



Commonwealth of Massachusetts
Board of Registration in Medicine
Quality and Patient Safety Division

ADVISORY

Best Practices in Prescribing Opioids

September 2019

This advisory is issued by the Board of Registration in Medicine (BORiM), Division of Quality and Patient Safety (QPSD). The goal of this advisory is to support health care facilities, ambulatory clinics and private physician practices in the review and development of their approaches to opioid prescribing practices. While some references are provided, this advisory does not include a comprehensive review of the literature. This document is intended to encourage judicious and balanced opioid prescribing practice.

Publication of this advisory does not constitute an endorsement by the BORiM of any studies or practices described in the advisory and none should be inferred.

I. Overview

Substance misuse is a major public health challenge. Nationally, and in Massachusetts, individuals, communities, and health care systems are struggling to cope with substance use disorders. Opioid use disorder (OUD) is a substance use disorder that has recently received significant attention because the rates of OUD, opioid misuse, and overdose deaths related to opioids have reached epidemic levels; in 2017, OUD was declared a public health emergency. According to the Centers for Disease Control and Prevention (CDC), more than 90 Americans die each day from opioid, including illicit and prescription drugs, overdose. Massachusetts has been particularly affected by OUD and overdose, with opioid overdose rates 30% higher than the national average.¹ Additionally, the prevalence of overdose rates in Massachusetts was higher in rural counties than in urban counties.²

While there was an overall 4% decrease in the number of opioid-related overdose deaths in 2017 compared with 2016, fentanyl-related deaths are increasing.³ The surge in overdoses in Massachusetts has been primarily attributed to the introduction of fentanyl into the heroin market. Fentanyl is a synthetic opioid analgesic designed to be similar to morphine but is 50 to 100 times

Massachusetts is Working to Prevent Opioid Overdose

- Naloxone is now covered by MassHealth (Medicaid) plans.
- State policy now includes a Good Samaritan law to protect civilians for administering naloxone to a person during an overdose event.

¹ J. A. Barocas, L. F. White, J. Wang, A. Y. Walley, M. R. LaRochelle, D. Bernson, T. L., J. R. Morgan, J. H. Samet, and B. P. Linas, "Estimated Prevalence of Opioid Use Disorder in Massachusetts, 2011–2015: A Capture-Recapture Analysis." *American Journal of Public Health* 108, no.12 (2018):1675, doi: 10.2105/AJPH.2018.304673

² Barocas et al.1679.

³ "Data Brief: Opioid-Related Overdose Deaths among Massachusetts Residents," Massachusetts Department of Public Health, November 2018, 1, <https://www.mass.gov/files/documents/2018/11/16/Opioid-related-Overdose-Deaths-among-MA-Residents-November-2018.pdf>.

more potent. In 2018, among the 962 opioid-related overdose deaths where a toxicology screen was available, 863 of them (or 90%) had a positive screen result for fentanyl.⁴

In 2015 (latest data available), with respect to age, the OUD prevalence was highest among individuals 26 to 44 years old and 45 years old or older (6.87% and 4.66%, respectively).⁵ The OUD prevalence in Massachusetts among people ages 11 years or older was 2.72% in 2011 and 2.87% in 2012. Between 2013 and 2015, the prevalence increased from 3.87% to 4.60%.⁶

II. What are the Best Practices for Prescribing Opioids for Chronic and Acute Pain?

Overarching Considerations

Two guidelines should be considered when understanding what the best practices are for prescribing opioids for chronic and acute pain. The first document is the Massachusetts Medical Society Opioid Therapy and Physician Communication Guidelines published in August 2015. The second set of recommendations is from the CDC, which published the *CDC Guideline for Prescribing Opioids for Chronic Pain* in a March 2016 Morbidity and Mortality Weekly Report, to address prescribing recommendations in the United States (U.S.).

The Massachusetts guidelines consist of 11 elements for acute care. First and foremost, the guidelines recommend that physicians be familiar with and follow the requirements of the law and regulations on the use of the prescription monitoring program prior to initiating opioid treatment. Overall, the Massachusetts guidelines are broader and less specific than the CDC recommendations. However, both recommendations cover areas of concern, such as screening for histories of mental health challenges and/or previous substance use disorders, along with the starting dosage being the minimum necessary (Massachusetts) or lowest dose necessary (CDC).

The CDC identifies Specific Dosage Considerations

- **Starting Dosage:** When opioids are started, clinicians should prescribe the lowest effective dosage.
- **Dosage Changes:** Clinicians should use caution when prescribing opioids at any dosage, should carefully reassess evidence of individual benefits and risks when **increasing dosage to ≥ 50 morphine milligram equivalents (MME)/day, and should avoid increasing dosage to ≥ 90 MME/day** or carefully justify a decision to titrate dosage to ≥ 90 MME/day.
- **Acute Pain Dosage:** When opioids are used for acute pain, clinicians should prescribe no greater quantity than needed for the expected duration of pain severe enough to require opioids; **3 days or less will often be sufficient**; more than 7 days will rarely be needed.

Note: All prescribes in MA must complete three credit hours of Continuing Professional Development (CPD) in opioid and pain management within each two year licensing period.

⁴ “Data Brief: Opioid-Related Overdose Deaths among Massachusetts Residents,” 3.

⁵ Barocas et al. 1678.

⁶ Barocas et al.1678.

Key Considerations from Massachusetts Guidelines

- Patients should also be **screened or assessed** for pregnancy, personal or family histories of substance use disorder, mental health status, or relevant behavioral issues.
- Physicians prescribing opioids should **inform their patients** about the cognitive and performance effects of these prescriptions and **warn them about the dangers** to themselves and others in operating machinery, driving, and related activities while under treatment.
- Patients with **complex pain conditions, serious comorbidities and mental illness, or a history or evidence of substance use disorder should be considered for consultation** from a colleague or specialist referral.
- When clinically indicated, opioids should be **initiated as a short-term trial** to assess the effects and safety of opioid treatment on pain intensity, function, and quality of life. In most instances, the trial should begin with a short-acting opioid medication.
- The **starting dosage should be the minimum dosage** necessary to achieve the desired level of pain control and to avoid excessive side effects.
- **Duration should be short term with possible partial-fill** prescriptions or short-term, low-dosage sequential prescription approaches considered.
- Physicians should **be aware of published dosing guidelines** for pediatric patients, and consider body weight and age as a factor in treating pediatric patients.
- **Concurrent prescriptions should be reviewed**, including paying close attention to benzodiazepines and other medications that may increase the risks of harm with opioid use.
- Physicians must **maintain records and engage in patient assessments** consistent with prescribing guidelines of the Board of Registration in Medicine (BORiM), and are available on their website.
- **Patients should be counseled to store the medications securely**, never share with others, and properly dispose of unused and expired prescriptions.
- **Note: All prescribers in MA must complete three credit hours of Continuing Professional Development (CPD) in opioid and pain management within each two year licensing period.**

The CDC guidelines identify high-risk prescribing practices that have contributed to the overdose epidemic. These include high-dose prescribing, overlapping opioid and benzodiazepine prescriptions, and extended-release/long-acting (ER/LA) opioids for acute pain. The guidelines also address opioid pain medication in several populations, such as older adults and pregnant women, and populations with conditions with special risks, such as history of a substance use disorder. The guidelines do not address the use of opioid pain medication for children or adolescents under 18 years.

