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Implementing the Hyperlipidemia Statin Use Guideline in Patients With Diabetes Mellitus

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IMPLEMENTING THE HYPERLIPIDEMIA STATIN USE GUIDELINE IN PATIENTS WITH DIABETES MELLITUS

by

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Ifeyinwa Peggy Eribenne

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Abstract

Purpose. To implement an evidence-based hyperlipidemia guideline for statin therapy use with diabetic patients. **Background.** In the United States, cardiovascular disease (CVD) continues to be the leading cause of mortality and morbidity for women and men with diabetes. Dyslipidemia is a modifiable risk factor for CVD and one of the leading drivers behind the development of coronary artery disease. In 2014, the American Diabetes Association issued a new recommendation guideline for using statins as a primary intervention for CVD in patients aged 40–75 with diabetes. Despite advances in prevention and treatment guidelines, the American College of Cardiology and ADA have identified a substantial gap in hyperlipidemia guideline implementation across clinical settings. **Methods.** Patients with diabetes were identified and assigned a statin dose based on their risk factors for atherosclerotic CVD. Patients with a history of clinical atherosclerotic CVD were initiated on a high-dose statin therapy, whereas those with no history of CVD were initiated on a moderate-dose statin therapy. Follow-up was conducted at 6 weeks. **Outcomes**. Out of 122 diabetic patients, 61 (46.5%) were newly started on a statin, 33 (27%) had their statin corrected to the proper dose, 28 (23%) were on the proper statin dose already, and 8 (3.5%) were ineligible for a statin. All patients (100%) taking a statin tolerated their dose and experienced no adverse effects. **Implications for Practice.** Bridging the gap between research and practice can be successful with careful implementation of a system that can be followed to improve outcomes.

Keywords: diabetes, cardiovascular disease, statin therapy.

Diabetes mellitus (hereafter referred to as *diabetes*) is a chronic health condition that occurs when the body produces little to no insulin. Diabetes develops from a combination of genetic and environmental factors (Martín-Timón, Sevillano-Collantes, Segura-Galindo, & Del Cañizo-Gómez, 2014). An estimated 366 million people worldwide were reported to have diabetes in 2011, although half were undiagnosed; the total figure is expected to rise to 552 million by 2030 (Martín-Timón et al., 2014). Approximately 25.8 million people in the United States are living with diabetes (Thapa et al., 2015). As the prevalence of the disease increases, so will the proportion of older adults (i.e., ≥ 65 years) with the condition (Thapa et al., 2015). Diabetes is a well-established risk factor for cardiovascular disease (CVD). Compared with individuals without diabetes, patients with Type 2 diabetes are twice as likely to suffer from cardiovascular morbidity and mortality and are disproportionately affected by CVD. The Centers for Disease Control and Prevention (2017) reported that CVD is the leading cause of death for men and women with diabetes.

In 2013, the American College of Cardiology (ACC) and American Heart Association jointly issued a new recommendation for treatment using 3-hydroxy-3-methylglutaryl-coenzyme, a reductase inhibitor otherwise known as a *statin*, as primary prevention of atherosclerotic CVD for people with diabetes between 40 and 75 years old. The 2017 American Diabetes Association (ADA) guidelines for statin therapy are as follows (see Appendix A for details): 1) individuals age 40 and younger: no statin recommendation; 2) patients aged 40–75 with diabetes and no risk factors for atherosclerotic CVD: moderate statin therapy in addition to lifestyle modifications; 3) patients aged 40–75 with diabetes and risk factors for atherosclerotic CVD: moderate or high-intensity statin therapy in addition to lifestyle modifications (ADA, 2017). Lifestyle modifications include weight management; reducing consumption of saturated fat, trans fats, and

cholesterol; increasing dietary intake of omega-3 fatty acids and viscous fiber; and increased activity. These lifestyle changes can help improve lipid profiles in diabetic patients.

Apart from lifestyle changes, statins have been identified as the most effective first-line drugs for lowering cholesterol and reducing cardiovascular risk (Page, Sanfilippo, Geelhoed, Briffa, & Hobbs, 2012). The Food and Drug Administration has approved several types of statins, each of which works differently to lower cholesterol by blocking the liver's production of HMG CoA enzyme used in making cholesterol. Commonly prescribed statins include Lovastatin (Mevacor), Atorvastatin (Lipitor), Simvastatin (Zocor), Pravastatin (Livalo), Fluvastatin (Lescol), and Rosuvastatin (Crestor); see Appendix B for dosage information.

