Person-Centered Nurse Care Management in Home Based Care: Impact on Well-Being and Cost Containment

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Objectives

- Define evidence-based home and community care management models in the outpatient and community settings
- Identity best practice strategies to identify, assess, treat and track patients at risk for health status decline
The Chronic Care Model

- Community
  - Resources and Policies
  - Self-Management Support

- Health Systems
  - Organization of Health Care
    - Delivery System Design
    - Decision Support
    - Clinical Information Systems

- Improved Outcomes
  - Informed, Activated Patient
  - Productive Interactions
  - Prepared, Proactive Practice Team

Developed by The MacColl Institute
® ACP-ASIM Journals and Books
<table>
<thead>
<tr>
<th>Community Resources and Policies</th>
<th>Health System Organization of Health Care</th>
</tr>
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<td><strong>Delivery System Design</strong></td>
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<tr>
<td>• Emphasize Patient Role</td>
<td>• Team roles and tasks</td>
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<td>• Assessment</td>
<td>• Case Mgmt</td>
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<tr>
<td>• Interventions</td>
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<tr>
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<td>• Group Visits</td>
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<td><strong>Clinical Information Systems</strong></td>
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<tr>
<td>• Risk Assessments</td>
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<td>• Guidelines</td>
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<td>• Specialty interaction</td>
<td>• Patient Subgroups</td>
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<td>• Provider education</td>
<td>• Care planning</td>
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<tr>
<td>• Guidelines for patients</td>
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Community Case Management

**Target**
- Target high-risk, high-cost patient groups in a population-focused framework

**Coordinate**
- Manage and coordinate care across the continuum

**Track**
- Track quality, clinical & cost outcomes
Why Community Case Management

1. Keep patients connected.
2. Ensure that energy and resources are matched to patient needs.
3. Monitor outcomes and compare to evidence-based guidelines.
4. Work collaboratively with:
   - Physicians (Primary Care and Specialists)
   - Home Care Nurses
   - Skilled Nursing Facilities
   - Hospitals
The Problem: High costs

- Missed Treatments
- Frequent Admissions ED & Hospital
- Unfilled Prescriptions
- Missed Appointments
- High Costs
- Poor Health care behaviors
- Busy health care staff

Lack of a systematic way to assess and pro-actively deal with issues that affect adherence, quality of life, and outcomes (clinical and cost)
Goals

- Improve the coordination of services
- Improve self-management and adherence behaviors
- Integrate acute episodes with community continuum
- Improve quality and satisfaction with care
- Improve coordination of care across all levels
- Reduce Costs:
  - Decrease Emergency Department visits
  - Decrease hospital readmissions
  - Decrease in-patient Length of Stay (LOS)
  - Decrease patient costs
Community Case Manager Roles

**Person Centered Care Coordinator**

- **Focus:** complex health care needs, high-risk, multiple diseases
- **Registered Nurses, LPNs, Social Workers, Community Health Outreach Workers**
- **Employed by clinics, physician groups, health plans**
- **Caseload = 40-100 patients**
- **Mostly telephonic but see patient in the clinic and may provide home visits**
- **Funding:** grants, care coordination fee from payers, concierge (private pay)
Transitional Care Nurse Specialist

- Registered Nurse or Advanced Practice Nurse (Nurse Expert)
- Employed by hospital, outpatient clinic, insurance
- Caseload: 40-60 patients
- Follows patients at risk for readmission
- Follow patient for 30-60 days post discharge
- Home visits, telephone visits, physician visits
- Works closely with home care nurses
  - self-management education, care coordination, medication reconciliation
- Funding: employed by hospital or primary care provider group, payers (per patient fee for intervention)
Patient Navigator

- Focused effort: e.g. oncology, diabetes, heart failure
- Registered Nurses, LPNs, Community Outreach Workers
- Caseload: 40 – 100
- Funding: Hospitals, clinics, physician groups
care coordination fee
Case Studies
Geriatric Resources for Assessment and Care of Elders: GRACE
Indiana University School of Medicine

- Low-income elders
- Nurse Practitioners & Social Workers
- Interdisciplinary Team
- Home based care management for common geriatric conditions
- One initial Home Visit and Monthly Telephone follow up

