Opioid Tapering Implementation Guide for EHRs

January 2022

EHRA
HIMSS ELECTRONIC HEALTH RECORD ASSOCIATION

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EHRA
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About the HIMSS EHR Association

Established in 2004, the HIMSS Electronic Health Record Association (EHRA) brings together companies that develop, market, and support electronic health records (EHRs), to collaborate on issues that impact our businesses and our collective customers — hospitals and providers that represent the majority of EHR users in the US. We work together to speak with a unified voice on these topics in a non-competitive, collegial effort to understand, educate, and collaborate with all stakeholders engaged with EHRs and health information technology.

The EHRA operates on the premise that the rapid, widespread adoption of EHRs is essential to improve the quality of patient care, as well as the productivity and sustainability of the healthcare system as a key enabler of healthcare transformation.

The Association and its members are committed to supporting safe healthcare delivery, fostering continued innovation, and operating with high integrity in the market for our users and their patients and families.

For more information, please visit www.ehra.org.

EHRA Opioid Crisis Task Force

The Opioid Tapering Implementation Guide for EHRs was conceived and developed by representatives from the following EHRA member companies, who volunteered their time and expertise to the Opioid Crisis Task Force.

- Allscripts Healthcare Solutions
- Cerner Corporation
- CPSI
- Epic
- Foothold Technology
- GE Healthcare Digital
- Greenway Health
- Harris Healthcare Group
- HIMSS
- MEDHOST, Inc.
- MEDITECH, Inc.
- Modernizing Medicine
- NextGen Healthcare
- Practice Fusion
- SRS Health
- Varian Medical Systems

Acknowledgments

EHRA wishes to thank Task Force Co-chair Daniel Seltzer, Senior Analyst at MEDITECH, Alan Staples, Product Group Manager at Cerner, and the other members of the EHRA Opioid Crisis Task Force for their thoughtful comments on the draft implementation guide as we worked to bring it to publication.

Primary Sources of Clinical Guidance

In developing this guide, the authors considered evidence-based guidelines on opioid tapering published by several organizations and agencies with subject matter expertise:

- US Department of Health and Human Services (HHS) Guide for Clinicians on the Appropriate Dosage Reduction or Discontinuation of Long-Term Opioid Analgesics. (Oct 2019)[1]
- US Centers for Disease Control and Prevention (CDC). Pocket Guide: Tapering Opioids for Chronic Pain.[2]
- US Department of Veterans Affairs and Department of Defense (VA/DOD). Pain Management Opioid Taper Decision Tool. (Oct 2016)[3]

The referenced guidelines include recommendations for pain lasting longer than three (3) months or past the time of normal tissue healing, outside of active cancer treatment, palliative care, and end-of-life care.

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[1] Working Group on Patient-Centered Reduction or Discontinuation of Long-term Opioid Analgesics. U.S. *HHS Guide for Clinicians on the Appropriate Dosage Reduction or Discontinuation of Long-Term Opioid Analgesics.* Department of Health and Human Services; 2019. https://www.hhs.gov/opioids/sites/default/files/2019-10/Dosage_Reduction_Discontinuation.pdf. Accessed October 8, 2021.

[2] Centers for Disease Control and Prevention. *Pocket Guide: Tapering Opioids for Chronic Pain.* Centers for Disease Control and Prevention; 2019. https://www.cdc.gov/drugoverdose/pdf/Clinical_Pocket_Guide_Tapering-a.pdf. Accessed October 8, 2021.

[3] Veterans Health Administration. *Opioid Taper Decision Tool*. VA PBM Academic Detailing Service; 2016. https://www.pbm.va.gov/AcademicDetailingService/Documents/Pain_Opioid_Taper_Tool_IB_10_939_P96820.pdf. Accessed October 8, 2021.

Executive Summary

With the opioid crisis still unresolved and care access disrupted by various ongoing events (e.g. the COVID-19 pandemic), patients on long-term opioid therapy (LTOT) may be more vulnerable to opioid-related harm. There is an urgent need to address the opioid crisis and a significant opportunity to digitize the opioid tapering plan and incorporate existing guidelines into clinical decision support (CDS) tools.

Organizations can act now to create, develop, and implement these guidelines in large part by leveraging their investment in healthcare information technology (IT) and the electronic medical record (EMR). In the future, new frontiers in EHR development can advance this process and help providers effectively balance safer, evidence-based, and equitable use of opioids with patient-centric care plans.

Introduction

The HIMSS Electronic Health Record Association (EHRA) is committed to bringing together leaders from our EHR developer community to collaborate on identifying viable solutions to industry challenges. In 2018, the Association's Opioid Crisis Task Force was formed to research and provide recommendations on ways EHR technology can address the complex opioid crisis puzzle. One area researched extensively by the task force is clinical practice guidelines that can be operationalized to improve opioid stewardship and opioid tapering in clinical practice. This includes clinical recommendations from the United States CDC, VA/DOD, and HHS.

The EHR Association's goal with this Opioid Tapering Implementation Guide for Electronic Health Records is to enable an organization's healthcare information technology (IT) team to more rapidly implement these best practices using EHR-based CDS tools. In addition, the EHR developer community can use this guide to steer the future development of new or updated products and services that can help hospitals, physician practices and other care environments implement these and other best practices.

Overview

Intended Audience

This Implementation Guide for Electronic Health Records is designed to assist healthcare provider organizations of all sizes to more rapidly design and implement CDS for clinicians who treat pain. Those with separate IT departments could review and incorporate this guidance into their workflow as appropriate. Smaller organizations without independent IT departments could work with their EHR developer or any IT consultants helping their organization, as their *de facto* IT department, to incorporate this guidance into their protocol.

Regardless of the organization's size, it is critical to keep in mind the population served and take into consideration their substance use disorder (SUD) as guidelines are incorporated. It is also important to note that not all recommendations will be equally applicable to every clinical environment.

