Control #: 46 Brittany Saldivar

Category: Quality improvement (Systematic and continuous actions leading to measurable improvement in health care service and/or health status)

Title: Reducing Inappropriate Transthoracic Echocardiograms to Improve Workflow and Efficiency

ABSTRACT BODY

Background: A substantial number of transthoracic echocardiogram (TTE) requests received by the Malcolm Randall Veterans Affairs Medical Center (VAMC) echocardiography laboratory are for clinical indications that are inappropriate as deemed by the 2011 Echocardiography Appropriate Use Criteria (AUC). Unnecessary care adds to wait times for procedures which can be frustrating for both patients and physicians. A clinical reminder in the order entry system that counsels clinicians on the most common inappropriate indications for TTEs can significantly reduce the number of inappropriate TTEs.

Methods: Pre-intervention, we reviewed 450 consecutive VA TTEs in 2018 determined to be inappropriate by 2011 Echocardiography AUC. We then identified the most common inappropriate indications for which TTEs were ordered. These were used to create a clinical reminder that we implemented into the order entry system at the VAMC, CPRS. 351 consecutive TTEs were reviewed after our intervention to assess for interval reduction in inappropriate TTEs.

Results: Prior to the planned intervention, there was a 22% rate of inappropriate TTEs. After the intervention, the number of overall inappropriate TTEs was reduced to 15.1% (relative reduction 31%, absolute reduction 6.9%, p=0.014). Of the 4 targeted inappropriate indications, we observed a representative increase in 2 categories (17.2% to 45.3% and 4% to 24.5%).

Conclusions: While introduction of a clinical reminder targeted to reduce inappropriate TTEs was associated with an overall reduction, the targeted indications were not reduced. This suggests our intervention was not effective as designed. Further study is needed to understand how clinicians incorporate the clinical reminder in their workflow.

Clinical Implications: My study will help enable cardiovascular clinicians to eliminate waste created by inappropriate echocardiogram orders.