Collaborative Connections-Impacting Care Learning Collaborative

Diabetes Care – The Parkland Experience

Luigi Meneghini, MD, MBA
Professor, UT Southwestern Medical Center
Executive Director, Global Diabetes Program, Parkland Health & Hospital System

UT Southwestern Medical Center

Parkland
Diabetes Registry: Office visits & A1C testing

A1C distribution among ethno racial groups

- **Hispanics**: 35%, 34%, 33%
- **Blacks**: 40%, 33%, 27%
- **Whites**: 39%, 35%, 26%

**Diabetes registry total**: 61,690
- **Office Visit in past year**: 33,504
- **A1C test in past year**: 22,314
Diabetes Registry: Ethno-Racial Distribution

- Hispanic White: 47%
- Non-Hispanic Black: 32%
- Non-Hispanic White: 14%
- Asian: 5%
- Unknown: 1.40%
1115 Waiver Program projects that touch diabetes

- Lower # with A1C>9%
- Diabetic foot exams
- Expand specialty access
- All cause readmission rates for people with diabetes
- Retinal screening annually
- Annual monitoring for patients on ACEi/ARBs
- Surgical site infection rates
MISSION
Provide integrated diabetes management, education, support and research that will improve outcomes for individuals and communities entrusted to our care

VISION
Establish Parkland as an internationally recognized safety net health system for diabetes care
Where we are today

Outpatient Diabetes & Foot Wound Clinic

- Lead Endocrinologist
  - Nurse Educator (CDE)
  - Dietitian (CDE)
  - APP
  - APP
  - APP
  - APP

- ½ day Fellow clinic (~0.3 FTE)

Inpatient Diabetes Consult Service

- Clinical Social Worker
- Clinical Pharmacist
- Inpatient Educator (RN CDE)
- Inpatient Educator (RD CDE)
- Endo fellow
- Residents
- UT Endo
- APP
- APP

COPC Diabetes Education Coordinator

Executive Director
Luigi Meneghini, MD, MBA

Director
Kellie Rodriguez, MSN, MBA, CDE
What we hope to achieve
Bringing specialty care to the patient

Inpatient Diabetes Consult Service

Parkland DM Clinic
DM & FW Clinic

Hatcher Station HC
Southeast Dallas HC

Hospital setting
Hospital
High Risk Specialty Clinic
Acute care
High complexity chronic care

Community setting
COPC Specialty Clinic
Complex chronic care
COPC Primary Care
Stable chronic care

Community Health Workers*
Community Health Programs
Community Resources

* in planning stages
Connecting the Stakeholders

**DOQ-In Committee**

**Members:**
- Physicians
  - Uma Gunasekaran
  - Neelima Kale
  - Sentayehu Kassa
  - Perveen Malik
  - Elizabeth Obialo
  - Emran Rahman
- Nurses
  - Juanita Chism
  - Anjum Varshney
  - Ellen Zignego-Smith
- Social Worker
  - Diann Francis
- Dietitians
  - Sharon Cox
- Community Dev. Specialist
  - Lisa Padilla
- Clinical Pharmacists
  - Steven Boatright
  - Sheeva Chopra
  - Stacy Mathew
- Administrators
  - Jane Hunley
  - Gretchen Collins
  - Ronald Session
  - James Perez
- Practice Operations
  - Sal Nevarez
- Information Technology
  - Clay Townsend
  - Prakash Murthy
  - Sridhar Kandukuri
- Diabetes Education Coordinator
  - Sarah Solly, MPH, RD, CDE

Meet monthly F2F &/or WebEx
Recognizing Opportunity

- 26% of all patients with A1C >9% are not currently injecting insulin.
- 35% of all patients with A1C >8% are not currently injecting insulin.

