



Advancing High Performance Health

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AMGA Foundation

**Together 2 Goal[®]
Innovator Track
Cardiovascular
Disease Cohort
Case Study**



Mercy Clinic East Communities

Organizational Profile

Named one of the top five large U.S. health systems each year from 2016 to 2019 by IBM Watson Health, Mercy (mercy.net) serves millions of people annually. More than 45,000 employees power its more than 40 hospitals and 900 physician practices and outpatient facilities across several states.

Mercy Clinic East Communities (Mercy East), a subset of the larger Mercy health system, is an integrated physician group composed of hospitals and clinics located in eastern Missouri. As of January 2019, Mercy East had eight acute care and specialty hospitals, 340 physician practices, and 112 clinic locations powered by more than 21,500 employees, including more than 1,000 integrated physicians. During the 2018 fiscal year, Mercy East totaled more than 4.1 million outpatient and office visits.

Executive Summary

According to the *2017 National Diabetes Statistics Report* from the Centers for Disease Control and Prevention (CDC), an estimated 30.3 million Americans had diabetes. Approximately 5% had type 1 diabetes and the remaining 95% had Type 2 diabetes (diabetes). Over the last 20 years, the number of adults with diabetes has more than tripled, and the total direct and indirect estimated cost of diagnosed diabetes in the United States in 2012 was \$245 billion.¹

Due to factors such as high blood sugar, high blood pressure, and obesity, cardiovascular disease (CVD) is the leading cause of death for people with diabetes. The American Heart Association (AHA) considers diabetes to be one of the seven major controllable risk factors for CVD. However, statistics indicate that people with diabetes are two to four times more likely to die from heart disease than people without diabetes. At least 68% of people age 65 or older with diabetes die from some form of heart disease; and 16% die of stroke.²

Mercy East elected to participate in the Together 2 Goal® (T2G) Innovator Track Cardiovascular Disease Cohort (CVD Cohort) to explore innovative interventions and success metrics to better identify and manage cardiovascular risk among their more than 25,000 patients with Type 2 diabetes. A team consisting of Mercy East primary care, quality department, and pharmacy

personnel was commissioned to lead the initiative. During the 12-month collaborative, which launched in spring 2018, Mercy East worked alongside an advisory committee of clinical experts within AMGA to develop and implement interventions and metric measurements. Participating organizations also shared insights and best practices.

The six CVD Cohort measures focused on non-tobacco use, daily aspirin or anti-platelet agent use, and lipid management for secondary prevention. Mercy East achieved overall improvement on all six measures.

Program Goals and Measures of Success

The primary goal of the CVD Cohort was to improve cardiovascular management in patients with Type 2 diabetes. Measures of success (see Appendix) were set forth by the AMGA Foundation based on industry-standard measures including: NCQA-HEDIS; United States Preventive Services Task Force; 2013 American College of Cardiology/American Heart Association (ACC/AHA) Prevention Guidelines; and 2018 American Diabetes Association (ADA) Standards of Care.

Existing Diabetes Population and Care Structure

Diabetes is a chronic illness that requires continuing medical care and patient self-management education to prevent acute complications and to reduce the risk of long-term complications.

At the outset of the CVD Cohort, Mercy East identified 25,734 diabetes patients who met the criteria for being included in the CVD Cohort (see Appendix for specifications), representing 9.5% of the population. These patients predominantly receive diabetes care at primary care, endocrinology, and diabetes and nutrition clinics.

Epic is the electronic medical record (EMR) used throughout Mercy, and Optum® One is the tool used for performance reporting.

Interventions

During the CVD Cohort, Mercy East placed an emphasis on empowering patients, improving care delivery, and leveraging information technology to better identify and manage CVD among patients with Type 2 diabetes. Population-based interventions implemented during the 12-month initiative included:

- Non-tobacco use
 - Implementation of medical assistant (MA) standard work to assess and document smoking status each visit and queue up the provider smoking cessation smartphrase as applicable
 - Co-worker and community activities promoting the 2018 Great American Smokeout
 - Tobacco cessation video emailed to patients who use tobacco (n=7,807 patients; November 2018)
- Daily aspirin or antiplatelet agents
 - Implementation of MA standard work to reconcile current medications, including over-the-counter medications, in the EMR at each visit
 - Primary care diabetes panel reviews were performed by a clinical pharmacist evaluating aspirin use (n=2,280 patients; October and December 2018)
 - Aspirin messaging was sent to high-risk patients via the patient portal. It included information about recently published 2019 ACC/AHA Guidelines on the Primary Prevention of CVD and encouraged patients to discuss aspirin use with their provider (n=1,585 patients; April 2019)
- Secondary prevention lipid management
 - Clinical pharmacist telephone outreach to Medicare Advantage patients not meeting statin measures (n=120 patients; December 2018)
 - Primary care diabetes panel reviews were performed by a clinical pharmacist evaluating statin use (n=2 physicians, 2,280 patients; October and December 2018)
 - Text messaging was sent to patients who were deemed non-adherent to statin medications based on payer-provided pharmacy claims (n=246 patients; November 2018)

- “Tips for Sticking with Statins” education was distributed to providers (see Appendix)
- Clinical decision prompts were added to the EMR that notified providers of a statin gap for patients with diabetes or atherosclerotic CVD (ASCVD)

Outcomes and Results

Performance data was reported on a quarterly basis during the 12-month duration. Mercy East experienced improvement in all CVD Cohort metrics (see Appendix).

Lessons Learned and Ongoing Activities

Mercy has a long history of willingness to develop and sustain ongoing best-practice, evidence-based programs, and an infrastructure that supports continuous quality improvement and innovation in healthcare delivery.

One of the challenges encountered during the CVD Cohort dealt with incorporating new functionality into the EMR. Leveraging technology is key to improving health care; however, in a large health system like Mercy, it can take a long time to get approval and implement new EMR builds (business case, development, testing, implementation). Mercy East is currently working toward approval and purchase of Epic predictive analytic sublicensing. Using predictive analytics in health care likely makes sense because it can greatly facilitate shared decision making and early interventions.

Poor medication adherence is a common and well-described challenge. Mercy East will continue to investigate and operationalize ways to optimize medication adherence.

Recent retrospective analyses have suggested that use of any sodium-glucose cotransporter-2 (SGLT-2) inhibitor may reduce the risk of cardiovascular events and hospitalization for heart failure. In one meta-analysis that included 236 trials, SGLT-2 inhibitors and glucagon-like peptide-1 (GLP-1) receptor agonists were both associated with lower cardiovascular and all-cause mortality in patients with Type 2 diabetes.³ Mercy East would like to strategize the cost challenges with these medications and promote

their use among primary care providers, cardiologists, and endocrinologists.

Going forward, Mercy East plans to use the information gathered from the CVD Cohort as a model in identifying and managing cardiovascular risk among patients with Type 2 diabetes. They will likely track all measures except antiplatelet therapy for primary prevention.

References

1. Centers for Disease Control and Prevention. National Diabetes Statistics Report, 2017. <https://www.cdc.gov/diabetes/pdfs/data/statistics/national-diabetes-statistics-report.pdf>. Accessed October 10, 2019.
2. Cardiovascular Disease and Diabetes. American Heart Association website. heart.org/en/health-topics/diabetes/why-diabetes-matters/cardiovascular-disease--diabetes. Updated August 30, 2015. Accessed October 10, 2019.
3. *JAMA*. 2019. Cardiovascular Benefits of SGLT-2 Inhibitors and GLP-1 Receptor Agonists in Type 2 Diabetes. May 07, 2019. Retrieved from jamanetwork.com/journals/jama/fullarticle/2732568.

Measures of Success for Cohort

Measure		Measure Description
1	Non-tobacco user	Proportion of T2G patients whose most recent tobacco status is determined to be “tobacco-free”.
2a	Daily aspirin or antiplatelet in patients age ≥ 50, secondary prevention	Proportion of T2G patients eligible for secondary prevention with documentation of daily aspirin or another antiplatelet, or documented exception or contraindication during the measurement period.
2b	Daily aspirin or antiplatelet in patients age ≥ 50, primary prevention	Proportion of T2G patients eligible for primary prevention with documentation of daily aspirin or another antiplatelet, or documented exception or contraindication during the measurement period.
3a	Any statin, secondary prevention	Proportion of T2G patients eligible for secondary prevention on a statin during the measurement period.
3b	High-intensity statin, secondary prevention	Proportion of T2G patients eligible for secondary prevention on a high-intensity statin during the measurement period.
3c	LDL cholesterol < 70 mg/dL, secondary prevention	Proportion of T2G patients eligible for secondary prevention with a measured LDL < 70mg/dL.

