**EP 18: Describe and demonstrate interdisciplinary collaboration to develop, implement, and evaluate a comprehensive set of patient education programs and resources within the organization.**

Riverside has a rich history of interdisciplinary collaboration centered on the desire to develop and/or improve programs and services. Some examples include, but are not limited to:

- The development of patient educational materials related to anticoagulation therapy used across the system,
- The stroke awareness initiative which included educational events throughout the organization and the community,
- The development of heart failure teaching guidelines and the emergence of the Heart Failure Clinic,
- The annual Heart Fest and Achieve events which include multiple departments joining together to perform screening and provide education to our community.

All of the aforementioned examples involved interdisciplinary collaboration of direct care nurses, nurse leaders at all levels (managers, directors, vice presidents, CNO), rehabilitation therapy clinicians and leaders, physicians, and professionals inside of the hospital and outside of the hospital to promote patient education along the continuum. Riverside is clearly a leader, with many examples throughout its history, of our commitment to identify emergent community health needs and devotion and allocation of financial and human resources to plan, implement, evaluate and improve our educational offerings and programs.

**Structures and Processes**

One of the structures/processes for interdisciplinary collaboration to develop, implement, and evaluate comprehensive patient education programs is convening of ongoing or special committees, councils, and/or taskforces.

**Committees, Councils, and Task Forces**

The development and implementation of our cardiovascular surgery and neurosurgery programs involved planning patient education activities and materials. Our knee and hip replacement patient education programs were made possible through collaboration among direct care nurses, nursing leaders, clinical nurse specialists, physicians, rehabilitation therapists, respiratory therapists, laboratory and imaging departments, and physician offices and clinics.

We also rely on our quality improvement process of Plan, Do, Check, and Act (PDCA), which has been described and demonstrated throughout our sources of evidence, to evaluate educational programs. Our use of best evidence in patient education follows our use of the Iowa Model of EBP, as described in NK6 and NK7. The Iowa model provides a step-by-step process for planning, implementing, and evaluating EBP
projects pertaining to patient education. Several of our Unit Based Councils (UBCs) have used the PDCA and EBP processes to improve patient education resources and processes. One example is the Cardiopulmonary Services UBC (Diagnostics [EKG, EEG, EMG, etc.], Cardiac Cath Lab, and Cardiopulmonary Rehabilitation), which worked on patient education along the cardiovascular testing/treatment continuum.

Nurses from units, who are not necessarily part of a formal committee or council, also plan patient education offerings. The 4th Rehab direct care nurses planned and implemented a Stroke Survivor Support Group, which includes education for patients and their families. The meetings are lead by direct care nurses from 4th Rehab. The first Stroke Support Group was held on October 20, 2009. Over the last six months, the average attendance has been seven with the largest attendance at 13 and smallest, four. The majority of patients at first were seniors, but in the last few months, we have been drawing some younger members. We have guest speakers for each meeting and serve a small brunch, coffee, and tea. We start with an informational session followed with open discussion and questions. Speech therapists, nurses, and psychologists have attended all support group meetings. Some of the presentations have been:

October, 2009 – Brain Attack
November, 2009 – Stress and the Holidays
December, 2009 - Eating Sensibly
January, 2010 – Safe Exercising
February, 2010 – Problem Solving
March, 2010 – Medical Equipment; What do I Need and How Do I Get It?
April, 2010 – Services available in the Community

The stoke survivors and their families seem to enjoy the meeting times, according to the direct care nurses who plan and lead the meetings. Younger stroke survivors have been attending the meetings. A formal evaluation of the program will be conducted at the one-year mark, and will include input from nurse, speaker, and patient/family perspectives.

**Vigilance Professional Nursing Practice Model**

Our Vigilance Professional Nursing Practice Model provides a structure supporting our emphasis on interdisciplinary collaboration to plan, implement, and evaluate patient education:

**Organizational Vigilance**

The continual observation, detection, interpretation, and communication of the changing needs and expectations of external and internal sources that result in creating purposeful change.
• **Patient Centeredness** - Structures and processes that promote compassion, empathy, and responsiveness to the needs, values, and expressed preferences of the patient and family.

