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Multimodal Intervention to Reduce Laboratory Overutilization at an Academic Family Medicine Center

Introduction: In the United States, laboratory testing constitutes 5% of total healthcare spending. On average, providers placed 14 billion orders annually with a cost of roughly 175 billion dollars. The CDC states that 70% of medical decisions depend on laboratory results; however, irrational laboratory use comprises 5-95% of tests. Providers often order laboratory tests without understanding the indications or the cost of specific tests. Excess testing contributes to rising healthcare costs, medical errors, and needless interventions that cause patient harm.

Objective: A quality improvement initiative to optimize the laboratory utilization by providers in a family medicine inpatient service.

Design: A randomized pre-post clinical trial.

Intervention: The flyers with information on the costs of specific labs, their indications and frequency of monitoring were displayed near the computers in all provider rooms. Providers were educated through oral discussion in the outpatient and inpatient setting.

Methods: The most ordered laboratory tests were targeted and data on their utilization rates will be collected through the electronic health record system for 3 months before and after the intervention.

Main Outcome Measures: To estimate the reduction in the total number of tests ordered, the frequency of tests ordered per patient per day, and the costs associated with them.

Results: Pending; will be available by March 2nd week.

Conclusions: Educational interventions related to cost-consciousness and stewardship of resources may promote rational laboratory use, thereby reducing healthcare costs and enhancing patient outcomes.