Leveraging a Learning Collaborative Model to Develop and Pilot Quality Measures to Improve Opioid Prescribing in the Emergency Department



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The American College of Emergency Physicians (ACEP) Emergency Medicine Quality Network (E-QUAL) Opioid Initiative was launched in 2018 to advance the dissemination of evidence-based resources to promote the care of emergency department (ED) patients with opioid use disorder. This virtual platform-based national learning collaborative includes a low-burden, structured quality improvement project, data benchmarking, tailored educational content, and resources designed to support a nationwide network of EDs with limited administrative and research infrastructure. As a part of this collaboration, we convened a group of experts to identify and design a set of measures to improve opioid prescribing practices to provide safe analgesia while reducing opioid-related harms. We present those measures here, alongside initial performance data on those measures from a sample of 370 nationwide community EDs participating in the 2019 E-QUAL collaborative. Measures include proportion of opioid administration in the ED, proportion of alternatives to opioids as first-line treatment, proportion of opioid prescription, opioid pill count per prescription, and patient medication safety education among ED visits for atraumatic back pain, dental pain, or headache. The proportion of benzodiazepine and opioid coprescribing for ED visits for atraumatic back pain was also evaluated. This project developed and effectively implemented a collection of 6 potential measures to evaluate opioid analgesic prescribing across a national sample of community EDs, representing the first feasibility assessment of opioid prescribing-related measures from rural and community EDs. [Ann Emerg Med. 2024;83:225-234.]

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INTRODUCTION

The current United States drug overdose death epidemic continues to worsen, with more than 100,000 lives lost in 2022, and most of these deaths because of opioids.¹ Because opioids are also a primary driver of decreased US life expectancy for the third consecutive year,² the US Health and Human Services has responded with an urgent 4 pillar approach to overdose prevention: Primary Prevention, Harm Reduction, Evidence-Based Treatment, and Recovery Support to reduce opioid-related overdose.^{3,4} One strategy to promote broad adoption of clinical best practices includes the development and implementation of quality measures that are focused on promoting best practices related to the care of patients in the emergency department (ED). Herein, we describe the development of opioid analgesic prescribing measures, which are grounded in the context of primary prevention.

Opioid prescribing has declined steadily since the early 2010s; however, about 15% of ED patients received opioid

prescriptions in 2016,^{5,6} a staggeringly large number given there are more than 130 million annual ED visits in the United States.⁷ Although EDs are responsible for fewer than 5% of opioid prescriptions in the United States, and the prescriptions tend to be for fewer pill counts and morphine milligram equivalents than from other health care specialties, the development of quality improvement (QI) strategies to optimize ED-based opioid prescribing have steadily gained momentum as ED prescriptions may be disproportionately associated with downstream harms.^{8,9} Additionally, a significant portion of ED opioid prescriptions may be misused or taken not as prescribed,¹⁰ and numerous studies have demonstrated an increased likelihood of receiving additional opioid prescriptions after a single prescription for acute pain in a previously opioidnaïve patient.^{11,12} Emergency department prescribing may represent the first time an opioid-naïve individual is prescribed an opioid, which can portend opioid use disorder.^{13,14,15} Several guidelines related to opioid

prescribing in the ED have been released, including the Centers for Disease Control and Prevention (CDC) guidelines in 2016,¹⁶ updated in 2022,¹⁷ the American College of Emergency Physicians (ACEP) Clinical Policy: Critical Issues Related to Opioids in Adult Patients Presenting to the Emergency Department, released in 2012¹⁸ and updated in 2020,¹⁹ and the Management of Opioid Use Disorder in the Emergency Department: A White Paper Prepared for the American Academy of Emergency Medicine (AAEM) in 2020.²⁰

As part of ACEP Emergency Quality Network (E-QUAL) Opioid collaborative, we convened a group of experts to identify and design a set of measures to improve opioid prescribing practices with the goal of providing safe analgesia while reducing opioid-related harms. We present those measures here, alongside initial performance data on those measures from a sample of community EDs participating in the 2019 E-QUAL collaborative. This work may provide a valuable foundation for future clinical administrative, policy, and payment efforts as it represents the development and pilot testing of a set of ED-specific opioid prescribing measures across a national sample of EDs.