Statement of the Problem

Several clinical studies have demonstrated the benefits of statin therapy in the primary and secondary prevention of atherosclerotic CVD and even death in diabetic patients. The ADA (2017) conducted a meta-analysis of data from 18,000 patients with diabetes based on 14 randomized trials of statin therapy. Results showed that the all-cause mortality rate declined by 9% and the vascular mortality rate declined by 13% when LDL cholesterol was reduced by 39mg/dL. According to Kiramijyan et al. (2013), the most common cause of death in diabetic patients is coronary artery disease; approximately 70% of diabetic patients die of CVD and are twice as likely to suffer from related conditions including myocardial infarction, angina pectoris, stroke, and cardiac death compared to the general population. Of individuals living with diabetes in the U.S., 735,000 have had a heart attack (525,000 first-time episodes and 210,000 recurrent) (CDC, 2017). Modifiable risk factors for CVD include hypertension, dyslipidemia, and obesity; non-modifiable risk factors include diabetes, age, ethnicity, and family history of heart disease.

Background and Significance

Research has led to the adaptation and implementation of recommended hyperlipidemia guidelines in the use of statin therapy in diabetic patients. Studies have shown that statin therapy substantially reduces the risk of a future cardiovascular event in patients with Type 2 diabetes regardless of their history of heart disease. The initiation of statin therapy is primarily based on risk factors rather than cholesterol levels. Page et al. (2012) reported that approximately 5,355 major cardiovascular events, including 1,456 fatal events, could have been prevented in diabetes patients aged 60–79 if statin therapy had been initiated. Thapa et al. (2015) noted significant improvements in lipid management and fewer cardiovascular events in diabetic patients given statin therapy. Thapa et al. (2015) also found that healthcare providers tended to underutilize guidelines regarding the use of statin therapy to all diabetic patients irrespective of CVD diagnosis; specifically, healthcare providers were more likely to provide statin therapy to diabetes patients with CVD than to those without.

Pokharel et al. (2016) reported that some healthcare providers manage diabetic patients and CVD differently from those without CVD even though both groups have the same risk factors. Hence, a gap remains between current recommendation guidelines in statin use and their implementation in clinical practice. National efforts to adopt guidelines for the use of statin therapy in all diabetic patients must therefore be intensified. Pokharel et al. (2016) urged healthcare providers and patients to discuss prevention strategies related to heart attack, stroke, and other risk factors at every opportunity. Eliminating barriers, such as inadequate medical records, and creating decision support tools (e.g., alerts and reminders, clinical guidelines, and focused patient data report dashboards) may help improve recommended guidelines on statin use

to enhance risk reduction along with clinical performance and patient outcomes (Pokharel et al., 2016).

Assessment

The site for this research project was a small, independently owned family practice clinic in Kingwood, TX. Dr. A. J. is a primary care/family medicine doctor and owns the clinic with her spouse, a nephrologist. Dr. A. J. completed her medical education in India and has been practicing for 32 years. The clinic accepts patients from ages 16 to 65 and older. The youngest patient at the clinic is 16, and the oldest is 93. Major patient categories are presented in Table 1; patient ethnicities are listed in Table 2. With regard to education level, patients hold a high school diploma on average. Some Hispanic patients speak little to no English.

The clinic is approximately 2,000 square feet and includes a waiting room, three triage rooms, two physician offices, one staff lounge/break room, a secretarial space, and a small staff workstation. The clinic accepts all types of insurance as well as uninsured and self-pay patients. Approximately 10 to 25 patients are seen in the clinic per day (10–15 current patients and 5–10 new). The clinic sees 30 to 50 current patients per week (100–150/month) and 20 to 25 new patients (30–50/month) within the same time frame. The clinic provides primary care, preventive services, and acute illness and chronic disease management. The clinic staff includes a physician, a secretary, and a medical assistant who also acts as the office manager. Dr. J.A.'s husband, a nephrologist, co-owns the practice and has scheduled appointments throughout the week during which he sees patients with acute or chronic kidney diseases. Patients are required to schedule an appointment before coming to see a physician. The clinic staff also requires that appointments be made to discuss abnormal lab or diagnostic results and for follow-up visits. The secretary is the only bilingual staff member and serves as an interpreter for the clinic's non-English-speaking Hispanic population.