• **Standards of Practice** - Guidelines and evidence-based rationale that promote consistent patient care throughout the organization.

**Management Vigilance**

The ongoing, continual oversight of the unit's changing needs and responses which result in modification of fiscal, material, and human resources and expectations that impact patient care, nursing practice, and outcomes on the unit.

• **Resource Availability** – The possession of tools, technology, people, and materials that are readily available to meet the needs of the patients and the workforce.

• **Team Competence** - The supportive nature of the interrelationships between the individual and other caregivers.

**(Nursing Care) Vigilance**

The primary abilities the nurse needs to have for vigilant nursing care within the work environment. The nurse’s watchful, continual oversight of the patient’s changing needs and responses resulting in effective clinical judgments, nursing actions, and intended outcomes.

Levels of Vigilance will vary based on:

• Needs and expectations of the patient/family related to complexity, predictability and, safety.

• **Advocacy** - The ability to promote the needs of the patient and/or family during the healthcare journey.

• **Translation** - The ability to effectively articulate findings, changes, and results to patients, their families, and other healthcare providers, based on assessment of teaching, learning, and information needs.

• **Collaboration** - The ability to partner with others to achieve intended outcomes.

Our philosophy of nursing also supports interdisciplinary collaboration on patient education endeavors. The excerpts from our nursing philosophy which support this include our belief in:

• Facilitation of patient and family education throughout the continuum of care to promote wellness, safety, disease prevention, and healthy life styles.
• The value of team members, a multidisciplinary approach, which creates trusting relationships with our patients, families, and community.
• Being a patient advocate and calculated risk taker on behalf of our patients and families.

**Electronic Sources**

Another structure supporting interdisciplinary provision of patient education in CareNotes, a electronic patient-education application, which is available for use by all Riverside disciplines. CareNotes provides hundreds of educational topics, which are written on a 5th to 6th grade reading level and are available in Spanish. Topics encompass diseases, illnesses, diets, and medications. CareNotes is accessible for employees via our intranet system, called Rivernet. A group of clinicians saw a demo for the product in the 1990s. They explored costs, evaluated sources for the health information, sought physician input, reported back to leaders, and we purchased the application. Upgrades are done automatically and on an ongoing basis. Patients have been pleased with the documents, which are easy to understand and include pictures and diagrams.

**General Outcomes**

One outcome related to interdisciplinary collaboration on patient education endeavors is our national designation from HealthGrades™ for care of patients with cardiovascular, orthopedic, stroke, prostatectomy, and cholecystectomy services.

• HealthGrades Cardiac Care Excellence Award™ - 2 years in a row
• Ranked Among the Top 10% of Nation for Overall Cardiac Services - 2 years in a row
• HealthGrades Cardiac Surgery Excellence Award™ - 3 years in a row
• Ranked Among the Top 10% in the Nation for Cardiac Surgery - 6 years in a row
• Ranked #6 in IL for Overall Cardiac Services
• Ranked #5 in IL for Cardiac Surgery
• Five-Star Rated for Cardiac Surgery - 6 years in a row
• Five-Star Rated for Coronary Bypass Surgery - 6 years in a row
• Five-Star Rated for Treatment of Heart Failure - 4 years in a row
• Received the Highest Possible Star Ratings for Treatment of Heart Failure - 2 years in a row
• 5-Star Rated for Treatment of Heart Failure, 5 Years in a Row (2006-2010)
• 5-Star Rated for Overall Orthopedic Services, Two Years in a Row (2009-2010)
• 5-Star Rated for Joint Replacement, 3 Years in a Row (2008-2010)
• 5-Star Rated for Total Knee Replacement, 3 Years in a Row (2008-2010)
• 5-Star Rated for Spine Surgery, 2 Years in a Row (2009-2010)
• 5-Star Rated for Total Hip Replacement, (2010)
• 5-Star Rated for Back and Neck Surgery without Fusion, 2 Years in a Row (2009-2010)
5-Star Rated for Back and Neck Surgery Spinal Fusion, 2 Years in a Row (2009-2010)
5-Star Rated for Treatment of Stroke, (2010)
5-Star Rated for Carotid Surgery, 2 Years in a Row (2009-2010)
5-Star Rated for Prostatectomy, 3 Years in a Row (2008-2010)
5-Star Rated for Cholecystectomy, 2 Years in a Row (2009-2010)