Target Healthcare Provider Organizations	Exclusions
▪ **Ambulatory specialty clinic** ▪ **Behavioral Health** ▪ **Federally qualified health center** ▪ **Home health** ▪ **Hospital** ▪ **Long-term care** ▪ **Primary care**	▪ **Ambulatory surgery center** ▪ **Hospital outpatient surgery center** ▪ **Retail pharmacy** ▪ **Palliative care** ▪ **Cancer Treatment Centers**
Note: This is not a comprehensive list of stakeholders and roles. Include all applicable stakeholders in your organization's opioid stewardship and pain management initiatives.	

Additional Clinical Stakeholders

The guidelines explored in this guide apply primarily to the clinical roles of physician, physician assistant, and advanced practice nurse who are opioid prescribers and/or who make treatment decisions in the management of chronic pain. There are many other clinical roles that help provide opioid stewardship in the management of chronic pain. When implementing these clinical guidelines, also consider related non-physician roles as outlined in the following table.

Clinical Role	Related Workflow Examples
Care Manager	*Patient engagement during pain management regimen*
Case Manager	*Patient engagement for suspected or confirmed substance use disorder*
Clinical Pharmacist	*Establishing and documenting patient goals, patient engagement and education during inpatient stay and/or discharge*
Nurse	*Establishing and documenting patient goals, patient engagement and education during inpatient stay and/or discharge*
Note: This is not a comprehensive list of stakeholders and roles. Include all applicable stakeholders in your organization's opioid stewardship and pain management initiatives.	

Change Management

Each guideline referenced in this guide impacts a variety of medical services, particularly as they relate to the management of chronic pain. Implementing changes from these guidelines, as well as maintaining new policies and procedures with effective governance, may affect clinical practices, workflow, and EHR content. We recommend including clinical and IT leaders from all applicable services and departments, especially those in the following specialties:

- Behavioral health and psychology
- Clinical pharmacy

- Emergency medicine
- Orthopaedics
- Pain management clinic
- Primary care and family practice

Supporting Clinical Workflow with the EHR

Phases of Opioid Tapering

Clinical opioid tapering guidelines group their recommendations according to varying categorizations. However, the categorizations within each of the three guidelines are compatible with each other, describing similar recommendations without contradicting each other. For the purposes of this guide, we categorize opioid tapering workflows broadly in the following three phases:

1. **Pre-Taper Considerations**

   Not every patient on opioid therapy requires or is immediately eligible for an opioid tapering plan. This phase calls for an evaluation of the patient's current pain management status, the risks and benefits of opioid tapering, and a review of comorbidities, mental health conditions, and social support structures that could negatively affect the tapering process.

2. **Initiate Tapering**

   When a patient and provider decide to move forward with opioid tapering, the first step is to carefully craft a tapering plan and select a tapering rate that meets the patient's individual needs. Ensure the patient's goals and concerns are clearly documented, notify existing and new care team members of the tapering plan, and schedule follow-up visits aligned with the plan's milestones.

3. **Manage and Monitor Tapering**

   Once a tapering plan is underway, patient education and engagement help ensure it is followed or appropriately modified. Withdrawal symptoms are usually expected and managed via the plan details. CDS can help providers identify deviations from the original plan such as tapering reversals. Finally, analytics can help clinicians track the effectiveness of tapering plans and identify opportunities for process improvement.

Part 1: Pre-Taper Considerations

1. Document any patient requests for dosage reduction

WHY IT MATTERS

"Consider tapering to a reduced opioid dosage or tapering and discontinuing opioid therapy when your patient requests dosage reduction." (CDC)

"Consider tapering opioids [if there is] no pain reduction, no improvement in function or patient requests to discontinue therapy." (VA/DOD)

How Technology Can Help

Patients who no longer feel it is necessary to take opioids to manage their pain or who are experiencing unmanageable adverse effects may verbally or electronically request a dose reduction or discontinuation of their opioid medications. Providers should clearly document these occurrences in the EHR to establish when the request was made and initiate a protocol, such as a risk/benefit analysis.

What You Can Do

- Document any verbal or electronic requests for opioid dose reduction in provider notes. Establish a protocol for next steps, such as a risk/benefit calculation for continuing or discontinuing opioid therapy, and/or a face to face meeting with the patient and care team to discuss risks and benefits.
- If a provider or care team decides to proceed with tapering, they should utilize a tapering plan and/or tapering induction note template that captures the reason

the taper is being initiated, e.g., patient request, lack of improvement in pain and function, or signs of substance use disorder.

- Set up assessments on patient portals that prompt patients to evaluate their experience with opioids for pain control, and ask if they feel they need to continue with opioid therapy.
- Utilize an electronic communication template to inform a patient's care team that the patient has requested an opioid dose reduction or has initiated a tapering plan.

2. Adopt CDS to identify patient co-morbidities and other risks throughout opioid treatment and tapering

WHY IT MATTERS

All referenced guidelines offer suggested risks and comorbidities to consider when deciding whether to continue long-term opioid therapy.

How Technology Can Help

EHRs are a delivery mechanism for content and clinical guidance from a variety of resources. Integrating these resources into the clinician workflow can improve quality, safety, and patient experience in pain management, reduce unwarranted and dangerous variance in care, and support risk/benefit decision-making. By analyzing existing documentation of comorbidities, pregnancies, mental health conditions, and other risks present on a patient's problem list, EHRs can push relevant decision support to providers in real time. In the future, predictive modeling solutions may be able to anticipate risk factors before they develop and inform clinicians to work with patients on updating or modifying tapering plans.