Table 1

Clinic Population in 2017

Patient status	# of patients (N = 6,625)	Percent (%)
Established	4,100	62
New	2,525	38
Diabetics	1,720	26
Diabetics with h/o CVD and/or HLD	1,235	19

Table 2

Ethnicities of Clinic Patients

Ethnicity	# of patients (%)
Non-Hispanic whites	40
African American	20
Hispanic/Latino	30
Other	10

Organization's Readiness for Change

The clinic provides high-quality care to its patient population as reported in patient satisfaction surveys (average score of 4.4 out of 5). Patients were reportedly satisfied with Dr. A. J.'s care. They generally felt their diagnoses and medications were properly managed and

reported positive post-treatment health outcomes. However, recent guidelines regarding the recommendation of statin therapy to all diabetic patients with or without a history of atherosclerotic CVD is not being implemented at the clinic. According to the ACC (2016), two out of five individuals with diabetes could benefit from statin therapy in lowering their risk for a cardiovascular event, as patients with Type 2 diabetes are at high risk for atherosclerotic CVD and stroke (ADA, 2017). These patients are also considered to be at equal risk of a future cardiovascular event as individuals with a history of CVD (Thapa et al., 2015). Therefore, it is important to control CVD risk factors such as elevated cholesterol levels.

Routine screening for atherosclerotic CVD risk and providing patient education around prevention are similarly important (ADA, 2017). Effective counseling and medication-based education can help patients understand their increased risks of atherosclerotic CVD and high LDL cholesterol levels. Such measures may help to improve patient outcomes at the clinic. Optimal care of patients with Type 2 diabetes depends on providers and the quality of care they offer patients, especially regarding prevention of future cardiovascular events and, by extension, high morbidity and mortality (ADA, 2017). As noted, the ADA guideline around the recommended use of statin therapy was not being implemented with all diabetic patients (especially those with no history of CVD) at Dr. A. J.'s practice. The clinic also had no electronic medical record alert system through which to provide guideline reminders. Upon meeting with Dr. A. J. and discussing the ADA's recommended clinical guideline, the clinic appeared ready to adopt a change in practice.

Project Identification

Purpose

The purpose of this project is to initiate an evidence-based quality improvement project concerning the implementation of an ADA hyperlipidemia treatment guideline for the use of statin therapy on diabetic patients.

Objectives

1. To implement the APA's hyperlipidemia clinical guideline.
2. To educate the physician and clinic staff of the guideline and scope of the DNP project.
3. By April 2018, 100% of identified diabetic patients in Dr. A. J.'s clinic will be educated about and given appropriate supplementary material on the benefits of statin therapy.
4. By April 2018, at least 90% of diabetic patients in Dr. A. J.'s clinic will begin statin therapy and adhere to the treatment guideline.

Anticipated Outcomes

1. 100% of the physician and clinic staff will be educated on the hyperlipidemia guideline
2. 100% of the clinic's diabetic patients will be educated on the guideline.
3. 90% of patients will begin statin therapy and be monitored appropriately.

Summary and Strength of the Evidence

According to the U.S. Preventive Service Task Force (2016), coronary artery disease is responsible for about one-fifth of deaths in adults aged 45–65 and one-fourth of deaths in adults aged 65 and older. The benefits of statin use in reducing CVD-related morbidity and mortality have been demonstrated in several studies (USPSTF, 2016). A study of 19 randomized trials totaling 71,344 participants evaluated the effects of statin use in adults with diabetes with no history of CVD events; results showed statin use to be statistically associated with a reduced incidence of CVD, myocardial infarction, and stroke (USPSTF, 2016). A primary prevention

trial on statin use, JUPITER, found that statin allocation was associated with a 39% reduction in major CVD events such as heart attack or ischemia, a 36% reduction in venous thromboembolism, a 17% reduction in total mortality, and avoidance of 134 vascular events or deaths (Ridker, Pradhan, MacFadyen, Libby, & Glynn, 2012). The JUPITER primary prevention trial concluded that the benefits of statin therapy exceeded the risks associated with diabetes and CVD (Ridker et al., 2012).