The Massachusetts guidelines recommend a duration of a 90-day treatment threshold for chronic pain.⁷ After a 90-day threshold has occurred for an individual with chronic pain, the Massachusetts guidelines suggest 16 elements, which include: re-evaluating the patient's history, completing an objective pain assessment, screening for substance use disorder, considering the use of urine drug testing, developing a treatment plan with functional goals that is reassessed every 60-90 days, informing the client about risks and benefits of continued opioid therapy, developing treatment agreements, and others.⁸

Above a 90-day threshold, the Massachusetts guidelines recommend a risk assessment of substance use disorder using a tool recommended by the Massachusetts Medical Society; however, the CDC guidelines suggest that single screening questions can be used to screen

⁷ "Massachusetts Medical Society Opioid Therapy and Physician Communication Guidelines," 2015, 3.

⁸ "Massachusetts Medical Society Opioid Therapy and Physician Communication Guidelines," 2015, 3-4.

patients for substance use disorders, including opioid use disorder. Massachusetts guidelines should take precedence.

Considerations for Select Medical Specialties

There are unique considerations for prescribing opioids by different areas of medical specialty. Several of these considerations are highlighted below.

Palliative Care

Palliative care represents a unique situation in terms of pain management. While the CDC guidelines provide recommendations for the prescribing of opioid pain medication and strongly advise against opioids for the routine management of chronic pain, patients receiving active cancer treatment have ongoing pain after chemotherapy and/or during or after radiation, are exceptions, as are palliative care and end-of-life care patients. Pain care becomes palliative care when three criteria are met: 1) the underlying disease has no cure; 2) there is a likelihood that the disease may shorten lifespan; and 3) symptomatic treatment has a high probability of improving the quality of life.⁹ Therefore, recommendations regarding opioid pain management in

palliative care may be taken into consideration for both cancer and non-cancer patients. The CDC guidelines are advisory, not mandatory, but are likely to influence physicians' prescribing patterns. Some hospice and palliative care providers are concerned that, while cancer, palliative, and end-of-life patients are exempt, the CDC guidelines could have a negative impact on this patient population.¹⁰ For many years, hospice and palliative care providers have provided pain management, including safely prescribed opioids, even at high doses, when clinically indicated. Opioids play a key role in alleviating pain and suffering for those with advanced illness and at the end of life.¹¹ The Massachusetts guidelines specifically state that they do not apply to patients with cancer or patients in hospice or palliative care. Findings from a study on attitudes of health care professionals to opioid prescribing in end-of-life care revealed that significant barriers exist to the appropriate use of opioids in end-of-life care.¹² Particular barriers exist for providers working in primary care and include concerns about giving high doses and having insufficient training in opioid use. Furthermore, patients and their families often have concerns about

INNOVATIVE PRACTICE Auricular Acupuncture

- Researchers examined the feasibility, credibility, and effectiveness of auricular acupuncture to reduce pain severity.
- 45 participants; 8-day study period
- Standard auricular acupuncture protocol-penetrating semi-permanent acupuncture needles in place for up to 4 days.
- RESULTS: Auricular acupuncture reduced pain and insomnia, compared to usual care.

(Garner, Hopkinson, Ketz, Landis, Trego (2018). Auricular Acupuncture for Chronic Pain and Insomnia: A Randomized Clinical Trial. *Med Acupuncture*, 30 (5), 262-272)

⁹ T.F. Kline and C. D. Concia, "When Does Pain Treatment Become Palliative Care Treatment? An Office Approach—Clinical and Reimbursement Guidelines," June 20, 2018 White Paper.

¹⁰ Terri Maxwell, "CDC Opioid Guidelines Raise Alarms Among Hospice and Palliative Healthcare Providers," May 23, 2016, <https://www.beckershospitalreview.com/quality/cdc-opioid-guidelines-raise-alarms-among-hospice-and-palliative-healthcare-providers.html>.

¹¹ Maxwell, "CDC Opioid Guideline Raise Alarms Among Hospice and Palliative Healthcare Providers."

¹² C. Gardiner, M. Gott, C. Ingleton, P. Hughes, M. Winslow, and M. Bennett, "Attitudes of Health Care Professionals to Opioid Prescribing in End-of-Life Care: A Qualitative Focus Group Study," *Journal of Pain and Symptom Management* 44 (2012): 206.

initiating opioids, and often associate opioids with addiction or imminent death.¹³ However, generally patients have been found to be comfortable with many aspects of chronic pain management, such as discussing/recommending non-opioid pharmacologic and non-pharmacologic therapies. Palliative care providers report low confidence managing opioid misuse behaviors, and many do not have systems in place to utilize urine drug testing, to taper opioids, or to treat opioid addiction.¹⁴ Good communication between provider and patients or families is essential in these circumstances.

Recently, attention has been given to emerging options to opioids for pain treatment. Studies have shown that methadone may be effective as a first-line drug in the management of cancer pain, providing similar analgesia and adverse effect profiles to those produced by other opioids. In particular, methadone doses seem to remain more stable in time, with slow escalation indexes. Methadone has been used at doses approximately equivalent to oral morphine equivalents of 60 mg/day, as it commonly occurs in patients who start Step 3 of the analgesic ladder.”¹⁵

In addition, in treatment of non-cancer pain, compared with placebos, opioids were associated with small improvements in pain, physical functioning, and sleep quality. Compared with placebos, opioids were associated with increased vomiting, drowsiness, constipation, dizziness, nausea, dry mouth, and pruritus.¹⁶ In a meta-analysis of patients with chronic non-cancer pain, evidence from high-quality studies showed that opioid use was associated with statistically significant but small improvements in pain and physical functioning, and increased risk of vomiting compared with placebo. Comparisons of opioids with non-opioid alternatives suggested that the benefit for pain and functioning might be similar, although the evidence was from studies of only low to moderate quality.¹⁷

Surgical

Surgery is a common setting in which opioid-naïve patients are first exposed to opioids, with one study demonstrating that 1 in 16 patients become long-term users after surgery.¹⁸

Overprescribing opioids after surgery is common, and the lack of multidisciplinary procedure-specific guidelines contributes to the wide variation in opioid prescribing practices.¹⁹ The CDC guidelines described above have only one paragraph addressing acute pain recommendations.

¹³ Gardiner et al. “Attitudes of Health Care Professionals to Opioid Prescribing in End-of-Life Care: A Qualitative Focus Group Study,” 206.

¹⁴ J. S. Merlin, K. Patel, N. Thompson, J. Kapo, F. Keefe, J. Liebschutz, J. Paice, T. Somers, J. Starrels, J. Childers, Y. Schenker, and C. S. Ritchie, “Managing Chronic Pain in Cancer Survivors Prescribed Long-term Opioid Therapy: A National Survey of Ambulatory Palliative Care Providers,” *Journal of Pain and Symptom Management*, 8, doi: <https://doi.org/10.1016/j.jpainsymman.2018.10.493>.

¹⁵ S. Mercadante and E. Bruera, “Methadone as a First-Line Opioid in Cancer Pain Management: A Systematic Review,” *Journal of Pain Symptom Management* 55, no. 3 (2018):1002, doi: 10.1016/j.jpainsymman.2017.10.017.

¹⁶ J. W. Busse et al. “Opioids for Chronic Noncancer Pain: A Systematic Review and Meta-analysis,” *Journal of the American Medical Association* 320, no. 23 (2018): 2456, doi:10.1001/jama.2018.18472

¹⁷ Busse et al. 2457.