E-QUAL Opioid Initiative

American College of Emergency Physicians E-QUAL Network is a voluntary network of EDs that self-report on QI projects, thereby meeting programmatic requirements of the Centers for Medicare and Medicaid Services Merit-Based Incentive Payment System.^{21,22} E-QUAL has been used to reduce avoidable imaging consistent with Choosing Wisely recommendations,²³ improve stroke care,^{23,24} improve sepsis care,²⁵ and reduce unnecessary cardiac workups for patients with low-risk chest pain.²⁶ Hundreds of EDs across the country have engaged with E-QUAL, a proven effective tool for implementing QI projects, particularly in rural and community settings. These sites often have fewer resources to implement programs compared with larger academic hospitals. The E-QUAL Opioid Initiative was launched in 2018 with the goal of supporting and implementing opioid analgesic best practices in EDs across the country. During the 2019 E-QUAL Opioid Collaborative, the primary structured QI project of participating EDs was focused on reducing the harms associated with opioid prescribing. Each annual collaborative is implemented with core QI activities lasting approximately 6 to 9 months. Emergency department enrollment occurs in the spring and is led by a local ED champion, often the medical or quality director. During the collaborative, participating EDs have continuous access to the online E-QUAL Toolkit, including web-based

resources, webinars, and podcasts focused on reducing opioid-associated harms, and receive monthly updates containing links to new webinars and other clinical resources. Additionally, each site collects local QI data and receives a benchmarking report demonstrating their performance alongside other deidentified EDs participating in the collaborative.

APPROACH

We present results from 2 stages of the 2019 E-QUAL Opioid Collaborative: (1) the development of measures designed to reduce harms associated with opioid prescribing in the ED by highlighting prescribing practices and (2) observational data about measure performance from a national sample of community-based EDs participating in the collaborative to demonstrate and measure feasibility. The study did not include protected health information and was deemed by the Yale University Institutional Review Board to not be considered human subject research.

Measure Identification and Development

Performance measures were developed and tested among the EDs participating in the 2019 collaborative. As part of the E-QUAL Opioid Initiative, we convened a workgroup of leaders in emergency medicine, addiction medicine, internal medicine, medical toxicology, QI, patient safety, and clinical research to review the literature and consider best practices for ED opioid prescribing. The group also included individuals with specific insight into the resources and capabilities of smaller, community-based, and rural EDs. The full details of the technical expert panel are presented in Appendix E1 (available at http://www. annemergmed.com). Consistent with existing literature identifying clinical indications for which opioid prescribing was common but not recommended by guidelines, we designed measures to be tested in atraumatic low back pain, dental pain, and headache.

A review of the literature was conducted by 3 members of the E-QUAL Opioid leadership (K.F.H, S.G.W, and A.K.V.) in advance of the first workgroup meeting focused on developing data collection metrics and measure development. This resulted in a set of best practices for ED opioid prescribing, based primarily on the published literature and clinical policies at that time, including the 2012 ACEP Clinical Policy: Critical Issues in the Prescribing of Opioids for Adult Patients in the Emergency Department and the 2016 CDC Opioid Prescribing Guidelines.¹⁵ These served as the basis for discussion for the workgroup and identification of an initial set of

Box 1.	Proposed	measures v	were mapped	from best	practices fo	r opioid	prescribing in the ED.
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Best Practices for Opioid Prescribing in the ED	Proposed Measure		
Opioid prescriptions should be limited to the shortest duration possible; 3 days or less will be sufficient in most cases (up to 7 days may be appropriate in certain circumstances).	Opioid analgesic pill count		
All patients should be educated about opioid-specific risks and realistic benefits when considering an opioid prescription, with attention to high-risk groups, including adolescents, pregnant women, elderly, and those with a history of substance use disorder.	Patient medication safety education		
Non-opioid pain relievers should be recommended and/ or prescribed prior to and concurrent with opioids as appropriate.	Rate of ED administration of opioids for painful conditions Rate of alternative to opioids as first-line treatment Rate of opioid prescription for painful condition		
Educate patients about the risks associated with concurrent use of opioids and benzodiazepines and avoid coprescribing whenever possible.	Rate of benzodiazepine and opioid coprescribing for atraumatic low back pain		

Best practices were shared with E-QUAL sites and were used to identify and map proposed measures that were amenable to ED visit-level chart abstraction and evaluation over time.

candidate best practices at the first meeting.