Method

Project Intervention

The setting of the project was Dr. A. J.'s family care clinic, a small, independently owned family practice located in southeastern TX. A statin therapy guideline was implemented in all diabetic patients between 40 and 75 years old. Data collected from patients' electronic medical records (EMRs) included demographic information such as age, gender, ethnicity, insurance type, education level, current medications, and medical history and laboratory test results (see Appendix B). The physician and clinic staff were instructed on the evidence-based hyperlipidemia clinical guideline on statin use before implementing it. They were also educated on the algorithm (Appendix D) that explained the steps and assigned roles of each staff. The algorithm was posted by each computer in the nurses' station for reference. Educational brochures were created to help familiarize the patient population with the benefits of using statin therapy and its relationship with cardiovascular risk factors. The clinic's secretary, who is also a medical assistant, served as a Spanish interpreter to educate non-English-speaking diabetic patients and their caregivers.

When patients called for an appointment, the secretary verified whether they were diabetic; if so, these patients' appointment times were coded in blue, and their EMRs were flagged once statin therapy was initiated to ensure appropriate evaluation of their treatment plan.

On the day of patients' appointments, during the triage process, the medical assistant verified their medication to determine whether patients were on a statin therapy and documented each patient's response under the Assessment tab in his/her EMR. Patients with diabetes were also given a brochure educating them on the benefits of statin therapy. The physician assessed patients by reviewing their lab tests at baseline to verify whether they were eligible to receive a statin, ensure they were assigned the correct dose, and began statin therapy with an emphasis on adhering to the treatment guideline. Each patient's liver function test was reviewed at baseline and monitored during a 4-week follow-up plan. The statin was dosed based on the patient's atherosclerotic CVD risk. Patients with a history of clinical atherosclerotic CVD were initiated on a high-dose statin therapy, whereas those with no history of CVD were initiated on a moderate-dose statin therapy. Dr. A. J. conducted follow-up appointments at 4 weeks.

Organizational Barriers

Hispanics comprised approximately 50% of the clinic's diabetic patient population. African Americans constituted about 40%, and the remaining 10% was a mix of other races. Most Hispanic patients spoke little to no English and were often accompanied by a family member to translate. Although the clinic's medical assistant interpreted for Spanish-speaking clientele, this could be viewed as a barrier because her primary role was overseeing the front office. She therefore managed various tasks, such as answering phone calls, scheduling appointments, verifying insurance, sending appointment reminders, and checking patients in and out. Being called into a triage room to interpret for a patient could be disruptive when other tasks required equal attention. The clinic is actively looking to hire an additional bilingual staff member to assist its Spanish-speaking population. The clinic's insufficient staff posed another barrier; considering that the two staff members (i.e., medical assistant and secretary) were

overburdened with responsibilities, continued implementation of this clinical guideline could eventually be overlooked.

Staff time may also present a barrier to ongoing implementation of this project. Although the clinical practice is small, time constraints due to understaffing could lead to tasks remaining unfinished, such as following up on appointments, referrals, and laboratory/diagnostic results. Staff rarely clock out on time, often staying 30 minutes to an hour after their shift to complete outstanding work. Another potential barrier is the average education level of the patient population (i.e., high school) and corresponding eighth grade comprehension in many cases. In addition, no written or verbal medication education was being given to patients, yet medication information and counseling are essential parts of patient care and should be provided during patient–provider interaction at each visit office visit (Yi et al., 2015). To promote effective medication compliance, providers must tailor education to each patients' needs, level of understanding, and preferred format (e.g., verbal, written, or both) (Yi et al., 2015).

The use of unskilled staff may further explain why continued patient compliance to medication regimens could pose an organizational barrier. The clinic is staffed with two medical assistants with a high school education; educating patients about medications is beyond their scope of practice, as is monitoring patients' lab values and medication adherence. According to Barra (2011), a medical assistant lacks the educational and clinical background that a nurse possesses from years of education and continuous practice; thus, medical assistants are generally unprepared to adequately interpret lab results and educate patients about their medications. Barra (2011) emphasized that patient safety and well-being can be at risk when there is a lack of competent, licensed staff to render high-quality patient services.

