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

Title: Clinical Application of a Solution Set of Clinical Decision Support Tools at the Point of Care Improves Quality of Care in Hyperlipidemia Patients: Baseline Results from a Statewide Quality Registry

ABSTRACT BODY

Background: In patients (pts) with hyperlipidemia (HL) there is a need for improvement in quality of cardiovascular (CV) care in the outpatient clinic setting. The statewide quality registry is based on the hypothesis that structured utilization of a solution set of HL clinical decision support tools will facilitate provider decisions and significantly improve quality of care.

Methods: A group of clinical sites with experience in HL management participated in a statewide quality registry. All enrolled registry pts have an indication for chronic HL management. The HL clinical sites utilized a solution set of multiple clinical apps at the point of care: ASCVD Risk Estimator Plus (primary prevention), U-Prevent (secondary prevention), LDL Manager, Statin Intolerance, and Cardiosmart Explorer. The Solution set is presented at the point of care using an innovative iPad format to facilitate ease of clinical use by both physicians and CV team. All solution set apps were utilized at baseline visit as well as 3, 6, and 12 month follow-up visits. A detailed case report captured demographic, risk factor profile, physical exam, laboratory, and clinical outcomes data.

Results: To date, the state-wide quality registry has enrolled 427 pts. Baseline demographics: male 209(49%), female 216(51%), age 64+/-13 years, primary prevention 244(57%), secondary prevention 183(43%). Baseline risk factors: BMI 29.5+/-6.2, hypertension 328(77%), diabetes 124(29%), smoking 85(20%), family history of CV disease 218(40%). Baseline laboratory (mg/dl): Total Cholesterol 176+/-50, HDL 40+/-10, LDL 98+/-43. Baseline treatment: statin 357(80%), ezetimibe 71(16%), PCSK9 45(10%).

Conclusion: (1) In diverse sites, application of a solution set of HL decision support tools at the point of care has proven clinically feasible, (2) This HL solution set has facilitated appropriate decisions on guideline based HL treatment as well as clinical assessment of drug efficacy and safety, (3) Pt teaching apps have assisted shared decision making and improved pt adherence to lifestyle and drug treatment, (4) The FCQN-HL demonstrates an innovative system of HL care with the objective to significantly improve CV quality of care.

Clinical Implications: utilize a solution set of clinical decision support tools at the point of care to significantly improve the quality of CV care in primary and secondary prevention in hyperlipidemia patients.