



Research project summary

Enabling Multi-site, Tailored Feedback Interventions to Reduce Low-Value Test Ordering in Critical Care: A Systematic Approach

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Laboratory testing of patient blood samples is one of the highest volume activities in health care, but between 20-30% of tests ordered are thought to be low-value or entirely unnecessary. This leads to three major problems: 1) wasted spending on unnecessary tests that could be used for other healthcare purposes 2) increased health risks (e.g. blood loss causing anemia that can be particularly dangerous for the highly vulnerable patients in critical care), and 3) risk of false positive results that lead to further unnecessary testing that can be costly, anxiety-provoking, and invasive. Reducing low-value testing is often difficult, particularly in team-based settings like critical care. A potentially effective strategy is Audit and Feedback, where providers' own practice data (e.g. the number of a specific lab tests ordered over the past month) is provided back to them to spur change. Our overall goal is to develop, test and deliver feedback strategies to reduce low-value test ordering in critical care, a highly complex and team-based environment that is one of the heaviest users of laboratory testing. Our team combines 1) lab testing data, infrastructure, and expertise from the Eastern Ontario Regional Laboratory Association (EORLA), the body responsible for all 13 million annual in-hospital lab tests in Eastern Ontario; 2) world-leading expertise in feedback and healthcare professional behavior change, and 3) critical care clinical expertise from a range of critical care units in Eastern Ontario. This project will 1) develop tools to help organizations identify low-value tests and design feedback strategies to reduce their use; 2) design tailored feedback strategies for several critical care sites, and 3) evaluate the effectiveness of these feedback strategies. This work will enable better test ordering practice, help improve efficiency of a major component of modern health care, and reduce the need for patients to be put at risk by unnecessary testing.

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