<table>
<thead>
<tr>
<th>Category</th>
<th>&lt;7%</th>
<th>7-8%</th>
<th>8-9%</th>
<th>&gt;9%</th>
<th>&lt;7%</th>
<th>7-8%</th>
<th>8-9%</th>
<th>&gt;9%</th>
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<tbody>
<tr>
<td>On insulin</td>
<td>3,049</td>
<td>2,863</td>
<td>2,666</td>
<td>4,932</td>
<td>6,721</td>
<td>3,090</td>
<td>1,650</td>
<td>2,421</td>
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<td>NOT on insulin</td>
<td></td>
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<td></td>
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Forging Collaborations

American Diabetes Association

INSIDE
Quality Improvement Project

Shared Medical Appointments for Insulin Initiation & Management

Parkland
Tracking Results

Calibration data in Stage A

New data in Stage C

Proportion Poor Control on Insulin

Diabetes INSIDE Data set 1

Diabetes INSIDE Data set 2

Proportion A1C > 9

Mean HEMOGLOBIN A1C DM

Standardizing Diabetes Education & Support
Bilingual Diabetes Education Materials:
System-wide standardization
Healthy Living With Diabetes

Bluitt-Flowers HC
Grand Prairie HC
Irving HC
PCIM
Southeast Dallas HC
Garland HC
HOMES
Improving efficiency & effectiveness
Expand Access to Specialty Care
Specialist-APP Model of Care

Outpatient Diabetes & Foot Wound Clinic

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  - APP
  - APP
  - APP
  - APP

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  - Residents
  - UT Endo
  - APP

COPC Diabetes Education Coordinator
Diabetes e-Consultations & Education Sessions

Referral: Choice of F2F or e-consultation

Specialist review and response within 3 business days

E-consult answered & referral closed

More information or evaluation needed

F2F clinic visit scheduled with specialist

Diabetes Champion Team

Bi-Weekly ECHO-style conferences to discuss cases & learning points
Expand Retinal Screening in Primary Care

Non-dilated retinal picture in office

Retinal pics sent to optometrist

Results in EPIC & mailed to patient

Urgent findings scheduled for ophthalmology
### Diabetic Foot Screening Flowsheet

Scores: 0-4

<table>
<thead>
<tr>
<th>Hand-Off</th>
<th>Diabetic Foot Screening</th>
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<tbody>
<tr>
<td>Patient Record</td>
<td>Patient Reported History of Ulcer or Amputation</td>
</tr>
<tr>
<td>Patient c/o</td>
<td>Patient c/o Symptoms</td>
</tr>
<tr>
<td>Orthopedic</td>
<td>Orthopedic RIGHT</td>
</tr>
<tr>
<td>Orthopedic</td>
<td>Orthopedic LEFT</td>
</tr>
<tr>
<td>Dermatologic</td>
<td>Dermatological RIGHT</td>
</tr>
<tr>
<td>Dermatologic</td>
<td>Dermatological LEFT</td>
</tr>
<tr>
<td>Vascular RIGHT</td>
<td>Dorsalis Pedis Posterior</td>
</tr>
<tr>
<td>Vascular LEFT</td>
<td>Dorsalis Pedis Posterior</td>
</tr>
<tr>
<td>Neurological RIGHT</td>
<td>Monofilament Vibratory</td>
</tr>
<tr>
<td>Neurological LEFT</td>
<td>Monofilament Vibratory</td>
</tr>
<tr>
<td>Diabetic Foot Exam</td>
<td>Education</td>
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</table>

**DIABETES FOOT SCREEN SCORING METRIC**
Healthy Feet Initiative

<table>
<thead>
<tr>
<th>Category</th>
<th>Risk Definition</th>
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<tbody>
<tr>
<td>4</td>
<td>Active Foot Ulcer, Charcot</td>
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<tr>
<td>3</td>
<td>History of Foot Ulcer, Lower Limb Amputation</td>
</tr>
<tr>
<td>2</td>
<td>Peripheral Vascular Disease – LOPS with Callus or Deformity</td>
</tr>
<tr>
<td>1</td>
<td>Neuropathy – LOPS without Callus or Deformity</td>
</tr>
<tr>
<td>0</td>
<td>Normal Screening</td>
</tr>
</tbody>
</table>

- **Active**
  - Parkland ED & Inpatient Hospital
    - Specialist Podiatry
    - Podiatry residents
    - Hosp. medicine
    - ID
    - Vascular
  - Foot Wound Clinic
    - Specialist Podiatry
    - Podiatry residents
    - Pedorthist
    - Casting technician
    - ID
    - Vascular
    - DM specialist
    - DM educators
    - Social work

- **Moderate**
  - Community/COPC Podiatry
    - DM Foot Specialist
    - DM Foot nurse

