Engaging Patients with Diabetes in Self-Management
A Clinical Pharmacy Services Approach

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Learning Objectives

- List three components for CPS
- Describe how to integrate CPS into the primary care team
- Explain how CPS aligns with PCMH and Meaningful Use
Zufall Health Center – A Federally Qualified Health Center serving Morris, Warren, Sussex, Hunterdon and Somerset Counties

- Established in 1990 in church basement in Dover by Dr. Zufall and volunteer physicians
- FQHC since 2004; providing entire range of primary medical, dental and enabling services
- Have 6 sites including a mobile medical van
- Serving uninsured, underinsured, homeless, residents of public housing, farm workers
- Open 7 days a week, extended hours
- NCQA PCMH Level 3
- Bilingual staff and on call services
Patient Services

- Pediatrics
- Adult Medicine
- Women’s Health
- Ryan White Part A, C & F
- Dental
- Podiatry
- Behavioral Health
- Neurology
- Clinical Pharmacy Services
- Outreach and Health Fairs
- 340B Pharmacy
- Reach Out and Read
- Patient Navigation
- Case Management
- Health Literacy Program
- ACA Enrollment
- School-based dental program
Facts and Statistics 2013

- Served over 21,000 patients with approximately 62,000 visits
- 65% of adults either overweight or obese
- 13% have diabetes, 16% have hypertension
- 85% of patients are taking more than one medication on a regular basis
- Many patients taking duplicate medications/not taking medications as directed
Patient Safety and Pharmacy Services Collaborative (PSPC)

- Joined in 2008, now in our 5th year
- Providing Clinical Pharmacy Services to patients with chronic diseases
- Pharmacist is integrated in primary care/team work/coordinated care
- Have seen over 3,000 patients, the majority with diabetes out of control
- Seeing consistent improvements in all health and safety measures
CLINICAL PHARMACY SERVICES: Elements/Components

- Patient Centered
- Comprehensive
- Conducted Regularly
- Team Collaboration
- Prevention
- Care Transitions

The Patient

- Provider Education
- Patient Counseling
- Preventive Care
- Drug Information
- Medication Reconciliation
- Medication Access–340B
- Prospective Chart Review & Provider Consultation
- Disease State Management
- Medication Therapy Management
- Retrospective Drug Utilization Review

Project IMPACT–Diabetes
Clinical Pharmacy Services = Improved Outcomes

- **Prospective Chart Review**
  - THE BIG PICTURE – CLUES TO PATIENT BEHAVIOR

- **Retrospective Chart Review**
  - Drug Utilization/Medical, Social, Family History/Self-Efficacy/Adherence

- **Medication Therapy Management**
  - Review of all medications, patient education, action plan, identification of medication related problems

- **Disease State Management**
  - Consultations, adjustments, referrals, screenings, counseling and self management education

- **Medication Access**
  - uninsured, not covered–i.e.: Donut Hole in Medicare
Clinical Pharmacy Services = Improved Outcomes

- Preventive Care – immunizations, foot exams
- Drug Information – patient, team
- Medication Reconciliation – Brown Bag
- Patient Counseling – DSMT, MTM
- Provider Education – buy-in
Which is not a component of CPS?

- Medication Therapy Management
- Patient Counseling—self management
- Medication Access
- Walking the dog
What Services can CPS deliver that improves patient outcomes?

- Medication Therapy Management, Self Management Education, Medication Access ✔
- Count Pills
- Draw necessary lab orders
- Diagnose
Coordination of Care – our Delivery Model

10 Elements of Clinical Pharmacy Services

- Interventions consultations
- 340B
- Risk Reductions
- Self Mgt Education–AADE7

Patient Follow-up

- Outcomes Tracking
  - PSPC
  - Project Impact

Provider Referral

- pADE/ADE Reporting

Enabling Services

- BH
- PCMH Coordinators

Chief Medical Officer

- QA/PI/PCMH
Delivery Model PCMH Alignment

- Coordination of Care – Interdisciplinary Team
  - Engagement of team members
  - Enhanced communications

- Population Management
  - Identification of high risk population
  - Tracking – patient follow-up
  - Community Resources

- Medication Therapy Management
  - Identification of Medication Related Problems
  - Meaningful Use

- Continuous Quality Improvement
  - Patient Satisfaction
  - Development of Patient Education Tools
What service in CPS aligns with CMS Meaningful Use?

- Medication Therapy Management–medication reconciliation
- Provider Consultation
- Prospective Chart Review
- Medication Access
What worked?

