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Activating Hospital Staff & Physicians to Support Diabetes Education in the Hospital and Through Transition

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Background: Epidemic of Diabetes in California

California 2012
- 3.9 million people with diabetes in CA (9.6%)
- 1 of 7 CA adults (13.8%)
- Costs for diabetes care in CA exceed $24 billion
- 1 of every 3 hospitalized patients in CA has DM

SCRIPPS HEALTH SYSTEM

Diabetes in Scripps Hospitals

Total annual admissions (2014): 51,288
Challenged to meet the need:

- Total team of Diabetes Educators: 4 educators for 5 hospitals
- Formal consults: up to 13/day per site
- Percentage of High Risk Consults: 65%
- Inpatient Education Service only Mon-Fri 8-5

Who in the healthcare team meets the criteria?

- New Grad RNs
- Mentor RNs
- Family Practice Residents

The struggle to serve all patients...

Is there a better way?

Our Answer
Expand beyond our team...
We don’t have to do it all ourselves...
Who else in the hospital is:
  * already engaged in diabetes care?
  * has a vested interest?
  * would be supported by leadership to expand their role?

New Grad RN

Why We Chose New Grad RNs?

- New grads are eager and engaged in learning process
- Well supported by leadership to enhance knowledge with assessment and delivery of safety education
- New Grad Orientation: 40 weeks
What's in it for them?

- Increase confidence in providing diabetes education
- Become more efficient because they are familiar with the tools and resources available
- Increase awareness of patient self-care deficits even when diabetes not the primary diagnosis

Defining Expectations

- Initiate appropriate referrals to support patient learning and overcoming discharge barriers
- Initiate or follow up education on glucometer and insulin self-injection
- Identify appropriate teaching tools to support education

Teaching Methods used

- Visual – through PowerPoint and website browsing
- Verbal – through discussion and teach back
- Kinesthetic – through dexterity skills with glucometer and insulin pens and syringes
- Logical – through case studies and interactions
- Social – interactive small group work

Content of Education

2 hour didactic class:
- APN discusses the RN role to support glucose control in the hospital
- CDE discusses the RN role to support discharge planning and transition of care:
  - initial hands on training with home glucometers
  - differences in insulin administration in hospital vs home use

Content of Education

4 hour clinical rotation:
- 1:1 with CDE to observe how we assess patient’s knowledge in self-care, familiarize with diabetes tools available on Diabetes Careline website
- How to obtain and teach a home glucometer
- Emphasize insulin timing: hospital vs. home
- How to access CDE for discharge follow up and transitions of care

Teaching Tools Available

- Your Medication Sheets
  - Injection Sites: Glucagon, Steroids
  - Oral Medication: Glucagon
  - Endocrine: Insulin
  - Magnesium: Steroids
  - Mitochondrial: Glucagon
  - NAC: Steroids
  - Sedatives: Glucagon
  - Venous: Glucagon
Teaching Tools – Med Sheets

- The function of insulin and why our bodies need it.
- Information about the specific medication
- Hypoglycemia
- Injection technique: vial/syringe & pens
- Insulin storage
- Sharps disposal.

Results

- New grads that have graduated from orientation are very proactive
  - engage diabetes team, ask questions
  - teach self-injection early in hospitalization
  - actively reinforce education provided by DM team
  - quickly access DM education tools for patients

Results cont.

- “Today, I had a great rotation where I was able to see the assessment of patient needs, teaching methods provided to patient, and evaluation of learning… I feel it gave me a big picture of the process and answered many questions that normally patients would ask. I feel confident in reinforcing the needed education and am now aware how to locate the teaching materials for the patient.”
  - New Grad RN

Discharge Tools

Challenges/Lessons Learned

- Sustainability of standardized glucometers
- Maintaining a base of educated RNs with diabetes specific knowledge due to staff turnover
- Scheduling of clinical rotation within orientation across multiple sites

Next Steps

- How to spread to the masses
  - Provide preceptors 1:1 clinical rotation with CDE so they can reinforce concepts and tools
  - Skills a Thon to increase knowledge of experienced nurses
- Educate Unit Mentors (Resource Nurses)
Clinical Nursing Mentors

Why we chose clinical nursing mentors?

• Clinical mentors are clinical experts that work directly with patients and nursing staff daily by providing support and acting as a resource.

• They also receive ongoing education to maintain their knowledge base.

How Education was provided

• 2 hour class
  • Four different times were offered so it kept the classes small.
  • The class format included lecture, interactive work on the website, hands-on practice with glucometers, and review of case studies.

What’s in it for them?

• Develop skills and a knowledge around diabetes education and self-management.
• Provide concise direct patient education utilizing tools.
• Provide support and education to the bedside RNs on their units.

Resource Binder

• A resource binder was developed that matched the curriculum of the class and was given to the units at the end of the class.

• The table of contents of the binder mirrored the agenda of the class.

Class Content

• Clinical Mentor and Bedside RN expectations
• Available tools found on the Diabetes Care Line website
• Patient friendly pathophysiology
• Diet and Physical Activity
• Glucose monitoring
• Insulin self-injection
• Insulin Pumps
• Referrals & Resources
Start with Defining Expectations

– Define the Bedside RN and Clinical Mentor Expectations for Diabetes Education
– Without expectations, there is no framework for standard work.
– Bedside RNs are willing to teach but have lacked the confidence and knowledge to perform well.

