioid crisis shows few signs of declining, the findings from their study reinforce the potential of ED Suboxone prescriptions as a means of combatting the crisis.

The initiation of Suboxone, in the ED following an opioid overdose or as part of OUD treatment, has been found to improve patient outcomes by improving morbidity and mortality (SAMSHA, 2021; Im et al., 2020; Thomas et al., 2022; Le et al., 2021). Davis et al. (2021) suggested that evidence-based OUD treatment with Suboxone is associated with decreased illicit opioid use, decreased HIV and hepatitis C infections, improved birth outcomes, and an approximately 50% reduction in both opioid-related and all-cause mortality for patients with OUD. Additionally, patients with a previous diagnosis of depression were more likely to remain in treatment than those without depression if Suboxone treatment was started in the ED (Reuter et al., 2022). Reuter et al. (2022) also reported that no other psychiatric comorbidities, including anxiety, bipolar disorder, schizophrenia, and a history of previous suicide attempts, were associated either positively or negatively with treatment retention (2022).

Emergency departments can greatly influence opioid related morbidity and mortality by initiating Suboxone and linking patients to outpatient care (Pourmand et al., 2021; Thomas et al., 2022; Reuter et al., 2022; SAMSHA, 2021). A study by Le et al. (2021) revealed that patients who were prescribed Suboxone in the ED experienced significantly lower 12-month ED subsequent visit rates as well as hospitalization rates. An ED-initiated MOUD program implemented by Reuter et al. (2022), in partnership with local addiction medicine services, produced high-rates of long-term treatment retention. Of the 279 participants enrolled in the MOUD program, 105 were still enrolled at 6 months and 97 at 12 months' post ED visit (2022). ED provider initiated Suboxone therapy is potentially valuable in both terms of patient outcomes and overall healthcare utilization (Le et al., 2021).

Under section 1262 of the Consolidated Appropriations Act, 2023 (also known as Omnibus bill), the federal requirement for practitioners was removed to submit a Notice of Intent (have a waiver) to prescribe medications, like buprenorphine, for the treatment of OUD (SAMSHA, 2023; Bressan & Kening, 2023). All practitioners, who have a current DEA registration that includes Schedule III authority, may now prescribe buprenorphine for OUD in their practice if permitted by applicable state law and SAMHSA encourages them to do so (SAMSHA, 2023). In the past, an X-waiver authorized practitioners to provide patients with a prescription of multiday Suboxone, which aided patients until ongoing outpatient care was established (Bressan & Kenig, 2023). As of June 21, 2023, there is no longer a higher level of training or X-waiver required to administer Suboxone. Providers are now able to administer Suboxone for up to 3 days without a special license. However, there are new training requirements which were instituted, including an 8-hour opioid training class prior to the next DEA license renewal (SAMSHA, 2023).

It is important to note that there is often a gap between the need for effective evidence-based treatments for OUD and the availability of such treatment (Davis et al., 2021; Pourmand et al., 2021). Although some EDs may initiate Suboxone treatment, many individuals experiencing an overdose refuse transport to the ED or are transported to an ED that does not offer Suboxone (Davis, 2021). Another strategy is the utilization of Emergency Medical Service (EMS) professionals to help address this treatment gap by administering Suboxone in the field. By allowing EMS professionals to have increased access to Suboxone, this intervention has the potential to both save lives and more efficiently allocate scarce public health and health care resources, particularly in rural areas and other environments in which patients experience substantial barriers to accessing Suboxone treatment (2021).

While this strategy would not alleviate the problem, it would provide an additional resource for patients needing this lifesaving medication (Davis et al., 2021).

### **Purpose**

The purpose of this project is to evaluate the impacts of an ED provider information update on the initiation of Suboxone, with a community treatment program referral, on patients treated for an opioid overdose (OD) and/or for opioid use disorder (OUD) in an emergency department.

