

Bureau of Justice Assistance (BJA)

Comprehensive Opioid, Stimulant, and Substance Abuse Program (COSSAP)

# Alternatives to Opioids Programs in Emergency Department and Inpatient Medical Settings

## Introduction

Prescribing opioids to patients increases their risk for long-term opioid use and misuse, and this risk may be greater among certain population groups, such as those with a history of substance use or a mental health diagnosis.<sup>1–10</sup> In the past five years, this knowledge has resulted in practitioners and policymakers establishing new guidelines for opioid prescribing.<sup>11–13</sup> In addition, multiple hospital organizations have implemented alternatives to opioids (ALTO) programs. These programs emphasize the use of nonopioid therapies as a preferred first-line treatment for pain.



Did you know that nitrous oxide can be used with all ages as an analgesic for painful procedures?<sup>21</sup> For example:

- ◆ Burn or wound care
- ◆ Foreign body removal
- ◆ Incision and drainage
- ◆ Laceration repair
- ◆ Lumbar puncture (spinal tap)
- ◆ Peripheral or central venous access

This article discusses three ALTO programs and provides examples of nonopioid therapies that are being used to effectively treat pain. (It does not discuss opioid medication discontinuation among existing high-dose opioid users. For additional reading on that topic, see endnotes 14–19.) Because people in substance use disorder treatment or recovery are vulnerable to long-term prescription opioid use and misuse, they may wish to avoid opioids when being treated for pain. Therefore, it is important that they be aware of ALTO programs and be empowered to advocate for their adoption when interacting with medical professionals. Individuals who work with

this population in different settings also may benefit from this information, as well as those in emergency department (ED) and inpatient medical settings interested in implementing an ALTO program.

## St. Joseph's Regional Medical Center

The first adopter of an ALTO program was St. Joseph's Regional Medical Center in Paterson, New Jersey. Launched in January 2016, St. Joseph's program received praise when The New York Times wrote about the creative approaches its ED staff members were taking to reduce opioid administration as a first-line therapy.<sup>20</sup>

The ALTO program's objective, whenever possible, is to use multimodal nonopioid approaches as a first-line treatment for pain. In addition, the program prioritizes patient education, harm reduction, and access to addiction treatment. Staff members discuss patients' pain management goals and opioid side effects and potential for addiction. They also work with community partners to connect people to overdose prevention and opioid use disorder (OUD) treatment services.<sup>21</sup>

The program focuses on using ALTO practices for five common conditions:

- ◀ Extremity fracture or joint dislocation
- ◀ Headache
- ◀ Lumbar radiculopathy
- ◀ Musculoskeletal pain
- ◀ Renal colic

Some of the ALTO practices used include nonopioid medications, trigger-point injections, nitrous oxide, ultrasound-guided nerve blocks, and intravenous lidocaine.<sup>23</sup> Since launching the ALTO program, St. Joseph's has reported an 82 percent decrease in opioid administrations, with 75 percent of patients achieving adequate pain relief as a result of nonopioid therapies.<sup>24</sup>

The program has inspired other hospitals nationwide to implement ALTO programs, as well as federal legislation and a statewide initiative in New Jersey. Specifically, the SUPPORT for Patients and Communities Act was signed into law in October 2018. It includes a provision to help hospitals and EDs design, implement, and study approaches for nonopioid pain management.<sup>25,26</sup> In addition, in April 2019, New Jersey launched the Opioid Reduction Options (ORO) program. ORO is being implemented by the New Jersey Department of Health in partnership with the New Jersey Hospital Association. In consultation with St. Joseph's, they are providing hospitals with training and curricula on ALTO best practices.<sup>27</sup> In addition to some of the ALTO practices already mentioned, ORO promotes the use of counseling, massage, meditation, and yoga for chronic pain.<sup>28</sup>

## Colorado Hospital Association

In 2017, the Colorado Hospital Association (CHA) partnered with ten EDs to pilot the Colorado Opioid Safety Collaborative. The objective was to implement the ALTO approach described in the Colorado American College of Emergency Physicians (ACEP) 2017 Opioid Prescribing & Treatment Guidelines, with the goal of reducing opioid administration by

Before St. Joseph's ALTO program, a patient with a dislocated shoulder might have received opioids. Now, members of the ED typically numb the area with a nerve block before resetting the shoulder. Afterward, the patient is prescribed acetaminophen or other nonopioid pain relievers.<sup>22</sup>

The Colorado ACEP 2017 Opioid Prescribing & Treatment Guidelines identify different nonopioid approaches for managing a patient's pain.

