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

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Presenter Information
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PATIENT ADHERENCE TO LABORATORY TESTS TO MONITOR MEDICATION THERAPY: A MIXED-METHODS STUDY

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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.