PHARMACIST CE:

Pathways to Pain Stewardship

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CE FOR **PHARMACISTS**

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Learning Objectives

- Compare and contrast newly published and previous clinical practice guidance for the prescribing of opioids for pain.
- Identify unique considerations when managing pain in special patient populations.
- Recognize current health disparities in pain management and describe how pharmacists can help address them.
- Identify opportunities for pharmacists to practice pain stewardship.

Pain is a universal experience that often carries significant burdens of physical limitations, distraction from everyday life, depression, and anxiety. The percentage of people in pain has trended upward from 26.3% in 2009 to 32.1% in 2021, highlighting a need for pharmaceutical and other nonpharmacologic therapy interventions.[1] These interventions take many forms: non-opioid medications, opioids, and nonpharmacologic methods like physical therapy and acupuncture. All find a unique place in pain treatment based upon a patient's individual needs and expectations. Pain stewardship programs use an interprofessional team to enhance clinical pain management outcomes via personalized treatment modalities. They minimize opioid use, reduce healthcare costs, and increase the visibility of patients in need of additional management without adversely impacting quality of care.[2]

Pharmacists play a crucial role within these programs as the medication experts, bridging the gap between pharmaceutical knowledge and clinical care. They monitor prescriptions and over-the-counter medications, analyze drug interactions and adverse reactions, educate on best medication and lifestyle practices, and advocate for their patients. This paper reviews the Clinical Practice Guideline for Prescribing Opioids for Pain published by the Centers for Disease Control and Prevention (CDC); pain management in special populations; health disparities; and the pharmacist's role in pain stewardship programs. As a complex condition, pain is often difficult to successfully manage in the long term, exemplifying the need for pharmacy-led pain stewardship programs. Although this is not an all-encompassing guide to how pharmacists aid in pain stewardship programs, it articulates the current state of these programs and where pharmacists could uniquely fill gaps in patient care.

Clinical Guideline Update

In November 2022, the CDC published their Clinical Practice Guideline for Prescribing Opioids for Pain, updating their 2016 Guideline for Prescribing Opioids for Chronic Pain. This update expands its scope by outlining the differences in management among acute, subacute, and chronic pain.[3] Consequently, the updated guideline clearly outlines recommendations that apply to opioid-naïve patients versus patients receiving ongoing opioid therapy.

Emergent evidence on the safety and efficacy of opioid and nonopioid pain treatment since the publication of the 2016 guideline supported the recent update. Through systematic review, the CDC concluded that noninvasive nonpharmacologic interventions, as well as nonopioid pharmacotherapy, are associated with improvements in pain and function that are at least as effective or better than those seen with opioid therapy.[4] The new recommendations encourage providers to maximize nonopioid therapy first before considering opioid therapy. Additionally, evidence of increased risk of serious harm resulting from long-term opioid use prompted the inclusion of detailed risk mitigation strategies.

The updated guideline provides recommendations in four main areas: 1) determining whether or not to initiate opioids, 2) selecting opioids and determining dosages, 3) deciding duration of initial opioid prescription and when to follow up, and 4) assessing risk and addressing harms of opioid use.[3] The 2016 and 2022 guidelines are compared in Table 1, in which novel recommendations at the time of publication are noted.[3,5]

These recommendations apply to the settings of outpatient opioid prescribing, including clinician offices, clinics, urgent care centers, and hospital discharge.[3] The

recommendations do not apply to patients who are closely monitored and observed, such as while inpatient or in the emergency room, where institutional policies likely guide treatment decisions. Current best practices for the treatment of pain in specific populations and disease states are outlined in the Special Populations section. However, providers are encouraged to refer to disease-specific guidelines or institutional policies to aid therapy selection. Finally, the CDC expanded the 2016 guideline's audience of primary care physicians to all providers who can prescribe opioids, reflecting the wider availability of nonphysician providers with DEA licensure. While pain specialists may find the recommendations relevant, these providers have extensive experience and expertise in managing pain conditions and fall outside the guideline's intended audience.

