physicians are frequent prescribers of opioids; therefore, the emergency department (ED) represents an important setting for potential intervention to encourage rational and safe prescribing. The objective of this study was to systematically review the literature on interventions aimed to influence opioid prescribing in the ED. **Methods:** Electronic searches of Medline and Cochrane were conducted and reference lists were hand-searched. All quantitative studies published in English from 2009 to 2019 were eligible for inclusion. Two reviewers independently screened the search output to identify potentially eligible studies, the full texts of which were retrieved and assessed for inclusion. Outcomes of interest included opioid prescribing rate (proportion of ED visits resulting in an opioid prescription at discharge), morphine milligram equivalents per prescription and variability among prescribers. **Results:** The search strategy yielded 797 potentially relevant citations. After eliminating duplicate citations and studies that did not meet eligibility criteria, 34 potentially relevant studies were retrieved in full text. Of these, 28 studies were included in the review. The majority (26, 92.9%) of studies were based in the United States and two (7.1%) were from Australia. Four (14.3%) were randomized controlled trials. The interventions were classified into six categories: prescribing guidelines (n = 10), regulation/rescheduling of opioids (n = 6), prescribing data transparency (n = 4), education (n = 4), care coordination (n = 3), and electronic medical record changes (n = 1). The majority of interventions reduced the opioid prescribing rate from the ED (21/28, 75.0%), although regulation/rescheduling of opioids had mixed effectiveness, with 3/6 (50%) studies reporting a small increase in the opioid prescribing rate post-intervention. Education had small yet consistent effects on reducing the opioid prescribing rate. **Conclusion:** A variety of interventions have attempted to improve opioid prescribing from the ED. These interventions include prescribing guidelines, regulation/rescheduling, data transparency, education, care coordination, and electronic medical record changes. The majority of interventions reduced the opioid prescribing rate; however, regulation/rescheduling of opioids demonstrated mixed effectiveness.

Keywords: intervention, opioid prescribing, systematic review

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Assessing opioid-prescribing patterns for low back pain patients before and after the implementation of clinician performance indicators in the emergency department

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Introduction: Canada is in the midst of an opioid crisis. The number of apparent opioid-related deaths between January and March 2018 increased by 44% compared to the same period in 2016. The increasing use of prescription opioids and higher doses of opioids can lead to opioid addiction, toxicity and even death. Opioids are commonly prescribed for low back pain management in the ED, but the variability in opioid-prescribing patterns suggested an opportunity for improvement. Our centre implemented Clinician Performance Indicators (CPI) in 2015. CPIs were reported to each ED physician every 3 months and included the percentage of patients who were prescribed opioids. The intent was to raise awareness of opioid-prescribing patterns at our institution. Therefore, we evaluated opioid-prescribing patterns for patients with low back pain (LBP) before and after the CPI implementation. **Methods:** Data were obtained retrospectively for patients discharged from the ED from July 2015 to December 2018 with LBP-associated ICD 10 codes. We excluded admitted patients, those with specialist consultations, and patients who left without being seen. The primary outcome was opioid prescribing patterns for patients with LBP before and after CPI implementation. We performed a descriptive analysis of the data and compared the prescribing rates pre-implementation (July-Dec 2015) to post-implementation (July-Dec 2016) following a 6-month wash-out period. Moreover, we analyzed opioid-prescribing patterns over an extended period until December 2018. **Results:** After the exclusion criteria were applied, 8993 patients were included in the analysis. 53.5% were female and the mean (SD) age was 48.3 (19.78). During the three years of the study period, the percentage of LBP patients who received opioids showed a decreasing trend. Comparison of the pre and post CPI implementation periods showed a decrease in opioid prescriptions (42.0% vs 35.5%, 95%CI 2.9% to 10.2%). There was variation in opioids prescribed at our institution, the most common being hydromorphone (29.9%), followed by acetaminophen-oxycodone (24.2%) and acetaminophen-tramadol (20.0%). **Conclusion:** The implementation of CPIs positively impacted physicians' opioid-prescribing patterns for patients presenting with LBPs at our institution. Future studies are required to further improve the effectiveness of CPIs in influencing opioid-prescribing patterns.

Keywords: clinician performance indicator, low back pain, opioid

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Strengthening team communication may decrease medico-legal risk for physicians in the emergency department

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Introduction: In a busy emergency department (ED), effective communication is integral to the provision of safe medical care. Physicians working in the ED interact with multiple team members including patients, allied healthcare professionals and other physicians, who all need to understand their verbal and written instructions. Our study's objective was to identify and describe communication problems occurring in the ED setting, and how these problems contributed to patient safety events and increased medico-legal risk for physicians. **Methods:** The Canadian Medical Protective Association (CMPA) is a not-for-profit, medico-legal organization which represented over 97,000 physicians at the time of this study. We conducted a retrospective descriptive analysis where we extracted five years (2013-2017) of CMPA data describing closed medico-legal cases occurring in the ED involving physicians (any specialty) who experienced complaints due to communication issues. We then applied an internal contributing factor framework to identify data themes. Data were summarized using descriptive statistics. **Results:** We identified 517 eligible cases involving 521 patients (some cases involved >1 patient). We found that 99.8% (520/521) of patients experienced some form of healthcare-related harm in the ED. Specifically, there was poor communication between: the physician and patient or patient's family (202/517, 39.1%); two or more physicians (79/517, 15.3%), and physicians and other healthcare providers (55/517, 10.6%). Inadequate documentation was observed in more than half of the cases (324/517, 62.7%) and poor team communication affected physicians' decision making process (326/517, 63%) in areas such as deficient assessments, inadequate investigations, failure or delay to attend to the patient, and disposition decisions. **Conclusion:** Team communication issues are prevalent among physician medico-legal

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