Our awards are evidence that our interdisciplinary services, which include patient education, have resulted in excellent outcomes. In keeping with our philosophy to continually raise the bar on patient care delivery, we will provide a narrative describing our current efforts in one area where we are striving to improve: diabetes care.

**Riverside Diabetes Wellness Center**

The following description of our evaluation of patient needs for diabetes education will be used to demonstrate how interdisciplinary caregivers planned, implemented, and evaluated a change in the way we provide education for the growing number of patients with this disease.

**Background**

The chronic disease of diabetes has been recognized as an increasing health care problem throughout the United States, based on the following:

- The increasing volume of patients impacted by the illness, as well as the increasing numbers of patients diagnosed with diabetes at a younger age.
- The detrimental impact of multiple co-morbid conditions resultant from uncontrolled diabetes, with impact to the following bodily systems:
  - Heart
  - Kidneys
  - Eyes
  - Nervous system
  - Cardiovascular System
  - Integumentary
  - Liver
- The high cost of care medical care, medications, equipment and supplies related to the illness and resultant conditions

In consideration of the epidemic proportions of this disease in our country, hospital leaders collected and reviewed the following data specific to Riverside Medical Center, which was obtained from CareScience, a Premier/Care Science Outcome Management Tool with an internal database of 4.6 million discharges across 36 states.

Data regarding Riverside 30-day readmission rates for those patients with the primary diagnosis of diabetes is depicted in the graph below.
In further examining this data, the following was determined:

- Of the 19.4% readmitted in 2007-
  - 8.4% were readmitted once again due to diabetes as a primary problem
  - 2.5% of the population was readmitted due to some type of cardiac related problem as a primary diagnosis.
- Of the 25.8% readmitted in 2008-
  - 12.9% were readmitted once again due to diabetes as the primary problem
  - >1% of the group was readmitted due to cardiac related problems being the primary issue.

Data regarding Riverside 30-day readmission rates for those patients with the secondary diagnosis of diabetes is depicted in the graph below:

- Of the 19.2% readmitted in 2007-
  - 4.6% of the population was readmitted due to some type of cardiac related problem as a primary diagnosis.
- Of the 19.7% readmitted in 2008-
  - 4.5% of the group was readmitted due to cardiac related problems being the primary issue.
- In both 2007 and 2008 there were multiple primary diagnoses related to complications of diabetes primarily, but also some seemingly unrelated issues related to orthopedic or other issues. However in both years, cardiac related
complications as a readmission cause emerged as the primary reason for readmission.

A number of events occurred in late 2008 that prompted Riverside to look more closely at the data, and the current structure in place to care for this population.

In particular, the resignation of the long-time manager of the Diabetes Center provided an opportunity to examine the current structure of the center, as well as the process for diabetes care overall.

Additional factors for consideration:

- Physician requests for consultation with diabetes specialty nurses to address the needs of inpatients were not met, due to Diabetes Center scheduling and staffing challenges. Physicians identified a need for continuing diabetes education to nursing staff.
- The emergence of Riverside’s Post Acute Care Provider Network, which began to look at developing an outpatient care structure for chronic care management within the system, including diabetes.
- The increased focus on patient outcomes, both from an inpatient perspective as well as an outpatient perspective.

**Structure**

The combined events resulted in the decision by hospital leaders to form a committee to further discuss the issue, identify specific needs, and develop a structure and process which would result in improved care to the diabetic patients who seek care in our hospital, or whom are in contact with our organization as we provide community support.

Riverside CEO Phil Kambic asked that Judy Amiano, RN (Vice President of Senior Services) lead the effort.