¹⁸ H. N. Overton, M. N. Hanna, W. E. Bruhn, S. Hutfless, M. C. Bicket, and M. A. Makary, “Opioid-Prescribing Guidelines for Common Surgical Procedures: An Expert Panel Consensus,” *Journal of the American College of Surgeons*, 227, no. 4 (2018): 411.

¹⁹ Overton et al. “Opioid-Prescribing Guidelines for Common Surgical Procedures: An Expert Panel Consensus,” 411.

The guideline recommends not exceeding a 7-day supply but do not specify the morphine milligram equivalents (MME). This is problematic because a single day's supply spans the range of up to 90 morphine MME per day, depending on how the prescription is written.²⁰ Furthermore, using a day's supply fails to account for important risks that accompany higher opioid doses, such as the risk of overdose that doubles at or above 50 MME/day compared with prescriptions of less than 20 MME/day.²¹ The Massachusetts guidelines state that for acute care, the starting dosage should be the minimum dosage necessary, and the duration should be short term with possible partial-fill prescriptions. Massachusetts state guidelines should take precedence.

Surgical procedures vary considerably in pain intensity, though many payers and other decision-making bodies have tried to apply a one-size-fits-all approach. Currently, best practices for opioid prescribing after surgery exist mainly in the experience and wisdom of providers.

Massachusetts Health and Hospital Association Guidelines	
1.	Guidelines for Medication for Addiction Treatment for Opioid Use Disorder within the Emergency Department: http://patientcarelink.org/wp-content/uploads/2019/01/18-01-04MATguidelinesNEWFINAL.pdf
2.	Guidelines for Opioid Management within a Hospital Setting: http://patientcarelink.org/wp-content/uploads/2017/06/SUDPTTFGuidelinesforPrescriptionOpioidManagementwithinHospitals.pdf
3.	Guidelines for ED Opioid Management: http://patientcarelink.org/wp-content/uploads/2017/06/SUDPTTF-ED-GuidanceDocument.pdf
4.	Guidelines for Preventing Opioid Misuse in Hospitals: http://patientcarelink.org/wp-content/uploads/2018/07/18-07-24-Inpatient-Opioid-Misuse-Prevention-GuidelinesFINAL.docx

Consistent among studies related to prescribing opioids after surgical procedures is that there is a lack of clear guidelines, leaving many surgeons on their own in determining the appropriate quantity and strength of opioids needed to address their patients' pain. Recently, in August 2018, a panel of Johns Hopkins University experts announced the first set of 20 operation-specific opioid prescribing guidelines (<https://www.mdmag.com/medical-news/johns-hopkins-releases-opioid-prescribing-recommendations-for-surgeries>).²² Prior to that, the American College of Surgeons had provided practical guidelines based on a consensus of both physicians and patients.

²⁰ Overton et al. 412.

²¹ Overton et al. 412.

²² Kevin Kunzmann, "Johns Hopkins Releases Opioid Prescribing Recommendations for Surgeries," *MD Magazine*, (August 14, 2018): <https://www.mdmag.com/medical-news/johns-hopkins-releases-opioid-prescribing-recommendations-for-surgeries>.

Emergency Medicine

While concerns over opioid prescription misuse are shared by all medical providers, emergency medicine practitioners are at the nexus of the growing use of prescription pain medication and the devastating consequences of opioids, with nearly 43% of emergency department visits being related to pain.²³ It is important to note that while Emergency Department (ED) opioid prescribing has increased, many of the misuse cases are with individuals using the long-acting or extended-release formulations to treat chronic pain.²⁴ For patients with chronic pain, it is critical to assess the adequacy of pain relief and the adjunct agent being used for treatment. If the pain is not relieved, the patient may continue to escalate the dosing.

The long-lasting or extended-release agents are rarely prescribed in the ED, likely because the majority of painful conditions seen in the ED are acute in nature.²⁵ Although relieving pain and reducing suffering are primary emergency physician responsibilities, there is a concurrent duty to limit the personal and societal harm that can result from prescription drug misuse. Several state efforts to address potential misuse have

Substance Use Disorder Evaluations (SUDE) Massachusetts Requirements

Massachusetts State law requires Emergency Departments to:

1. Complete a SUDE for patients reasonably believed to be experiencing an opioid-related overdose or who were administered naloxone prior to arriving at the ED or Satellite Emergency Facility (SEF), and record findings of the SUDE in the patient's electronic medical record (EMR).
2. Maintain capacity to provide appropriate, evidence based interventions, including initiating or providing Medication Assisted Treatment (MAT) for OUD.
3. Offer to initiate or provide MAT for OUD to all patients following an overdose and prior to discharge.
4. Prior to discharge, directly connect patients who receive MAT to an appropriate provider or treatment site to continue MAT or other community based program appropriate to the patient's needs.

Guidance on conducting a SUDE as part of a hospital's clinical practices once a patient has been stabilized and medically cleared, in accordance with Section 51 ½ of Chapter 111 of the MA General Laws.

1. The treating physician or clinician must order a SUDE for the following patients based on the patient's clinical presentation within a hospital (including any satellite emergency facility).
2. The SUDE should occur regardless of treatment and follow up care location
3. Treating physician or clinician should monitor timing of SUDE.
4. Licensed Mental Health Professional or ESP conducting a SUDE must:
 - a. Provide evaluation that includes at a minimum the following criteria: history of patient's substance use, family history of substance use, assessment of the patient's psychological treatment history, psychological status, and risk status for HIV, Hepatitis C, and Tuberculosis.
 - b. Diagnose status and nature of the patient's substance use disorder.
 - c. Deliver findings of SUDE to patient verbally and in writing, and document in the hospital record.
5. Follow mandatory follow up steps with patients receiving a SUDE.

Additional information available from source where above content was directly extracted:

Guidelines for Substance Use Disorder Evaluations:

<http://patientcarelink.org/improving-patient-care/substance-use-disorder-prevention-treatment-2/>

²³ R. I. Broida, T. Gronowski, A. F. Kalnow, A. G. Little, and C. M. Lloyd, "State Emergency Department Opioid Guidelines: Current Status," *Western Journal of Emergency Medicine* 18, no. 3 (2017): 340.

²⁴ M. Miller et al. "Prescription Opioid Duration of Action and the Risk of Unintentional Overdose Among patients Receiving Opioid Therapy," *JAMA Intern Medicine* 175, no. 4 (2015): 608-615.

²⁵ "Outpatient Prescription Opioid Utilization in the U.S., Year 2000–2009."

included the development of statewide opioid prescribing guidelines for emergency physicians/departments. In addition to emergency physicians attending trainings to qualify for a waiver, examples include Pennsylvania EDs limiting prescriptions for opioids by starting with lowest effective dose or addressing pain with non-opioids, Washington EDs utilizing information exchange programs, and New York EDs providing patient education information.

One option for ED physicians is to complete the eight-hour training to qualify for a waiver to prescribe and dispense buprenorphine. Recommendation 12 in the CDC guidelines, described in more detail above, suggests that clinicians refer patients with OUD to evidence-based treatment, usually medication assisted treatment (MAT) with buprenorphine or methadone in combination with behavioral therapies.²⁶

One study indicates that ED-initiated buprenorphine is cost-saving, compared to a brief intervention or referral.²⁷ A separate study found that opioid-dependent patients who received ED-initiated buprenorphine with continuation in primary care were more likely to be engaged in treatment and reported less use of illicit opioids at the time of follow-up assessments at two months.²⁸

III. What Can Physicians Do to Identify and Triage Opioid Use Disorders?

Several tools have been developed to assist health care providers in identifying and triaging opioid use disorder. A sample of tools and recommended guidelines is provided below.