What You Can Do

- Provide document templates for initiating the taper that capture why it is being initiated, e.g. specific comorbid conditions such as COPD, sleep apnea, and/or non-opioid medications, such as benzodiazepines or gabapentinoids. The template should also allow concomitant documentation if naloxone has been prescribed.
- The EHR or an opioid registry can perform active surveillance of patients on LTOT, identifying the development of risk factors over time, informing the treating physician, and facilitating the initiation of appropriate tapering protocol.
- Implement CDS to detect when a new morphine milligram equivalents[4] per day (MME/day) dose is significantly or suddenly reduced and alert the practitioner of a possible rapid tapering scenario.
- Implement organization analytics to identify rapid tapering or patients that appear to have been "abandoned" (ie. a discontinuation of opioid therapy without a prescriber's recommendation).
- Develop CDS notifications for providers when initializing an opioid tapering plan on pregnant women. Include the option to refer pregnant women to a medication assisted treatment program in order to mitigate withdrawal risks. In addition, if a pregnancy test results as positive while a patient is on LTOT for pain, or while an opioid tapering plan is actively in place, develop similar CDS and communication to providers.

[4] Morphine milligram equivalents (MME) is an opioid dosage equivalent to morphine.

3. Evaluate whether existing CDS suggests tapering based on opioid dose thresholds

WHY IT MATTERS

"Avoid insisting on opioid tapering or discontinuation when opioid use may be warranted (e.g., treatment of cancer pain, pain at the end of life, or other circumstances in which benefits outweigh risks of opioid therapy)... Avoid misinterpreting cautionary dosage thresholds as mandates for dose reduction. While, for example, the CDC guideline recommends avoiding or carefully justifying increasing dosages above 90 MME/day, it does not recommend abruptly reducing opioids from higher dosages. Consider individual patient situations." (HHS)

How Technology Can Help

Despite the fact that risks increase with higher MME levels, not every patient is an immediate candidate for an opioid tapering plan. Some patients taking higher doses of opioids for a long period of time have built up an increased tolerance for opioid medications and may continue to find that the benefits of opioid therapy outweigh the risks. Technology-based calculations for MME levels and notifications for patients taking high MME levels should not be automatically interpreted as implying that a patient is eligible for or participating in a tapering plan.

What You Can Do

- Establish a protocol for next steps after identifying patients with elevated MME levels, such as a checklist for comorbid conditions and risk factors, the BRAVO protocol[5], or other risk/benefit calculation for continuing opioid therapy.
- Educate providers on the difference between elevated MME alerts and the procedure for initiating a tapering plan. Ensure that providers discuss the risks

[5]Lembke A. Tapering Long-Term Opioid Therapy. *Am Fam Physician*. 2020 Jan 1;101(1):49-52. PMID: 31894939.

and benefits of a tapering plan with the patient and document the patient's consent to utilizing a tapering plan.

- Monitor patients who remain on elevated doses of opioids for extended periods of time by utilizing patient registries or other population health tracking tools, and re-evaluate the risks and benefits of continued opioid use on future visits.
- Provide patients with an easy way to notify their care team between appointments if they feel they need to increase their dose or if their current pain management regimen is not working. Options include establishing a nursing or pharmacist hotline, remote patient monitoring, or providing an electronic contact option via a patient portal.

4. Support patient education and engagement

WHY IT MATTERS

"Discuss with patients their perceptions of risks, benefits, and adverse effects of continued opioid therapy, and include patient concerns in taper planning." (HHS)

"Prior to any changes being made in opioid prescribing, a discussion should occur between the Veteran, family members / caregivers, and the provider..." (VA/DOD)

How Technology Can Help

Building a patient taper readiness assessment into chronic pain management note templates and/or opioid tapering care plans in the EHR helps providers to more consistently and effectively establish the patient's willingness to taper. Before starting an opioid taper, the EHR should serve patient education content on the risks of continued LTOT for pain, of tapering to a lower dose of opioids, and of returning to a

previously prescribed dose of opioids. Electronic documentation prior to initiating a taper should require an indication that this education has been provided to the patient and that the patient demonstrates an understanding of the risks.

WHY IT MATTERS

"Tell patients that improved function and decreased pain after a taper can be expected, even though pain might initially get worse." (CDC)

"There are serious risks to non-collaborative tapering in physically dependent patients, including acute withdrawal, pain exacerbation, anxiety, depression, suicidal ideation, self-harm, ruptured trust, and patients seeking opioids from high-risk resources." (HHS)

"Advise patients that there is an increased risk for overdose on abrupt return to a previously prescribed higher dose." (HHS)

What You Can Do

- Curate or create an opioid tapering readiness assessment. As an example of a readiness assessment, the Veterans Administration (VA) has a tapering readiness assessment for benzodiazepines[6] (see "Assess patient's willingness to discontinue or reduce the dose" section on page 2).
- Create or update electronic note templates for chronic pain management and/or opioid tapering to explicitly document whether the patient is aware of the risks of continued opioid treatment of pain, tapering, and returning to a previously prescribed dose; whether the patient has expressed a willingness to taper; shared decision making around the patient's willingness and/or consent to initiate a tapering plan; and the patient's understanding of the risks and benefits of a tapering plan.

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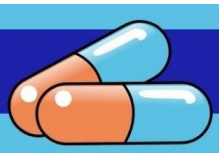
[6] Veterans Health Administration. *Benzodiazepine Risks Are You Aware of the Possible Risks from Taking Benzodiazepines?* VA PBM Academic Detailing Service; 2016. https://www.pbm.va.gov/PBM/AcademicDetailingService/Documents/Benzodiazepine_Provider_AD_%20Risk_Discussion_Guide.pdf. Accessed October 9, 2021.