Recommendations were discussed and refined within the group and amended based on consensus discussion over the course of 3 workgroup meetings, along with input from ACEP Clinical Policy Committee and Practice Committee. The Best Practices for Opioid Prescribing in the ED (Box 1) were used to derive pilot measures that could be practically assessed in rural and community EDs through structured chart abstraction and included numerators and denominators that could be measured over time. Pilot opioid prescribing measures mapped from the finalized best

practices were iteratively discussed within the ACEP E-QUAL Opioid team and the Technical Expertise Panel panel. Finalized measures (Box 2) were used to design structured instruments (Appendix E2, available at http:// www.annemergmed.com) to guide reporting of ED patient level precollaborative and postcollaborative benchmarking data among participating sites. Of note, a proposed measure on naloxone provision was also recommended but was included in a different set of proposed measures for postoverdose and care of ED patients with opioid use disorder.

Box 2. Proposed measures.

Proposed Measure	Numerator	Denominator	
Proportion of opioid administration in the ED	ED visits with opioid administration	Total ED visits resulting in discharge with target ICD codes*	
Proportion of alternative to opioids as first- line treatment	Number of ED visits in which an alternative to opioids is prescribed before any opioid	Total ED visits resulting in discharge with target ICD codes*	
The proportion of opioid prescriptions for painful conditions	Number of ED visits resulting in discharge with opioid prescription	Total ED visits resulting in discharge with target codes*	
Opioid pill count	Total pill count among ED visits resulting in discharge with opioid prescription	_	
Patient medication safety education	Number of ED visits with medication safety instructions documented	Total ED visits resulting in discharge with target ICD codes* receiving an opioid prescription	
Proportion of benzodiazepine and opioid coprescribing	ED visits with outpatient prescriptions for opioids and benzodiazepines	Total ED visits resulting in discharge with ICD code for atraumatic back pain	

Intended numerator and denominator for proposed measures.

*Target ICD codes= selected ICD codes for atraumatic low back pain, dental pain, or headache, included in Appendix E2.

ED Patient Volume	Total Number of EDs Providing any Data (n=370)	Percent of Total EDs Providing any Data (%)	EDs Providing Pre/Post Data for 30+ Charts (n=187)	Percent of Total Pre/Post EDs With 30+ Charts (%)
<20K	169	45.7	57	30.5
20-60K	168	45.4	108	57.8
>60 K	23	6.2	16	8.6
unknown	10	2.7	6	3.2
ED Location				
Rural	138	37.3	59	31.6
Urban	220	59.5	121	64.7
Unknown	12	3.2	7	3.7
Chart Review				
Back Pain	47	12.7	29	15.5
Dental Pain	300	81.1	148	79.1
Headache	23	6.2	10	5.3

Table. Characteristics of EDs providing precollaborative and postcollaborative measure data.

Characteristics of EDs providing precollaborative and postcollaborative data and breakdown of painful conditions selected for chart review.