### **Methodology**

#### **Setting**

The setting is Self Regional Medical Center Emergency Department, part of Self Regional Healthcare (SRHC) in Greenwood, South Carolina. Self Regional Healthcare serves as a referral hospital for seven South Carolina counties. The Medical Center is a Level 3 Trauma Center with 358 beds, 30 of which are ICU beds and 32 are emergency medical service beds (Self Regional Healthcare, 2018). Self Regional Healthcare Medical Center serves seven counties with a total population served of 255,459 (Abbeville 24,356; Edgefield 26,932; Greenwood 69,257; Laurens 67,965; McCormick 9764; Newberry 38,247; and Saluda 18,938 counties) (United States Census Bureau, 2022).

#### **Sample**

Using the electronic health record (EHR), a retrospective chart audit of SRHC Medical Center ED visits/treatment for/of adult patients (aged 18 years and older) diagnosed with an opioid-overdose (OD) or opioid use disorder (OUD) and treated at/in Self Regional Medical Center ED will be conducted over three, two-month time periods in 2022 and 2023.

### **ED Provider Information Update**

After discussions about patients treated for opioid OD and OUD in the SRHC Medical Center ED monthly provider staff meetings, an information update on the new guidelines and regulations for treating patients with opioid OD or OUD was presented on January 23, 2024. The provider information update and flyer were developed by a Clemson University, School of Nursing DNP student, who is also a Family Nurse Practitioner provider in the ED, as part of her DNP project. During the provider update, the DNP student will review information on the new federal law, the Consolidated Appropriations Act (also known as the Omnibus Bill), section 1262, passed in 2023, removing the X-waiver requirement to prescribe Suboxone and requiring all providers to complete 8 hours of opioid education prior to their next DEA license renewal (SAMSHA, 2023). Next, SAMSHA (2021) Evidenced-Based Resource Guide on the Use of MAT in EDs will be discussed. Finally, a mixed-methods study by Im et al. (2020) on clinicians' attitudes toward OUD and ED-initiated buprenorphine treatment will be shared with ED providers focusing on their perceptions of buprenorphine and lack of preparedness to initiate buprenorphine in the ED. Following the information update presented by the DNP student, SRHC ED providers will discuss prescribing a 3-day course of Suboxone and referring patients to Greenwood Treatment Specialist for further follow-up and management.

The ED provider information update occurred on January 23, 2024 in the ED Conference Room at Self Regional Healthcare. The meeting took place virtually and in-person. Attendees included advanced practice providers, physicians, and administrators. Attendees were informed that the President/CEO of the healthcare system supported the idea and project.

The update included information on the new guidelines and regulations for treating patients with opioid OD or OUD and that patients had improved outcomes if Suboxone was prescribed in the ED, prior to discharge. Other topics covered included removal of the X-waiver requirement to prescribe Suboxone and the requirement for providers, prescribing Suboxone, to complete 8 hours of opioid education prior to their next DEA license renewal.

Two evidenced-based articles were discussed, the SAMSHA (2021) Evidenced-Based Resource Guide on the Use of MAT in EDs and a mixed-methods study by Im et al. (2020) on clinicians' attitudes toward OUD and ED-initiated buprenorphine treatment. The Im et al. (2020) article discussed providers' perceptions of prescribing buprenorphine and their lack of preparedness to initiate buprenorphine in the ED. When discussing local resources, it was shared that only one treatment center in Greenwood, Greenwood Treatment Specialist Center, prescribes MAT. This is an identified gap in care and community resources.

The presentation concluded with a robust discussion about ED providers prescribing a 3-day course of Suboxone for opioid overdoses and/or OUDs and referring patients to Greenwood Treatment Specialist for follow-up and management. Also, that the DNP project data would be collected and analyzed for one year prior to, one month prior to, and one month following the provider update. Data would include demographic information on patients with OD and OUD treated in the ED, diagnoses, numbers of comorbidities, Naloxone administration, and whether a 3-day course of Suboxone was prescribed and referral to a treatment program was completed. Finally, providers were given the opportunity during the session to discuss the information presented and ask questions.