5. Identify patients on LTOT with substance use disorder, overdose, or other serious adverse events



WHY IT MATTERS

"Possible reasons to re-evaluate the risks and benefits of continuing opioid therapy [include] concerns related to an increased risk of SUD." (VA/DOD)

"Consider tapering when "the patient has evidence of opioid misuse," "the patient experiences side effects that diminish quality of life or impair function," and/or "the patients experiences overdose or other 'serious event' or has warning signs of such. (HHS)

"Consider tapering to a reduced opioid dosage or tapering and discontinuing opioid therapy when your patient…shows signs of a substance use disorder… experiences overdose or other serious adverse event [or] shows early warning signs for overdose risk…" (CDC)

How Technology Can Help

Any patient behavior that indicates possible substance use disorder (SUD), opioid use disorder (OUD), or overdose should be noted by providers in the patient's EMR. Additionally, physicians and healthcare organizations providing pain management services must always be vigilant for adverse events. There are many technology solutions for proactively identifying risks for OUD and SUD, including but not limited to:

- Patient assessment instruments
- Utilizing prescription drug monitoring programs (PDMPs)
- Employing urine drug screenings
- Establishing a chronic opioid use registry
- Event notifications, e.g. interoperability for encounters with other healthcare organizations and ED visits, and CDS

What You Can Do

- Ensure physicians can thoroughly document a patient encounter for chronic pain, following established recommendations from the CDC and the EHRA's Implementation Guide. Develop discrete data fields and questionnaires for monitoring and reporting indications of SUD and OUD.
- Ensure problem lists are regularly reviewed and actively maintained and updated, as their use and maintenance is a key component to identify patients in need of monitoring and to communicate the clinical rationale for pain treatment among providers.
- PDMP interfaces are essential to provide access to prescribing information for opioids and other controlled substances in a fashion that is directly integrated into the existing patient context.
- At the practice or organizational level, establish EHR registries or population health tools to track all patients on opioids, and identify care gaps such as the need for PDMP review, urine drug screening, and renewal of pain agreements. Continue using these tools to monitor patients if a tapering plan is initiated.
- Establish EHR interoperability to provide additional notifications of emergency department (ED) visits, hospitalizations, overdoses, and other adverse events which may occur at different sites throughout the healthcare system. For example, ensure that any provider who initiated an opioid tapering plan is notified if the patient has a health care encounter for an opioid overdose.

6. Educate providers on EHR assessments for depression, suicidal ideation, and/or other mental health disorders, and support referral management and telehealth for mental health

WHY IT MATTERS

"Depression, anxiety, and post-traumatic stress disorder (PTSD) can be common in patients with painful conditions, especially in patients receiving long-term opioid therapy. Depressive symptoms predict taper dropout. Treating comorbid mental disorders can improve the likelihood of opioid tapering success." (HHS)

For patients with "mental health comorbidities that can worsen with opioid therapy (e.g., PTSD, depression, anxiety)" suggest re-evaluating continuation of opioid therapy. (VA/DOD)

"If your patient has serious mental illness, is at high suicide risk, or has suicidal ideation, offer or arrange for consultation with a behavioral health provider before initiating a taper." (HHS)

"Establish a plan to consider dose reduction, consultation with specialists, or consider alternative pain management strategies." (VA/DOD)

How Technology Can Help

Any patient behavior that indicates mental health conditions should be noted by providers in the patient's EMR, according to their organization's policies and consistent with all laws and regulations. Technology solutions such as patient assessment instruments and patient-generated health data can also be used for ongoing mental health screening and monitoring.

Technology offers flexibility for patients to be seen remotely by behavioral health providers when needed or if access is otherwise limited. Virtual telehealth visits make it easier for patients to be seen by providers that they might not have had access to

previously, and allow for paths of escalation in urgent situations. This increases access to specialists for better communication, monitoring, and discussion prior to initiating a taper.

For patients on LTOT who also have mental health comorbidities, opioid tapering may be more complex or riskier. Having referral orders and supporting electronic referrals as part of tapering plans may improve the likelihood and speed with which the patient sees the behavioral health provider.

What You Can Do

- Implement a validated depression screening instrument or assessment prior to initiating taper, early during tapering regimen, and periodically during the course of extended tapering plans.
- For any patients that screen as high risk for depression, anxiety, PTSD, or suicide, use referral technology (closed loop if possible) to connect the patient with appropriate mental health solutions. Embed referrals within opioid tapering care plans or order sets. Additionally, ensure follow-up calls are made to patients in the case of suicidal ideation.
- Ensure your organization has strong relationships and care coordination established between providers who will manage opioid tapering and providers who will manage comorbid mental health conditions. Facilitate communication between these parties, ensuring the ability to indicate the patient's priority and severity of need on referral orders.
- Create referral management workflows in the EHR to ensure pain management providers have the option for immediate social worker or behavioral health involvement.
- Connect and partner with other mental health treatment networks in the area to provide resources and closed-loop referrals. For example, FindLocalTreatment.com is a national resource for locating addiction treatment centers.
- Include links to these resources in relevant educational material within the EHR and/or tapering plans. Incorporate other resources like the National Suicide

Prevention Lifeline (1-800-273-8255), SAMHSA's National Helpline (1-800-662-4357), the Treatment Connection platform[7], or SAMHSA's Behavioral Health Treatment Services Locator.[8]

- Consider telehealth visits for scenarios where patients require an urgent visit with a mental health provider in the case of suicidal ideation.

7. Educate providers on available EHR assessments for pain and level of function

WHY IT MATTERS

"Commit to working with your patient to improve function and decrease pain." (HHS)

"Commit to working with Veteran on other options for improved function and some decrease in pain." (VA/DOD)

"Consider tapering to a reduced opioid dosage or tapering and discontinuing opioid therapy when your patient…does not have clinically meaningful improvement in pain and function." (CDC)

How Technology Can Help

Providers should carefully monitor a patient's chronic pain and functional levels while utilizing opioid therapy. If a patient fails to demonstrate improvement over time, then tapering may be indicated. EHR technology can help providers document, track and trend these values over time.

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[7] Open Beds Treatment Connection platform https://www.treatmentconnection.com. Accessed October 17, 2021.

[8] Substance Abuse and Mental Health Services Administration. Behavioral Health Treatment Services Locator. https://findtreatment.samhsa.gov. Accessed October 11, 2021.