- **Low**
  - Primary care or Diabetes Clinic
    - PCP/App
    - Nursing

Specialized Podiatrist

- Podiatrist or trained APP
  - Foot nurse

- Podiatrist or trained APP
  - Foot nurse

- Podiatrist or trained APP
  - Foot nurse
Remote Glucose Monitoring

Remote glucose management

Health professionals reviews data

BG data uploaded to cloud

Treatment adjustments communicated to patient

Patients provided GSM-enabled meter

Diabetes Foot/Wound Clinic
Reducing Readmissions for Patients with Diabetes
Reducing Preventable Readmissions for Patients with Diabetes on the Parkland Inpatient Hospitalist Unit

Huan Ting Chang, Benjamin Kirby, Eleanor Phelps BSN, MA, RN, Chanhanga Rhee, MD, Uma Gunasekaran, MD, Luigi Meneghini, MD

Background
- High rates of 30-day readmission is both costly for the hospital and detrimental to the patient.
- Patients with diabetes are at a greater risk for 30-day readmissions than patients without diabetes due to the complications associated with diabetes.
- Previous studies have shown that the following best practices can significantly reduce 30-day all-cause readmission rates for patients with diabetes.
  1. Nursing-Provided Diabetes Inpatient Education in accordance to the American Diabetes Association (ADA) Guideline.
  2. 12 Step Standardized Discharge Procedures from Project Re-Engineered Discharge (RED).

Local Problem
- The national benchmark 30-day all-cause readmission rate for patients with diabetes is 18.8%.
- The 30-day all-cause readmission rate for patients with diabetes at Parkland is 22.7%.
- 50% of the readmitted Parkland diabetes patients originate from the Parkland Hospitalist Unit.

Aim Statement
The primary aim of this project is to reduce the 30-day all-cause readmission rate for patients with diabetes from the Parkland Hospitalist Unit by 10% at the end of the project in January 2019. In order to reach our primary objectives, we must also improve the rate of compliance to best practices in the Parkland Hospitalist Unit by at least 10% at the end of the project.

Quality Tools

- Pertinent Diabetes Inpatient Care Process
- High-level process maps of the inpatient discharge procedures (A) and the nursing-processed diabetes care (B) at the Parkland Hospitalist Unit were made from close observations of the healthcare staff and stakeholder interviews. The maps allowed for the identification of problem steps (in yellow) that do not adhere to best practice.

Quality Gap Measurement in Parkland Policy, Staff Training, and the EPIC Electronic Medical Record (EMR)
- Discharge Procedure:
  - There are no known Parkland policies regarding discharge taught during orientation, for physicians and nurses.
  - The physician and nursing EPIC Discharge Navigation (ADAB) does not address nor enforce important discharge procedures delineated in Project RED.
- Nursing Provided Diabetes Inpatient Education:
  - The best practice for diabetes inpatient education is being enforced by the Parkland nursing policy and the new nurse orientation program.
  - The nursing EPIC diabetes education flow sheet (ADAB) contains extraneous topics not considered best practice, and documentation of education is not enforced.

Teach-Back Assessment Measuring Tool
- Teach-back clinicians would conduct a teach-back diabetes education before the patient is discharged. The clinician will conduct a teach-back assessment to verify if the patient is able to provide a summary of diabetes education (A) and discharge teaching (B). The process will again be performed post-discharge (C) and again using the teach-back method 4 and list of definitions and exceptions will be provided along with the task.

Results and Conclusions
- The Parkland staff policy training process, and the EPIC EMR do not adhere to the best practices for reducing 30-day all-cause readmissions for patients with diabetes. Preliminary measurements on the Hospitalist Unit show that compliance for using the teach-back method is suboptimal.
- Next Steps
  - Once the formal baseline compliance rate for using the teach-back method has been collected, a list of recommendations will be made to address the quality gap.
  - RED will be conducted to determine the next interventions. Data from the implementation will be collected over a span of 6 months.

References & Acknowledgments

Preventing Type 2 Diabetes
Pre-Diabetes Registry Development

Electronic Medical Record

Retrospectively query for pre-DM A1C in patients not in DM Registry & not taking DM meds

Run risk engine and prospectively screen at risk population with lab A1C
Reaching Out
Community Resources

Help Stop Diabetes
- Grocery Stores
- Activity & Exercise Programs
- Dental Services
- Medication Assistance Programs
- Transportation
- Prevention Programs
- Support Groups

In This Section

Help Stop Diabetes
Grocery Stores
Activity & Exercise Programs