

Closing the Loop: Assessing the Efficacy of Medication Discontinuation Practices in Electronic Health Records

Authors: Ann Mathew, Allison B. McCoy, PhD
Vanderbilt University Medical Center | Department of Biomedical Informatics

Introduction

Electronic health records (EHRs) are widely regarded to improve accuracy in documenting patient data, but there is limited information on the accuracy of the current medication list. There may be inconsistencies or inaccuracies in medication documentation when a patient is no longer taking a medication

Challenges:

- Inconsistencies when medications are discontinued
- Variations in clinical workflows across patient encounters
- Potential errors in clinical alerts and research due to inaccurate medication data

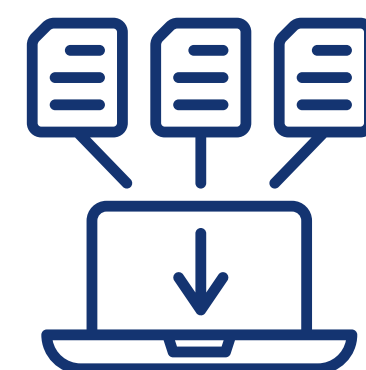
Medication Removal Sources:

- Patient portal requests
- Nurse and medical assistant updates during intake
- Physician and advanced practice provider decisions during visits

Methods

Data Collection

Time Frame: June 2nd, 2024 – June 6th, 2024
Source: EHRs of patient encounters



Quantitative Descriptive Analysis

Extraction and descriptive analysis of medication data
Identification of patterns in medication removal documentation

Qualitative Analysis

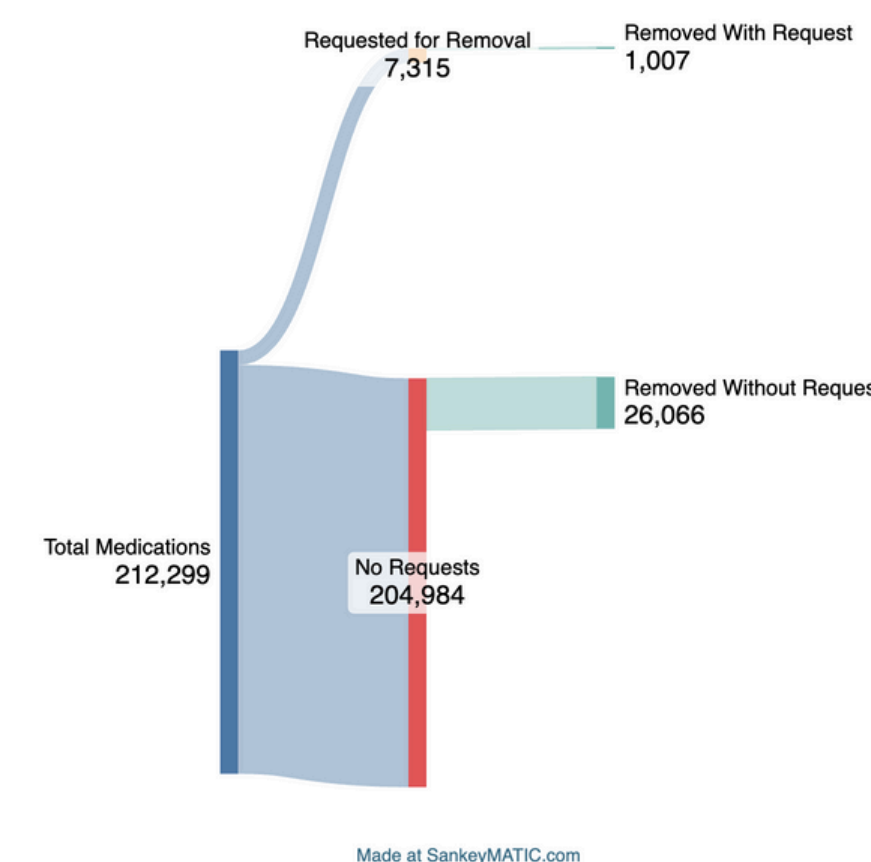
Interviews with three physicians: Gastroenterology, Pediatric Endocrinology, Adult Primary Care
Understanding medication discontinuation workflows and physician perspectives

Results and Discussion

Results

Total Patient Encounters: 37,628
Total Medications on Lists: 212,299

- Medications Marked as Not Taken: 7,315 (3.5%)
- Medications Remaining on List after Request: 1,007 (13.77% of requested removals, 0.47% of all medications)
- Medications Removed Without Requests: 26,066 (12.28% of all medications)



Most medications ordered by providers from a given specialty are discontinued by providers within the same specialty. For medications ordered by providers in specialties such as Intensive Care, Emergency Medicine, and Surgery, discontinuation is more frequently handled by providers from different specialties.

Physicians working with “very specialty-specific medications that are critical and have very nuanced signs” felt strongly that this should never be the case, and that they do not “want any other provider ever touching [their] medication list” without consulting the ordering provider.

For other providers, it was important to review and update the medication and to discontinue all medications that were no longer being taken.

Discussion

Prevalence of Inaccuracies

- Majority of requested removals remain on medication lists
- Majority of removals are not driven by patient or intake provider requests

Specialty Influence

- Specialty of the visit provider plays a significant role in medication discontinuation – high-risk specialties, critical meds, care timelines
- Risk management and specialty-specific medication handling

Implications

Secondary Uses of EHR Data:

Accurate medication lists are crucial for reliable clinical decision support and research outcomes. Improved accuracy can mitigate errors and improve patient care.



Patient-Provider Communication

Enhancing how patients request medication removals and how providers acknowledge and act on these requests can reduce discrepancies in medication records and improve patient safety and satisfaction.

EHR Layout/Workflows

EHR systems often present multiple views and workflows for managing medication lists, which can lead to inconsistencies and inaccuracies. EHR optimization is essential to ensure that medication discontinuation is consistently and accurately recorded across different user interfaces and stages of patient care.



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