Improving Quality of Care for Patients with Diabetes Mellitus

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Improving Quality of Care for Patients with Diabetes Mellitus

- Aim statement and team
- Graphical presentation of the process
- Baseline data
- Leverage Point and Change Concept
- Implementation
- Results: SPC charts
- Future plans
Aim Statement

To increase the proportion of diabetic patients with yearly cholesterol testing from 77% to 85% in internal medicine outpatient clinic over two months.
Austin Diagnostic Clinic
Significance of the Problem

- **Why is this project important?**
  - Sixth leading cause of death by disease
  - Prevalence: 18% patients age >60 yr

- **What impact will it have?**
  - Saving lives & complications

- **Why are we choosing this project?**
  - Variation in cholesterol testing
  - We are below the national average
Cholesterol Testing
National Average

ADC-IM National
Meeting with IM Providers

Brainstorming

- Six out of eleven IM providers
- Emphasize patient focus
- Improve quality of care for DM
- Present data (Variation, IM Vs. National)
- Consensus: Yearly cholesterol testing
- Process of care and Cause-Effect Analysis
Process of Care
Conceptual Flow Diagram

Clinic Visit
- MA Check In
- MD Encounter
- Check out

MD Encounter
- History
- Chart Review
- Exam
- Rx Plan

Chart Review
- BP ?
- HbA1c ?
- Cholesterol ?
- Eye Exam ?
- Feet Exam ?
- Urine Albumin ?

Cholesterol ?
- Open chart
- Flow sheet
- Lipid Panel
- Date of latest test
- Order Lab
Patient with DM

MA (CC + Vitals)

Provider H&P

Lipid profile? NO

Within 1 yr NO

In flow-sheet? NO

Order Lipid profile

Order Lipid profile

Outside Lab? NO

Document in Flow sheet

YES

YES

YES

NO

NO

NO

YES

YES

YES

YES

NO

NO

YES

NO

YES

Continue DM care

Process is standardized

Decision Flow chart
Causes of Variation

- Poor Patient Compliance
  - Difficult to monitor
  - Patient education
- Lack of Agreement
  - Multiple Guidelines
  - Not part of culture
- Variation in Cholesterol Testing for DM

- Rapid turnover of Information
- Multiple medical issues
- Lack of Awareness
- Rely on Memory
- In progress note
- Multiple templates
- Endocrinology
- No Reminders
- Poor Documentation
Frequency of Causes of Variation
Providers’ Survey

- Poor Documentation: 30%
- Lack Agreement: 15%
- Patient Compliance: 20%
- Lack Awareness: 10%
- No Reminders: 25%
Data Collection

- **Key Quality Characteristics (KQC)**
  - Proportion of DM patients with yearly cholesterol testing

- **Query of data collection**
  - Providers = internal medicine
  - Patients = DM patients seen per week (IDX)
  - Clinical data = cholesterol testing (EMR)
  - Time range for cholesterol testing = 1 year
Patient with DM

MA (CC + Vitals)

Provider H&P

Lipid profile?

Outside Lab?

Order Lipid profile

Within 1 yr

Order Lipid profile

In flow-sheet?

Document in Flow sheet

Continue DM care

Leverage Point

- KPV - customer is MA
Implementation (PDSA-01)

Testing Change Concept

- **Aim:** Medical assistant to remind providers of cholesterol testing
- **Measure:** # nurse intake with reminder / total nurse intake (wk)
- **Change:** Add quick text “.dm” to nurse intake

Need to refine methods

- 50% of nurse intakes have reminders
- Problem identifying DM patients

• MAs Identify DM patients
• Add quick text to nurse intake

• Disseminate to MAs
• Try it for week
Implementation (PDSA-02) Testing Change Concept

- **Aim:** Medical assistant to remind providers of cholesterol testing
- **Measure:** # nurse intake with reminder/ total nurse intake (wk)
- **What:** Modify nurse intake: Pop-up button for DM

- Need to update Problem List
- MA press button on nurse intake (reminder for the reminder)
- All MAs try it for a week
- • 60% nurse intakes have reminders
- • Still not capturing all patients
Proportion of Nurse Intakes with Reminders

Week of Measurement

Proportion of Nurse Intakes with Reminders

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
**Decision Flow Chart (KPV)**

1. **Patient with DM**
   - **MA CC + Vitals**
   - **Banner for DM reminder?**
     - **YES** → **Press Button**
     - **NO** → **Does patient have DM?**
       - **NO** → **Usual care**
       - **YES** → **Insert reminder “.dm”**

2. **Who updates Problem List?**

- **Provider H&P**
  - **Lipid profile?**
    - **Within 1 yr** → **Order Lipid profile**
    - **In flow-sheet?** → **Document in Flow sheet**
    - **Continue DM care**

- **Outside Lab?**
  - **Order Lipid profile**
Implementation (PDSA)  
Internal Medicine Providers

PLAN

- Tangible aspect of implementation
  - Make it easy to do the right thing

- Changing physicians’ behavior (Buy In)
  - Increase awareness of the problem
  - Motivate them
  - Link quality to productivity
Implementation (PDSA)
Internal Medicine Providers

DO

- Put reminders on nurse intake
- Add quick text that **automatically** pulls all necessary information
- Show providers variations of care
- Compare performance (within IM & national average)
- Discuss pay for performance
- Use informal leader
Implementation (PDSA)
Internal Medicine Providers

STUDY

- The quick text needs clarification
- Some providers did not give their feedback
- Some providers did not attend the meetings
- Reminders-Problem list
- Results in SPC charts
Results

- Part I: Users of electronic medical records
  - Participated in meetings
  - Gave their input
  - Reviewed the data
  - Whose problem lists are updated

- Part II: Total internal medicine providers
Proportions of Patients with Cholesterol Testing
Part I - Users of EMR

Week of Measurement

Proportion

Baseline

Implementation

Intervention

Proportion of Patients with Cholesterol Testing
Part I - Users of EMR

Week of Measurement
Proportions of Patients with Cholesterol Testing
Part II - Total Providers

Week of Measurement

Baseline

Implementation

Intervention

Proportion

30% 35% 40% 45% 50% 55% 60% 65% 70% 75% 80% 85% 90% 95% 100%
Implementation (PDSA)
Internal Medicine Providers

ACT

- Need to have a plan to involve providers who did not participate
- Need to implement a process to update “Problem List”
Future Plans

- **Dealing with resistance/complacency**
  - Build relationships (One on One)
  - Show them the results of this project
  - Show them their own data (quarterly results)
  - Give providers lists of patients that need testing
  - Surface, Honor, Explore, and Recheck resistance

- **DM outcome measures**
  - LDL control
Holding the Gains

- Quarterly feedback to providers
- Annual Quality Fair
- List of patients who need cholesterol testing
- Display results at work stations (Internal transparency)
- Continuous input from providers
- EMR-Problem list improvement project
- Rewards physicians and MA/RN!