- Trusting patient– pharmacist relationship
- Patient centered
- Face to Face encounters– 30 minutes to an hour
- Frequent follow–up as needed
- Targeted interventions
  - Disease– specific
  - Culturally competent
  - Health literacy conscious
  - Barriers identified
  - Evidence Based

- Collaboration with clinical team for coordination of care
Which CPS Component is not aligned with PCMH?

- Medication Therapy Management
- Coordination of Care
- Population Management
- Getting together with friends
# TOOLS – Adherence Sheet

<table>
<thead>
<tr>
<th>Name:</th>
<th>Date:</th>
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<table>
<thead>
<tr>
<th>Medications</th>
<th>What is it for? - Para Que Es?</th>
<th>Before Breakfast - Antes del Desayuno</th>
<th>After Breakfast - Después del Desayuno</th>
<th>Before Lunch - Antes del Almuerzo</th>
<th>After Lunch - Después del Almuerzo</th>
<th>Before Dinner - Antes De La Comida</th>
<th>After Dinner - Después De La Comida</th>
<th>Bedtime - Al Acostarse</th>
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- Teach Back
- Personal Medication Record
- Medication Action Plan
- Health Literacy/Literacy
- Self Management Tool
Scenario: During an interview with the patient they inform you that their metformin is causing problems with their stomach, they also tell you that they are taking metformin in the morning and the last bite of a good meal. They tell you that the blood pressure medicine they are complaining of frequently during the night to go to the bathroom since starting the medicine. How can we use this tool to help patient minimize side effects and teach the patient about how best to take their medicines. 

**S = Simplify Regimen**

**I = Impart Knowledge**

**M = Modify Patient Beliefs and Behaviors**

**P = Provide Communication and Nurture Trust**

**L = Leave the Bias**

**E = Evaluate Adherence**
Patient Knowledge, Comprehension and Self Efficacy Assessment

Improves Adherence—“The SIMPLE Method”

- **S** = Simplify Regimen
- **I** = Impart Knowledge
- **M** = Modify Patient Beliefs and Behaviors
- **P** = Provide Communication and Trust
- **L** = Leave the Bias
- **E** = Evaluate Adherence

Addresses Barriers—forgetfulness, side effects

Engages patient in the process

Helps identify Solutions

Literacy—Universal Symbols, Clocks

Reduces Side Effects—Enhances Acceptance

Medication Reconciliation—Meaningful Use/PCMH

Self-Management Take Home Tool for Patient/Medication Action Plan
TOOLS – Patient Education

Counseling Tool – Simple/Health Literacy/Literacy
Improves Adherence
Educates Patient on Refills
Helps patient navigate the system
Patient feels less intimidated and more in control
Integrates patient as integral to process
Improves Communications – All Parties
Engages Community 340B Partners
Preventive Medicine: EMBEDDED IN EMR

Clinical Pharmacy: Drug Adherence: Risk Assessment

- I am convinced of the importance of my medicine 0–10 10,
- I worry that my medicine will do more harm than good to me 0–10 0,
- How committed are you to starting the medicine and staying on the medicine? 0–10 10,
- Do you sometimes forget to take your medicine? Not at all, Several Days, More than half the days, All the time

- Conducted for all Patients
- Helps Identify Barriers– Cognitive Issues, Health Beliefs, Self Efficacy
- Helps Identify potential for Non–Adherence
- Embedded in CPS Encounter
**Interventions (check all that apply)**

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<tr>
<td>Entered recommendations into eCW encounter under treatment plan</td>
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<td>Education/counseling provided to pt</td>
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<td>A</td>
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<tr>
<td>Motivational interviewing</td>
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<tr>
<td>Reviewed medication action plan/teach back</td>
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<td>Reviewed importance of adherence/teach back</td>
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<td>Reviewed missed dose directions/teach back</td>
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<td>Reviewed adherence to treatment plan</td>
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- Identified Medication Errors
- Classifies level of Harm
- Designates Level of Severity
- Captures Specific Pharmacist Driven Interventions
  - Comprehensive Data Collection
  - Work in Progress - CQI
  - Reviewed Monthly with CMO
  - Quality Assurance and P&T
  - Patient Safety
  - Captures Specific Interventions - Data
  - Coordination of Care

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- Recommended D/C drug(s)
- Recommended substituting drug(s)
- Recommended adding drug(s)
- Changed dose(s)/insulin titration/dose adjustment
- Changed duration of therapy/quantity
- Changed PRN to schedule
- Changed schedule to PRN
- Clarified Rx
- Substituted dosage form
- Recommended additional labs/closer monitoring
- Gave patient care plan
- Other ___________________________
TOOLS– Self Management Education Curriculum