Recommendations included in the guideline should not be considered standards of care across all patient populations, but rather should support patient-centered care and serve as flexible starting points during the clinical decision-making process.[3,5] Misinterpretation of the 2016 guideline resulting in cases of rapid opioid tapers, abrupt discontinuation, rigid dosage thresholds, and patient abandonment caused unintended patient harm.[6] Updated language reflecting the flexibility of these recommendations will hopefully help mitigate these harms in the future. Publication of the new guideline urges institutions to evaluate their existing pain stewardship practices and may inform the drafting of new policies to ensure their patients have equitable access to safe and effective pain therapies.

While opioids retain their important role in the management of pain, risk mitigation strategies to reduce patient harm and should be woven into the treatment plan. With the changing landscape of today's healthcare in mind, appropriate pain management is achieved through an integrated, team-based, and multimodal approach. Of note, the updated guideline includes few pharmacist authors. However, pharmacists can support pain stewardship initiatives through assisting providers in selecting safe and effective pharmacotherapy and educating patients on how they can minimize risks associated with opioid use.

TABLE 1. Comparison of the Scope, Patient Population, Intended Audience, Main Recommendation Areas, Novel Recommendations at the Time of Publishing, and Publishing Goals Between the CDC Guideline for Prescribing Opioids for Chronic Pain – United States, 2016 and the CDC Clinical Practice Guideline for Prescribing Opioids for Pain – United States, 2022.

CDC Guideline for Prescribing Opioids for Chronic Pain — United States, 2016	*CDC Clinical Practice Guideline for Prescribing Opioids for Pain — United States, 2022*
Scope: The treatment of chronic pain, outside of cancer pain, palliative care, or end-of-life care	**Scope:** The treatment of acute, subacute, and chronic pain, outside of cancer pain, palliative care, or end-of-life care
Population: Outpatient adults	**Population:** Outpatient adults
Audience: Primary care clinicians	**Audience:** All clinicians whose scope of practice includes prescribing opioids
Three Main Areas: 1. Determining when to initiate or continue opioids for chronic pain. 2. Opioid selection, dosage, duration, follow-up, and discontinuation. 3. Assessing risk and addressing harms of opioid use.	**Four Main Areas:** 1. Determining whether or not to initiate opioids for pain. 2. Selecting opioids and determining dosages. 3. Deciding duration of initial opioid prescription and conducting follow-up. 4. Assessing risk and addressing potential harms of opioid use.
Notable Recommendations: • Nonopioid and nonpharmacologic therapy are preferred over opioid therapy • Three days of therapy or less is appropriate for acute pain that requires treatment with opioids • Opioids should not be prescribed with benzodiazepines • Clinicians should order urine drug testing before initiating opioid therapy and annually for patients receiving ongoing therapy • Clinicians should arrange medication-assisted therapy for patients with OUD	**Notable Recommendations:** • Nonopioid and nonpharmacologic therapy are at least as effective as opioids and should be optimized before initiating opioids • Opioid-naive patients should take no more than 5 to 10 MME in a single dose or 50 MME in one day • Opioids should not be prescribed with benzodiazepines or other central nervous system depressants • Toxicology should not be used punitively but rather in conjunction with clinical information to improve therapy • Clinicians should arrange evidence-based treatment for patients with OUD and detoxification alone is harmful • The lowest effective dose is appropriate when initiating opioids for acute, subacute, and chronic pain • Naloxone should be offered to all patients prescribed opioids
Goal: Bring attention to high-risk opioid prescribing and outline appropriate opioid prescribing for primary care clinicians treating chronic pain.	**Goal:** Assist patients and providers in selecting evidence-based safe and effective pain treatment, improve pain and function patient outcomes, and reduce adverse events and risks associated with opioid therapy.

MME = morphine milligram equivalents; OUD = opioid use disorder

Pain Stewardship in Special Populations

Pharmacists are essential members of the healthcare team in evaluating the potential risks and benefits of pain management in each of these unique populations. Outlined below are specific recommendations for various patient populations. Although not comprehensive, this provides a foundation for pharmacist management of more complex patients requiring critical monitoring and evaluation.