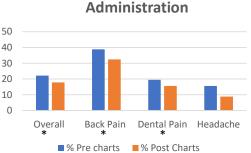
Data Collection and Analysis

The E-QUAL Opioid Collaborative was launched in February 2019. Consistent with other E-QUAL collaboratives, at the start, we collected 2 forms of QI data to support measure validation and feasibility assessment. All participating EDs completed an electronic web-based survey, which included a quality readiness assessment. This survey captured hospital characteristics such as critical access status, safety-net status, rural location, and annual visit volume. Sites were instructed to conduct a site visit-level manual chart abstraction from a random sample of 30 patient visits to provide ED visit benchmarking data representing the 3 months before the beginning of the collaborative (pre) and another 30 patient visits during the last 3 months of the collaborative (post). The EDs participating in the 2019 collaborative reviewed visits during 2 distinct periods: January to April 2019 and July to October 2019. The EDs were permitted to extend the data collection period up to 6 months when case volumes were low. Cases were not required to be consecutive. Data abstractors were not aware of the measure development process or candidate measures but were provided with a structured data guide and a list of International Classification of Diseases (ICD)-10 codes specific for atraumatic back pain, dental pain, or headache measure denominators. (Appendix E2). No direct compensation was provided to participating sites. Findings were reported on a web portal and aggregated to provide national benchmarking data. Sites received 2 personalized reports comparing their performance for each measure with other EDs

based on the submission of precollaborative and postcollaborative data.

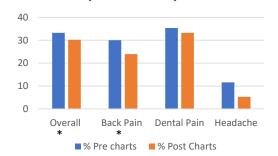
Proposed Measure Set Pilot

The final set of proposed measures to evaluate opioid prescribing in the ED is outlined in Box 2. Data was submitted by 370 participating EDs, with 324 EDs (87.6%) submitting data both in the pre and post period. A total of 187 EDs (50.5%) submitted data from at least 30 or more charts in both the precollaborative and postcollaborative periods. Characteristics of the EDs are presented in the Table. Participating EDs largely reported volumes of less than 60,000 annual visits, with 45.7% reporting fewer than 20,000 annual visits and 45.4% reporting 20,000 to 60,000 annual visits. The EDs were predominantly urban (59.5%), with 37.3% identifying as rural EDs. The EDs overwhelmingly reported data on dental pain (81.1%), with only 12.7% of EDs sharing data for back pain and 6.2% reporting on headaches. Data from the 187 EDs that provided ED precollaborative and postcollaborative visitlevel data for 30 or more charts for selected measures are reported in Figure 1. All analyses were conducted using R software (R Foundation for Statistical Computing) version 4.2.2. Data from each measure were calculated at the beginning and end of the collaboration. For each measure, we conducted paired t tests and differences in proportions among sites providing measure data with differences noted in Figure 1. Additional details can be found in the Table E1 (available at http://www.annemergmed.com). The distribution of the average proportion of charts for each ED for each measure that provided at least 10 combined pre-



Proportion of Visits With Opioid

Proportion of Visits With Opioid Prescriptions



80 60 40

100

20

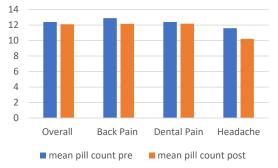
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Proportion of Visits With

Firstline Alternative to Opioid

Prescribed Opioid Pill Count



Patient Medication Safety Education

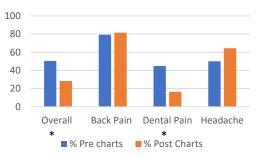


Figure 1. Changes in opioid prescribing measures among 2019 E-QUAL collaborative participants providing precollaborative and post collaborative data. Changes in opioid prescribing measures among EDs providing data from at least 30 ED charts from the precollaborative and postcollaborative period were calculated using a paired *t* test and difference in proportions. * nonoverlapping 95% confidence intervals. Additional details available are in the Table E1.

and postcollaborative are presented in Figure 2, as well as the distribution of the mean opioid pill count for each ED.

Selected Measures

1. Proportion of opioid administration in the ED: Proportion of visits with administration of opioid analgesics among ED visits for atraumatic low back pain, dental pain, or headache.