As an example, acute lower back pain can be treated with a combination of oral nonopioids, topical pain relievers, and targeted trigger-point injections.

15 percent over a six-month period.<sup>29,30</sup> The results of the pilot exceeded expectations—on average, EDs reduced opioid administration by 36 percent and increased the use of ALTOs by 31 percent. As a result of its success, CHA launched the Colorado ALTO project to expand the ALTO approach statewide.<sup>30</sup> Comprehensive training materials are available [here](#).

In addition to focusing on EDs, CHA partnered with the Colorado Medical Society and the Colorado Consortium for Prescription Drug Abuse Prevention to develop Colorado's Opioid Solution: Clinicians United to Resolve the Epidemic (CO's CURE).<sup>31</sup> The initiative is supported with funding that the Colorado Office of Behavioral Health has received from the Substance Abuse and Mental Health Services Administration's State Opioid Response grant. CO's CURE is working with specialty society organizations to design and implement opioid prescribing guidelines for other non-ED areas.<sup>32</sup> The first focus area of this initiative is inpatient medical settings.

From October 2019 to March 2020, CHA partnered with ten inpatient medical sites to pilot the CO's CURE Hospital Medicine ALTO Project.<sup>33</sup> The pilot implemented the Rocky Mountain Chapter of the Society of Hospital Medicine's 2020 Opioid Prescribing

& Treatment Guidelines for the Medical Inpatient.<sup>34</sup> Like the ED pilot, the Hospital Medicine ALTO Project demonstrated a reduction in opioid administrations and increase in the use of ALTOs. CHA developed a variety of training resources for hospitals to implement ALTO practices in inpatient medical settings. These resources are available [here](#).

## Midwest ALTO Program

The Midwest ALTO program launched in September 2018.<sup>35</sup> The multi-state initiative is focused on reducing the administration of opioids in Illinois, Michigan, and Wisconsin EDs by 15 percent. The program is led by the Great Lakes Partners for Patients Hospital Improvement Innovation Network in partnership with each state's hospital association, quality improvement organization, ACEP chapter, and other stakeholders.<sup>36</sup>

The program is implementing opioid prescribing guidelines established by the Wisconsin ACEP in 2016 and, like Colorado, uses a train-the-trainer approach to support the ongoing expansion of ALTO interventions to new EDs.<sup>37,38</sup> Available resource materials include ALTO protocols for treating the five common conditions identified by St. Joseph's, as well as chronic abdominal pain.<sup>39,40</sup> In addition, the program has established discharge prescribing guidelines for the following conditions:



- ◀ Headache
- ◀ Sore throat
- ◀ Fibromyalgia
- ◀ Uncomplicated neck pain
- ◀ Uncomplicated back pain
- ◀ Simple sprains
- ◀ Contusions
- ◀ Nontraumatic tooth pain
- ◀ Osteoarthritis
- ◀ Undifferentiated abdominal pain
- ◀ Neuropathic pain

## Conclusion

The administration of opioid prescriptions in medical settings can lead to OUD for some patients. Implementing ALTO practices in EDs, inpatient settings, and other specialty areas is an important part of a comprehensive response to our nation's opioid epidemic. Patients, medical professionals, and others working with people in OUD treatment or recovery should be aware that multimodal nonopioid options are available for pain management. For more information, please review the training resources linked in this article, as well as the references cited on the next page.