A lack of contact time between provider and patients was another barrier to effective continuation of this project. Dr. A. J.'s family care practice is a prime example of a fast-paced healthcare system; it is a small, busy clinic with only one provider, and effective patient monitoring can be easily overlooked when trying to move through patients quickly. According to Yi et al., (2015), brief contact between healthcare providers and patient is a barrier to effective medication adherence. Continued compliance with statin therapy could therefore prove challenging, as patients required substantial reinforcement during each office visit to ensure ongoing adherence to the statin regimen.

Facilitators

The physician and staff voiced their willingness to assist with and support the implementation of the ADA's hyperlipidemia clinical guideline. The student (i.e., project researcher) was equally hopeful about the project. A hyperlipidemia guideline is urgently needed and should prove beneficial to all patients with diabetes. The clinic's EHR system also allowed patients' records to be color-coded and flagged for simple patient identification, which facilitated follow-up for the duration of the project.

Ethical Implications

No ethical concerns were anticipated regarding the implementation of the hyperlipidemia guideline.

Results

A total of 149 diabetic patients visited Dr. A. J.'s clinic from January 21, 2018 to April 6, 2018; see Table 3 for patient characteristics and corresponding data. Appendix C outlines the patient data collected each week. The DNP student reviewed each patient's EMR weekly to ensure the hyperlipidemia guideline was followed. Patients' pre-intervention satisfaction scores

revealed that 80% of patients believed that their diagnoses and medications were not being well managed at the clinic. In addition, they did not feel that their health outcomes had improved. The remaining 20% felt that their diagnoses and medications were properly managed by the physician. Patient satisfaction scores after guideline implementation demonstrated a substantial increase; see Table 4. Patients also reported positive health outcomes. Clinic staff now routinely conducts follow-up assessments.

Table 3

Patient Data Analysis

Patient characteristics	Total (N = 149)	Percentage (%)
Already on statin	61	41
Not on statin	88	50
Ineligible for statin (contraindicated)	8	5
Eligible for statin	80	54
Proper statin dose	28	19
Improper statin dose	33	22
Developed side effects	0	0
Nutritional consult provided	88	50
Brochure provided	113	76

Table 4

Patient Satisfaction Scores

	Pre (%)	Post (%)
Not satisfied	80	5
Satisfied	20	95

Discussion

The purpose of this project was to implement the ADA's hyperlipidemia clinical guideline on initiating statin therapy to diabetic patients regardless of their lipid level, with or without a history of CVD. Diabetes is a risk factor for CVD, which places diabetics at risk of cardiovascular events. Despite the benefits of statin therapy, studies have indicated that recommended treatment guidelines are often not upheld in clinical practice. Busko (2016) conducted a comparative study to examine statin regimens among 215,193 diabetic patients between 40 and 75 years old. She discovered that only 62% of diabetic patients were prescribed a statin or being monitored by a cardiologist for CVD-related issues when they received a statin prescription. Busko (2016) further noted that statin prescription varied widely among practices; two out of five diabetic patients without CVD were not prescribed a statin. Healthcare providers who manage diabetic patients should ensure these patients are receiving preventive therapies, of which statins are one of the most important (Busko, 2016).

One noteworthy change over the course of this project was an increase in patient satisfaction scores. Patients reported that the care they received was of high quality, safe, and effective. They felt much more satisfied with their care and believed that the clinic genuinely cared about their health and well-being. A major contributing factor to the success of this project was the clinic staff's willingness to implement the recommended guideline. They worked

effectively to ensure that each of their assigned project roles was fulfilled despite managing an already overwhelming workload. Staff initially struggled to complete their assigned roles, but the additional duties eventually became a part of their daily routine. Another point of success in this project was the lack of patient refusal; every patient participated and complied with guideline implementation. Educational brochures, careful explanation of the guideline, and patient education on the benefits of statin use aided in their compliance. The clinic's EMR system also facilitated project completion. The clinic's staff was able to easily implement the statin initiation and monitoring process because they could readily identify the diabetic population via the EMR system.