- AADE 7 Self Care Behaviors– EMBEDDED IN EMR
  - Healthy Eating
  - Being Active
  - Medications
  - Monitoring
  - Reducing Risks
  - Problem Solving
  - Healthy Coping

Patient Assessment– Ruler Method
- Level of Commitment
- Patient Acceptance
- Need for further Education
- Tracks Progress

Preventive Medicine
PCMH/MU: Care Plan Given? Care Plan Given.
AADE 7 Self Care Behaviors: Monitoring Discussed:
Yes, Discussed SMGM Instructions, Blood Glucose Log Reviewed and
Measure AM sugars, Reduced Risks, Reducing Medications,
Healthy Coping
Other referral to (Most
•level of commitment.
•patient acceptance.
•need for further education.
•tracks progress.

Patient Self Management and

Procedure Codes
Practical Implications

- Health Center leadership commitment and support
- Provider buy-in
- Pharmacist committed to patient population
- Advanced Practice Pharmacist – CDE, PGYs
- Access to electronic medical records crucial to success
- Cost – Pharmacist salary, space, support staff, equipment, EMR license
- Sustainability – APhA Foundation Project Impact Diabetes
What element is crucial to assure that the pharmacist optimally benefits the patient and the team?

- Home visits
- Telecommunications/video conferencing
- Access to Electronic Medical Records
- Grand Rounds
One of 25 organizations selected due to our success with the PSPC

Used our established process of integrated care

Included diabetes education and self-management curriculum

Collected health measures and reported data on a monthly basis
Enrolled and followed 84 patients for one year
  - Average of 4 visits per patient
  - More >50% received action plans

Results
  - HbA1c levels significantly reduced by 0.9% (p=.0002).
  - Improvements were seen in cholesterol and blood pressure (p=0.164, p=0.444)
  - 65.2% had eye exams, 84.2% had foot exams, and 70% received their flu vaccine
  - 28.6% of patients that smoked cigarettes quit smoking
PSPC Outcomes – Diabetes

Percentage of patients in the PoF whose most recent hemoglobin A1c level is greater than 9% 37%

Percentage Change/ Percentage Improvement (Percentage of patients with HbA1c <9%) 63%

Percentage of patients in the PoF whose most recent hemoglobin A1c level is less than 8% 41%
PSPC Outcomes – Cholesterol and Hypertension

Percentage of patients in the PoF whose LDL is at goal

Percentage of patients in the PoF whose most recent blood pressure is under 140/90
PSPC Outcomes on All Conditions Followed

Patients under control for at least one condition: 81%
A pharmacist in the care team results in:

- Improves medication adherence
- Enhances patient safety
- Improves access to medications
- Enhanced self-management by the patient to accept drug and lifestyle changes regimen
- Increased efficiencies in the health care delivery model
- Improved screening and prevention services
- Added value to care—improved outcomes
- Decreased ED visits and hospitalizations
## Value of CPS Integration in Primary Care

<table>
<thead>
<tr>
<th>Reality</th>
<th>Savings</th>
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<tr>
<td>IMS Study – Medication misuse – &gt;$200B=8% costs</td>
<td>$200B= cost to insure 24 million uninsured Americans</td>
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<tr>
<td>CDC– non–adherence costs $2K/pt/physician/yr in extra visits</td>
<td>$35.7M (Zufall 85% of 21K patients) x1500 Health Centers=$53.6B</td>
</tr>
<tr>
<td>CDC– improved self management cost to savings ratio1:10</td>
<td>Cost to Savings Zufall est.$250,000/yr=$2.5M x 1500 Health Centers=$3.75B</td>
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<tr>
<td>2025– costs projected to double</td>
<td>Double all numbers by 2025</td>
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Next Steps to Include CPS in the Care Team

- Become a Teaching Site for Pharmacists
- Advanced Practice Students
- Introduce Annual Well Visits
- Increase Access to Care – Provider Status for Pharmacists
Questions?

- Contact Information:
  - Teresita Lawson – tlawson@zufallhealth.org
  - Rina Ramirez – rramirez@zufallhealth.org

THANK YOU
References

- CDC’s Noon Conference/ Medication Adherence/March 27, 2013
- IMS Health Study Identifies $200+ Billion Annual Opportunity from–Using Medicines More Responsibly– June 2013
- ADA 2013 Fast Facts professional.diabetes.org/facts

Sources: Ho 2009, Circulation; Levine et al. 2013, Annals of Neurology

Sources: Ho 2009, Circulation; Edmondson 2013, Br J of Health Psychology; George & Shalansky 2006, Br J Clin Phar

AADE 7 Self Care Behaviors– American Association of Diabetes Educators