Together 2 Goal® Cohort Specifications

To standardize measurement across groups during the CVD Cohort, the patient population eligible for inclusion in the collaborative was defined as:

- Patients age 18-75 with two or more face-to-face encounters
 - During the 12-month measurement period plus the prior six months (18 months total)
 - With a primary care provider, endocrinologist, cardiologist, or nephrologist
 - In an ambulatory setting (e.g., office visits, urgent care, and “retail” clinics)
- Diagnosis of Type 2 diabetes on a claim for a face-to-face visit in an ambulatory setting or the patient’s problem list
- Exclusions:
 - Diagnosis for pregnancy on a claim or problem list in the past 18 months
 - Patient died before the end of the measurement period



Tips for Sticking with Statins

Many patients who have mild-moderate statin-associated muscle symptoms (excluding those with true rhabdomyolysis, myonecrosis, or myoglobinuria) can be safely and successfully re-challenged with statins as long as they are carefully monitored. A retrospective analysis of over 1,000 patients from the Cleveland Clinic documented that more than 2 of 3 patients felt to be statin-intolerant due to muscle, gastroenterological, and non-specific symptoms could ultimately tolerate some form of statin therapy*. Some practical interventions include the following:

- 1. IDENTIFY DRUG INTERACTIONS:** Review the patient’s medication regimen to exclude drug interactions and revise treatment as needed to resolve any identified interactions. Statins with fewer drug interactions include: pravastatin, fluvastatin, and pitavastatin.

Drug Class/ Group	Common Medications	Statins Affected
CYP 3A4 Inhibitors	Cyclosporine, Macrolides, Azole Antifungals, Amiodarone, Protease Inhibitors, Diltiazem, Verapamil, Grapefruit Juice	Lovastatin, Simvastatin, Atorvastatin (less)
Independent Risk for Myopathy	Fibrates, Glucocorticoids, Cyclosporine, Daptomycin, Zidovudine	All

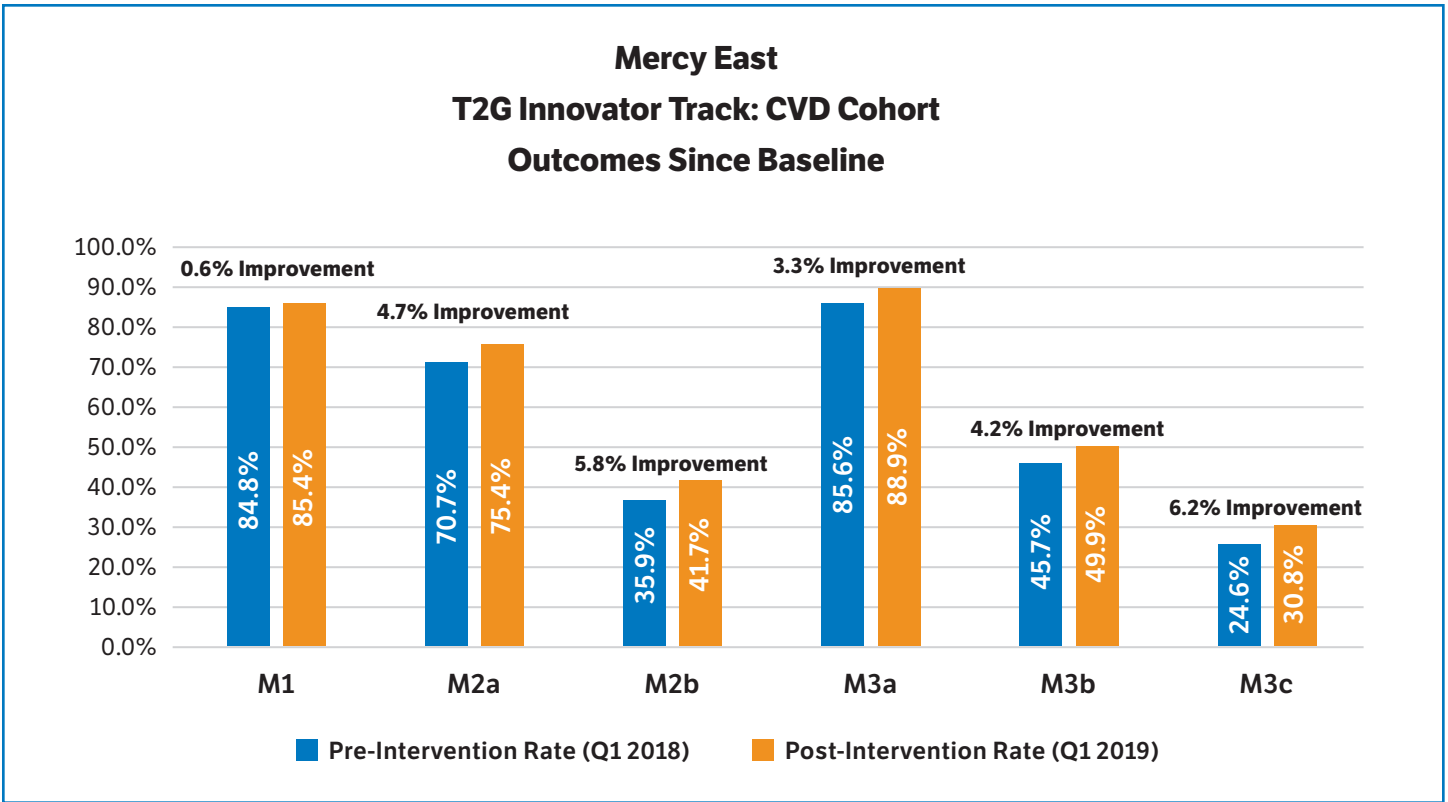
- 2. CORRECT DEFICIENCIES:** Evaluate the patient for unrecognized hypothyroidism or Vitamin D deficiency and correct if present.
- 3. STATIN HOLIDAY:** Give patient a 2-3 week statin holiday to see if symptoms improve and CK levels returns to normal (if initially elevated).
- 4. HALF-DOSE:** If patient’s symptoms do improve after drug holiday, then consider resuming the same statin at ½ the original dose with careful monitoring.
- 5. HYDROPHILIC OPTIONS:** If symptoms recur after dose reduction, then give a second drug holiday followed by a trial of a more hydrophilic statin such as pravastatin or rosuvastatin followed by careful monitoring.
- 6. PULSE-DOSE:** If symptoms again recur, then consider “intermittent or pulse dose” statin, e.g., administering simvastatin, atorvastatin, or rosuvastatin on a frequency of one to six times a week.