A committee was formed, comprised of:

- Director of Women & Children’s
- Sandy Viall, RN, MSN (Director of Nursing Services)
- Mary Newberry, RN, BSN (Director Home Care/Outpatient Infusion/HF Clinic)
- Diane McGrath, RN (Manager, Women’s & Children’s Services)
- Cheryl Tyson, RN, BBA (Manager, 3rd Ortho/Neuro unit)
- Margaret Ondrey, RN, MSN, APN/CNS (Medical-Surgical and Palliative Care Clinical Nurse Specialist)
- Deena Layton, RN, MSN, Vice President, Nursing Services)
- Kelly Cuffe, RD, CDE (Manager, Diabetes Center)

Initially the committee examined the structure and process related to the Diabetes Center, taking advantage of the opportunity to discuss with the outgoing manager (who had taken a sales position with one of the vendors) and the Director (whose main
responsibility was management of the Health & Fitness Center and who had suggested that a restructure might be in order) the history, volume and struggles of the Diabetes Center.

Riverside’s outpatient Diabetes Center was established in the early 90’s, with the Center attaining American Diabetes Association (ADA) recognition in 1995. Despite this recognition, and the continued efforts of specially trained dieticians and nurses to address the outpatient needs of diabetics, the center has struggled over the years to build patient volumes.

The reasons for this are likely multifaceted, but some of the issues identified as contributing to the dismal utilization of the Center:
- Lack of strategic direction
- Absence of referral pattern
- Lack of nursing education/awareness
- Lack of physician education/awareness
- Lack of endocrinologist support

The decision was made to transition management of the Center under nursing (specifically Mary Newberry, the director of other outpatient areas; Home Health, Outpatient Infusion, and the Heart Failure Clinic).

**Process and Design**

A new manager for the Diabetes Center was hired, and the committee transitioned into an oversight role to address diabetes care throughout the continuum, including the hospital and outpatient services.

The group made the decision to address the care of the patient with diabetes as follows:
- Establish the goals for diabetic care within the organization
- Review and revise the structure of the Diabetes Center
  - Create dedicated FTEs to serve the inpatient arena to assist with nursing education, physician consultation, and patient education; serving to identify the need for outpatient follow-up care
- Processes to be put into place for:
  - Nursing education
  - Patient education
  - Community education and support
  - Handoffs/Referrals within the system
- Establish methodology for measuring success with regard to desired outcomes of care.

The committee agreed the long-term objectives we wish to achieve are to standardize diabetes care across the Riverside continuum in accordance with accepted standards of practice, and to measure the success of this by reviewing re-hospitalization rates for
primary and secondary diagnoses of diabetes through CareScience on an annual basis (minimally).

Riverside’s executive team accepted recommendations from the committee for additional resources within the Diabetes Center so staff would be available to begin rounding in the inpatient environment, and participate in committees with direct care nurses in addressing problematic educational or specific inpatient educational needs. To facilitate this, an “annex” office within the hospital was established for the Diabetes Center staff.

Physician interviews revealed a couple of immediate needs which were addressed promptly:

1. The need for basic nursing education for direct care nurses. One of the committee members (a nursing manager who is diabetic) facilitated an educational booklet for all of the nursing areas (including home health and senior living facilities). Each month, a short, easily-read but information-packed handout is published and sent to the units to be added to this booklet. The information is very basic, pertinent, and meant as a “refresher” for direct care staff. Cheryl Tyson, RN, BBA, 3rd Ortho/Neuro Manager, publishes the Diabetes newsletters, which are added to the booklets.

2. Specific educational inservices for direct care nurses regarding insulin pump management. (Two specific units were trained: pediatrics and mental health. These areas were identified by our physicians as having a particularly high population of pump utilization and associated pump problems. Additional inservices are planned in subsequent months).

3. The diabetes manager to participate in a key nursing and case management weekly meeting for input and consultation for specific problematic issues related to diabetes.

Members of the Diabetes committee made site visits to a couple of hospitals which also have outpatient diabetes programs so they could compare readmission data and obtain ideas for improving our ability to collaborate as a system.