For patients presenting to the ED with atraumatic back pain, dental pain, or atraumatic headache, evidence-based guidelines and consensus recommendations support the minimization of opioid administration in the ED, with careful attention to the anticipated risks and benefits of opioid administration. Importantly, we did not identify a target "goal" for this measure among EDs, and although prevailing consensus suggests that less ED agonist analgesic opioid administration is better, it is critical to acknowledge that the evidence demonstrating downstream harms are associated with opioid prescriptions^{11,12} rather than opioid administration in the ED. For this measure, we included opioid agonist medications listed in Appendix E1 and

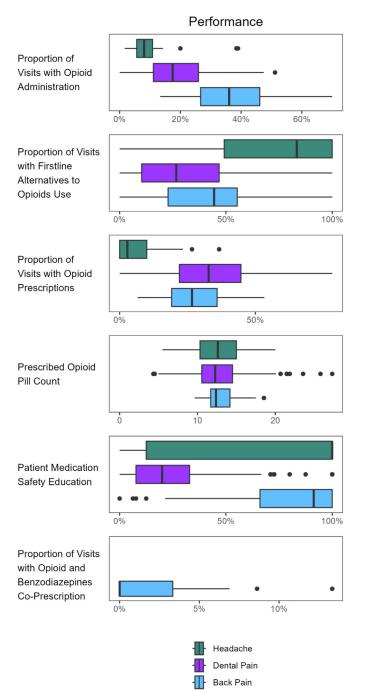


Figure 2. Distribution of the average proportion of charts per the 370 EDs that submitted at least 10 submitted charts for each measure. The measure "mean pill count" depicts the distribution of the mean pill count per ED.

notably did not include methadone or buprenorphine, as we assumed the vast majority of ED opioid administration of these medications would be for the treatment of opioid use disorder. As seen in Figure 1, comparing the data provided from sites reporting data for 30 or more charts from both precollaborative and postcollaborative data, the overall ED opioid administration proportion decreased from 22.2% at the beginning of the collaborative to 17.8% at the end. Importantly, this measure allows EDs to track opioid administration over time and to develop targeted interventions and education around ED opioid administration. The targeted goal of this measure is not 0%, as the authors acknowledge that there may still be clinical indications for opioid analgesics in this population.

2. The proportion of opioid prescription: proportion of visits with a prescription for opioid analgesics among ED visits for atraumatic low back pain, dental pain, or headache.

The inertia associated with the outpatient continuation of opioids for an acute painful condition has been well documented, and thus, the long-term implications for new opioid prescriptions for acute nontraumatic painful conditions have been recognized as one of the most important measures for clinicians to evaluate the risks and benefits of initiating outpatient treatment with prescribed opioids.^{16,19} Evidence-based guidelines and consensus recommendations support the minimization of opioid prescription medications, both in overall pill number and in number of prescriptions for patients with atraumatic back pain, dental pain, or headache. The CDC guidelines specifically noted that "non-opioid therapies are at least as effective as opioids for many common types of acute pain.¹⁶ Clinicians should maximize use of nonpharmacologic and non-opioid pharmacologic therapies as appropriate for the specific condition and patient and only consider opioid therapy for acute pain if benefits are anticipated to outweigh risks to the patient." American College of Emergency Physicians' 2019 updated clinical policy on opioids concludes that ED clinicians should "preferentially prescribe non-opioid analgesic therapies (nonpharmacologic and pharmacologic) rather than opioids as the initial treatment of acute pain in patients discharged from the emergency department."19 Participating EDs reported an overall opioid prescribing proportion that decreased over the course of the collaborative from 33.2% precollaborative to 30.2% postcollaborative. Although, again, the target number of ED visits with atraumatic painful conditions that receive an opioid prescription is not zero, there was consensus among our workgroup that this number should be substantially lower than the proportion of patients who are administered opioids while in the ED for atraumatic back pain, dental pain, or headache and that overall, although 30.2% of postcollaborative prescriptions was indeed lower than the precollaborative number, it likely far exceeds the number expected to have benefits that outweigh the risks.

3. The proportion of alternatives to opioids as first-line treatment of pain: rate of ED visits in which nonopioid analgesics are the first medications administered in the ED among ED visits for atraumatic low back pain, dental pain, or headache.