A. Screening Methods and Instruments

The Massachusetts guidelines indicate that patients should be screened for personal or family histories of substance use disorder. The Massachusetts Health and Hospital Association (MHA) developed a document to provide an overview of commonly used screening tools for substance use disorders. Several links to these screening tools, along with the link to the MHA resource document, are listed in the box on page 9. In addition, the CDC reports that asking the single question, “How many times in the past year have you used an illegal drug or used a prescription medication for nonmedical reasons?” was found in a primary care setting to be 100% sensitive and 73.5% specific for detecting a drug use disorder compared to a standardized diagnostic interview.²⁹

²⁶ “CDC Guideline for Prescribing Opioids for Chronic Pain – United States, 2016,” 32.

²⁷ S. H. Busch, D. A. Fiellin, M. C. Chawarski, P. H. Owens, M. V. Pantalon, et al. “Cost Effectiveness of Emergency Department-Initiated Treatment for Opioid Dependence,” *Addiction* 112, no. 11 (2017): 2007, doi:10.1111/add.13900.

²⁸ G. D’Onofrio, M. C. Chawarski, P. G. O’Connor, M. V. Pantalon, S. H. Busch et al. Emergency Department-Initiated Buprenorphine for Opioid Dependence with Continuation in Primary Care: Outcomes During and After Intervention,” *Journal of General Internal Medicine* 32, no. 6 (2017): 663.

²⁹ “CDC Guideline for Prescribing Opioids for Chronic Pain – United States, 2016,” 28.

Screening tools can provide a systematic and timely method for routine assessment of patients in a range of medical treatment settings. However, these tools should not be relied on too much. Specifically, the CDC notes “the clinical evidence review found that currently available risk-stratification tools (e.g., Opioid Risk Tool, Screener and Opioid Assessment for Patients with Pain Version 1, SOAPP-R, and Brief Risk Interview) show insufficient accuracy for classification of patients as at low or high risk for abuse or misuse.”³⁰

It is important to examine the limitations of each tool and combine the results from the tools with other sources of information for assessing risk, such as accessing the state prescription drug monitoring program (PDMP) or urine testing.

B. Brief Intervention in Primary Care for Opioid Misuse or Opioid Use Disorder

The screening, brief intervention, and referral to treatment (SBIRT) is a public-health approach to substance use that focuses on using the medical setting as a unique opportunity to provide a brief motivational discussion around risky substance use.³¹

Following the SBIRT model, if an individual’s screening score is in a moderate- to high-risk category, a provider should implement a brief intervention, taking only 5–10 minutes. A brief intervention is a patient-centered intervention that uses motivational interviewing to effect behavioral change in a short time period. The purpose of motivational interviewing is not to “cure the patient” but to instill in him or her a desire to change by pointing out discrepancies between current behavior and future goals.³²

Commonly Used Screening Tools for Risky Opioid Use

DRUGS/MEDICATIONS

- **NIDA-1** (National Institute on Drug Abuse: 1 Question)
- **DAST-10** (Drug Abuse Screening Test; 10 questions)
- **SAMHSA Opioid Overdose Toolkit:** (List of 6 criteria)
- **The 5Ps Prenatal Substance Abuse Screen for Alcohol and Drugs**

POLYSUBSTANCE

- **CRAFFT** (Pediatric; 5-6 questions)
- **ASSIST** (Alcohol Smoking and Substance Involvement Screening Test; 7 questions)

LONG-TERM PAIN THERAPY

- **ORT** (Opioid Risk Tool; 5 questions)
- **SOAPP** (Screener and Opioid Assessment for Patients with Pain; 5-24 questions)

Additional Details on Tools:

- <http://www.integration.samhsa.gov/clinical-practice/screening-tools>
- <https://store.samhsa.gov/system/files/sma18-4742.pdf>
- <http://patientcarelink.org/wp-content/uploads/2017/07/ScreeningToolsResourcePacket-Revised-07312017.pdf>
- <http://www.ilpqc.org/docs/toolkits/MNO-OB/5Ps-Screening-Tool-and-Follow-Up-Questions.pdf>

³⁰ “CDC Guideline for Prescribing Opioids for Chronic Pain – United States, 2016,” 28.

³¹ T. E. Wright, “Screening, Brief Intervention, and Referral to Treatment for Opioid and Other Substance Use During Infertility Treatment,” *Fertility and Sterility* 108, no. 2 (2017): 214. <http://dx.doi.org/10.1016/j.fertnstert.2017.06.012>.

³² Wright, 218.

For the provider, an effective brief intervention consists of three tasks: 1) provide feedback of personal responsibility (e.g., “As your doctor, I recommend you stop smoking cigarettes for your health and to improve your chances of getting pregnant, but it's your decision on what you want to do.”); 2) listen and understand a patient's motivation for using one or more substances (e.g., “I hear that you use pills to deal with the pain of your pregnancy losses.”); and 3) explore other options to address patient's motivation for substance use (e.g., “Are there other ways you deal with stress in a more healthy way?”).³³

The brief intervention can be followed with an oral or written “contract” in which the patient states what he or she plans on doing to reach readiness, abstinence, or interim goals toward eliminating substance use, and the provider arranges for follow-up visits. This way, the patient remains responsible for his or her treatment and outcome, not the provider.³⁴

C. Referral to Treatment

According to the CDC, the prevalence of OUD among primary care patients with chronic pain on opioid therapy is 3% to 26%. If clinicians suspect opioid use disorder based on patient concerns or behaviors or on findings in prescription drug monitoring program data, they should discuss their concerns with their patients and provide an opportunity for these patients to disclose related concerns or problems. Clinicians can assess for the presence of opioid use disorder using the DSM-5 criteria. Alternatively, clinicians can administer screening questions listed above and/or validated screening tools. If the score is moderate to high, they can arrange for a substance use disorder treatment specialist to assess for the presence of opioid use disorder.³⁵

The CDC Guideline suggests that clinicians should refer patients to treatment options for OUD. Specifically, the recommendations indicate that clinicians offer or arrange evidence-based treatment (usually MAT with buprenorphine or methadone in combination with behavioral

The CDC Recommendations for Assessing Risk and Addressing Harms of Opioid Use

1. **Naloxone:** Incorporate strategies to mitigate risk, including considering offering naloxone when factors that increase risk for opioid overdose, such as history of overdose and/or SUD, higher opioid dosages (=50 MME/day), or concurrent benzodiazepine use, are present.
2. **PDMP:** Review state prescription drug monitoring program data when starting opioid therapy for chronic pain and periodically during opioid therapy for chronic pain, ranging from every prescription to every 3 months.
3. **Urine Testing:** For chronic pain, use urine drug testing before starting opioid therapy and consider urine drug testing at least annually to assess for prescribed medications as well as other controlled prescription drugs and illicit drugs.
4. **Benzodiazepines:** Avoid prescribing opioid pain medication and benzodiazepines concurrently whenever possible.
5. **MAT:** Clinicians should offer or arrange evidence-based treatment (usually MAT with buprenorphine or methadone in combination with behavioral therapies) for patients with OUD.

³³ Wright, 218.

³⁴ Wright, 218.

³⁵ “CDC Guideline for Prescribing Opioids for Chronic Pain – United States, 2016,” 33.

therapies) for patients with OUD.³⁶ In addition to referring to MAT, the recommendation suggests that clinicians refer patients to behavioral health therapy.

