

NEEDS ASSESSMENT: *PERFORMANCE ANALYSIS*

INTRODUCTION

Setting

Forbes Regional Hospital admits an average of 250 patients per year who are diagnosed with Type 1 or Type 2 diabetes during their hospital stays. These newly diagnosed patients must learn diabetes survival skills prior to discharge.

Problem

Forbes previously employed a patient educator to instruct new diabetics. After her retirement three years ago, the position was eliminated and staff nurses now perform diabetic teaching. The Nursing Education department created a plan for nurses to use when educating new diabetics; however, this instruction is not being performed, not being documented, or both. The purpose of this needs assessment is to describe the optimal patient educational experience in comparison to the actual, determine causes for the variance, and recommend solutions to help achieve optimal diabetes education.

Audience

Any registered nurse (RN) or licensed practical nurse (LPN) working on an inpatient floor could be called upon to teach a new diabetic. Realistically, about 200 nurses staff the three units with the greatest likelihood of housing these patients.

SOURCES AND DATA COLLECTION

Interviews with Stake Holders

Three individuals were interviewed: a Nurse Educator, the Nurse Manager of Medical/Surgical Unit 1, and the Nurse Manager of Medical/Surgical Unit 2. Interviews were approximately 20 minutes each, and contained a series of focused but open-ended questions.

Chart Audit

The Nurse Educator pulled charts for all newly diagnosed inpatient diabetics during a 3-week period in the 1st quarter of 2004. Only 2 out of 21 patients received complete education, 100% received a printed booklet, and 100% of those discharged home on insulin received insulin instruction. Other components of education were either not performed, or not documented.

Literature Search

A literature search identified best practices in inpatient diabetes education. Sources deemed most relevant were:

Mensing C, Boucher J, Cypress M, et al. National standards for diabetes self-management education. *Diabetes Care* 2004; 27 Suppl 1: S143-150.

Smalley R. Patient education: we have a better system now. *RN* 1997; 60: 19, 22, 24.

Uding J, Jackson E, Hart AL. Efficacy of a teaching intervention on nurses' knowledge regarding diabetes. *Journal for Nurses in Staff Development* 2002; 18: 297-303.

OPTIMALS VERSUS ACTUALS

Ideal State/Optimals

1. Each task in the diabetic teaching program is clearly defined and assigned to a specific day of the inpatient stay.
2. The education program – beginning with an assessment of the patient's disease knowledge – is initiated upon diagnosis. New concepts in addition to reinforcement are introduced on each subsequent day of a typical 3- or 4-day stay.
3. Physician orders for multidisciplinary consults, such as dietary and case management, are initiated on Day 1.
4. Teaching is done in instructional "chunks" of 5 to 10 minutes each, and performed *during* patient care, rather than as a separate or supplemental activity.
5. Instructional materials include a variety of media: videos, pamphlets, food lists, links to Web sites, etc.
6. Forms for documenting instruction are easy to use, and do not duplicate information required elsewhere.
7. Upon discharge, the attending physician orders an outpatient Joslin Diabetes Center consultation to ensure more in-depth education.
8. Nurses receive annual continuing education in the areas of diabetes management, and teaching and learning skills.

Current State/Actuals

1. Tasks listed on the Worksheet for New Onset Diabetes are vague, with little explanation or interpretation.
2. Education is usually not provided until the day of patient discharge.
3. Physician ancillary orders are initiated not at all, or on the day of discharge.
4. The nurse attempts to provide all education at one time, prior to discharge. Nurses perform procedures without explaining what they are doing, since they can "get it done faster" when they don't have to answer patient questions.
5. A variety of instructional media is offered to the patient, but usually all at one time, creating "information overload."

6. The Worksheet for New Onset Diabetics is visually cluttered, hard-to-read, and duplicates information which must be entered elsewhere in the medical record.
7. Only 50% of discharged new diabetics receive physician orders for Joslin Center consults. Physician orders are necessary for the visits to be reimbursed.
8. Nurses received only one 20-minute in-service on the diabetic teaching program over the last three years.