### **Data Collection Procedures and Proposed Data Analyses**

Using the EHR, retrospective chart audits of SRHC ED visits of adult patients diagnosed with an opioid overdose or OUD were conducted over three time periods following IRB approval (February 2022, February 2023, and February 2024). Adults were defined as patients aged 18 years and older who received treatment in the ED. Project demographic data, collected retrospectively from the EHR, will include: age (date of birth); gender (legal sex, gender identity, sex assigned at birth, and sexual orientation); race (Black, White, Hispanic, Asian, Biracial, and Other); pay (self-pay, insurance, or financial assistance); if naloxone (Narcan) was administered prior to ED treatment or while in the ED; and number of comorbid conditions. Project data will include the numbers of adult patients who were treated in the SRHC ED for opioid OD and/or OUD and discharged, prescribed a 3-day course of Suboxone, and referral to the local treatment center. Project data files retrieved from the EHR (without patient identifiers), was uploaded and stored on password protected laptop computers. The quantitative data (demographic and project) was analyzed for each time period using descriptive statistics and SPSS software.

### **Results**

Table 1 presents the demographic data results for the retrospective EHR review. Of the 75 patients identified as receiving Narcan in the ED, 18 individuals were coded as OD or OUD for the February project time periods (2022 N= 9, 2023 N= 4, and 2024 N= 5). The mean age for the total cohort was 46 years with a range of 22 to 76 years. Eight females and 10 males were treated with Narcan for OD or OUD. All patients were white, and none were Hispanic. This cohort used a variety of payment/financial plans, in order of most to least frequent used, were: Medicaid MCO (N=6), Self-Pay (N=5), Medicare Advantage (N=3), Medicare (N=2) and Commercial Insurance (N=2).

When the data was analyzed by cohort, the mean patient age was 31 years in 2022 (range 22-33), 51 years in 2023 (range 31-76), and 56 years in 2024 (range 35-65). All 18 patients were White with no other races/ethnicities identified. Payor/financial plan varied by cohort.

Table 2 presents the project data for these patients. All 18 patients in the project received Narcan for OD or OUD. Eight encounter diagnoses were listed for these patients, including:

- T40.0: poisoning by, adverse effect of and underdosing of opium;
- T40.1: poisoning by heroin, accidental (unintentional), initial encounter;
- T40.2: poisoning by, adverse effect of and underdosing of other opioids;
- T40.3: poisoning by adverse effect of and underdosing of methadone;
- T40.4: poisoning by adverse effect of and underdosing of other synthetic narcotics;
- T40.6: poisoning by, adverse effect of and underdosing of other and unspecified narcotics;
- T50.901A: poisoning by, unspecified drugs, medicaments, and biological substances, accidental (unintentional), initial encounter; and
- F22.2: delusional disorder (psychosis).

The mean number of comorbidities for all participants was 4 (range 0-12). The mean number of comorbidities for patients by cohort was 8 (range 0-12) in 2022, <1 (range 0-2) in 2023, and 3.4 (range 0-6) in 2024. Three of the 18 patients, who received Narcan in the ED, received Narcan as an “Override Pull.” An “Override Pull” in the ED is used for life-saving measures. This means that the patient was hypoxic, cyanotic, and had agonal respirations upon arrival to the ED and that the staff nurse did not have time to obtain a provider’s order prior to administering Narcan due to the patient’s rapidly deteriorating condition. No patients diagnosed with OD or OUD received a prescription for Suboxone from an ED provider in February 2022, 2023, or 2024. For the three time periods, one patient was referred to a treatment program in 2023.