Opioid Use Disorder

Patients with active, untreated opioid use disorder (OUD) in the outpatient setting with mild to moderate pain should be advised to optimize non-opioid analgesics with opioids being the last resort. However, undertreated pain is a risk factor for opioid

abuse and should be treated appropriately.[7] Depending on pain intensity, a short course of opioids with concurrent prescription of naloxone should be dispensed along with education on its use provided by a pharmacist.[8] The use of opioid contracts and establishing realistic expectations of treatment are essential to reduce risk in these patients.[9]

Medications for opioid use disorder (MOUD) should be initiated in a setting that allows for close patient monitoring due to risks of withdrawal.[10] The goal for these patients, in addition to pain management, is to prevent withdrawal, and pharmacists can promote early detection through counseling. Due to tolerance variability, it is important to coordinate care with pharmacists, prescribers, or addiction specialists before changing therapy. If additional analgesia is needed for patients currently on MOUD, a dose increase should be encouraged before the addition of other therapies.[11] Pharmacists can look out for inappropriate or abrupt discontinuation of MOUD and suggest tapering or alternative strategies.[12] If opioids are provided, pharmacists should assess current tolerance status and are an important resource in providing psychosocial support.

Cancer-Related Pain

Opioid therapy is the first line treatment for moderate to severe chronic pain in patients with active cancer.[13] Opioid rotation can be used in long-term pain management of these patients to overcome the tolerance resulting from long durations of high-dose use or intolerable side effects.[14] Pharmacists have an important role in evaluating dose conversions, along with other patient-specific factors, as well as educating patients on changes to their pain management plan.

Although opioids are first line, the World Health Organization (WHO) recommends a step-therapy approach to pain management in cancer patients.[15] For mild pain, non-opioids, specifically acetaminophen and non-steroidal anti-inflammatory agents (NSAIDs), are recommended with or without adjuvant therapy, while opioids are reserved for moderate to severe pain.[15] It is still essential for pharmacists to formulate individualized care plans and evaluate patient-specific risks and benefits of NSAID or acetaminophen use due to the generalization of these guidelines.[16] The use of non-opioids as monotherapy has an established role in cancer pain, and their use in conjunction with opioids has the potential to provide additional analgesia.[17,18]

Adjuvants, while often not first-line, are medications indicated for uses other than pain that may also have analgesic effects and are used in conjunction with opioids when patients experience insufficient analgesia. Pharmacists may recommend medications such as antidepressants, anticonvulsants, and alpha-2-adrenergic agonists in addition to opioids for patients with treatment-resistant pain; the type of pain will inform medication selection.[19,20]

Rehabilitative and integrative therapies target the complex relationship of pain to all aspects of life: psychological, cognitive, physical, social, and spiritual.[21] Rehabilitative interventions focus on functional improvement and symptom control while integrative therapies are more holistic in nature and are often initiated based upon a patient's perception of their own pain and healing process.[22,21] These strategies are used sooner in patients with cancer-related pain than the general population and are important for pharmacists to consider when providing a holistic approach to care. Pharmacists may be an especially valuable resource for caregivers in this patient population.

Pediatric

Lack of high-quality evidence and ethical concerns for studying pediatric pain management act as barriers for opioid prescribing guidance and pain stewardship in the pediatric population. Non-pharmacologic therapies play a large role in reducing pain-related stress and anxiety, while plans for treating mild to moderate pain include acetaminophen, ibuprofen, and short-term steroids in the case of some outpatient procedures.[23] Although concerns for opioid misuse in pediatric and adolescent patients in the last decade led to more conservative opioid prescribing practices, withholding analgesia when clearly indicated is both unethical and harmful.[24]

In most post-surgical cases, opioids are just one tool in the toolbox for parents to manage their children's pain and may provide peace of mind in the recovery phase. While their safety risks are real, they are also manageable with careful education and safe disposal practices. Education should focus on reinforcing the multimodal treatment plan, and advising that acetaminophen and ibuprofen should be used for mild to moderate pain, while reserving opioids for when parents perceive more intense pain. Education should also include recognizing signs of respiratory depression, encouraging the storage of opioids in locked spaces, and identifying where to safely dispose of opioids in the community when they are no longer needed. While much of the available literature on pain management in the pediatric population includes expert opinion, pharmacists can observe prescribing trends and work with the care team to collect anecdotal data that can be brought to providers and may inform safer opioid prescribing practices.