Provider Training and Patient Referral Resources

Massachusetts

- [Massachusetts Department of Public Health, Bureau of Substance Abuse Services \(MDPH, BSAS\) State Technical Assistance Treatment Expansion \(STATE\) OBAT Program](#): Provides free training and technical assistance on addiction treatment to providers in Massachusetts.
- [Substance Use Disorder Services Helpline](#): A statewide, public resource for finding substance use treatment and recovery services, funded by the Massachusetts Department of Public Health.

Federal – Substance Abuse and Mental Health Services Administration (SAMHSA)

- [Buprenorphine physician locator](#): Provides a list of physician names, addresses and phone numbers authorized to treat OUD with buprenorphine by state.
- [Opioid Treatment Program Directory](#): Provides a list of opioid treatment program names, addresses, and phone numbers, by state.
- [Provider Clinical Support System for Opioid Therapies](#): Offers extensive experience in the treatment of substance use disorders and specifically of opioid use disorder, as well as expertise on the interface of pain and opioid misuse.
- [Provider’s Clinical Support System for MAT](#): Offers expert physician mentors to answer questions about assessment for and treatment of substance use disorders.

D. Medication Assisted Treatment (MAT)

Recommendation 12 in the CDC Guideline, described above, suggests that clinicians refer patients with OUD to evidence-based treatment, usually MAT with buprenorphine or methadone in combination with behavioral therapies.³⁷ MAT is a multimodal and comprehensive treatment approach that should include a psychosocial component, such as cognitive behavioral therapy, motivational enhancement therapy, or peer-delivered recovery support service.³⁸

³⁶ “CDC Guideline for Prescribing Opioids for Chronic Pain – United States, 2016,” 16.

³⁷ “CDC Guideline for Prescribing Opioids for Chronic Pain – United States, 2016,” 32.

³⁸ G. E. Moran, C. M. Snyder, R. F. Noftinger, and J. D. Noda, “Implementing Medication-Assisted Treatment for Opioid Use Disorder in Rural Primary Care: Environment Scan (Volume 1),” Agency for Healthcare Research and Quality, October 2017, 5, https://integrationacademy.ahrq.gov/sites/default/files/mat_for_oud_environmental_scan_volume_1_1.pdf.

MAT is used to prevent the euphoric effects of opioids, lessen cravings for opioids, and decrease withdrawal symptoms by acting as opioid agonists, partial agonists, or antagonists.³⁹ There are three medications that are currently approved by the Food and Drug Administration for opioid use disorder: methadone, buprenorphine, and naltrexone.⁴⁰ Each of these medications has its uses and restrictions for use. Methadone is an opioid agonist used to minimize withdrawal symptoms and can only be dispensed in opioid treatment programs certified by the Substance Abuse and Mental Health Services Administration (SAMHSA) and registered with the U.S. Drug Enforcement Agency (DEA).⁴¹ Methadone has also been used to provide relief for chronic or acute pain with a slow release effect used for some pain management cases. Like other common pain medications, it can lead to addiction and/or overdose if not taken as prescribed. However, over the past few decades, methadone has been used to help treat opioid use disorder mainly because it does not produce euphoric effects and must be dispensed in a controlled environment.

Buprenorphine is a partial opioid agonist and can be used for withdrawal and treatment; however, the use of buprenorphine for “maintenance treatment involves some risk of misuse or overdose.”⁴² Unlike buprenorphine and methadone, naltrexone is an opioid antagonist that blocks opioid receptors to prevent any of the effects of opioids if they are used. Therefore, it is recommended for relapse prevention rather than for management of withdrawal

MA Bureau of Substance Abuse Services and Department of Mental Health Guidelines for Administering MAT (2019)

- Any physician or other authorized hospital staff in Department of Mental Health (DMH)-licensed inpatient facilities can administer or dispense methadone and buprenorphine without additional state or federal oversight or approval, provided the methadone or buprenorphine is administered or dispensed incident to the patient’s medical treatment for a condition other than substance use disorder. This includes MAT induction for a patient with a secondary diagnosis of substance use disorder on either methadone or buprenorphine.
 - DEA regulations (21 CFR 1306.07) authorize physicians or other authorized hospital staff to administer or dispense buprenorphine or methadone in the hospital, which includes psychiatric hospitals, in order to maintain or detox a patient “as an incidental adjunct to medical or surgical treatment of conditions other than addiction.” In effect, this allows a physician or other authorized hospital provider to administer or dispense MAT to patients at the hospital, without time limitation, where SUD is a secondary diagnosis.
- Any physician in DMH-licensed inpatient facilities can administer methadone or buprenorphine without additional state or federal oversight or approval pursuant to the DEA’s “three day rule.”
 - DEA regulations (21 CFR 1306.07) authorize physicians to administer buprenorphine or methadone to a patient “for the purpose of relieving acute withdrawal symptoms when necessary while arrangements are being made for referral to treatment.” This treatment is limited to 72 hours, where not more than one day’s medication is administered to the person at a time. The 72-hour period cannot be renewed. In effect, this allows a physician to administer MAT to patients where SUD is the primary diagnosis solely for the purpose of managing their withdrawal.

For additional information:

- [Guidelines for Medication for Addiction Treatment for Opioid Use Disorder within the Emergency Department](#)
- [Code of Federal Regulations](#)

³⁹ Moran et al. “Implementing Medication-Assisted Treatment for Opioid Use Disorder in Rural Primary Care: Environment Scan (Volume 1),” 5.

⁴⁰ Moran et al. 3.

⁴¹ Moran et al. 3.

⁴² Moran et al. 4.

symptoms. Naltrexone does not carry a risk for abuse or overdose like buprenorphine or methadone, so health care providers have no restrictions prescribing it.⁴³

Physicians not already certified to provide buprenorphine in an office-based setting can undergo training to receive a waiver from SAMHSA that allows them to prescribe buprenorphine to treat patients with opioid use disorder. The CDC suggests that physicians prescribing opioids in communities without sufficient treatment capacity for opioid use disorder should strongly consider obtaining this waiver. Clinicians do not need a waiver to offer naltrexone for opioid use disorder as part of their practice.⁴⁴

Prescribing Naloxone

In order to reduce the risk of overdose deaths, clinicians should strongly consider prescribing or co-prescribing naloxone, and providing education about its use for the following patients who are at risk of opioid overdose:

Patients prescribed opioids who:

- Are receiving opioids at a dosage of 50 MME per day or greater.
- Have respiratory conditions such as chronic obstructive pulmonary disease (COPD) or obstructive sleep apnea (regardless of opioid dose).
- Have been prescribed benzodiazepines (regardless of opioid dose).
- Have a non-opioid substance use disorder, report excessive alcohol use, or have a mental health disorder (regardless of opioid dose).

Patients at high risk for experiencing or responding to an opioid overdose, including individuals:

- Using heroin, illicit synthetic opioids, or misusing prescription opioids.
- Using other illicit drugs such as stimulants, including methamphetamine and cocaine, which could potentially be contaminated with illicit synthetic opioids like fentanyl.
- Receiving treatment for opioid use disorder, including MAT with methadone, buprenorphine, or naltrexone.
- With a history of opioid misuse and recently released from incarceration or other controlled settings where tolerance to opioids has been lost.

Additional information available from source where above content was directly extracted from:

Naloxone: The Opioid Reversal Drug that Saves Lives

<https://www.hhs.gov/opioids/sites/default/files/2018-12/naloxone-coprescribing-guidance.pdf>

IV. What are the Unique Considerations by Select Populations?

As with delivery of any services, there are unique considerations that providers can take into account for select populations. Below are considerations for individuals living in rural areas, women who are pregnant or postpartum, and individuals with mental health comorbidities.