## Discussion

This project was initiated to evaluate the impacts of an ED provider information update on the initiation of Suboxone and a community treatment program referral for patients treated for an opioid overdose (OD) and/or opioid use disorder (OUD) in an emergency department. Using a retrospective EHR review, 18 patients were coded as OD or OUD for the project time period (February: 2022 N= 9, 2023 N= 4, and 2024 N= 5). The mean age for the total cohort was 46 years with a range of 22 to 76 years. Eight females and 10 males were treated with Narcan for OD or OUD. All 18 patients were white. The most common payment was Medicaid MCO (N=6) and Self-Pay (N=5).

There were eight encounter diagnoses listed in the EHR for these patients. Three patients, who received Narcan in the ED, received it as an “Override Pull” (2022 N=2, 2023 N=1). The mean number of comorbidities for all participants were 4 (range 0-12) and by cohort were 8 (range 0-12) in 2022, <1 (range 0-2) in 2023, and 3.4 (range 0-6) in 2024. No patients, who were diagnosed with OD or OUD, received a prescription for Suboxone from an ED provider in February 2022, 2023, or 2024. One patient was referred to a treatment program in 2023.

It is important to note that in 2023, Narcan nasal spray became available over the counter for less than \$50 per kit. Having this life-saving medication available to reverse opioid overdoses did impact project outcomes by potentially limiting the number of individuals seeking Suboxone and treatment for OD and/or OUD for 2023. In addition, the follow-up data collection, after the information session, was only one month. It is recognized that a longer follow-up period is needed to determine the impacts of a provider information session.

The article by Im et al. (2020), about provider attitudes regarding prescribing Suboxone in the ED, was discussed in the information session. Highlighted points from the article included:

(1) younger providers were more willing than older providers to prescribe Suboxone in the ED; (2) providers expressed concerns about adequate training and resources; (3) providers identified a need for institutional training and support; and (4) providers identified a need for improved coordination after ED initiation of Suboxone.

In discussing the project findings, a recommendation which emerged was the opportunity to involve ED staff nurses in bedside teaching for patients diagnosed with OD and/or OUD so that these patients would be aware that a 3-day prescription of Suboxone and a referral to a treatment center are available for individuals with opioid addiction. Additionally, hospital provided Peer Support Services could be consulted by ED providers to assist in identifying and encouraging patients with OD or OUD to consider starting Suboxone and being referred to a treatment program while in the ED.

### **Limitations**

Low-barrier OD and OUD care in the ED has not always been readily available to Patients. Updated practice guidelines for Suboxone treatment and referral are recent, published by SAMSHA in 2021. An important limitation for this project was that post-intervention data was only collected for a 1-month period following the ED provider meeting, which may not have been adequate time, as previously stated, to assess the impacts on provider Suboxone prescribing and treatment referrals. In addition, obstacles were identified for patients with OD and OUD regarding the availability of addiction services, including treatments centers and other resources. Another limitation may have been the willingness of patients to accept MAT treatment and/or continue MAT treatment and be referred to a treatment program. Based on the literature review, it was recognized that provider attitudes vary regarding prescribing Suboxone in the ED, e.g. younger providers may be more willing than older providers to prescribe Suboxone.

Also, that providers expressed concerns about training, resources, and institutional support. Finally, community resources are often not easily accessible for patients treated for OD and/or OUD in the ED as treatment facilities and programs are limited.

### **Conclusions**

ED provider updates, including a robust discussion, are important for providing information on the current guidelines for prescribing Suboxone (elimination of the X-waiver and 8 hours of MOUD training prior to the next DEA license renewal), initiating a 3-day prescription of Suboxone in the ED, and referral to a treatment facility. Using a retrospective EHR review, data was collected on patients, treated in the ED for OD and OUD for one month following the provider information session, found that no patients were prescribed Suboxone or referred to a treatment facility/program during this time. These results supported the need for a longer period of evaluation following a provider information update. Also, it was recognized that bedside teaching by ED ~~from~~ nurses about Suboxone and a referral to a treatment center could benefit patients with OD and OUD. Additionally, hospital provided Peer Support Services could be consulted to offer information and assistance for patients with OD or OUD regarding 3-day Suboxone prescription and treatment program referral options.