Geriatric

This population is typically at higher risk of experiencing adverse effects related to a variety of medications, and those used for pain management are no exception. It is important for pharmacists to keep in mind the increased significance of side effects such as dizziness, drowsiness, and imbalance in this population as they relate to falls risk.[25] Side effect profiles of adjunctive therapies, such as antidepressants and anti-seizure medications, will likely inform decisions in this population. Individualized care is critical in this population, because there are many considerations that come with aging, including the risk for respiratory depression, immunosenescence, and low tolerability.

Patients with dementia are significantly impacted by cognitive impairment especially as it relates to medication organization and administration. Persistent pain in these patients is at risk of undertreatment due to the potential lack of ability to verbalize their perception of pain. It is important not to directly ask patients if they are in pain without the presentation of outward signs, because they may agree with you simply because you are their provider.[26] Pharmacists have an important role in this population with adequately educating caregivers about signs to look for related to facial expression, body movements, changes in mood, and vocal or verbal cues such as grimacing, tension, irritability, and groaning, for example.[27] This can reduce the need for

unnecessary medications as well as ensure that patients experiencing pain do not go untreated.

Reducing Health Inequities in Pain Management

Pharmacists can address significant health disparities related to pain management through educating their health professional peers on ways to reduce these disparities, and through patient advocacy. At the provider level, the assessment component of the pain care process can lead to racial and ethnic disparities in patient care.[28-30] Professionals frequently disagree with and rate patient pain levels lower than patients' individual pain ratings, with a greater degree of underestimation in racial and ethnic minorities.[30,31] Racial and ethnic minority patients with pain are also vulnerable to undertreatment.[28-31] The most observed disparity in pain management across patients and treatment locations is in the prescribing of less effective analgesics to racial and ethnic minority patients.[31] Providers more readily prescribe NSAIDs over opioid analgesics or prescribe opioids at lower doses to Black, Hispanic, and Asian patients in comparison to non-Hispanic White patients.

Inadequate bias training and education of healthcare providers present barriers to equitable pain management. Providers lack sufficient knowledge and confidence in their ability to provide culturally competent pain care to the increasingly diverse population.[29] The subjective nature of pain and reliance on pain scales for assessment also contribute to inequities, making clinical judgment vulnerable to the influence of implicit stereotypes that disadvantage minority groups.[28] Implicit bias likely also plays a role in creating inequities.[28,30,32]

A study in which medical students and residents were asked to make pain ratings and treatment recommendations for a Black and White patient in two mock medical cases found that racial bias in pain has consequences for accurate treatment recommendations for Black patients and not for White patients.[32] Participants who endorsed more false beliefs held perceptions that Black patients felt less pain and suggested less accurate treatment recommendations 15% of the time, while participants that endorsed fewer or no false beliefs held perceptions that the White patient felt less pain but still suggested an accurate treatment recommendation.

Larger social inequities at the systemic level also prevent minority patients from having adequate access to quality pain management and resources. Low health literacy disproportionately impacts minority patients and can cause fragmented patient-provider communication that can lead to poor assessment and treatment adherence.[28,30,33] Also, minority patients are more likely to be uninsured or underinsured, which limits their access to optimal evaluation and treatment of pain.[29] Furthermore, minority patients face barriers to obtaining prescribed pain medications and opioids, as their local pharmacies are less likely than pharmacies in predominantly-White neighborhoods to have adequate opioid medications available.[34,35] Surveyed pharmacies in minority communities cited low demand as the main reason for their insufficient opioid supplies; however, their low supply presents a significant barrier to the patients who do have opioid prescriptions.

Multidisciplinary pain management teams, including pharmacists, have shown improvements in pain scores and appropriate use of analgesics associated with a reduction of pain intensity.[36,37] Pharmacists may take advantage of opportunities to educate and train other healthcare professionals on culturally informed pain management with attention to the social determinants of health.[29,36] Pharmacists practicing in minority neighborhoods can emphasize engagement with pain patients to learn ways they can best support their patients, either through growing their opioid supply if needed or through other non-opioid measures.

