Background: Current cholesterol guidelines aim to reduce the burden of atherosclerotic cardiovascular disease (ASCVD). Statins and other lipid lowering therapies have proven efficacy and robust long-term safety data for primary and secondary disease prevention. A retrospective quality analysis with a subsequent quality improvement project was undertaken to elucidate and close gaps between recommended guidelines and practice at our inner-city clinic that serves socioeconomically underserved populations.

Methods: A retrospective analysis of 1042 consecutive patient encounter between August 2018 and August 2019 was conducted to determine 2018 cholesterol management guidelines adherence. Subsequently, an interactive and comprehensive online tool (www.StatinCalc.com) was created to allow physicians to efficiently determine the appropriate statin eligibility group indication (i.e. clinical ASCVD), monitor for LDL-C reduction, and assess for adjunct therapies (i.e. ezetimibe). A link to a 10-year ASCVD risk calculator was integrated into the online tool. A table format of StatinCalc was also available.

Results: Of the 464 patients who met statin indication, 21.8% patients were not prescribed an appropriate intensity of statin. A multivariate analysis found significant disparities in appropriate prescription patterns in younger black patients who solely met statin eligibility via the 10-year calculated ASCVD risk score. With StatinCalc’s launch, the use of the tool indicated interest in improving cholesterol guidelines adherence. Between December 6th 2019 and December 5th 2020, StatinCalc had over 2700 pages viewed, with an average of 7.67 pages viewed daily. On an average month, StatinCalc is being utilized for about 60 patient encounters.

Conclusion: We successfully created StatinCalc as a tool to improve cholesterol guideline adherence and prescription patterns in our practice. Data collection is ongoing to assess for increased guideline adherence and patient outcomes.