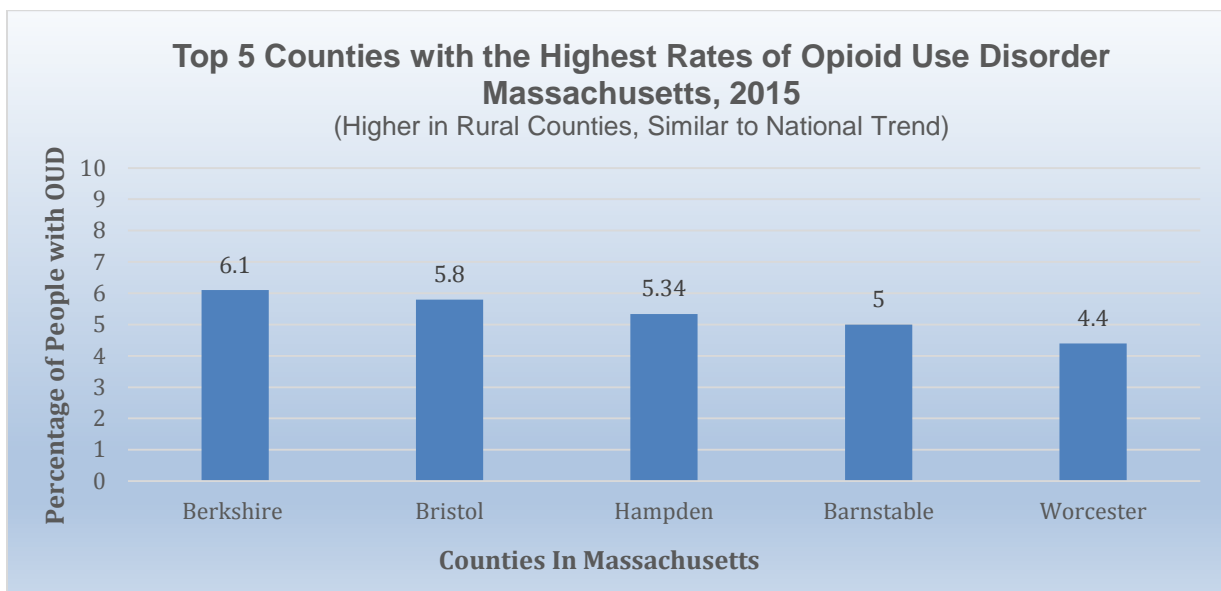
⁴³ Moran et al. 7.

⁴⁴ “CDC Guideline for Prescribing Opioids for Chronic Pain – United States, 2016,” 33.

A. Rural

The CDC has estimated that people in rural counties are approximately twice as likely as those in urban areas to overdose on prescription painkillers. Several theories are hypothesized as to explain the differences between rural and urban populations, including: increased availability of opioids in states with large rural populations because of high prescription rates; large kinship networks unique to rural areas that may contribute to the spread of prescription opioids, as friends and family with prescriptions are often a main source of access to these drugs; and individuals living in rural areas being more likely to suffer injuries in labor occupations that lead to higher rates of chronic pain and prescription opioid abuse.⁴⁵

Additionally, individuals with OUD in rural counties often lack access to MAT. For example, although primary care physicians are important providers of health care in rural areas, one study found that only 3% of these physicians had obtained a waiver to prescribe buprenorphine.⁴⁶ Due to this lack of waived physicians, approximately 21 million people were living in rural counties with no local access to physicians authorized to provide buprenorphine treatment.⁴⁷ The majority of waived providers are in urban areas.



“Estimated Prevalence of Opioid Use Disorder in Massachusetts, 2011-2015: A Capture-Recapture Analysis,” chart information from J. A. Barocas et al. *American Journal of Public Health*, November 7, 2018.

Another potential driving force is that rural residents may experience health inequities shaped by social determinants of health. Lower levels of education, living in poverty, and possible lower health literacy all impact the ability to manage chronic pain, adhere to instructions for medication, and/or communicate with providers.⁴⁸

⁴⁵ Moran et al. 5.

⁴⁶ Moran et al. 7.

⁴⁷ Moran et al. 7.

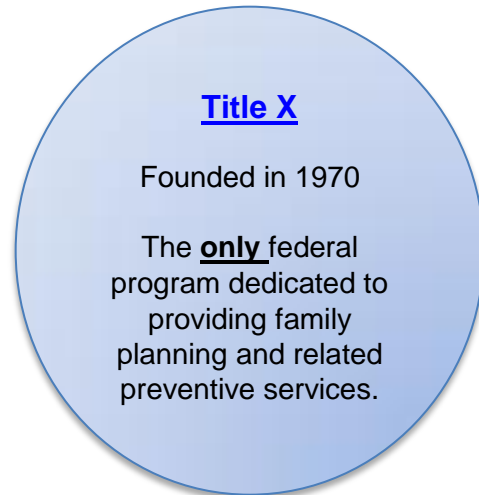
⁴⁸ Moran et al. 11.

B. Pregnancy and Post-partum

Providers should exercise additional caution when it comes to women who are pregnant or are postpartum. The CDC recommendations note that opioids used in pregnancy can lead to risks to both mother and fetus. Studies have shown “opioid use during pregnancy leads to neonatal opioid withdrawal syndrome.”⁴⁹ Additionally, there is moderate evidence describing the risk of developing chronic pain in the postpartum period due to mode of delivery, though data regarding chronic pain conditions that develop during pregnancy are minimal.⁵⁰

For pregnant women already receiving opioids, the CDC recommends that clinicians should “access appropriate expertise if considering tapering opioids because of possible risk to the pregnant patient and to the fetus if the patient goes into withdrawal.”⁵¹ The CDC recommendations also note that MAT, such as buprenorphine or methadone, has been associated with improved maternal outcomes and should be offered. Recent research has suggested that methadone exposure in utero has a higher risk for neonatal abstinence syndrome compared with buprenorphine exposure.⁵² Another study suggested that Suboxone (MAT that combines buprenorphine and naloxone) may be a better option for women with a history of light to moderate opiate abuse, while methadone may be more effective for women who are heavy, chronic users.⁵³ Additionally, the CDC guidelines note that for women who are taking opioids for pain or are receiving MAT, clinicians should ensure that pregnant women can deliver at a facility prepared to “monitor, evaluate for, and treat neonatal opioid withdrawal syndrome.”⁵⁴

The CDC recommendations note that before starting opioid therapy for chronic pain for women of reproductive age, “clinicians should discuss family planning and how long-term opioid use might affect any future pregnancy.”⁵⁵ For example, clinicians can use the One Key Question® approach⁵⁶ and ask women of reproductive age the question “Would you like to become pregnant



⁴⁹ “CDC Guideline for Prescribing Opioids for Chronic Pain – United States, 2016,” 14.

⁵⁰ S. L. Ray-Griffith, M. P. Wendel, Z. N. Stowe, and E. F. Magann, “Chronic Pain During Pregnancy: A Review of the Literature,” *International Journal of Women’s Health*, no. 10 (2018): 158.

⁵¹ “CDC Guideline for Prescribing Opioids for Chronic Pain – United States, 2016,” 26.