RECOMMENDATIONS

Barrier	Recommendation
<p>1. Staff cannot answer advanced questions about diabetes management. They think patients should receive more and better information than they can offer.</p> <p>Performance factor: Skills/Knowledge</p>	<p>Offer standard, well-designed, annual half-day training sessions on advanced diabetes management.</p>
<p>2. The Worksheet for New Onset Diabetics is vague, hard to read, and not understood by nurses.</p> <p>Performance factor: Environment</p>	<p>Redesign form to offer clearly outlined educational goals and objectives, and a flowchart/timeline for instruction.</p>
<p>3. Nurses do not understand the “teachable moment” and how to instruct while doing.</p> <p>Performance factor: Skills/Knowledge</p>	<p>Develop and offer instruction on patient education techniques, including assessment, teaching methods, and documentation.</p>
<p>4. Educational kits on each unit are poorly organized, not publicized, and sometimes missing items.</p> <p>Performance factor: Environment</p>	<p>Redesign kits to make items easier to find and use, and include specific restocking instructions. Place kits in the same area on each nursing unit.</p>
<p>5. The closed circuit, educational TV system is rarely working. Patients can’t view diabetic education tapes when it is convenient for them.</p> <p>Performance factor: Environment</p>	<p>Fix closed circuit TV system. Alternatively, have one TV/VCR unit with tapes at each nursing station.</p>
<p>6. Patients with multiple or complex questions taking longer than 10 minutes to address take nurses away from other, vital patient care duties.</p> <p>Performance factor: Environment/Organizational Support</p>	<p>Develop a standard procedure for when a nurse must leave a patient room in the middle of patient instruction.</p>
<p>7. Nurses feel that it is “not their job” to teach new diabetics since a Nurse Educator used to do all diabetic instruction.</p> <p>Performance factor: Motivation</p>	<p>Nursing Education department sends monthly communications to increase nurses’ confidence in their ability to teach patients. Examples might include handouts with diabetes-related knowledge or instructional tips.</p>

INSTRUCTIONAL OBJECTIVES AND TEST QUESTIONS

INTRODUCTION

Overview

The numerous complications associated with the disease can be substantially reduced with tight control of blood glucose. Research suggests that increased patient knowledge may lead to better glucose control. Since patient knowledge largely depends upon information provided by healthcare professionals, it is vital that these caregivers have an adequate understanding of diabetes before effective patient teaching can take place.

Goal

The ultimate goal is to offer an optimal patient educational experience in order to minimize diabetes complications. A performance needs assessment indicated that inpatient diabetic education at Forbes is inconsistent and incomplete. Several recommendations were made, the first of which was to develop and offer a standardized educational intervention on diabetes management. Broad goals for learners include:

- Recognize and address hypoglycemia in the diabetic patient
- Accurately measure and interpret blood glucose readings
- Describe the physiological action of insulin

Instructional objectives below support these broad goals.

Audience

Approximately 200 RNs and LPNs with at least a post-secondary nursing diploma staff the units with the largest number of new diabetics. All have had basic clinical instruction in diabetes. Years of experience vary from zero to 25, so knowledge of current diabetes management practices varies. A large instructional design challenge involves the varying levels of diabetes knowledge within the audience.

INSTRUCTIONAL OBJECTIVES

1. Without consulting reference material, the learner will list five symptoms of hypoglycemia. Acceptable answers are those from the signs and symptoms list found in the workbook. [Remember Concept]
2. Given a blood sample and a home glucometer, the student will obtain a blood glucose reading on the first attempt, and classify that number as normal, high, or low. [Apply Procedure]

3. From memory, the student will define the following features of insulin action time: onset, peak time, and duration. [Remember Concept]
4. Using the Insulin Action job aid, the learner will classify the five insulin types as short acting, intermediate acting, or long acting. [Apply Concept]

TEST ITEMS

1. Write five symptoms of hypoglycemia. Your answers must be on the Hypoglycemia: Signs and Symptoms list in the workbook provided earlier.
2. On the table you will find a glucometer, a blood glucose log, and a new set of test strips (including one with a fresh finger-stick blood sample). You are to first calibrate the glucometer with the code strip provided, and then test the blood sample. After obtaining a reading, write that number on the blood glucose log. In the space provided next to the number, write whether that reading indicates the blood sugar is low, within normal range, or high.

3. Match each insulin action time feature with its definition:

_____ A. Peak time	1. The length of time in which insulin continues to lower blood glucose
_____ B. Duration	2. The length of time it takes for insulin to reach the blood and begin lowering blood glucose levels
_____ C. Onset	3. The time during which insulin is at its maximal strength in lowering blood glucose levels

4. Using the Insulin Action job aid, describe each insulin type below as short acting, intermediate acting, or long acting. Write your answer in the space provided.

- A. Human NPH _____
- B. Human lispro _____
- C. Human Ultralente _____
- D. Human Regular _____
- E. Human Lente _____