The CDC opioid prescribing guidelines specified that "non-opioid therapies are at least as effective as opioids for many common types of acute pain and that clinicians should maximize the use of nonpharmacologic and nonopioid pharmacologic therapies as appropriate for the specific condition and patient and only consider opioid therapy for acute pain if benefits are anticipated to outweigh risks to the patient."¹⁶ Broad consensus supports alternatives to opioids, including nonsteroidal antiinflammatories, acetaminophen, or topical patches such as lidocaine (for back pain) as first-line treatment for atraumatic back pain, dental pain, or headache.¹⁶ The initial use of these alternatives to opioids for these 3 painful conditions increased from 34.2% precollaborative to 39.2% postcollaborative.

4. Total opioid pill count prescribed: total number of pills prescribed per opioid analgesic prescription among ED visits for atraumatic low back pain, dental pain, or headache.

The CDC recommendations state that "when opioids are needed for acute pain, clinicians should prescribe no greater quantity than needed for the expected duration of pain severe enough to require opioids."¹⁶ Our identified measure was pill count rather than days of prescription given in part to simplify data collection given heterogeneity in opioid prescribing practices, including dose, pills per day, standing versus as-needed instructions, and inaccurate correlation between pill number and days of prescription indicated. Overall, there was no meaningful change in the mean overall number of pills prescribed: 12.4 precollaborative versus 12.1 postcollaborative.

5. Patient medication safety education: proportion of visits with documented patient medication safety education among ED visits for atraumatic low back pain, dental pain, or headache who received an opioid prescription.

The CDC recommendations include the recommendation that "before starting and periodically during opioid therapy, clinicians should discuss with patients known risks and realistic benefits of opioid therapy and patient and clinician responsibilities for managing therapy."¹⁶ Although evidence of improved outcomes based on patient education was not identified in the CDC literature review, this recommendation was based on the consensus that patients often lack information about opioids and should be advised of known risks. Among 2019 E-QUAL sites, 50.5% of reviewed ED charts and

discharge instructions included documentation of medication safety in the precollaborative data, whereas only 28.3% of ED charts contained documentation of medication safety discussion for the postcollaborative participants.

6. Coprescription of opioid and benzodiazepines: proportion of benzodiazepine and opioid coprescribing on ED discharge among ED patients with atraumatic low back pain.

The U.S. Food and Drug Administration (FDA) has issued a black box warning regarding the concurrent use of benzodiazepines and opioids in response to the identified association with increased risk of opioid overdose.^{14,27,28} The CDC recommendations concluded that "clinicians should use particular caution when prescribing opioid pain medication and benzodiazepines concurrently and consider whether benefits outweigh risks of concurrent prescribing of opioids and other central nervous system depressants."¹⁶ American College of Emergency Physicians' 2019 revised opioid prescribing guidelines include the following consensus recommendation: "Do not routinely prescribe, or knowingly cause to be coprescribed, a simultaneous course of opioids and benzodiazepines (as well as other muscle relaxants/sedative-hypnotics) for treatment of an acute episode of pain in patients discharged from the ED."¹⁹ The EDs providing benchmarking data for this metric reported coprescribing as very uncommon, with 1.6% of charts abstracted from ED visits for atraumatic low back pain from the precollaborative period resulting in coprescribing and 0.1% in the postcollaborative period.

DISCUSSION

We designed and effectively implemented a collection of 6 potential measures to evaluate opioid prescribing and administration across a national sample of EDs. This represents the first feasibility assessment of quality measures to improve opioid use disorder care from a national sample of rural and community EDs. These measures are consistent with and supported by a previous conceptual model for ED opioid use disorder quality and by current ACEP, AAEM, and CDC guidelines.^{16,29,30} Overall, an overwhelmingly large majority (87.6%) of participating EDs provided data from precollaborative and postcollaborative chart abstraction and more than half provided data for 30 or more charts both precollaborative and postcollaborative, with minimal external pressure or incentive to provide data outside of Merit-Based Incentive Payment System credit and individual site motivation or initiative to participate in a structured QI project.