Reducing health disparities in pain management starts with advocacy. With its wide scope, the opportunity to advocate exists within a platform as large as the public stage, all the way down to the microcosm of our individual interactions. Student pharmacists are poised to carry a public health perspective into the workforce by developing their understanding of the social determinants of health. Advocating for your patients and for your profession begins in the classroom. To address the contributions of healthcare professionals to growing health disparities, the Accreditation Council for Pharmacy Education (ACPE) requires pharmacy graduates to recognize the social determinants of health and the value of their incorporation into culturally informed patient care.[37]

Students should reflect upon and challenge their personal biases, share their experiences with local policymakers, and familiarize themselves with the unique needs of marginalized groups through local community engagement. Pharmacy educators can support this development through didactic and experiential coursework, as well as through community-based projects or interventions to reduce local disparities. Practicing pharmacists should continue to advocate for the value pharmacists bring to the interprofessional team in providing individualized and accessible pain management. Voicing concerns for marginalized groups during pain stewardship program planning and institutional policy making supports distributive justice throughout the drafting, implementation, and evaluation processes. Through all of these actions, pharmacists have the opportunity to significantly reduce health care disparities while practicing pain stewardship.

A Pharmacist's Role in Pain Stewardship

Pharmacists have a large capacity for impact in improving pain-related outcomes through the interprofessional team and individual support of patients with pain. They can assist patients using evidence discussed in the updated CDC guideline, and in many additional ways that are unaccounted for within the guideline. Pain stewardship programs utilize policies developed through interprofessional engagement to provide evidence-based pain management and minimize associated patient risks.[38]

To address these risks, pharmacists can leverage data collection to generate reports on opioid prescribing and dispensing practices. Specific monitoring strategies apply to patients using opioids and other high-risk medications.[3] Detailing the prescribing of opioids from multiple providers, concurrent prescribing associated with high interaction potential, and the Prescription Drug Monitoring Program (PDMP) dispensing patterns will inform

pain stewardship program policies.[39] Continuing education and professional engagement is key to developing appropriate and equitable pain stewardship policies. By reviewing up-to-date literature on pain management, challenging their own biases, and improving patient-provider communication, pharmacists support these objectives.[40] More data and literature is required to support these activities, for which pain stewardship programs could fill this gap by sharing their successes, failures, and best practices with others.

When approaching pain management, one size does not fit all. Pharmacists help patients develop individualized pain treatment plans through expectation management and goal setting.[41] Pharmacists are trained to carefully review a medication regimen, especially in patients who see multiple providers for multiple disease states.[42] The American Pain Society recommends tailored education, documentation of treatment goals, counseling of proper instruction for pain medications, and an evaluation of psychiatric and medical comorbidities of patients receiving pain treatment.[39] Pharmacists are specifically prepared to assist in these pain stewardship practices.

Pharmacists are an accessible resource for assessing opioid taper schedule adherence and addressing potential issues that present during the process. The CDC guideline emphasizes the importance of evaluating taper appropriateness, and details safe and effective tapering strategies. Care plans that incorporate pharmacists result in more active opioid tapers.[43] Pain stewardship programs allow pharmacists to increase time allocated to medication management, through follow-up calls to document changes to pain levels, non-pharmacologic strategies, safety concerns, and other aspects that allow for a more individualized approach.[40] Pharmacists' monitoring support lowers the burden on physicians, allowing physicians to focus their attention on other areas of practice.[44]

Collaborative pharmacy practice agreements (CPAs) between pharmacists and prescribers increase access to naloxone without legislative changes. In Wisconsin, pharmacists are allowed to prescribe and dispense naloxone via a standing order or third-party prescribing. A standing order uses a provider's authorization to allow pharmacists to dispense naloxone to patients at risk for an overdose. Third-party prescribing allows naloxone to be prescribed and dispensed by pharmacists to individuals who would be in a position to assist a person experiencing an overdose, whether or not they are the person administering the naloxone. This does not require a prescriber-patient relationship, while the standing order does. These legal innovations can lower prescriber burden and increase access to naloxone, especially for patients who do not have the time or transportation to access a provider.[45] In March 2023, the FDA approved Narcan®, naloxone nasal spray, for over-the-counter, nonprescription use in an effort to reduce the affordability barrier and increase access.[46]

Naloxone is highly relevant to pain stewardship for all patients, but especially for those with a history of overdose, higher opioid tolerance, and those at risk of respiratory depression.[3] The pharmacist is last to see the patient before they take their pain medication home and should ensure that they spend time on adequately educating the patient on the availability and use of naloxone. It is essential to emphasize the universal recommendation of naloxone to all patients as a safety measure to combat stereotypes regarding opioid use and destigmatize the use of pain medications.