## References

1 Chaudhary, M. A., Bhulani, N., de Jager, E. C., Lipsitz, S., Kwon, N. K., Sturgeon, D. J., & Schoenfeld, A. J., et al. (2019). Development and validation of a bedside risk assessment for sustained prescription opioid use after surgery. *JAMA Network Open*, 2(7), e196673. <https://doi.org/10.1001/jamanetworkopen.2019.6673>

2 Harbaugh, C. M., Lee, J. S., Hu, H. M., McCabe, S. E., Voepel-Lewis, T., Englesbe, M. J., & Waljee, J. F., et al. (2018). Persistent opioid use among pediatric patients after surgery. *Pediatrics*, 141(1), e20172439. <https://doi.org/10.1542/peds.2017-2439>

3 Shah, A., Hayes, C. J., & Martin, B. C. (2017). Characteristics of initial prescription episodes and likelihood of long-term opioid use—United States, 2006–2015. *Morbidity and Mortality Weekly Report*, 66(10), 265–269. <https://doi.org/10.15585/mmwr.mm6610a1>

4 Deyo, R. A., Hallvik, S. E., Hildebran, C., Marino, M., Dexter, E., Irvine, J. M., & Millet, L. M., et al. (2017). Association between initial opioid prescribing patterns and subsequent long-term use among opioid-naïve patients: A statewide retrospective cohort study. *Journal of General Internal Medicine*, 32(1), 21–27. <https://doi.org/10.1007/s11606-016-3810-3>

5 Calcaterra, S. L., Yamashita, T. E., Min, S.-J., Keniston, A., Frank, J. W., & Binswanger, I. A. (2016). Opioid prescribing at hospital discharge contributes to chronic opioid use. *Journal of General Internal Medicine*, 31(5), 478–485. <https://doi.org/10.1007/s11606-015-3539-4>

6 Brat, G. A., Agniel, D., Beam, A., Yorgitis, B., Bicket, M., Homer, M., & Kohane, I., et al. (2018). Postsurgical prescriptions for opioid naïve patients and association with overdose and misuse: Retrospective cohort study. *British Medical Journal*, 360, j5790. <https://doi.org/10.1136/bmj.j5790>

7 Schroeder, A. R., Dehghan, M., Newman, T. B., Bentley, J. P., & Park, K. T. (2019). Association of opioid prescriptions from dental clinicians for US adolescents and young adults with subsequent opioid use and abuse. *JAMA Internal Medicine*, 179(2), 145–152. <https://doi.org/10.1001/jamainternmed.2018.5419>

8 Miech, R., Johnston, L., O'Malley, P. M., Keyes, K. M., & Heard, K. (2015). Prescription opioids in adolescence and future opioid misuse. *Pediatrics*, 136(5), e1169–e1177. <https://doi.org/10.1542/peds.2015-1364>

9 Cragg, A., Hau, J. P., Woo, S. A., Kitchen, S. A., Liu, C., Doyle-Waters, M. M., & Hohl, C. M. (2019). Risk factors for misuse of prescribed opioids: A systematic review and meta-analysis. *Annals of Emergency Medicine*, 74(5), 634–666. <https://doi.org/10.1016/j.annemergmed.2019.04.019>

10 Klimas, J., Gorfinkel, L., Fairbairn, N., Amato, L., Ahamad, K., Nolan, S., & Wood, E., et al. (2019). Strategies to identify patient risks of prescription opioid addiction while initiating opioids



for pain: A systematic review. JAMA Network Open, 2(5), e193365. <https://doi.org/10.1001/jamanetworkopen.2019.3365>

11 Dowell, D., Haegerich, T. M., & Chou, R. (2016). CDC guideline for prescribing opioids for chronic pain—United States, 2016. Morbidity and Mortality Weekly Report, 65(1), 1–49. <https://doi.org/10.15585/mmwr.rr6501e1>

12 U.S. Department of Health and Human Services. (2019, May). Pain Management Best Practices Inter-Agency Task Force Report: Updates, gaps, inconsistencies, and recommendations. <https://www.hhs.gov/ash/advisory-committees/pain/reports/index.html>

13 U.S. Department of Veterans Affairs. (n.d.). VHA pain management: Opioid safety [Web page]. [https://www.va.gov/PAINMANAGEMENT/Opioid\\_Safety/index.asp](https://www.va.gov/PAINMANAGEMENT/Opioid_Safety/index.asp)

