

Essential Components of an Opioid Tapering Plan Facilitated by an Electronic Health Record

INTRODUCTION

The COVID-19 crisis has consumed the United States just as it has been [turning the corner](#) on the most severe chapter of the opioid crisis. Opioid prescribing rates and drug overdose rates both remain distressingly high, and some patients on opioids are [more vulnerable](#) to impacts from COVID-19. At the same time, for patients with severe chronic pain, opioids are clinically indicated, and provide meaningful relief from a life of constant pain that could otherwise be debilitating. For these individuals, prescribers are often [challenged](#) with adhering to [CDC guidelines](#) and [state laws](#) that limit opioid use while effectively treating pain, and this is especially true for patients who have been treated with higher doses of opioids for extended periods of time.

EHRs are the natural platform for physicians to initiate, track, and maintain opioid tapering plans.

Opioid tapering represents the process of gradually reducing opioid dosages according to a tapering plan, while monitoring for and mitigating side effects and meeting the patient's pain management needs through non-opioid therapies. This white paper aims to comment on the role that health information technologies, including electronic health records (EHRs), can play in assisting physicians with responsible opioid tapering.

OPIOID TAPERING GUIDELINES & CHALLENGES

Various professional and governmental organizations have established guidelines for how to conduct an opioid taper in the U.S., including the [Centers for Disease Control & Prevention](#), [Veterans Administration](#), [Department of Defense](#) and [Department of Health & Human Services](#), as well as healthcare organizations such as the [Mayo Clinic](#). In general, these guidelines recommend that patients with chronic pain currently taking more than 90 morphine milligram equivalents (MMEs) daily initiate a taper when opioid therapy is no longer working, side effects become unmanageable, or there is a concern for substance use disorder or overdose.

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When indicated, tapering involves dose reductions of anywhere from 5% to 20% every four weeks. Opioids should not be tapered rapidly or discontinued suddenly due to the risks of significant opioid withdrawal. Opioids may be tapered down until complete discontinuation, or reduced to a safe maintenance level. The guidelines all stress that every patient is unique, and that the benefits of a tapering plan must outweigh the risks for continuation or tapering of opioids. Therefore, the EHR should

provide flexible tools that enable providers to individualize treatment plans and adapt treatment over time based upon the patient response.

Despite the availability of published guidelines on how to conduct opioid tapering, opioid tapering remains a challenge in clinical practice. [The FDA has received reports of serious harm](#) when some patients who were physically dependent on opioid pain medicines suddenly had these medicines discontinued or the dose rapidly decreased. Harms include serious withdrawal symptoms, exacerbation of pain, psychological distress, and suicide.

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In his book, “In Pain,” journalist Travis Reider describes his personal experience after a motorcycle accident. When his physician recommended an overly-aggressive tapering plan at 25% reduction per week, Reider suffered debilitating nausea, prolonged immobility, and an all-consuming depression. To avoid severe withdrawal symptoms like these, managing an opioid taper schedule at just the right speed, individualized to each patient, can help improve outcomes and avoid opioid-related harms.

LEVERAGING HEALTH IT FOR OPIOID TAPERING PLANS

How can technology help providers with the challenge of appropriate opioid tapering? The first step is to ensure that an opioid stewardship program is firmly in place at each organization, and that it makes optimized use of the EHR. The EHR Association has previously provided [commentary on the existing CDC guideline](#) for opioid use, discussing ways to implement all 12 CDC recommendations. Once a program is established, the following additional electronic tools can be leveraged to assist providers with opioid tapering:

- **Morphine Milligram Equivalent (MME) calculations**, allowing clinicians to determine a patient’s current level of opioid therapy. Physicians use MMEs per day levels to guide the overall progress of a taper and to set milestones and dosages along the way.
- **Generation of tapering schedules** and special instructions attached to medications. Having the EHR automatically calculate current and projected dosages to achieve target MME/day levels can facilitate some of the work of generating a taper schedule. Breaking out the tapering plan into short-acting and long-acting opioids can facilitate setting targets for each medication in the plan. In the later portion of a taper, when MME levels are low, extending the intervals between doses rather than lowering dosage can help wean the patient off of opioids.
- **Clinical decision support** that promotes non-opioid and non-pharmacologic therapy alternatives. This may take the form of passive guidance for alternatives, or active alerting when risk factors are present. The [AHRQ CDS Connect project](#) provides SMART on FHIR decision support, including a solution for [CDC Recommendation #5 - Use the Lowest Effective Dose](#) of opioids, featuring tapering language when a patient is found to be above 90 MMEs per day.
- **Specialized physician notes** to track tapering progress. Notes that are structured to track each milestone, update the risks and benefits of opioid therapy as the taper progresses, and initiate a

pause in the tapering plan if necessary, can all help the physician manage a taper and improve compliance with best practices.

- **Screening Assessments** for withdrawal symptoms, utilizing industry standard tools such as the [Clinical Opiate Withdrawal \(COWS\) Scale](#) or the [Clinical Institute Narcotic Assessment \(CINA\) Scale](#). In addition, physicians should monitor pain scales, functional capacity, and quality of life measurements during a taper.
- **Evidence-based order sets** to manage side effects, and initiate substance use disorder treatment or address other major decompensations if indicated.
- **Ongoing education** for the patient, their family and their caregivers can help patients meet milestones, reduce the risks of overdoses, and manage side effects and withdrawal symptoms. Documenting education at regular intervals in the EHR accomplishes this goal.

In addition to content and capabilities of EHRs, there are some notable legacy technologies that may prove valuable in the specialty pain management setting. For example, the Washington State Department of Health offers an [Opioid Tapering Calculator](#) spreadsheet that can help generate tapering schedules for short-acting and long-acting opioids. Some organizations have established protocols for tapering that include detailed [tapering schedules](#) and worksheets that can help clinicians quickly formulate a taper plan.

FUTURE HEALTH IT CAPABILITIES

While there is a lot that EHRs can do now, what's next? At this time most EHR vendors do not offer a central "command center" or "one stop shop" to electronically initiate, track, and adjust opioid tapering plans, yet this would be useful for physicians looking to manage all of the details and tasks associated with a taper. Directions for future EHR development in this space include:

- **Detailed MME graphing and tracking** within the chart, showing historical opioid usage broken down by product alongside projected levels established by the tapering plan, to better support clinicians with tracking a patient's progress over a multiple year tapering plan.
- **Rate Controls:** Adopting a posture for a taper such as "Aggressive" (over weeks), "Moderate" (over months), or "Slow" (over years) with a single button can help physicians generate appropriate tapering plans based on the patient's conditions. Introducing buttons to "Pause," "Adjust," or "Discontinue" the taper can help physicians update the taper as necessary.

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- **Physician guidance and decision support on dose adjustments.** When tapering plans are active, EHRs should be able to coach providers who place orders that don't align with the parameters of the established taper. Dr. Anna Lembke of Stanford Health [advises](#) that, "breaks in tapering schedules are ok, but never go backwards, because you risk losing your tapering progress." EHRs should warn providers who try to increase dosages once a taper is initiated, and highlight

periods of increased dosages on historical reports. Similarly, physicians who attempt to taper too rapidly should receive alerts at the point of ordering.

- **Advanced Metrics** tracking pain, function, and side effects correlated with opioid use, comorbidities, and tapering progress.
 - MMEs per day
 - Progress toward complete opioid discontinuation
 - Rate of withdrawal symptoms
 - Pain Scale impact during taper plan
- **Predictive Models** as an EHR tool to identify patients at risk for complications or who may be good candidates for tapering.
- **Early warning systems** for withdrawal and non-compliance. [HHS guidelines](#) note that “depressive symptoms predict taper dropout.” EHR developers should incorporate early warning systems or clinical decision support to identify at-risk patients.
- **Patient-facing views of the tapering plan and calendar** that automatically generate on discharge, and are accessible within patient engagement tools such as patient portals or mobile apps. [HHS guidelines](#) note that “tapering is more likely to be successful when patients collaborate in the taper,” so providing written materials that clearly guide the patient and their caregivers on each step of the taper can increase compliance and success of the tapering plan. In order to further promote patient engagement, these tools could also allow patients to track symptoms and provide feedback to the physician on their taper experience.