A pain stewardship program allows pharmacists to expand on education to patients and caregivers regarding pain medications. They can also educate patients and providers on social determinants impacting opioid use with the intention to decrease stigma around pain medications and eliminate discrimination against patients using opioids for pain.[47] Pharmacists are some of the most accessible healthcare providers and trusted medication experts, with a unique skill set to optimize a multimodal pain approach, minimize risks, and engage patients and their caregivers in their care plan through the use of accommodating language.

Conclusion

The implementation of pain stewardship programs shows a promising new area for pharmacists to utilize their drug expertise on an interprofessional team. This publication serves as a reference point for the implementation process by highlighting guidelines as an easily accessible resource for the outpatient setting, additional considerations for the management of special populations, barriers faced by racial and ethnic minorities when accessing care for pain, and the pharmacist's unique role in managing pain medications.

Barriers to the implementation of pain stewardship programs include lack of resources in the form of established practice models and time, lack of infrastructure to collect and monitor patient data, and lack of community support.[38] Additional barriers prevent the pharmacist's incorporation into these programs due to lack of trust from other healthcare professionals, limited reimbursement, and a shortage of pain experts. Pharmacists hold a key role in addressing these barriers through their leadership, innovation, and medication expertise. Ultimately, health systems should consider the implementation of pain stewardship programs with an interprofessional team, to optimize patients' pain regimens and improve their overall health outcomes.

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Assessment Questions

1. Which of the following recommendations is included in the 2022 CDC's Clinical Practice Guideline for Prescribing Opioids for Pain — United States but not the 2016 guideline?
   a. Nonopioid and nonpharmacologic therapies are not as effective as opioids for chronic pain treatment.
   b. Naloxone should be offered to all patients prescribed opioids.
   c. Clinicians should order urine drug testing before initiating opioid therapy.
   d. The lowest effective dose is appropriate when initiating opioids for acute or subacute pain, but not chronic pain.

2. **True or False:** The intended audience of the CDC's Clinical Practice Guideline for Prescribing Opioids for Pain — United States, 2022 is the same as the 2016 guideline and includes only primary care physicians.
   a. True
   b. False

3. Which of the following is true regarding unique considerations made towards managing pain in special patient populations?
   a. Opioid contracts do not contribute to risk reduction for patients with opioid use disorder.
   b. Adjuvants along with rehabilitative and integrative therapies are used first line in cancer-related pain management.
   c. Variable drug metabolism is an important consideration in pediatric patients.
   d. For patients with dementia, it is preferred to directly ask about their pain rather than observing non-verbal cues.

4. **True or False:** It is important to assess current opioid tolerance status when considering therapy options for patients with opioid use disorder or cancer-related pain.
   a. True
   b. False

5. What is a factor that presents a barrier to equitable pain management?
   a. Pretest-Posttest
   b. Randomized controlled trials
   c. Interrupted time series
   d. Cohort with propensity score matching

6. **True or False:** Pharmacists can help address health disparities in pain management by educating other healthcare professionals and through professional advocacy.
   a. True
   b. False

7. What is a benefit of pharmacist involvement in a pain stewardship program?
   a. Increases time physicians have to focus their attention on pain management
   b. Increases time allocated to medication management through follow up calls to document changes in pain levels
   c. Decreases accessibility for patients to discuss their medications and pain management goals
   d. Decreases collaboration among healthcare professionals to improve pain-related outcomes

8. **True or False:** In Wisconsin, pharmacists are able to dispense naloxone through a collaborative pharmacy practice agreement.
   a. True
   b. False

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