- Improved general health, vitality, social functioning, and mental health
- Cost Savings:
  - Lower Emergency Room Visits
  - Reduced hospital visits for high-risk patients

Counsell et al., 2007, Counsell, Callahan, Tu, Stump, & Arling, 2009
Care Management Plus
Intermountain Healthcare, Utah

- Follows Chronic Care Model’s 6 elements
- Nurse Care Managers
- Specially designed patient worksheet
- Electronic care management tracking system
- Home visits and telephone calls
- Communicate with specialists

- Conduct team meetings
- Assist with medications
- Care coordination
- Lower mortality
- Cost Savings:
  - lower rehospitalizations after 2 yr for patients with diabetes
  - No significance difference with other diagnoses

Dorr et al., 2006, Dorr el al, 2008
Guided Care
John Hopkins School of Medicine

- Registered Nurses trained in Care Management of complex patients
- Perform a home-based patient assessment
- Develop care plan with the patients and their primary care physicians
- Taught self-management skills, early identification of worsening symptoms
- Caseload: 50 patients, home visits, telephone calls, visits with physicians
- Rated the quality of their chronic care more highly than control group
- Cost Savings*:
  - Lower total health expenditure
  - Lower hospitalizations
  - Lower Length of Stay in the hospital
  - Lower Emergency Room visits

*B not statistically significant

Boult et al, 2011
Carondelet Diabetes Disease Management Program
Patient-Centered Health Care

Carondelet Medical Group (CMG) Diabetes Intervention Grid

• PCP visits (EHR Diabetes Template evidence-based guidelines)
• Diabetes nurse educator visits: self-management education
• Telehome monitoring for high-risk patients
• Dietitian visits: medical nutrition therapy
• Diabetes Day Clinics for annual exams
• Diabetes Navigator (Promotora): coordination
• Behavioral Health
• Web-based scorecard and care team intervention management (documentation)
• Patient scorecard drives the interventions per Carondelet Intervention Grid
Diabetes Clinics

- Annual Eye and Foot Exams
- Medical Nutrition Therapy
- Vital Signs and Labs
Diabetes Classes

Introduction to Carb Counting
Community Health Outreach Worker (Promotora)

- Populates and maintains scorecard (Evidence-based guidelines)
- Coordinates appointments based on intervention grid
- Coordinates Diabetes day clinics
Telehome monitoring
Carondelet’s Purpose:
We provide access to excellent care for the people of our community.

DIABETES DISEASE MANAGEMENT PROGRAM

This program is for Carondelet Medical Group (CMG) patients with diabetes. A patient in the CMG Diabetes Disease Management Program will receive the following benefits:

- Diabetes visits with your CMG physician.
- A Diabetes coach who will help you with your diabetes visits and challenges.
- You will be invited to Diabetes clinics once per year for your yearly labs, and eye and foot visits.
- Special visits with a diabetes nurse to help you better manage your diabetes and medicine. You will also learn how to live a more healthy life.
- Special visits with a Diabetes dietitian to help you learn how to eat healthy and build your own meal plan.
- Carondelet Diabetes classes recognized by the American Diabetes Association
- A membership card

For more information, contact our Carondelet Diabetes Navigator 520-872-6743

LOGIN

Username (Email):
Password:

Submit
Carondelet Diabetes ScoreCard
Year 1 Program Results

Notes
Baseline data for Non-CMG patients living in Pima County was not available for this analysis. This data point is provided for comparative purposes, describing the relative quality of care for patients under care of CMG versus other health plan members. Non-CMG patients score better than Routine Care for 3 of the 4 measures; ScoreCard patients have the highest quality marks for all measures.

EXPLANATION
Patients enrolled in the Scorecard program received better care, as measured by these four standard performance measures, than CMG’s Routine Care patients. The levels over baseline benchmarks were especially notable for eye exams (up 29 points), A1C testing (up 13 points) and nephr (up 13 points).