Limitations

A limitation encountered during this project was some patients' failure to attend their follow-up appointments. A 4-week follow up appointment was scheduled for each patient to monitor and evaluate liver function lab results; however, approximately 35% of patients did not keep their appointments. The clinic staff thus had to spend time placing appointment reminder calls and rescheduling missed appointments.

Recommendations

Knowledge deficits were prevalent in patients not on statin therapy at the start of this project. Approximately 90% of diabetic patients assessed at the clinic stated they had no knowledge of the guideline. As a recommendation, healthcare providers should strive to coordinate an ongoing diabetes self-management education class for all diabetic patients. Such education would help to enhance patients' awareness and skills related to optimal self-care. Patients could also incorporate their personal needs and life experiences to make informed decisions as they face new challenges while managing diabetes. The hyperlipidemia guideline

also recommends lifestyle modifications as a complement to statin therapy. At the clinic, half of diabetic patients received a nutritional consult; in the future, all patients should be provided individualized medical nutritional therapy with a dietician. Nutrition-specific instructions will enable diabetic patients to maintain good glycemic control, lipid control, and evaluate how well they respond to therapy.

Implications for Practice

Management of diabetic patients can be complex and involves several components (Richardson, Derouin, Vorderstrasse, Hipkens, & Thompson, 2014). The prevalence of diabetes is expected to triple by 2050, and many regions may see a sharp increase in diabetic patients as a result (Richardson et al., 2014). Many healthcare organizations are under pressure to apply innovative interventions and identify cost-effective approaches to treat this population (Richardson et al., 2014). Healthcare organizations have begun to integrate nurse practitioners (NPs) as internists to assist in improving clinical outcomes for diabetic patients, namely through NPs' willingness to initiate, change, and adjust medications and offer patients alternate modes of treatment (Richardson et al., 2014). Especially in primary care settings, NPs have been shown to increase quality of care while reducing healthcare costs and improving health outcomes. In addition, NPs can use evidence-based clinical metrics to make immediate changes to patients' treatment regimens when patients are not improving as anticipated (Richardson et al., 2014).

The Doctor of Nursing Practice (DNP) Essential II, "Scientific Underpinnings for Practice," calls for organizational and systems leadership for quality improvement (American Association of Colleges of Nursing, 2006). DNPs contribute to nursing science by evaluating, translating, and disseminating research into practice (American Association of Colleges of Nursing, 2006). Key skills include the development of clinical practice guidelines, design of

evidence-based interventions, and evaluation of practice outcomes. Being able to lead and manage change within the healthcare environment is one of the most important roles of a DNP nurse (Stichler, 2011). DNP nurse leaders possess the skills and competencies to lead and guide staff members within healthcare organizations through the change process by using a thoughtful and deliberate approach to help ensure adoption and maintenance of change over time (Stichler, 2011).

This project followed the DNP essentials as described in Essential II by first undertaking a leadership role in identifying a patient safety issue at the clinic. A quality improvement plan was developed using an evidence-based clinical guideline to resolve the issue. Overall, the DNP student assumed a leadership role in ensuring appropriate implementation of the project. These contributions elicited positive change in the clinic's operations that should continue into the future.

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Appendix A

Table A1

Statin Therapy Indications and Intensity for Patients with Diabetes

Risk factor	Age	Statin intensity
History of atherosclerotic CVD	All age groups	High
CVD risk factor	40–75	Moderate or high
	75 and older	High
No risk factor	40 and younger	None
	40–75	Moderate
	75 and older	Moderate or high

Table A2

ADA Treatment Recommendations for Different Statins

Statin	Recommended daily dose (adult; mg)	Low intensity (mg)	Moderate intensity (mg)	High intensity (mg)
Atorvastatin	10–80	10–20	20–40	40–80
Rosuvastatin	5–40	5	10–20	20–40
Fluvastatin	20–80	20–40	40–80	
Lovastatin	Immediate release 10–80 Extended release 10–60			
Pravastatin	10–40	10–20	40–80	
Simvastatin	5–80	5–10	20–40	80

