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The Effectiveness of Implementing a Diabetic Checklist to Improve Patient Care Documentation
of Treatment and Outcomes

Doctor in Nursing Practice Project Executive Summary

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Introduction of the Problem

The failure to use current, evidence based standards for the management of diabetes and its complications can lead to cases of hyperglycemia or hypoglycemia. Lack of proper vigilance in treating diabetic patients can lead to diabetic complications such as vision loss, peripheral neuropathy, and chronic diseases such as renal failure, amputations and even death. In 2013, of diabetic patients who had Medicaid in Illinois, expenditures totaled \$244,700.00 (7.73%) (Illinois Department of Public Health, 2017). Hospitalization due to diabetes averages 4.4 days with a median cost of \$23,707. In addition, the general assembly report also stated that in 2012, medical expenses attributable to diabetes in Illinois totaled more than \$2.39 billion (Illinois Department of Public Health, 2017).

Literature Review

The PICOT question guiding this literature review was: In the management of diabetes, do concise and clear diabetes checklist lead to improved documentation and treatment compared to a lack of a diabetes checklist? The literature search methodology consisted of a review of the following databases: EBSCOhost, Cumulative Index to Nursing and Allied Health Literature Plus with Full Text (CINAHL), Medline – OVID, Medline, Cochrane Database of Systematic Reviews, PubMed, MedScape. Primary research articles from peer-reviewed journals published within the last 20 years were included in this review. Search keywords included “HbA1c,” “diabetes mellitus,” “diabetes checklist,” “blood sugar,” “diabetes education,” “type 1&2 diabetes mellitus,” “community resources,” “diabetes specialist,” “underserved population.

Multiple studies indicate that most residents in underserved areas are minorities, lack financial resources, lack higher educational levels, and lack self-awareness with respect to the management of diabetes. Reaching out and providing care to these individuals can reduce

complications and hospital admission rates. The most recent study on treatment guidelines set by the American Diabetes Association found evidence-based practices to be effective in the management of diabetes.

Project Method

Purpose and Goals

This project is aimed to promote the use of current evidence based standards of diabetes care by health care providers in a clinic setting. Through accurate documentation, the provider ascertains that the diabetic patient is compliant with treatment and following up with recommended specialties to prevent complications of uncontrolled blood sugar.

Setting and Group

Participants will be health care providers who work in a clinic setting where underserved adults between the ages of 18 and 90 years receive care for type 1 or type 2 diabetes mellitus. Patients who are diagnosed with polycystic ovaries or steroid induced diabetes, pregnant diabetic patients and patients who have gestational diabetes will be excluded from this project.

Tools and Measures

A pre-intervention chart audit was done to determine the care provided for focused diabetic patients and on the last time hemoglobin A1C was checked, and if foot, dental, and eye exam were completed. In addition micro-albumin/creatinine ratio, estimated glomerular filtration rate, total lipid panel and thyroid stimulating hormone tests were assessed prior to the implementation of the checklist and twelve weeks after the intervention. A copy of the checklist is attached to this document.

All health care providers received training and education on the revised guidelines. Three months after the educational sessions, chart audits were done to determine the rate of

provider compliance with the items discussed in the educational sessions. All chart audit information was stored and tabulated into an Excel application.

Evaluation

Ten out of twelve recommendations on the diabetes checklist were noted to have improved during post intervention audit report compared to the pre-intervention audit report. These recommendations included: HbA1C, Total fasting lipid, foot exam and pulse without monofilament, dilated eye exam, glomerular filtration rate, thyroid stimulating hormone, medication review, diet, exercise and depression screening. Foot exam and pulse without monofilament had the highest increase in compliance with a change of +35.69% while depression screening had the least increase in compliance with a change of +1.48%.

Two of the twelve recommendations on the diabetes checklist did not improve on post audit. Foot and sensory exam with the use of a monofilament had a 0.16% decrease and spot urinary albumin and creatinine ration had a decrease of 42.11%. It should be noted that this result of spot urinary albumin and creatinine ratio did not reflect incompliance since, per the recommendations from the American Diabetes Association, spot albumin/creatinine ratio should be done yearly and this post audit was done at the beginning of the year.

Impact on Practice

The checklist summarized the American Diabetes Association recommendations for treatment and management of diabetic patients, presenting a snapshot for clinicians on a single page. The medication review recommendation showed a 100% compliance rate after implementation of the diabetes checklist. We considered use of the diabetes checklist valuable

for diabetes clinicians and patients, demonstrating improved patient care and patient care documentation.

It is important to note that implementation of diabetic checklist appears to have enhanced the provider's efficiency. Ten of the twelve interventions were performed during a single patient visit. A solo provider roomed the patient, collected blood work and provided patient care. During the post audit, the facility hired a Certified Medical Assistant and a Registered Nurse to help in the clinic. As stated earlier, less care is typically provided to the underprivileged population. Our experience showed that an improved quality of care could be provided by following the guidelines. While this report offered an interesting look into the benefits regarding the use of a diabetic checklist for improving patient care and patient care documentation, financial support to increase staffing seemed, not surprisingly, to be an overarching factor in the delivery of improved care.

Conclusion

The implementation of a diabetic checklist providing evidence-based practice to the population of an underserved area can improve patient care documentation and ultimately improve the quality of patient care. This study showed that improvement in the care of diabetes patients could be achieved. Additional literature on this topic might provide more actionable information, making decisions to implement checklists for diabetic patient care easier.

Keywords: Diabetes checklist, standard diabetes tests, patient care documentation, diabetes mellitus, blood sugar, community resources, diabetes specialist, underserved population, management of diabetes

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Appendix B: REFERENCES

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