14 Mark, T. L., & Parish, W. (2019). Opioid medication discontinuation and risk of adverse opioid-related health care events. Journal of Substance Abuse Treatment, 103, 58–63. <https://doi.org/10.1016/j.jsat.2019.05.001>

15 Frank, J. W., Lovejoy, T. I., Becker, W. C., Morasco, B. J., Koenig, C. J., Hoffecker, L., & Krebs, E. E., et al. (2017). Patient outcomes in dose reduction or discontinuation of long-term opioid therapy: A systematic review. Annals of Internal Medicine. <https://doi.org/10.7326/M17-0598>

16 Demidenko, M. I., Dobscha, S. K., Morasco, B. J., Meath, T. H. A., Ilgen, M. A., & Lovejoy, T. I. (2017). Suicidal ideation and suicidal self-directed violence following clinician-initiated prescription opioid discontinuation among long-term opioid users. General Hospital Psychiatry, 47, 29–35. <https://doi.org/10.1016/j.genhosppsych.2017.04.011>

17 U.S. Department of Health and Human Services. (2019, October). HHS guide for clinicians on the appropriate dosage reduction or discontinuation of long-term opioid analgesics. [https://www.hhs.gov/opioids/sites/default/files/2019-10/Dosage\\_Reduction\\_Discontinuation.pdf](https://www.hhs.gov/opioids/sites/default/files/2019-10/Dosage_Reduction_Discontinuation.pdf)

18 Binswanger, I. A., Glanz, J. M., Faul, M., Shoup, J. A., Quintana, L. M., Lyden, J., & Narwaney, K.

J., et al. (2020). The association between opioid discontinuation and heroin use: A nested case-control study. Drug and Alcohol Dependence, 217, 108248. <https://doi.org/10.1016/j.drugalcdep.2020.108248>

19 Husain, J. M., LaRochelle, M., Keosaian, J., Xuan, Z., Lasser, K. E., & Liebschutz, J. M. (2019). Reasons for opioid discontinuation and unintended consequences following opioid use discontinuation within the TOPCARE Trial. Pain Medicine, 20(7), 1330–1337. <https://doi.org/10.1093/pm/pty124>

20 Hoffman, J. (2016, June 10). An E.R. kicks the habit of opioids for pain. The New York Times. <https://www.nytimes.com/2016/06/14/health/pain-treatment-er-alternative-opioids.html>

21 The George Washington University School of Medicine & Health Sciences. (2016). Alternatives to opioids for pain management in the ED [Web page]. <https://smhs.gwu.edu/urgentmatters/content/alternatives-opioids-pain-management-ed>

22 Porter, D., & Cornfield, J. (2016, March 31). Opioid crisis motivates hospitals to reduce drug's use in ERs. AllGov. <http://www.allgov.com/news/top-stories/opioid-crisis-motivates-hospitals-to-reduce-drugs-use-in-ers-160331?news=858567>

23 St. Joseph's Health. (n.d). Alternatives to opioids [Web page]. <https://stjosephsalto.org/>

24 St. Joseph's Health. (n.d.). Alternatives to opioids: About ALTO [Web page]. <https://stjosephsalto.org/about/>

25 Booker.senate.gov. (2018, October 24). Opioid bill signed into law. <https://www.booker.senate.gov/news/press/opioid-bill-signed-into-law>

26 SUPPORT for Patients and Communities Act, H.R. 6, 115th Cong. (2018).

27 New Jersey Department of Health. (2019, April 9). Murphy administration expands effort to reduce opioid prescribing. <https://www.nj.gov/health/news/2019/approved/20190409b.shtml>

28 Ditri, M. (2020). ORO: You have options for pain management. New Jersey Hospital Association. <http://www.njha.com/nurse-talk/2020-nurse-talk-articles/oro-you-have-options-for-pain-management/>

29 Colorado American College of Emergency Physicians. (2017). 2017 Opioid Prescribing & Treatment Guidelines: Confronting the Opioid Epidemic in Colorado's Emergency Departments. [https://cha.com/wp-content/uploads/2018/01/COACEP\\_Opioid\\_Guidelines-Final.pdf](https://cha.com/wp-content/uploads/2018/01/COACEP_Opioid_Guidelines-Final.pdf)

