Lipid Lessons: Effect of a multifaceted quality improvement intervention on prescription of guideline-directed treatment in patients with an increased risk of cardiovascular disease

Statement of Problem or Question (one sentence): Can a multi-faceted quality improvement (QI) approach, aimed at patient activation, result in improved patient understanding of statin therapy and improve guideline-directed cardiovascular disease prevention in an urban underserved primary care practice?

Objectives of Program/Intervention (no more than three objectives): Determine the effectiveness of a multifaceted QI intervention on patient understanding of the benefits of statin therapy and on the improvement of guideline-directed prescription of statin therapy.

Description of Program/Intervention, including organizational context (e.g. inpatient vs. outpatient, practice or community characteristics): Atherosclerotic cardiovascular disease (ASCVD) is the leading cause of mortality in the United States. Guideline-directed statin therapy can help patients reduce risk, yet patients with lower socioeconomic status are disproportionately affected and less likely to be on statin therapy. Primary care patients between the ages of 40-75 with diabetes mellitus requiring primary prevention of ASCVD with statin therapy in an urban underserved resident practice were included in the study. A multi-faceted intervention including staff education, educational flyers, posters, and a short video played during visits, was designed to educate and engage these patients about ASCVD risk reduction with statin therapy.

Measures of success (discuss qualitative and/or quantitative metrics which will be used to evaluate program/intervention): Success was measured by assessing two components. The first component assessed patients’ awareness, understanding and importance of statin therapy using identical 3-question pre-/post-intervention surveys on a 5-point Likert scale. The second component assessed prescriber adherence to American Heart Association/American College of Cardiology guideline-directed therapy (moderate-high intensity statin for patients with diabetes). We reviewed randomly selected pre-/post-intervention charts from the same house-staff clinic.

Findings to Date (it is not sufficient to state: findings will be discussed): A multi-faceted QI approach can improve patients’ understanding of statin therapy and enhance primary prevention outcomes even in settings with limited resources. For the patient component, pre-/post-intervention patient surveys were administered to 35 patients. There was a mean increase of 2.09 (p < .001), 2.00 (p < .001) and 1.97 (p < .001) in patient awareness, understanding or importance of statin use for each question respectively. For the provider guideline adherence component, 47 pre-intervention charts were reviewed showing a 62% guideline adherence. A different set of 47 post-intervention charts were reviewed showing 89% guideline adherence. There was a pre-/post-intervention mean difference of 28% (p < .05). This allowed for a power of 80% at a two-sided significance level of 0.05.

Key Lessons for Dissemination (what can others take away for implementation to their practice or community?): A multi-faceted QI approach can improve patients’ understanding of statin therapy and enhance primary prevention outcomes even in settings with limited resources.

Impact: Our multi-faceted educational intervention may serve as a model to improve patient and provider utilization of statin therapy for prevention of ASCVD.

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