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Participating in a structured national QI project was associated with improvement in several targeted outcomes, suggesting that traditional QI approaches were well received and appear to support local initiatives to reduce opioid prescribing. Although improvements were noted among some measures, any changes in measures over this single-year collaborative should be interpreted within the larger context of concurrent national and local initiatives on opioid stewardship and improving the care of ED patients with opioid use disorder. For example, factors that influence overall clinical practice and opioid prescribing are complex and are likely to have multifaceted roots and drivers. It is of utmost importance that these measures are interpreted within the current clinical and policy landscape. For example, the absence of any appreciable change in pill count among E-QUAL participants could reflect prior implementation of default pill counts within the electronic health record among some EDs or opioid stewardship messaging that focuses on minimizing the number of prescriptions rather than pill count. Lastly, the apparent worsening of the patient medication safety education measure is puzzling, although the overall response was largely driven by ED visits for dental pain. It is possible that a clear explanation could underlie this unexpected change, such as an electronic health record update or new health record implementation that changed the provision and/or documentation of patient education. Alternatively, it may be that this education measure, which, as discussed above, is less evidence-based than other measures, is less valid or reliable. We present this work as evidence that pilot measures can be serially obtained among a large national sample of EDs.

Imperative considerations in the development and use of opioid prescribing measures include the acknowledgment that there is a clear role for opioid analgesic prescribing among ED patients with acute pain, both during the ED visit and on discharge. Although these measures were developed before the release of the 2022 revised CDC opioid guidelines, the proposed ED measures are consistent with the updated recommendations.¹⁷ The E-QUAL measures specifically evaluated opioid prescribing proportions and characteristics among a specific set of painful conditions often treated in the ED, for which non-opioid treatments have been underused, despite the risks of opioid use that likely outweigh the benefits of use.²⁰ Nonetheless, our team acknowledges that as opioid prescribing measures are developed, the ideal number of opioid prescriptions in the ED and post-ED, even for these conditions, is not zero. We do not recommend that they are used punitively or tied to financial

incentives without addressing unintended consequences, including undertreatment of pain and variable or inequitable treatment of different populations.

Multiple potential use cases for the proposed measures exist. These include measuring, monitoring, and the development of local QI interventions, national benchmarking, or other uses, such as in the accreditation or reimbursement-based quality programs. Our process identified measures potentially suitable to optimize the use of opioids in the ED through the triangulation of expert opinion with real-world data to test the feasibility of implementation and identify variation in performance among a sample of representative community EDs. Importantly, site burden has been identified as a key limitation to the implementation of measures, including those using claims, electronic or chart abstraction,³¹ and future applications should carefully consider the administrative and information technology burden for sites with the anticipated benefit of the inclusion of such measures.

LIMITATIONS

There were several limitations associated with this study. Participation in E-QUAL is voluntary, though nearly 90% of participating EDs provided data from precollaborative and postcollaborative chart abstraction, with minimal external pressure or incentive to provide data. However, it is possible that the provision of complete data by just more than half of the sites could represent lack of feasibility or specific implementation challenges for this method of data collection or potential bias in our study results. Our strategy to pilot and collect proposed measure data required a manual chart review for many sites, and visit selection was meant to be pragmatic. Data collection was not blinded, randomized, or validated, which would have increased the burden or influenced chart selection for review. Ideally, to facilitate broader implementation, measure abstraction should be automated and integrated with existing data streams such as electronic health records or existing registries (eg, ACEP Clinical Emergency Data Registry) to decrease burden and enhance overall randomized data capture. Most EDs chose to report on ED visits for dental pain rather than back pain or headache, which may reflect clearer professional expectations around dental pain or that there was something less appealing or feasible about reporting on clinical practices associated with atraumatic back pain or headache. Lastly, these were motivated EDs that self-selected to participate in this E-QUAL program and focused on prescribing and, therefore, may not be representative of all EDs.

CONCLUSIONS

We designed and effectively implemented a collection of 6 potential measures to evaluate opioid analgesic prescribing across a national sample of community EDs. This project represents the first feasibility assessment of opioid prescribing-related measures from rural and community EDs.

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All authors attest to meeting the four ICMJE.org authorship criteria: (1) Substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work; AND (2) Drafting the work or revising it critically for important intellectual content; AND (3) Final approval of the version to be published; AND (4) Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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