30 Colorado Hospital Association. (2018, May). The Colorado Opioid Safety Collaborative: 2017 Colorado Opioid Safety Pilot Results Report. <https://cha.com/wp-content/uploads/2018/06/CHA-Opioid-Pilot-Results-Report-May-2018.pdf>

31 Colorado Hospital Association. (n.d.). The CO's CURE Initiative [Web page]. <https://cha.com/opioid-safety/cos-cure/>

32 Colorado Hospital Association. (2019). The Colorado Opioid Solution: Clinicians United to Resolve the Epidemic (CO's CURE). [https://cha.com/wp-content/uploads/2019/03/CHA.149-CO-CURE\\_Flyer\\_2.pdf](https://cha.com/wp-content/uploads/2019/03/CHA.149-CO-CURE_Flyer_2.pdf)

33 Colorado Hospital Association. (n.d.). CO's CURE Hospital Medicine ALTO Project [Web page]. <https://cha.com/opioid-safety/cos-cure/cos-cure-hospital-medicine-pilot/>

34 Rocky Mountain Chapter of the Society of Hospital Medicine, Colorado Hospital Association, Colorado Medical Society, & Colorado Consortium for Prescription Drug Abuse Prevention. (2020). Colorado's Opioid Solution: Clinicians United to Resolve the Epidemic (CO's CURE): 2020 Opioid Prescribing and Treatment Guidelines for the Medical Inpatient. [https://cha.com/wp-content/uploads/2020/08/SHM\\_Final.pdf](https://cha.com/wp-content/uploads/2020/08/SHM_Final.pdf)

35 Michigan Health & Hospital Association. (2018, September 20). Multistate initiative to address opioid crisis, focus on emergency department. <https://www.mha.org/Newsroom/ID/1613/Multistate-Initiative-to-Address-Opioid-Crisis-Focus-on-Emergency-Department>

[mha.org/Newsroom/ID/1613/Multistate-Initiative-to-Address-Opioid-Crisis-Focus-on-Emergency-Department](https://www.mha.org/Newsroom/ID/1613/Multistate-Initiative-to-Address-Opioid-Crisis-Focus-on-Emergency-Department)

36 North Ottawa Community Health System. (n.d.). Midwest Alternative to Opioids (ALTO) project [Web page]. <https://nochgetbetter.com/news/midwest-alternative-to-opioids-alto-project/>

37 Wisconsin Chapter, American College of Emergency Physicians. (2016, October 4). Opioids prescribing guidelines for emergency departments and emergency physicians. <http://www.wisconsinacep.org/resources/Documents/WACEP%20Opioid%20Prescribing%20Guidelines%20Final.pdf>

38 Wisconsin Hospital Association. (n.d.). Medication safety [Web page]. <https://www.wha.org/Quality-Patient-Safety/HealthCareQualityProjects/Medication-Safety>

39 Wisconsin Chapter, American College of Emergency Physicians. (n.d.). 2019 WACEP Alternatives to Opioids (ALTO) Pathways: Statement of purpose. <http://www.wisconsinacep.org/resources/Documents/2019%20ALTO%20Pathways%20with%20Appendices.pdf>

40 Wisconsin Chapter, American College of Emergency Physicians. (n.d.). WACEP pain management statewide handout. <http://www.wisconsinacep.org/resources/Documents/WACEP%20Pain%20Management%20Statewide%20Handout.pdf>

Visit the COSSAP Resource Center at [www.cossapresources.org](http://www.cossapresources.org).

## About BJA

The Bureau of Justice Assistance (BJA) provides leadership and services in grant administration and criminal justice policy development to support local, state, and tribal law enforcement in achieving safer communities. To learn more about BJA, visit [www.bja.gov](http://www.bja.gov) and follow us on Facebook ([www.facebook.com/DOJBJA](https://www.facebook.com/DOJBJA)) and Twitter (@DOJBJA). BJA is part of the U.S. Department of Justice's Office of Justice Programs.