

Clinical pathology selected abstracts

Editor: Deborah Sesok-Pizzini, MD, MBA, professor, Department of Clinical Pathology and Laboratory Medicine, Perelman School of Medicine, University of Pennsylvania, Philadelphia, and chief, Division of Transfusion Medicine, Children's Hospital of Philadelphia.

Outcomes of an audit of repeat lab testing at an academic medical center

September 2018—Overutilization of laboratory tests increases health care costs and may lead to false-positive test results and ambiguous findings. Unnecessary testing can result from a single order from a provider, an automated function in an order set, or a combination of the two. Repetitive testing orders may be due to demographics, length of stay, case complexity, lack of price transparency, and inexperience. Strategies to reduce unnecessary repeat testing include publishing evidence-based guidelines, generating computerized alerts, implementing decision support tools, modifying electronic order-entry settings, and promoting physician feedback and education. The authors evaluated the prevalence of potentially unnecessary repeat testing (PURT) and its associated economic impact at a large academic medical facility. They assessed all inpatient test orders for PURT in 2016 by comparing the inter-test times to published recommendations. They used the Centers for Medicare and Medicaid Services' maximum allowable reimbursement rate to estimate the potential for cost savings. The authors evaluated 11 types of tests, with a combined volume of 25,162, and calculated the positivity rate for these tests. They found 4,242 repeated targeted tests (17 percent of the total), of which 1,849 (44 percent) were identified as PURT, representing a cost-savings opportunity of \$37,376 per year. There was a statistically significant association between PURT and test positivity when all 11 tests were considered. The authors noted that while the inpatient cost reduction was not large, expanding the number of tests evaluated could potentially result in additional savings. Furthermore, the study showed that only 10 percent of providers accounted for 69 percent of PURT. The authors concluded that such testing contributes to unnecessary laboratory costs and that additional research is needed to identify factors associated with PURT, an important driver of test overutilization.

Hueth KD, Jackson BR, Schmidt RL. An audit of repeat testing at an academic medical center: consistency of order patterns with recommendations and potential cost savings. *Am J Clin Pathol.* 2018;150:27-33.

Correspondence: Dr. Robert L. Schmidt at robert.schmidt@hsc.utah.edu

Impact of a passive clinical decision support tool on lab test cost savings

One way to eliminate costs related to patient care is to reduce the number of unnecessary laboratory tests performed. The use of clinical decision support tools (CDSTs) may help guide clinicians in appropriate test utilization. The authors conducted a study over a span of three years to analyze the impact of a passive CDST that displayed test order costs of \$1,000 or more and to determine the frequency with which providers abandoned the order after notification. (The CDST was considered passive because the provider could override the warning.) The authors also calculated cost savings through test avoidance. Thirty-six tests met the criteria for inclusion on the initial expensive test notification list in 2014. This increased to 43 in 2015 and 67 in 2016. The average monthly abandonment rate was 12.5 percent (2014), 12.9 percent (2015), and 14.3 percent (2016). The cost savings from tests not performed for this three-year period was \$696,007. Molecular hematopathology assays were the most frequently ordered tests, with variable abandonment rates. Test costs (not charges) were used for all cost-reduction calculations. The authors demonstrated that a passive CDST was associated with a relatively low abandonment rate. However, it achieved considerable cost savings each year since each abandoned test saved the institution \$1,000 or more.

Riley JD, Stanley G, Wyllie R, et al. The impact of an electronic expensive test notification. *Am J Clin Pathol.* 2018;149:530-535.

Correspondence: Dr. Gary W. Procop at procopg@ccf.org