Time and resource issues can often interfere with or even prevent adequate monitoring of pain and function. Technology can play an important part in helping to manage and monitor these levels prior to and during the use of an opioid tapering plan. Patients can use patient portals to complete standardized screening and self-assessments, report on individual plan progress, and log their current levels of pain and functional capacity.

Note that while every case is individualized, there is a need for quantifiable measures that can be used for clinical evaluation of the plan and to check the efficacy of the tools being used.

What You Can Do

- A tapering plan and/or tapering induction note should support documentation of the reason for tapering, e.g. patient request, lack of "clinically meaningful improvement in pain and function" (per the CDC), signs of SUD or OUD, etc.
- Ensure pain and functional scores are captured over the duration of a patient's pain management plan. Specifically, select an instrument that is short, objective, and validated, as lengthy assessments may pose a barrier to use and implementation.
- Use health IT, such as patient portals or mobile apps, to regularly obtain pain, function, and quality of life data between visits. Ensure providers have access to review this patient-generated health data, which can provide additional depth to patient management and facilitate identification of situations where opioid tapering is appropriate.
- Develop chart review tools that can summarize and trend a patient's documented and reported pain and functional data over time. Include opioid MMEs/day if possible to track the tapering plan progress. Educate providers on reviewing this data in preparation for the patient's next visit.
- Document patient goals in the EHR before and during LTOT to support decision-making.

- Ensure pain and functional assessments in the EHR are periodically reviewed by your governance teams to ensure your organization is using the latest versions recommended by clinical evidence.

8. Use price transparency technology to promote non-opioid pain therapies

WHY IT MATTERS

"Use accessible, affordable, non-pharmacologic and non-opioid pharmacologic treatments. Integrating behavioral and non-opioid pain therapies before and during a taper can help manage pain and strengthen the therapeutic relationship." (HHS)

How Technology Can Help

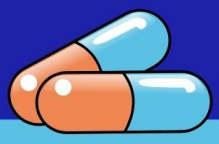
As physicians and advanced practitioners are making decisions about how to approach a patient's chronic pain, they may consider a variety of treatment options based on their understanding of what the patient's insurance plan will cover. For example, a physician may want to recommend acupuncture to a patient who is open to this as a pain management modality. However, if the physician has low confidence that the patient's insurance will cover such a service, then they may be less likely to recommend it.

Price transparency technology can help the provider determine to what extent a medication, procedure, or service is covered by the patient's insurance plan.

What You Can Do

- Implement price transparency technology into the EHR, especially for specialties that manage a high volume of pain patients, such as primary care and orthopedics

- Consider treatment costs while creating order sets for opioid tapering, pain management, and withdrawal side effects management.
- Make reference materials available to clinicians within the EHR that describe all therapeutic pain management options available, including cost, efficacy, and accessibility.



PATIENT PROFILE 1: SLOW TAPER

J is a 45-year-old male who had no major health issues until last year, when he was involved in a motor vehicle accident which fractured his left femur, and resulted in head trauma and facial injuries. Several surgeries were successful but left him with severe pain and confined him to a wheelchair. Post-surgically J was prescribed increasing dosages of morphine and oxycodone until he plateaued at 300 MMEs per day. He reported feeling "zoned out" and unable to participate in work or daily activities. A pain specialist worked with him to generate an opioid tapering plan and multimodal pain management regimen that slowly, over the course of a year, brought him down to 20 MMEs per day. He experienced some withdrawal side effects during the taper, but he now has diminished pain and increased function, allowing him to return to a part-time job and engage more with his family.

Part 2: Initiate Tapering

1. Create opioid tapering plans in the EHR

WHY IT MATTERS

"Tapering plans should be individualized and should maximize symptoms of opioid withdrawal while maximizing pain treatment with non-pharmacologic therapies and non-opioid medications." (CDC)

"For patients who agree to reduce opioid dosages, collaborate with the patient on a tapering plan." (HHS)

"Several factors go into the speed of taper selected...Document the rationale for the opioid taper and the opioid taper schedule in the Veteran's medical record." (VA/DOD)

How Technology Can Help

Opioid tapering plans are the centerpiece of any successful approach to reducing opioid use over time. Electronic management of tapering plans ensures better outcomes, and providers can document plan details in the EMR so that plan details are available to other care team members and are accessible during future visits.

What You Can Do

- Create electronic tapering plan templates in provider notes, and create opioid tapering order sets to facilitate pain management and side effect mitigation.
- Ensure that opioid tapering plans are easily accessible within the medical record, and train care team members to review and update them as appropriate.

- Ensure opioid tapering plans automatically include patient education on tolerance and risk of overdose from sudden dose changes.
- Include the option to initiate Medications for Opioid Use Disorder (MOUD) from within an opioid tapering plan or order set, as well as the option to refer the patient to an addiction treatment provider or program. Ensure that naloxone prescriptions are included in tapering order sets.

2. Document patient goals and concerns as part of the opioid taper plan

WHY IT MATTERS

"Tapering plans should be individualized based on patient goals and concerns." (HHS)

Clinicians are advised to consult with patients and "draw out their goals for life (not just being pain-free)." (VA/DOD)

"Discuss with patients their perceptions of risks, benefits, and adverse effects of continued opioid therapy, and include patient concerns in taper planning. For patients at higher risk of overdose based on opioid dosages, review benefits and risks of continued high-dose opioid therapy." (HHS)

How Technology Can Help

Documenting and tracking patient goals and concerns over the course of a tapering plan can support shared clinical decision-making and engage with the patient as an individual during and between visits. This step builds upon the tracking of pain, function, and quality of life during the pre-taper phase, and should incorporate these metrics whenever possible.

What You Can Do

- Opioid tapering plans should support both the patient's opioid tapering goal(s) and the patient's and provider's opioid tapering concern(s).
- Adopt advisory text in tapering order sets to remind providers that tapering should generally not be attempted without patient buy-in.
- Educate providers on chart review tools that display or compare patients' goals with their documented status towards meeting those goals.