⁵² Lemon LS, Caritis SN, Venkataraman R, Platt RW, Bodnar LM. Methadone versus buprenorphine for opioid use dependence and risk of neonatal abstinence syndrome [published online November 6, 2017]. *Epidemiology*. doi:10.1097/EDE.0000000000000780

⁵³ Whelan, P. J., & Remski, K. (2012). Buprenorphine vs methadone treatment: A review of evidence in both developed and developing worlds. *Journal of neurosciences in rural practice*, 3(1), 45-50.

⁵⁴ “CDC Guideline for Prescribing Opioids for Chronic Pain – United States, 2016,” 27.

⁵⁵ “CDC Guideline for Prescribing Opioids for Chronic Pain – United States, 2016,” 27.

⁵⁶ Baldwin, M. K., Overcarsh, P., Patel, A., Zimmerman, L., & Edelman, A. (2018). Pregnancy intention screening tools: a randomized trial to assess perceived helpfulness with communication about reproductive goals. *Contraception and reproductive medicine*, 3, 21. doi:10.1186/s40834-018-0074-9

in the next year?” to facilitate a client-centered conversation with women. Providers can also partner with family planning providers in their community, such as Title X family planning service providers who have expertise in providing client-centered counseling and offer a wide range of contraceptive options, if the woman decides to pursue opioid therapy.

C. Mental Illness

Viewing OUD as a stand-alone disease without consideration of other substance use or comorbid psychiatric pathology provides only a limited perspective. OUD evaluation and treatment should also specifically focus on psychiatric symptomatology and comorbidity. Individuals with mental health comorbidities and individuals with histories of substance use disorders might be at higher risk than other patients for opioid use disorder.⁵⁷

It is estimated that among the 38.6 million Americans with mental health disorders, 18.7% (7.2 million of 38.6 million) use prescription opioids.⁵⁸ Adults with mental health conditions receive 51.4% (60 million of 115 million prescriptions) of the total opioid prescriptions distributed in the U.S. each year.⁵⁹ Compared with adults without mental health disorders, studies indicate that adults with mental health disorders were significantly more likely to use opioids.

In addition, studies suggest that adults with mental health disorders (i.e., mood and anxiety disorders) are more likely to be prescribed opioids and remain taking them long term.⁶⁰ For example, adults with mood disorders are nearly twice as likely to use opioids long term for pain.⁶¹ In fact, pain is very common among adults with mental health disorders,⁶² and the relationship between mental illness and opioid use is complex. However, some suggest that mental illness may be a moderator in the relationship between pain and opioid use.⁶³

Conclusion

While there are significant efforts underway to combat the opioid crisis, there remains a need for greater emphasis on overdose prevention and treatment, and on coordination of efforts and best practices. It is important to amplify implementation of preventive measures, physician education, and addressing why patients are using opioids in the first place. Dissemination of MAT and opioid overdose medication naloxone is another critical component in addressing OUD. Lastly, there are unique considerations for prescribing opioids by different areas of medical specialty.

⁵⁷ “CDC Guideline for Prescribing Opioids for Chronic Pain – United States, 2016,” 14.

⁵⁸ M. A. Davis, L. A. Lin, H. Liu, and B. D. Sites, “Prescription Opioid Use Among Adults with Mental Health Disorders in the United States,” *Journal of the American Board of Family Medicine* 30, no. 4 (2017): 407, doi: 10.3122/jabfm.2017.040170112.

⁵⁹ Davis et al. 407.

⁶⁰ K. H. Seal, Y. Shi, G. Cohen, et al. “Association of Mental Health Disorders with Prescription Opioids and High-risk Opioid Use in U.S. Veterans of Iraq and Afghanistan,” *Journal of Medical Association* 307 (2012): 940–947.

⁶¹ B. T. Halbert, R. B. Davis, C. C. Wee, “Disproportionate Longer-term Opioid Use Among U. S. Adults with Mood Disorders,” *Journal of Pain Mood Disorders*, 17, (2016):131-157.

⁶² B. J. Bair, R. L. Robinson, W. Katon, and K. Kroenke, “Depression and Pain Comorbidity: A Literature Review,” *Archives of Internal Medicine*, 163, (2003): 2433-2445.

⁶³ Davis et al. 407.

The focus of OUD must be comprehensive and should not be considered a stand-alone disease without consideration of other substance use or comorbid psychiatric pathology.

In summary, the goal of this Advisory is to supplement and support practitioners in the review and development of judicious and balanced opioid prescribing practices. It is not intended to be an algorithm in the treatment of acute or chronic pain or to replace good clinical judgment, a longitudinal professional relationship with the patient, frequent monitoring or discontinuation of prescribing when unsafe. More importantly, physicians should treat patients' pain appropriately, without fear of discipline if done with careful prescribing.

MASSACHUSETTS RESOURCE WEBSITES	
1.	Opioid Law Updates: https://www.mass.gov/news/update-for-prescribers-new-law-regarding-opioids
2.	DPH Pamphlet for CII and CIII Narcotic Dispensing: https://mass.gov/files/documents/2016/09/rf/opiod-fact-sheet_0.pdf
3.	Naloxone Dispensing via Standing Order DCP/Pharmacy Jointly: https://mass.gov/files/documents/2018/12/13/naloxone-dispensing-via-standing-order.pdf
4.	Naloxone Exchange (DCP): https://www.mass.gov/files/documents/2019/02/26/naloxone-exchange-chapter-208-final.pdf
5.	Voluntary Non-Opioid Directive Form: https://www.mass.gov/files/documents/2017/01/xd/non-opioid-directive_0.pdf
6.	Sale of hypodermic Syringes and Needles Pharmacy: https://www.mass.gov/files/documents/2019/03/01/sale-syringe-hypodermic.pdf
7.	Pharmacist Administration of MH/SUD Medications. DCP/Pharmacy issued jointly: https://www.mass.gov/files/documents/2019/02/12/circular-dcp-19-2-105.pdf
8.	Partial Fill DCP/Pharmacy issued jointly: https://www.mass.gov/files/documents/2018/08/23/dcp-16-12-665.pdf
9.	DCP/Pharmacy updated jointly: https://www.mass.gov/files/documents/2018/11/06/dcp-partial-fill.pdf
10.	Drug Stewardship Program Instructions: https://www.mass.gov/files/documents/2017/03/zu/dhcq-666.pdf
11.	PMP Utilization for Benzodiazepines: https://www.mass.gov/files/documents/2018/11/01/pmp-benzo-check-notice%20208-of-2018_0.pdf
12.	Virtual Manufacture or Distributor MCSR Application: https://www.mass.gov/files/documents/2018/11/05/app-vitrtualmanufdistrib-mcsr.pdf
13.	Permitted Prescription Changes: https://www.mass.gov/policy-advisory/2018-01-permitted-prescription-changes

