USE OF PRE-OPERATIVE TESTING AND PHYSICIAN RESPONSE TO PROFESSIONAL SOCIETY GUIDANCE

Poster Contributions
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Background: The value of routine pre-operative cardiac testing prior to most surgical procedures is widely considered to be low. In 2002 and 2007, the ACC/AHA issued national guidelines to improve the quality of pre-operative care and reduce waste, but the long-term impact of these guidelines on physician behavior is unknown.

Methods: We analyzed 38,132 ambulatory visits from the National Ambulatory Medical Care Survey from 1997-2010. Using a quasi-experimental, differences-in-differences approach to compare rates of testing for ECG and stress testing in the period before and after 2002, we accounted for secular trends in routine testing by adjusting for testing rates in general medical/annual exam visits over the same time period. Logistic regressions adjusted for clinical characteristics.

Results: Pre-operative visits rose from 20.4 million in 1997-1999 to 43.0 million in 2008-2010. After accounting for temporal trends in routine testing, the rate of ECG testing fell by -6.65% (95% CI -10.6 to -2.7) after release of the 2002 ACC/AHA guidelines, but there was no significant change in the use of cardiac stress testing (+0.71%, p=0.08).

Conclusion: ACC/AHA guidance for pre-operative testing reduced the incidence of routine ECG but not cardiac stress testing. Because cardiac stress tests are costly and frequently result in downstream tests and procedures, more concerted efforts to understand physician behavior and remove barriers to guideline adherence may improve quality and reduce healthcare costs.