3. Individualize the tapering rate

WHY IT MATTERS

"Tapering plans should be individualized and should maximize symptoms of opioid withdrawal while maximizing pain treatment with non-pharmacologic therapies and non-opioid medications." (CDC)

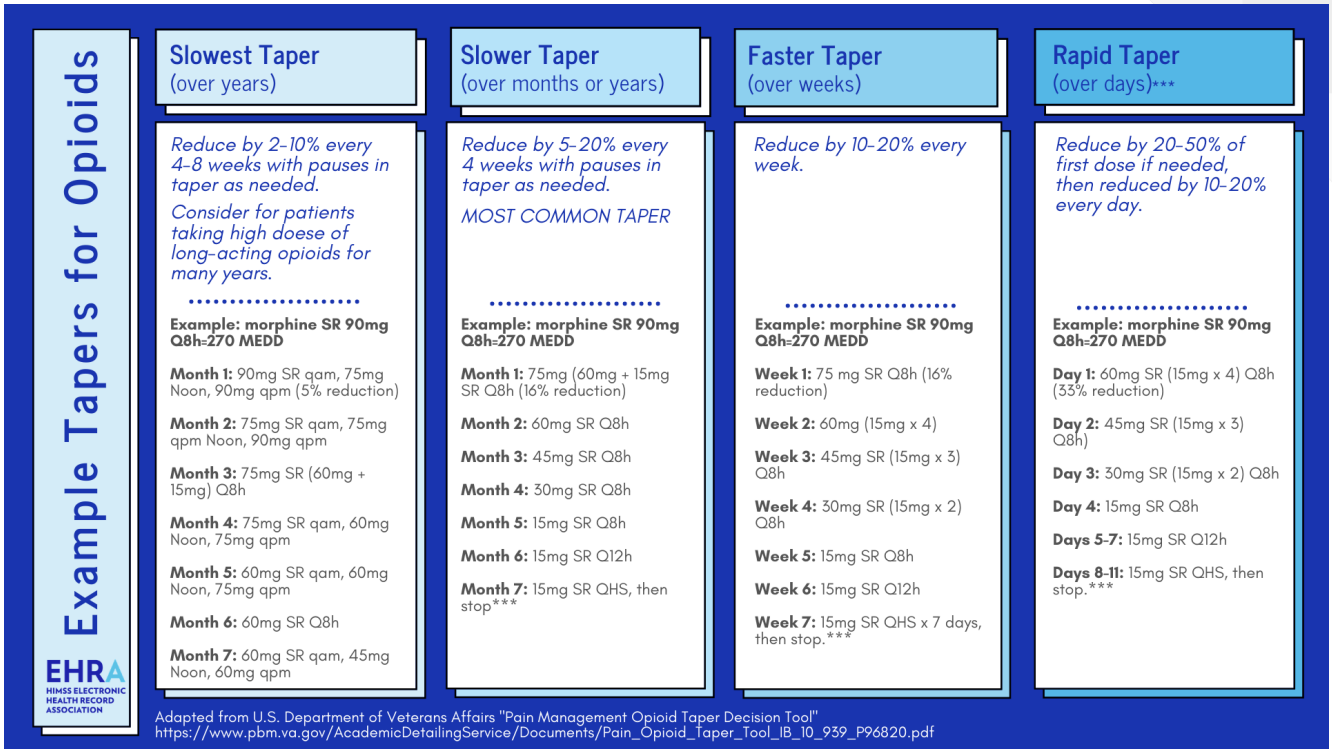
"Tapering plans should be individualized based on patient goals and concerns." (HHS)

"Several factors go into the speed of taper selected…Document the rationale for the opioid taper and the opioid taper schedule in the Veteran's medical record." (VA/DOD)

How Technology Can Help

Tapering rates vary highly by individual, but guidelines state that, most commonly, tapering will involve dose reduction of 5% to 20% every four (4) weeks.

Establishing a tapering plan involves setting target dates, MME levels, milestones, and side effect management. Generating schedules is a task that computers are naturally suited for, so scheduling software can be leveraged to craft a tapering plan. However, the individual needs of the patient, including risk factors and comorbid conditions, must be accounted for when selecting a tapering rate and establishing a schedule.

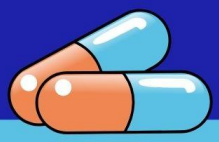


What You Can Do

- Set up pre-built, editable templates for tapering speeds and postures that providers can select to provide the framework for the taper. For example:
    - Speeds can be pre-defined, with options over the course of weeks, months, or years.
    - Postures can be pre-defined as aggressive (20% reductions), moderate (10% reductions), slow (5% reductions), or customized.
- Develop a written protocol explaining each of the tapering approaches and helping clinicians to select a pathway. Ensure that the protocol is electronically accessible from the form that establishes the taper, and make sure it covers comorbid conditions and associated risks.
- Utilize a scheduling tool that can project out the upcoming dates and MME level targets at each phase of the taper. For example, if a patient starting a taper in January at 100 MMEs per day has selected a moderate taper rate of 10% reduction per month, then the upcoming dates should automatically calculate

and display as February = 90 MMEs, March = 80 MMEs, April = 70 MMEs, and continuing on until the taper is completed.

- Because tapering does not necessarily need to continue until the patient is completely weaned off opioids, consider an endpoint for pre-built tapering schedules of between 0-50 MMEs, based on organizational policies. Allow clinicians to edit or pause the tapering schedule to meet the patient's individual needs with allowance for appropriate personalization.