**Does your patient have DIABETES or ASCVD?
START A STATIN!!
We’re COUNTING on you!**

ACC/AHA guidelines recommend adding a statin to lifestyle therapy for patients with diabetes who are 40-75 years old, **regardless of their baseline lipid levels**. Use of statins in patients with diabetes and/or ASCVD, and adherence to statin therapy are all key quality measures for programs like HEDIS and Medicare STARS measures. **Performance on these measures affects our overall quality scores and can impact our reimbursement rates.**

- Talk to your patients between 40-75 years old with diabetes who are not on statin therapy. **Start a statin** unless the patient has clear contraindications. Muscle pain alone is not necessarily a contraindication (see above)
- If your patient is already on a statin, **make sure they take it consistently**
- To help keep track of prescription claims for STARS measures and to monitor adherence, please encourage the patient to **use their prescription insurance** to fill medications. Usually patients will pay the same or less with their insurance plan compared to paying the cash price
- In general, generic medications cost less than brand name. A **90-day supply of a generic statin** may reduce costs to the member and encourage adherence

*Reference: Mampuya WM, Frid D, Rocco M, et al. Treatment strategies in patients with statin intolerance: The Cleveland Clinic experience. Am Heart J 2013;166:597-603.



M1: Non-tobacco user

M2a: Daily aspirin or antiplatelet in patients age ≥ 50 years, secondary prevention

M2b: Daily aspirin or antiplatelet in patients age ≥ 50 years, primary prevention

M3a: Any statin, secondary prevention

M3b: High-intensity statin, secondary prevention

M3c: LDL < 70 mg/dL, secondary prevention

Project Team

Clinical Team Member

Terry Seaton, Pharm.D., FCCP, BCPS

Lifestyles Team Member

Rosalie Hentrich, RN, B.S.N.

Care Manager

Data/IT Team Member

Christopher Keppler

Senior EMR Analyst

Finance/Operations Team Member

Laura Tuschhoff, RN, B.S.N.

Clinical Outcomes Manager

Mary Laubinger, RN, M.S.N.

Executive Director of Quality

Jeanette Holtmeyer, RN, M.S.N.

Director of Quality

Carolyn Koenig, M.D.

Medical Director

Denise Janosik, M.D.

Cardiologist



AMGA Foundation

One Prince Street
Alexandria, VA 22314-3318

amga.org/foundation

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