

Effect of Immediate Result Release on New Appointment Scheduling

Uday Suresh, Bryan D. Steitz, S. Trent Rosenbloom, Jessica S. Ancker

Dept. of Biomedical Informatics, Vanderbilt University Medical Center, Nashville, TN

What might the attendee be able to do after being in your session?

Using the scheduling of new appointments as an example, the attendee will be able to recognize the effects of information availability on patient behaviors in the patient portal and how these shifts may represent tradeoffs associated with clinical burden.

Introduction

Changes in health information access associated with the 21st Century Cures Act (Cures Act) and modern EHR ubiquity have introduced a new avenue for patients to view test results on their own accord when they become available¹. VUMC achieved compliance with Cures Act implementation on January 20th, 2021. These changes have been associated with a dramatic uptick in patients reviewing their test results prior to their provider as well as an increase in the number of messages that patients send to providers within 6 hours of viewing their test results^{2,3}. Additionally, on April 15, 2021, VUMC adjusted an email notification policy that stopped automatically notifying patients of their result availability unless they opted in. To quantify the impact of immediate release of test results on work for clinicians, we measured the changes in the proportion of patients who scheduled a new appointment within 3 days of receiving their results.

Methods

All adult patients were eligible to be in the study if they had an active portal account and received any test result between June 1, 2020, and January 1, 2022. The unit of analysis for our study was each patient, counted uniquely through each week. To evaluate the changes in proportions of patients and rates of changes in proportions of patients performing various behaviors around their receipt of their data after Cures Act compliance and the notification policy change, we conducted an interrupted time series (ITS) analysis using segmented linear regression.

Results

The proportion of all patients who scheduled a new appointment within 3 days of receiving their test results increased by 5.3% at the time of Cures Act compliance ($p < .001$) but only by a small (0.1%) and non-significant ($p = 0.87$) amount at the notification policy change. The observed shift in the proportion of patients scheduling a new appointment account for an increase from approximately 16.8% prior to immediate test result release to nearly 22.2% after a year of Cures Act compliance-related adjustments (Figure).

Discussion and Conclusion

Immediate result release was associated with an immediate increase in the proportion of patients who scheduled new appointments, and discontinuing notifications did not reduce the proportion. Our work points to a measurable change in patient behavior that has implications for clinical teams. The measurement of this metric and metrics like this could help to track and predict how changes in access to information for patients map to clinical burden. Future interventions in the portal, delivered alongside test results, could ameliorate appointment scheduling as a method of information seeking behavior and better equip patients to feel comfortable with their care.

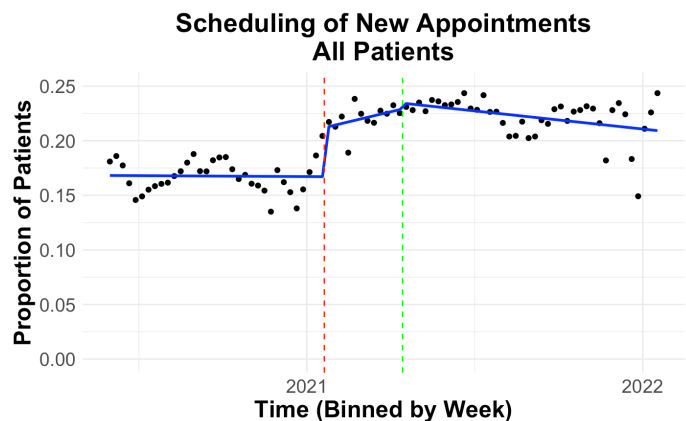


Figure. Proportion of patients scheduling a new appointment within 3 days of test receipt

References

1. 114th Congress. 21st Century Cures Act [Internet]. H.R. 34 Dec 13, 2016. Available from: <https://www.govinfo.gov/content/pkg/BILLS-114hr34enr/pdf/BILLS-114hr34enr.pdf>
2. Steitz BD, Padi-Adjirackor NA, Griffith KN, Reese TJ, Rosenbloom ST, Ancker JS. Impact of notification policy on patient-before-clinician review of immediately released test results. *Journal of the American Medical Informatics Association*. 2023 Sep 25;30(10):1707–10.
3. Steitz BD, Sulieman L, Wright A, Rosenbloom ST. Association of Immediate Release of Test Results to Patients With Implications for Clinical Workflow. *JAMA Netw Open*. 2021 Oct 18;4(10):e212