PATIENT PROFILE 2: FAST TAPER

G is a 28-year-old female athlete who played field hockey on a regular basis with a local team. During a game, she was involved in a collision that left her with a severe shoulder injury. She saw her PCP the next day with extreme pain and her PCP recommended urgent surgery. Post-surgically G was prescribed high initial dosages of oxymorphone for 4 weeks without any clear pain management guidelines in place, and G developed a high tolerance. At the conclusion of this period, her PCP initiated a moderately aggressive opioid tapering plan that would reduce the opioid dosages at 20% per month. G had been diagnosed with depression 5 years earlier and began to experience exacerbated symptoms and suicidal ideation 3 weeks into the tapering plan, so her PCP paused the tapering progress and referred her to a mental health resource for two months until G was ready to proceed with the tapering plan. Her PCP monitored G's progress in the EHR and when she was ready to resume the tapering plan, she reduced the speed to 10% per month. After 6 months, G was able to end her use of opioids and return to her normal exercise routine with only low levels of pain, which she could manage using over the counter non-opioid medications.

Part 3: Manage and Monitor Tapering

1. Engage the patient with electronic messaging, apps, and telehealth

WHY IT MATTERS

"Patient collaboration and buy-in are important to successful tapering." (CDC)

"Follow-up for tapering is recommended to be a team function…Prior to any changes being made in opioid prescribing, a discussion should occur between the Veteran, family members/caregivers, and the provider either during a face-to face appointment or on the telephone." (VA/DOD)

How Technology Can Help

Patients and their caregivers are ultimately responsible for adhering to opioid tapering plans, so their collaboration is key to making the plans successful. Collaboration can be boosted by implementing electronic communication that keeps patients engaged throughout the entire tapering process.

What You Can Do

- Provide a copy of the tapering plan to the patient and their caregivers when the plan is initiated, and provide a fresh copy after any edits are made. Make the tapering plan available to the patient electronically via their patient portal.
- Make sure patients understand they have an open line of communication with their provider between visits. Include phone numbers, electronic messaging, and/or contact details for patients who have opioid-related questions or who need assistance with their tapering plans.

- Establish electronic questionnaires for patients to complete regarding their pain, function, quality of life, mental health, and side effects experienced during an opioid taper. Encourage patients to complete these questionnaires between visits, and use "push" technology on mobile devices to remind patients that responses are needed. Ensure that completed questionnaires are reviewed in a timely manner by the care team.
- Provide patients with education sheets that outline what to expect at each phase of tapering. Ensure that education records in the EHR are updated when opioid tapering education is provided.
- Encourage patients to make use of existing telehealth solutions for opioid tapering follow-ups. This helps providers to stay connected with the patient outside of the walls of a health system,[9] and makes it easier for patients to keep their scheduled appointments.

2. Monitor for withdrawal symptoms, and include withdrawal treatment options in tapering plans

WHY IT MATTERS

"Short-term oral medications can help manage withdrawal symptoms. These include alpha-2 agonists for the management of autonomic signs and symptoms (sweating, tachycardia), and symptomatic medications for muscle aches, insomnia, nausea, abdominal cramping, or diarrhea." (HHS)

[9] Hser YI, Mooney LJ. Integrating Telemedicine for Medication Treatment for Opioid Use Disorder in Rural Primary Care: Beyond the COVID Pandemic. *J Rural Health*. 2021;37(1):246-248. doi:10.1111/jrh.12489, Accessed October 8, 2021 from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7361555/

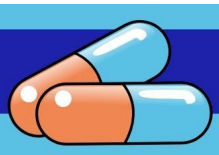
How Technology Can Help

An adage in healthcare informatics is to make it easy to do the right thing. Since clinical guidelines point out that a person going through opioid tapering is likely to experience withdrawal symptoms, having multiple withdrawal treatment options readily available in the EHR increases care team awareness of these options and reduces time-to-treatment for the patient.

What You Can Do

- Working with provider stakeholders in primary care, pain management and addiction treatment, review specific withdrawal treatment recommendations in the HHS Guide for Clinicians on the Appropriate Dosage Reduction or Discontinuation of Long-Term Opioid Analgesics and ensure all recommended treatment options are readily available in the EHR to guide providers in managing opioid tapers.
- Add corresponding orderables, patient education, referrals, etc. to each opioid tapering order set and plan. For example, include anti-diarrheals, anti-nausea, stool softeners and laxatives on an Opioid Withdrawal Side Effects order set.
- Message these changes to all providers who can prescribe controlled substances and to any additional providers who may, for example, be the recipients of such referral orders.

3. Implement CDS to prevent reversed tapers



WHY IT MATTERS

"Don't reverse the taper; however, the rate may be slowed or paused while monitoring and managing withdrawal symptoms." (CDC)

"Significant opioid withdrawal symptoms may indicate a need to pause or slow the taper rate." (HHS)

How Technology Can Help

For all opioid prescriptions ordered for patients in a tapering plan, an EHR alert can display information about the plan and calculate the apparent change in dose and percent change.

The application of an EHR-based algorithm can be used to detect significant increases in opioid dosing for people who have an active opioid tapering plan. Once this scenario is identified, it can be mitigated by care management follow-up.

What You Can Do

- Implement a CDS notification that is triggered at the time an opioid prescription order is signed to calculate the resulting total MME/day across all active, prescribed opioids. If this value is more than the patient's total MME/day prior to these orders, and if the patient is on an opioid tapering plan, then alert the provider that the new prescriptions result in a reversal of the current opioid taper.
- The above can also be designed to detect accidental or risky increases in opioid doses for patients who are not part of an opioid tapering plan.

- Ensure clinical team members are educated on policies around avoiding opioid rate increases during a taper and ensure that policies are available electronically.
- Leverage existing clinical decision support from SMART[10] on FHIR[11] applications, including the Agency for Healthcare Research and Quality (AHRQ) CDS Connect[12] platform, to track a patient's MME levels over time and identify dosage changes.