Bibliography

- “CDC Guideline for Prescribing Opioids for Chronic Pain – United States, 2016.” Centers for Disease Control and Prevention, March 15, 2016.
https://www.cdc.gov/mmwr/volumes/65/rr/rr6501e1.htm?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Fmmwr%2Fvolumes%2F65%2Frr%2Frr6501e1er.htm.
- “Data Brief: Opioid-Related Overdose Deaths among Massachusetts Residents.” Massachusetts Department of Public Health, (November 2018): 1-4.
<https://www.mass.gov/files/documents/2018/11/16/Opioid-related-Overdose-Deaths-among-MA-Residents-November-2018.pdf>.
- “Outpatient Prescription Opioid Utilization in the U.S., Year 2000-2009.” U. S. Food & Drug, (2010).
- Bair, M. J., Robinson, R. L., Katon, W., and Kroenke, K. “Depression and Pain Comorbidity: A Literature Review.” *Archives of Internal Medicine* 163, (2003): 2433-2445.
- Baldwin, M. K., Overcarsh, P., Patel, A., Zimmerman, L., & Edelman, A. (2018). Pregnancy intention screening tools: a randomized trial to assess perceived helpfulness with communication about reproductive goals. *Contraception and reproductive medicine*, 3, 21. doi:10.1186/s40834-018-0074-9
- Barocas, J. A., White, L. F., Wang, J., Walley, A. Y., LaRochelle, M. R., Bernson, D., Land, T., Morgan, J. R., Samet, J. H., and Linas, B. P. “Estimated Prevalence of Opioid Use Disorder in Massachusetts, 2011-2015: A Capture-Recapture Analysis.” *American Journal of Public Health* 108, no.12 (2018): 1675-1681. doi: 10.2105/AJPH.2018.304673.
- Bearnot, B., Pearson, J. F., and Rodriguez, J. A. “Using Publicly Available Data to Understand the Opioid Overdose Epidemic: Geospatial Distribution of Discarded Needles in Boston, Massachusetts.” *American Journal of Public Health* 108, no. 10 (2018):1355-1357. doi: 10.2105/AJPH.2018.304583.
- Broida, R. I., Gronowski, T, Kalnow, A. F., Little, A. G., and Lloyd, C. M. “State Emergency Department Opioid Guidelines: Current Status,” *Western Journal of Emergency Medicine* 18, no. 3 (2017): 340.
- Busch, S. H. et al. “Cost Effectiveness of Emergency Department-Initiated Treatment for Opioid Dependence,” *Addiction* 112, no. 11 (2017): 2007, doi:10.1111/add.13900.

- Busse, J. W. et al. "Opioids for Chronic Noncancer Pain: A Systematic Review and Meta-analysis." *Journal of the American Medical Association* 320, no. 23 (2018): 24-29, doi:10.1001/jama.2018.18472.
- Davis, M. A., Lin, L. A., Liu, H., and Sites, B. D. "Prescription Opioid Use Among Adults with Mental Health Disorders in the United States." *Journal of the American Board of Family Medicine* 30, no. 4 (2017): 407. doi: 10.3122/jabfm.2017.040170112.
- D'Onofrio, G. et al. "Emergency Department-Initiated Buprenorphine for Opioid Dependence with Continuation in Primary Care: Outcomes During and After Intervention." *Journal of General Internal Medicine* 32, no. 6 (2017): 663.
- Gardiner, C., Gott, M., Ingleton, C., Hughes, P., Winslow, M., and Bennett, M. "Attitudes of Health Care Professionals to Opioid Prescribing in End-of-Life Care: A Qualitative Focus Group Study." *Journal of Pain and Symptom Management* 44 (2012): 206.
- Garner, B. K., Hopkinson, S. G., Ketz, A. K., Landis, C. A., and Trego, L. L. "Auricular Acupuncture for Chronic Pain and Insomnia: A Randomized Clinical Trial." *Medical Acupuncture* 30, no. 5 (November 2018): 262-272. doi: 10.1089/acu.2018.1294.
- Halbert, B. T., Davis, R. B., and Wee, C. C. "Disproportionate Longer-term Opioid Use Among U.S. Adults with Mood Disorders," *Journal of Pain Mood Disorders* 17 (2016):131-157.
- Hernandez, Y., Meyers-Ohki, S., Farkas, S., Ball, S., Leonard, K., Rotrosen, J., and Saitz, R. "How Massachusetts, Vermont, and New York Are Taking Action to Address the Opioid Epidemic." *American Journal of Public Health* 108, no. 12 (December 2018): 1621-1622. doi: 10.2105/AJPH.2018.304741.
- Kunzmann, Kevin "Johns Hopkins Releases Opioid Prescribing Recommendations for Surgeries." *MD Magazine*, (August 14, 2018). <https://www.mdmag.com/medical-news/johns-hopkins-releases-opioid-prescribing-recommendations-for-surgeries>
- Lemon LS, Caritis SN, Venkataramanan R, Platt RW, Bodnar LM. "Methadone versus buprenorphine for opioid use dependence and risk of neonatal abstinence syndrome" [published online November 6, 2017]. *Epidemiology*. doi: 10.1097/EDE.0000000000000780
- Massachusetts Medical Society. (20 August 2015). Massachusetts Medical Society Opioid Therapy and Physician Communication Guidelines. Retrieved from <http://www.massmed.org/Patient-Care/Health-Topics/Massachusetts-Medical-Society-Opioid-Therapy-and-Physician-Communication-Guidelines/#.XD997lxKjIX>

- Maxwell, T. "CDC Opioid Guidelines Raise Alarms Among Hospice and Palliative Healthcare Providers." (May 23, 2016). <https://www.beckershospitalreview.com/quality/cdc-opioid-guidelines-raise-alarms-among-hospice-and-palliative-healthcare-providers.html>
- Mercadante, S. and Bruera, E. "Methadone as a First-Line Opioid in Cancer Pain Management: A Systematic Review." *Journal of Pain Symptom Management* 55, no. 3 (March 2018): 998-1003. doi: 10.1016/j.jpainsymman.2017.10.017.
- Merlin, J. S., Patel, K., Thompson, N., Kapo, J., Keefe, F., Liebschutz, J., Paice, J., Somers, T., Starrels, J., Childers, J., Schenker, Y., and Ritchie, C. S. "Managing Chronic Pain in Cancer Survivors Prescribed Long-term Opioid Therapy: A National Survey of Ambulatory Palliative Care Providers. *Journal of Pain and Symptom Management* (2018). doi: <https://doi.org/10.1016/j.jpainsymman.2018.10.493>.
- Miller, M. et al. "Prescription Opioid Duration of Action and the Risk of Unintentional Overdose among Patients Receiving Opioid Therapy. *JAMA Internal Medicine* 175, no. 4 (2015): 608-15.
- Moran, G. E., Snyder, C. M., Noftsinger, R. F., and Noda, J. D. "Implementing Medication-Assisted Treatment for Opioid Use Disorder in Rural Primary Care: Environment Scan (Volume 1)." Agency for Healthcare Research and Quality (October 2017). https://integrationacademy.ahrq.gov/sites/default/files/mat_for_oud_environmental_scan_volume_1_1.pdf
- Overton, H. N., Hanna, M. N., Bruhn, W. E., Hutfless, S., Bicket, M. C., and Makary, M. A. "Opioid-Prescribing Guidelines for Common Surgical Procedures: An Expert Panel Consensus," *Journal of the American College of Surgeons* 227, no. 4 (2018): 411.
- Ray-Griffith, S. L., Wendel, M. P., Stowe, Z. N., and Magann, E. F. "Chronic Pain During Pregnancy: A Review of the Literature," *International Journal of Women's Health*, no. 10 (2018): 158.
- Seal, K. H. et al. Association of Mental Health Disorders with Prescription Opioids and High-risk Opioid Use in U.S. Veterans of Iraq and Afghanistan, *Journal of Medical Association* 307 (2012): 940-947.
- Whelan, P. J., & Remski, K. (2012). Buprenorphine vs methadone treatment: A review of evidence in both developed and developing worlds. *Journal of neurosciences in rural practice*, 3(1), 45-50.
- Wright, T. E. "Screening, Brief Intervention, and Referral to Treatment for Opioid and Other Substance Use During Infertility Treatment," *Fertility and Sterility* 108, no. 2 (2017): 214. <http://dx.doi.org/10.1016/j.fertnstert.2017.06.012>