Bedside RN Expectations

1. Familiar with tools and resources available for diabetes education.
2. Teach a patient the use of a standard glucometer and the importance of recording blood sugars into a log.
3. Teach insulin administration including technique, storage, disposal and hypoglycemia identification and treatment.

Clinical Mentor Expectations

All of the RN expectations with additional skills that include:
1. Basic understanding of carbohydrate management.
2. Basic pathophysiology of type 1 and type 2 diabetes, that can be shared with patients.

Bedside RN Expectations

5. Initiate a carbohydrate management diet referral to a Registered Dietician.

Clinical Mentor Expectations

3. A familiarity of the resources that are available to patients living with diabetes.
4. The importance of physical activity, eating healthy and reducing stress to optimize blood sugar management.
5. The reality of diabetes distress and tools used to identify it.

Tools – The Diabetes Website
**Tools – Resource Binder**

Results

Clinical mentors gained:
- Confidence and a strong knowledge base with diabetes teaching.
- Ability to share their newly acquired clinical expertise with bedside RNs.
- Ability to teach insulin administration and pass on that knowledge to Bedside RNs, to do the same.

**Results – some quotes**

“We taught insulin administration to our patient over the week-end. It went so well.”
- from an RN on our telemetry unit.
- Bedside RN to the CDE calling the unit over the week-end when an MD called to see if we could discharge new to insulin. “We already taught him the glucometer and insulin. He is giving himself his insulin now in the hospital.”
- An Advanced Practice Nurse was covering when the CDE was away. “It was so nice to hear the nurses had taught insulin to a patient and were so confident and independent with this skill.”

**Lessons Learned**

- If staff are given resources and tools, diabetes teaching can be performed by nurses at the bedside.
- Leadership needs to see the value in providing and ongoing education to the clinical mentor group, for success.

**Our next Target Audience…**

- Now that the novice and the expert RN have learned the skills needed to provide diabetes education for safe discharge, the next opportunity was to work directly with the Providers.
Family Practice Residents
The Golden Opportunity

Why we chose residents?
- Open & engaged in learning
- Already engaged in caring for patients with primary chronic condition of diabetes
- Faculty and residents actively practicing in outpt. clinic
- Self-identified a need/interest to include more practical diabetes knowledge in their training

What's in it for them?
- More complete education received in the hospital means patients may arrive to f/u clinic visits in better glucose control
- Patients require further DSME at the clinic and this often falls to MD to provide
  - Pt. Self-management skills normally not included in medical education
- Having patient friendly DSME materials readily available increases efficiency

Initial approach
- Assess needs, interests of residents/faculty
- Develop one diabetes overview course to meet everyone’s needs (ha!)
  - Clinical management
  - Practical tips for educating patients
  - Case studies, etc. etc.

Initial Approach
- Stand alone Diabetes Overview class was very well received, especially practical content r/t Diabetes Education
- For physicians to come on board and engage in providing DSME we had to provide background with strong clinical management content as well.

Phase 2:
5 Class Series over 1 year
Class 1: Basics – Diabetes Pathophysiology & Standards of Care
Class 2: Practical Aspects of Diabetes Education
  - assessing pts. knowledge, ability, willingness
  - how to teach patients technical skills of glucose monitoring and self-injection
  - Methods: Hands on use of equipment
Phase 2....

Class 3: Inpatient challenges -
- Glycemic goals, clinical ordersets, steroids, TPN, DKA/HHS

Class 4: Discharge/Transition of Care –
- converting inpt. to outpt. regimens
- insurance coverage and other barriers
- transition support services available
- outpt. DSME

Results of Residents Surveyed

55% of residents report that since attending our class they have taught patients how to use a BG meter and/or how to self-inject insulin!!

“My favorite part was learning how to check my own blood glucose…”
- resident

Phase 2...

Class 5: Special Populations & new medications
- Pregnant patients with diabetes
- Glucose management with dialysis
- New anti-diabetic agents (how & if to introduce to patients)

Methods: Practical Case scenarios, discussion, questions

Challenges/Lessons Learned

Gap between class sessions -
Reinforce learning between classes by participating in noon conferences (cases)

Turnover of residents and managing class schedule within the resident orientation

Results of Residents Surveyed

- 100% stated that other physicians should receive this same training
- 100% have had the opportunity to integrate this education when teaching patients, in either/both the inpatient & outpatient settings
- Formally integrated into the standardized GME program

Conclusions
**Different Approaches, common themes**

**Challenges**
- Turnover
  - imbed in ongoing education
  - develop approach to reach mentors/faculty
- Clearly defining expectations

**Benefits**
- Hands on practical approach – familiarity…confidence
- MDs & RNs integrating education into daily interactions with patients

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**Next steps…**
- Develop measures for evaluating success with the 3 groups engaged thus far
- Who else can we ‘activate’ to support patients?
  » Pharmacy
  » Home Health
  » Patient Navigators

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Let’s promote more team members engaging in DSME.

**THANK YOU!!!**