Improving Diabetes Care Through the Discharge Process

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ABSTRACT

BACKGROUND: Diabetes is the seventh leading cause of death in South Carolina. In 2006, three to four people died each day from diabetes, equating to one death from diabetes every seven hours and thirty three minutes.

METHODS: We partnered with our community liaison, Dr. Carolyn Jenkins, the chair of the Outreach Council of the state legislated Diabetes Initiative of South Carolina, and principal investigator for a REACH grant to improve care for diabetics. Our goal is to decrease the incidence of hospital readmissions within a 30-day period by re-engineering discharge planning through patient education and follow up appointments to increase compliance with medications and clinical pathways. We created a standardized packet for diabetic patients so that they will easily be able to make better diet and exercise decisions. If diabetics are given concise information, they will be able to stay healthier and avoid the hospital, therefore reducing the risk of further complications of the disease

INTERVENTION: Our group members attended the *Diabetes Discharge Planning Meetings* with team members from around the state to create a thorough yet simple discharge plan for newly diagnosed diabetics. During the meetings, which occurred throughout the year, topics such as the need for standardized plan of care, methods to decrease readmissions and emergency department visits related to diabetes, and improving the discharge pamphlet for patients and providers were discussed at length. We designed an exercise plan and a healthy diet for diabetics to include in the pamphlets.

DISCUSSION: Our intervention is yet to be applied in the official research study, set to commence later in 2010. However, by comparing our intervention with the similar intervention used by Project RED at Boston Medical Center, we expect to reduce preventable hospital readmissions of patients with diabetes by 30% within a 30-day period and lower inpatient and outpatient costs by an average of $412 in the experimental group.

BACKGROUND

Diabetes is the seventh leading cause of death in South Carolina. In 2006, three to four people died each day from diabetes, equating to one death from diabetes every seven hours and thirty three minutes. With statistics that are so striking within our own state, our group has teamed up with Dr. Carolyn Jenkins, principal investigator for a REACH grant to improve care for diabetics upon discharge. The project design is modeled after ProjectRED, a study conducted at Boston University in which hospital readmission rates were reduced by 30% by redesigning the discharge process for cardiovascular patients in their institution.

OBJECTIVE

Our goal is to decrease the amount of hospital readmissions by reforming discharge planning. We aim to decrease the incidence of hospital readmissions within a 30-day period by re-engineering discharge planning through patient education and follow up appointments to increase compliance with medications and clinical pathways.

METHODS

- Partnered with our community liaison, Dr. Carolyn Jenkins, the chair of the Outreach Council of the state legislated Diabetes Initiative of South Carolina, and principal investigator for a REACH grant to improve care for diabetics.
- Created a standardized packet for diabetic patients, so that they will easily be able to make better diet and exercise decisions. If diabetics are given concise information, they will be able to stay healthier and avoid the hospital, therefore reducing the risk of further complications of the disease.
- Attended the *Diabetes Discharge Planning Meetings* with team members from around the state to create a thorough yet simple discharge plan for newly diagnosed diabetics.
- We were given the assignment of presenting an exercise plan and a healthy diet for diabetics to include in the pamphlets (see figure 1).

RESULTS

- Since our project is still in research and design stages, no statistical results yet exist to quantify diabetic patient readmission rates. We anticipate similar statistical results to that which was obtained by Project RED
- 30% less hospital readmissions and ED visits
- Reduced total costs by an average of $412
- 2/3 of the patients were followed-up with a clinical pharmacist and 54% of these cases presented one or more medication related problems, which was identified and resolved with the help of a clinician

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FIGURE 1

Ways to classify food: the plate method for diabetic patients and USDA Food Pyramid

DISCUSSION

In an effort to promote healthy development and healthy behaviors at every stage of life, our group identified our at risk population as diabetic patients recently discharged from an inpatient or outpatient facility.

As the seventh leading cause of death in South Carolina, a diagnosis of diabetes not only dramatically changes the lifestyle of an individual patient, but it also accounts for 3 to 4 deaths per day in the state of South Carolina alone. The CDC estimates that the economic burden of diabetes in the United States reaches $174 billon according to 2007 data.

Our research study is set to commence in late 2010. By comparing our intervention with the similar intervention used by Project RED at Boston University, we expect to reduce hospital readmissions of diabetic patients.

By redesigning the method of discharge education, we expect to reduce not only the cost of life but also the cost of healthcare related to the diagnosis of diabetes in our experimental group.

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