4. Re-evaluate mental health during a taper. Use electronic messaging to mental health providers and prescribers of controlled substances

WHY IT MATTERS

"Coordinate with specialists and treatment experts as needed – especially for patients at high risk of harm such as pregnant women or patients with an opioid use disorder." (CDC)

"If your patient has serious mental illness, is at high suicide risk, or has suicidal ideation, offer or arrange for consultation with a behavioral health provider before initiating a taper." (HHS)

"If high suicide risk or actively suicidal, consult with a mental health provider before beginning a taper." (VA/DOD)

[10] Smart Health IT. https://smarthealthit.org/ Accessed on October 8, 2021
[11] HL7 FHIR, http://hl7.org/fhir/. Accessed on October 8, 2021
[12] Agency for Healthcare Research and Quality. Patient-Centered Outcomes Research. Opioids and Pain Management. https://cds.ahrq.gov/cdsconnect/topic/opioids-and-pain-management. Accessed on October 8, 2021.

How Technology Can Help

A careful evaluation of mental health risk factors is important both in the pre-tapering phase and during the course of an opioid taper. Patients may experience severe side effects as a result of the tapering process, including anxiety, depression, or even suicidal ideation[13]. During scheduled clinical visits, phone check-ins, or other milestones established by the tapering plan, providers should use EHR-enabled tools to re-evaluate mental health risks, keep all members of the care team updated on the patient's progress, and place referral orders to specialists as needed.

What You Can Do

- Ensure all existing members of the care team are aware of the opioid tapering plan, and that the plan is highly visible in the chart.
- Ensure that new members of the care team are notified when a plan is active, and ensure that edits to a tapering plan notify the care team.
- Document industry standard assessments for mental health within the EHR, and ensure the assessments are scheduled weekly or monthly throughout the course of a treatment plan.
- Validate that tapering plans are included in health information exchanges (HIEs) between EHR systems to support the patient and their providers in other venues

[13] Oliva EM, Bowe T, Manhapra A, et al. Associations between stopping prescriptions for opioids, length of opioid treatment, and overdose or suicide deaths in US veterans: observational evaluation. *BMJ*. 2020;368:m283. Published 2020 Mar 4. doi:10.1136/bmj.m283. Accessed on October 12, 2021 from https://pubmed.ncbi.nlm.nih.gov/32131996/

5. Implement Tapering Plan Analytics

How Technology Can Help

Once an opioid tapering strategy is in place, analytics can be used to monitor the adoption, quantity, and quality of tapering plans. As with any quality improvement initiative, accurate metrics can identify process improvement opportunities and allow for targeted education and training.

What You Can Do

- Develop reporting solutions that allow your organization to monitor how many opioid tapering plans are currently active, how many were completed in the past year, and how long tapering plans typically take to complete.
- Review what specialties typically initiate and manage tapering plans (primary care physicians, pain management specialists, or interdisciplinary care teams).
- Determine how often EHR-based opioid tapering solutions like order sets and provider notes are being utilized.
- Determine how frequently patients make use of online portals for opioid tapering communication, and how often patients access electronic education-based solutions.
- Assess how frequently clinicians include the use of patient-generated data in monitoring the tapering plan, if applicable

6. Develop Predictive Analytics for patients who potentially need a tapering plan or who may develop opioid use disorder

How Technology Can Help

Predictive analytics integrated into the EHR can leverage patient data to assist physicians throughout the pain management process, including opioid tapering. Identifying patients at risk for adverse events, such as opioid use disorder or opioid overdose, can guide management and facilitate doctor-patient communication at multiple decision points.

Patients established on opioid therapy who are identified as at-risk for adverse events may warrant strong consideration for opioid tapering. Risk models can serve as crucial talking points in the shared decision-making process for patients and physicians considering an opioid tapering program.

What You Can Do

- Health care systems
    - Evaluate and implement available predictive risk models to inform physicians of at-risk patients
    - Develop analytics that check for last use of portal messages, and remind providers if it's been more than a month since a patient's last appointment, portal message, or milestone on a tapering plan

- Providers
    - Advocate for the availability of predictive modeling within your EHR
    - Apply predictive modeling data to treatment decisions to initiate, taper, or discontinue opioid therapy and other pain management modalities
    - Develop strategies to communicate analytics data to patients at risk for adverse outcomes into discussions of shared clinical decision making.

- Perform a formal review of possible actions providers may take when seeing the results of predictive models, such as prescribing naloxone or modifying the patient's opioid regimen
- Implement perpetual analysis of any predictive model implemented and the clinician-user actions that result to monitor for unintended bias
- Monitor for reactions to the model that cause inadvertent risk to the patient, such as sudden discontinuation of opioid treatment of pain
- Evaluate the development of predictive modeling to identify at-risk patients before adverse events occur. EHR tools should be available to physicians and organizations to identify individuals who are at risk of OUD so steps can be taken to initiate tapering.

PATIENT PROFILE 3: TAPERING EVALUATION NEEDED

When H was a healthy 35-year-old man, he was struck by a car while riding his motorcycle. The motorcycle landed on him, crushing his foot and leg, causing multiple fractures and severe burns on the left side of his body. Over the past 16 years, he has had more than a dozen surgeries and nerve block procedures for his foot so that he can walk, but the pain is so severe that he has been taking various doses of prescribed immediate-release opioids. He periodically considers voluntary amputation of his foot, but physicians have cautioned him that he may experience "phantom pain" despite the procedure. When he takes a dose of opioid medication, it reduces his pain to a bearable level, but his friends notice that he is a little slower in conversation and his normal, witty self in conversation after he's taken a dose. H's physicians have ordered a consult with a pain specialist and they are evaluating H's risk of opioid use disorder, which needs to be addressed prior to initiating an opioid tapering plan in the future.

Conclusion

The recommendations presented in this Implementation Guide for Electronic Health Records are designed to help hospitals, physician practices, clinicians, and the software developer community transform best practice statements into actionable tools that can be deployed in clinical practice.

The EHR Association encourages organizations to work with their EHR developers to discuss the implementation approaches and strategies contained in this document and put them into practice as appropriate. While some EHRs may not currently be able to implement every recommendation in this guide, organizations may ask their developers to include desired new capabilities in future updates.

With wider adoption of best practices, healthcare organizations can realize safer opioid use, better opioid management, and improved opioid stewardship.

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