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**Table 1**

## Demographic Data

<b>Demographic Data</b>	<b>Categories</b>	<b>February 2022 (N=9)</b>	<b>February 2023 (N=4)</b>	<b>February 2024 (N=5)</b>	<b>Total Cohort 2022 – 2024 (N=18)</b>
<b>Age</b>	Mean Range	31 (22-33)	51 (31-76)	56 (35-65)	46 (22-76)
<b>Gender</b>	Female Male	2 7	3 1	3 2	8 10
<b>Race</b>	Asian Black White Biracial Other	0 0 9 0 0	0 0 4 0 0	0 0 5 0 0	0 0 18 0 0
<b>Ethnicity</b>	Hispanic Non-Hispanic/Non-Latino	0 9	0 4	0 5	0 18
<b>Payor/Financial</b>	Medicare Medicaid MCO Medicare Advantage Self-Pay Commercial Insurance	0 4 0 4 1	1 1 1 0 1	1 1 2 1 0	2 6 3 5 2

**Table 2**  
Outcomes Data

<b>Outcomes Data</b>	<b>Categories</b>	<b>February 2022 (N=9)</b>	<b>February 2023 (N=4)</b>	<b>February 2024 (N=5)</b>	<b>Total Cohort 2022-2024 (N=18)</b>
<b>Diagnosis</b>	Opioid Use Disorder or Opioid Overdose	9	4	5	18
<b>Encounter Diagnoses</b>	T40.0, T40.1, T40.2, T40.3, T40.4, T40.6, T50.901A, F22.2	9	4	5	18
<b>Comorbidities</b>	Mean Range	7 (0-12)	<1 (0-2)	3 (0-6)	4 (0-12)
<b>Naloxone 1 mg</b>	Received in ED	9	4	5	18
	Received as Override Pull in ED (Life-threatening)	2	0	1	3
<b>Suboxone Prescribed by ED Provider (3 Days)</b>	Yes	0	0	0	0
	No	9	4	5	18
<b>Treatment Program Referral</b>	Yes	0	1	0	1
	No	9	3	5	17

T40.0 = Poisoning by, adverse effect of and underdosing of opium

T40.1 = Poisoning by heroin, accidental (unintentional), initial encounter

T40.2= Poisoning by, adverse effect of and underdosing of other opioids

T40.3 = Poisoning by, adverse effect of and underdosing of methadone

T40.4 = Poisoning by, adverse effect of and underdosing of other synthetic narcotics

T40.6 = Poisoning by, adverse effect of and underdosing of other and unspecified narcotics

T50.901A = Poisoning by unspecified drugs, medicaments, and biological substances, accidental (unintentional), initial encounter

F22.2 = Delusional disorder (psychosis)

## Appendix A

### Diagnostic Criteria for Opioid Use Disorder

1. Opioids are often taken in larger amounts or over a longer period than intended.
2. There is a persistent desire or unsuccessful efforts to cut down or control opioid use.
3. An excessive amount of time is spent in activities necessary to obtain the opioid, use the opioid, or recover from side effects.
4. Craving, or a strong desire or urge to use opioids.
5. Recurrent opioid use resulting in failure to fulfill major role obligations at work, school, or home.
6. Continued opioid use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of opioids.
7. Important social, occupational, or recreational activities are given up or reduced due to opioid use.
8. Recurrent opioid use in situations in which it is physically hazardous.
9. Continued opioid use despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance.
10. Tolerance, as defined by either of the following: (a) a need for markedly increased amounts of opioids to achieve intoxication or desired effect (b) a markedly diminished effect with continued use of the same amount of an opioid.
11. Withdrawal, as manifested by either of the following: (a) the characteristic opioid withdrawal syndrome (b) opioids (or closely related substance) are taken to relieve or avoid withdrawal symptoms.

*Note:* Data is from DSM-5-TR (APA, 2022).