Analysis conducted by Saint Louis University Center for Outcomes Research.
Contact: Dr. Eric Armbrrecht armbrees@slu.edu (314) 307-5162
February 5, 2013
Carondelet Diabetes ScoreCard
Year 1 Program Results

**Notes**
Baseline data for Non-CMG patients living in Pima County was not available for this analysis. This data point is provided for comparative purposes, describing the relative lower cost for patients under care of CMG versus other health plan members. Baseline PMPM of $665 is not adjusted for risk or historical claims experience for either Routine Care of ScoreCard patients. Baseline is the aggregate of all CMG patients with diabetes for the year prior to program implementation.

**EXPLANATION**
The change in cost of care between the groups is attributable to a 48% lower cost of inpatient care among ScoreCard patients as compared to Routine Care. ED costs were 13% less for ScoreCard patients.

However, Rx costs were 46% higher for ScoreCard patients in comparison to Routine Care during Year 1, likely attributable to medication adherence, guideline-based combination therapy, and blood glucose monitoring.

**ESTIMATED SAVINGS**
The net estimated savings in Year 1 to the health plan for the ScoreCard program is $23 per enrolled member per month, or $21,800 for the year. This estimate accounts for fees paid by the health plan to Carondelet for ScoreCard program services.

Analysis conducted by Saint Louis University Center for Outcomes Research.
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Commonalities

- Identify patients at high risk for hospitalization or health status decline in the coming year and improve their knowledge of and adherence to treatment and self-care regimes

- LACE: Length of Stay, Acuity, Co-Morbidities, Emergency Visits (Hospital Readmit Risk)
- CARS
- Levels of Confidence

Lamb, Care Coordination: The Game Changer, 2014
**The Community Assessment Risk Screen (CARS)**

Do you have any of the following health conditions

<table>
<thead>
<tr>
<th>Condition</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Heart disease?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Diabetes?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Heart attack or myocardial infarction?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Stroke?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. Chronic obstructive pulmonary disease?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. Cancer?</td>
<td></td>
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</tr>
</tbody>
</table>

(Score: If two or more conditions are “YES” score = 2)

**SCORE ___**

2. How many prescriptions medications do you take? ___

(Score: If “5 or more” medications score = 3)

**SCORE ___**

3. Have you been hospitalized or had to go to an emergency room or urgent care center in the past six months?
   Yes ___ No ___

(Score: If the answer is “YES” score = 4)

**SCORE ___**

**TOTAL ___**
## Patient Confidence Level at Discharge is Low*

Adapted from Lorig’s Level of Confidence tools

<table>
<thead>
<tr>
<th>Self-Care Behavior Confidence Level in HF Patients</th>
<th>Pre-Intervention</th>
<th>Post-Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How sure are you that you know how to make healthy food choices?</td>
<td>3.8</td>
<td>4.5</td>
</tr>
<tr>
<td>2. How sure are you that you can tell which foods are high in sodium?</td>
<td>2.5</td>
<td>4.3</td>
</tr>
<tr>
<td>3. If you are taking medicine - How sure are you that you know about your heart failure medication and the possible side effects?</td>
<td>2.3</td>
<td>4.4</td>
</tr>
<tr>
<td>4. How sure are you that you can tell if you have swelling?</td>
<td>3.3</td>
<td>4.9</td>
</tr>
<tr>
<td>5. How sure are you that you can find support for your heart failure when you need it?</td>
<td>2.5</td>
<td>4.7</td>
</tr>
<tr>
<td>6. How sure are you that you can tell if you are getting out of breath?</td>
<td>3.5</td>
<td>4.9</td>
</tr>
<tr>
<td>7. How sure are you that you can check your weight and know when there is a problem?</td>
<td>2.8</td>
<td>4.9</td>
</tr>
<tr>
<td>8. How sure are you that you can work with your doctor to understand your heart failure?</td>
<td>3.5</td>
<td>4.8</td>
</tr>
</tbody>
</table>

*Target >= 4.5
Commonalities

- Improve communications and coordination between the patient’s PCP and specialists...and with the patient

Personal Health Record

Lamb, Care Coordination: The Game Changer, 2014
Commonalities

- Work with and rectify areas in which care for the patient may not be consistent with evidence-based guidelines