Appendix B

Table B1

Patient Demographic Data

Characteristics	Number of patients (N = 149)	Percentage (%) (N = 149)
Age		
40–55	61	41
56–65	38	26
66–75	50	33
Gender		
Female	64	43
Male	85	57
Ethnicity		
Caucasian	28	19
African American	52	35
Hispanic	48	32
Asian	21	14
Insurance		
Insured	104	70
Uninsured	45	30
Education		
Less than high school	26	17
High school	49	33
Some college	23	15
College graduate	37	25
Masters degree and over	14	9

Appendix C

Table C1

Weekly Assessment Data Spreadsheet

Week	Diabetic patients at clinic (*N* = 149)	On statin (*n* = 61)	Not on statin (*n* = 80)	On improper statin dose (*n* = 33)	On proper statin dose (*n* = 28)	Total placed on statin (*n* = 113)	Ineligible for statin (*n* = 8)
Wk. 1	13	4	9	2	2	11	0
Wk. 2	11	4	7	3	1	10	0
Wk. 3	15	7	8	4	2	11	1
Wk. 4	18	9	9	3	4	10	2
Wk. 5	12	5	7	4	1	11	0
Wk. 6	19	10	9	6	2	13	2
Wk. 7	16	4	12	2	2	14	0
Wk. 8	18	8	10	4	2	12	2
Wk. 9	11	4	7	1	3	8	0
Wk. 10	16	6	10	4	2	9	1

Appendix D

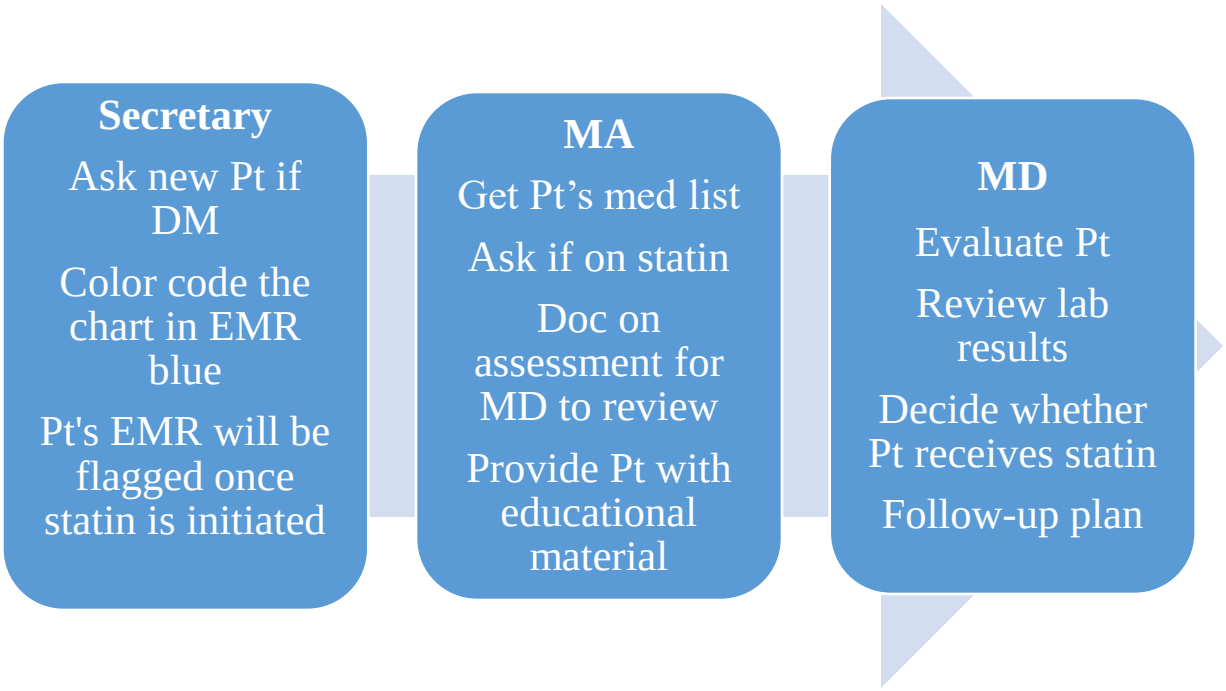

Figure 1. Algorithm.