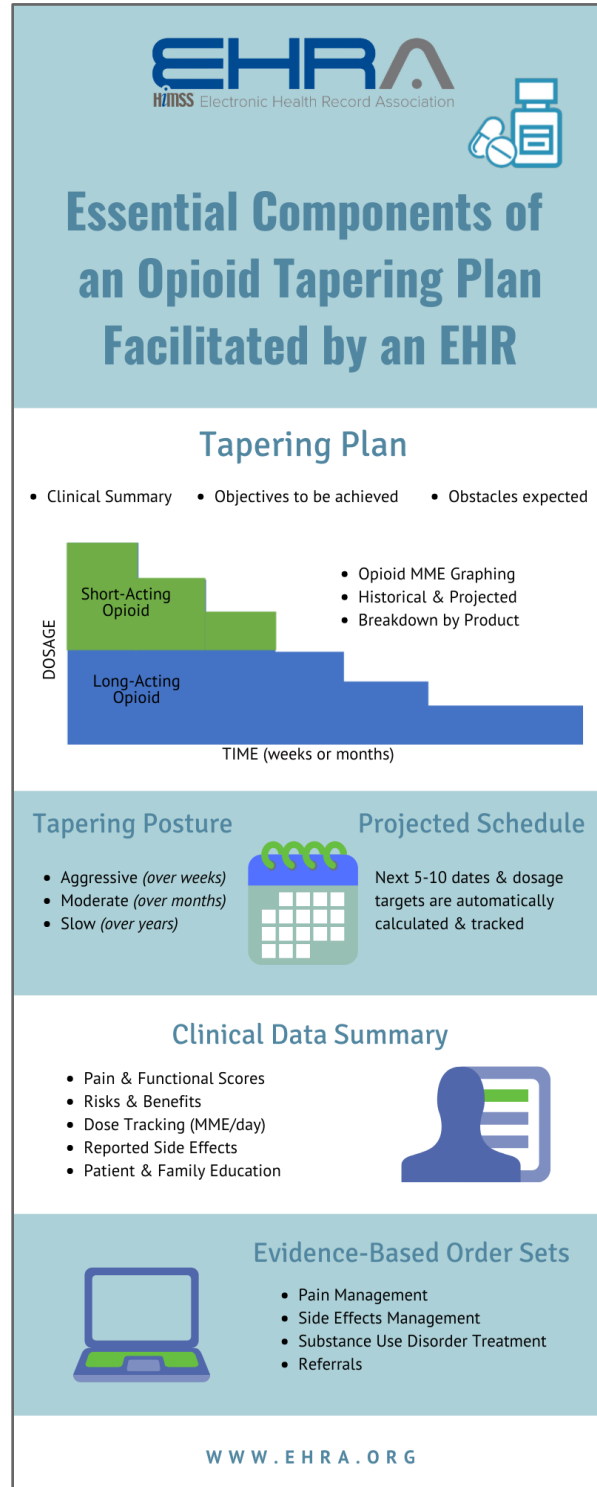
CONCLUSION

With all the features currently available, EHRs are the natural platform for physicians to initiate, track, and maintain opioid tapering plans. The complexity of the clinical guidelines on tapering, coupled with the highly individual needs and circumstances for each patient, generates the need for highly customizable tapering solutions that can be electronically tracked and managed within the EHR. These solutions should be flexible enough to accommodate provider judgement while also straightforward and inclusive of clinical guidelines.

With the opioid crisis still unresolved and the COVID-19 pandemic making patients more vulnerable to opioid misuse, the need is urgent for the digitization of the opioid tapering plan, and organizations can act now to create, develop, and implement this solution. In the future, there are many exciting new frontiers in EHR development that can advance this process and can help providers to balance safer, evidence based, and equitable use of opioids with patient-centric care plans.

*Compiled by Dan Seltzer and the EHR Association Opioid Crisis Task Force
May 2020*

INFOGRAPHIC



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