Patient Passport

Lamb, Care Coordination: The Game Changer, 2014
<table>
<thead>
<tr>
<th>TEST</th>
<th>HOW OFTEN</th>
<th>GOAL</th>
<th>DATE / RESULT</th>
<th>TEST</th>
<th>HOW OFTEN</th>
<th>GOAL</th>
<th>DATE / RESULT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blood Pressure</td>
<td>Every visit</td>
<td>Less than 140/80 mm Hg</td>
<td></td>
<td>Cholesterol</td>
<td>At least annually</td>
<td>Less than 200 mg/dL</td>
<td></td>
</tr>
<tr>
<td>Weight</td>
<td>Every visit</td>
<td>Healthy weight _____ lbs.</td>
<td></td>
<td>Triglycerides</td>
<td>At least annually</td>
<td>Less than 150 mg/dL</td>
<td></td>
</tr>
<tr>
<td>Feet</td>
<td>Every 3 months</td>
<td>No cuts or sores/sensation intact per monofilament</td>
<td></td>
<td>HDL</td>
<td>At least annually</td>
<td><strong>Men</strong> – more than 40 mg/dL <strong>Women</strong> – more than 50 mg/dL</td>
<td></td>
</tr>
<tr>
<td>Kidney Function</td>
<td>Every year</td>
<td>GFR &gt; 90 Microalbuminuria &lt; 30mg</td>
<td></td>
<td>LDL</td>
<td>At least annually</td>
<td>Less than 100 mg/dL</td>
<td></td>
</tr>
<tr>
<td>Eyes</td>
<td>Every year</td>
<td>No retinal changes</td>
<td></td>
<td>A1C</td>
<td>2-4 times/year</td>
<td>Less than 7%</td>
<td></td>
</tr>
</tbody>
</table>
Commonalities

- Monitor the patient’s symptoms, well-being and adherence between clinical visits.
- Advise the patient on when to see their providers.
- Notify the patient’s PCP of health status change.

Patient Zones

Lamb, Care Coordination: The Game Changer, 2014
# Diabetes Zones for Management

## Green Zone: Great Control

**Your Goal HbA1c:**
- HbA1c is under ____
- Average blood sugars typically under 150
- Most fasting blood sugars under 140

**Green Zone means:**
- Your blood sugars are under control
- Continue taking your medications as ordered
- Continue routine blood glucose monitoring
- Follow health eating habits
- Keep all physician appointments

## Yellow Zone: Caution

- HbA1c between ____ and ____
- Average blood sugar between 150-210
- Most fasting blood glucose under 180
- Work closely with your health care team if you are going into the Yellow Zone

**Yellow Zone means:**
- Your blood sugar may indicate that you need an adjustment of your medications
- Improve your eating habits
- Increase your activity level
- Irregular heart beat or fast heart beat
- Call your physician, nurse, or diabetes educator if changes in your activity level or eating habits don’t decrease your fasting blood sugar levels.

Name: __________________________
Number: _______________________

## Red Zone: Stop and Think

- HbA1c between ____ and ____
- Average blood sugars are over 210
- Most fasting blood sugars are well over 180

**Call your physician if you going into the Red Zone**

**Red Zone means:**
You need to be evaluated by a physician. If you have blood glucose over _____, follow these instructions __________

- Call your physician

Name: __________________________
Number: _______________________

Adapted from Alaska Native Medical Center, Anchorage, AK
Case Manager Role/Competencies

- **Advocacy & Education** – ensuring the patient has an advocate for needed services and any needed education.

- **Clinical Care Coordination/Facilitation** – coordinating multiple aspects of care to ensure the patient progresses.

- **Continuity/Transition Management** – transitioning of the patient to the appropriate level of care needed.
Case Manager’s Role/Competencies

- **Utilization/Financial Management** – managing resource utilization and reimbursement for services.

- **Performance & Outcomes Management** – monitoring, and if needed, intervening to achieve desired goals and outcomes for both the patient and the health care system.

- **Psychosocial Management** – assessing and addressing psychosocial needs including individual, family, environmental, etc.

- **Research & Practice Development** – Identifying practice improvements and using evidence based data to influence needed practice changes.
The Solution: Community Case Management

The underlying premise of case management is based in the fact that when an individual reaches the optimum level of wellness and functional capability, everyone benefits:

✓ the individuals being served
✓ their support systems
✓ the health care delivery systems
✓ the various reimbursement sources.

Case Management Society of America, 2014
Thank You