Rush Oak Park, one of the few Illinois hospitals to have attained TJC (The Joint Commission) specialty certification was visited, and Bloomington Medical Center’s diabetes center in Bloomington Indiana was also visited. Ideas were gleaned from both of these facilities and influenced two specific goals for 2010 for our program.

The visit to Rush Oak Park resulted in the committee’s decision to utilize the TJC (The Joint Commission) standards as a framework for improving our processes. A review of key policies was initiated, with assignments made to begin the process of revising key (as identified by the group) policies to be in congruence with evidence based practice, and in accordance with cultural practice specific to our organization. These policies, which are in various stages of draft status, are:

- Treatment of the Patient with Hypoglycemia
o Basal Bolus policy
o Insulin Pump Management

Following the completion/revision of these policies (which require physician input and feedback as well as a review of ADA and AADE [American Association of Clinical Endocrinologists] guidelines), standing order sets will need to be created and approved by specific physician committees. The committee will continue to revise and address policies as the standard review proceeds. Direct care staff education will follow each policy approval in order to implement across the system. The committee's members will utilize various educational methods (including the monthly handouts, organizational “lunch and learn” sessions, OLIE (online training), and one-on-one educational sessions to key nursing committees and on key units.

The visit to the Bloomington, Indiana site helped us to identify an approach to address Dysmetabolic Syndrome. Dysmetabolic Syndrome is a constellation of metabolic abnormalities in serum or plasma insulin/glucose level ratios, lipids (triglyceride, LDL cholesterol subtypes and/or HDL cholesterol), uric acid levels, coagulation factor imbalances and vascular physiology. (This is the official definition by the American Association of Clinical Endocrinologists of this condition which is also known as the metabolic syndrome and syndrome X.)

This educational program is being planned and was requested in the 2010 budget.

The Diabetes Support group (which had dwindled to only sporadic meetings) was resurrected by enlisting the assistance of interested members of the outpatient program, engaging the support of members of the diabetes committee, changing the format of the meetings, and changing the days and meeting site for the support group meetings.

**Outcome Measures**

The Diabetes Committee will continue to be actively involved in addressing the needs of the care of this population throughout the system.

The (short term) goals for 2010 which will help us achieve our long term objective of reducing readmissions for this population have been refined as follows:

1. To teach excellent diabetes self-management skills and maintain status as an ADA recognized program for outpatient diabetes care.
2. To assist physicians with the management of their patients with diabetes, both on an inpatient and outpatient basis.
3. To work toward attaining TJC (The Joint Commission) specialty certification for inpatient diabetes care.
4. To educate nurses on Diabetes Survival Skills for the inpatient.
5. Implement an educational program for Dysmetabolic Syndrome to include diabetes and cardiac disease prevention.
6. Active participation in organizational initiatives involving chronic care management, which will include staff training in utilizing tools and techniques which promote self management.

Readmission data will be examined mid-year 2010, and again at the end of 2010 to assess what the impact has been related to the changes in structure and process. It is expected that it will take a minimum of one to two years to impact re-hospitalization rates. Therefore, the attainment of short-term goal achievements will be celebrated as each goal is achieved along the journey to the improvement in the care of the patient with diabetes.

Summary

Riverside Medical Center has a long history of employing interdisciplinary collaboration to develop, implement, and evaluate a comprehensive set of patient education programs and resources within the organization. Educational programs encompass many of the chronic conditions, which account for hospitalizations and re-hospitalizations, including diabetes. Structures in place to support interdisciplinary collaboration are committees, councils, task forces, and electronic resources. Processes include PDCA, our process for quality improvement, and our EBP process outlined in the Iowa Model of EBP. Our outcomes are continually updated and include our excellent care outcomes as recognized by HealthGrades™. Riverside professionals also periodically review patient education needs and resources through program evaluation processes. Our dedication to improving services, such as those for patients with diabetes, is evidence that our emphasis continues to be on program improvement and is outcomes-driven.