May 22nd, 4:30 PM - 6:00 PM

Patient Adherence to Laboratory Tests to Monitor Medication Therapy: A Mixed-Methods Study

Shira H. Fischer  
University of Massachusetts Medical School

Terry S. Field  
University of Massachusetts Medical School

Shawn J. Gagne  
University of Massachusetts Medical School

See next page for additional authors

Follow this and additional works at: https://escholarship.umassmed.edu/cts_retreat  
Part of the Health Services Research Commons

https://escholarship.umassmed.edu/cts_retreat/2012/posters/1

This material is brought to you by eScholarship@UMMS. It has been accepted for inclusion in UMass Center for Clinical and Translational Science Research Retreat by an authorized administrator of eScholarship@UMMS. For more information, please contact Lisa.Palmer@umassmed.edu.
Presenter Information
Shira H. Fischer, Terry S. Field, Shawn J. Gagne, Kathleen M. Mazor, Peggy Preusse, George Reed, Daniel J. Peterson, Jerry H. Gurwitz, and Jennifer Tjia

Creative Commons License

This work is licensed under a Creative Commons Attribution-Noncommercial-Share Alike 3.0 License.

This poster abstract is available at eScholarship@UMMS: https://escholarship.umassmed.edu/cts_retreat/2012/posters/1
PATIENT ADHERENCE TO LABORATORY TESTS TO MONITOR MEDICATION THERAPY: A MIXED-METHODS STUDY

Shira H. Fischer¹, AB; Terry S. Field¹,², DSc; Shawn J. Gagne², BA; Kathleen M. Mazor¹,², EdD; Peggy Preusse², RN; George Reed¹, PhD; Daniel Peterson², MS; Jerry H. Gurwitz¹,², MD; Jennifer Tjia¹,², MD, MSCE

¹University of Massachusetts Medical School, ²Meyers Primary Care Institute – a joint endeavor of the University of Massachusetts Medical School, Reliant Medical Group, and Fallon Community Health Plan

Corresponding Author: Shira Fischer, AB, Candidate for MD/PhD, University of Massachusetts Medical School, Biotech Four, 377 Plantation Street, Suite 315, Worcester, MA 01605; Phone, 617-777-4844; Email, shira.fischer@umassmed.edu

Abstract:

Background
Little is known about the contribution of patient behavior to incomplete laboratory monitoring and the reasons for patient non-completion of ordered laboratory tests remain unclear.

Objective
To describe factors, including patient-reported reasons, associated with non-completion of ordered laboratory tests.

Design
Mixed-methods study including a quantitative assessment of the frequency of patient adherence to ordered monitoring tests combined with qualitative, semi-structured, patient interviews.

Participants
Quantitative assessment included patients 18 years or older from a large multispecialty group practice prescribed a medication requiring monitoring. Qualitative interviews included a subset of adherent and non-adherent patients prescribed a cardiovascular, anti-convulsant, or thyroid replacement medication.

Main Measures
Proportion of recommended monitoring tests for each medication not completed, factors associated with patient non-adherence, and patient-reported reasons for non-adherence.

Results
Of 27,802 patients who were prescribed one of 34 medications, patient non-completion of ordered tests varied (range: 0% to 29%, by drug-test pair). Factors associated with higher odds of test non-completion included younger patient age (< 40 years vs. ≥80 years, adjusted odds ratio [AOR] 1.52, 95% confidence interval [95% CI] 1.27-1.83), lower medication burden (1 medication vs. more than 1 drug, AOR for non-completion 1.26, 95% CI 1.15-1.37), and lower visit frequency (0-5 visits/year vs. ≥19 visits/year, AOR 1.41, 95% CI 1.25 to 1.59). Drug-test pairs with black box warning status were associated with greater odds of non-completion compared to drugs included only in the PDR (AOR 1.91, 95% CI 1.66-2.19). Qualitative interviews, with 16 non-adherent and 7 adherent patients, identified forgetting as the main cause of non-adherence.

**Conclusions**

Patient non-adherence contributed to missed opportunities to monitor medications and was associated with younger patient age and lower medication burden and black box warning status. Interventions to improve laboratory monitoring should target patients as well as physicians.