Collaborative Care Nurses

Partners in Chronic Disease Management
Why pursue this concept in chronic disease management?

- Supply and Demand mismatch is growing.
- Aging workforce and aging population.
- In 2016 there will be more providers including associate providers leaving primary care than entering.
- By 2025 estimates are anywhere from 45 to 52,000 primary care physicians short.
Crisis vs Opportunity

• In 2011 a study suggested that if 75% of work is delegated than maybe a pcp could handle a panel of 1975 patients.

• These forces have given us a unique opportunity to evaluate and change the way we deliver primary care.

• Nurse’s are the largest healthcare workforce-historically under utilized in the Ambulatory Care setting.
Redesign

• We have embarked on a change of care culture toward team-based care.

• Phase 1:
  – Creating the team environment and subsequently, teamlets.
  – Education of the Collaborative Care Nurse

• Phase 2 was the deployment of the Collaborative Care Nurse.
Top of License

• In this new model, with the growing demand for primary care, every member of the team must work to the top of their license not just providers.

• That means critical evaluation of each role on the team to make sure that tasks are aligned with clinical license.
**Collaborative Care Model - Primary Care Provider (PCP) - led, team-based, collaborative care**

**PCP (MD/DO/Nurse Practitioner)**
- Diagnose
- Prescribe medications
- Develop and oversee your treatment plan
- Directs your care

**Associate Providers**
- (Physician Assistants and Nurse Practitioners)
- Diagnose
- Prescribe treatment/medications
- Works closely with your PCP to ensure that your current treatment plans are being followed

**RN Care Coordinator**
- Helps facilitate your transitions of care from hospital to home or nursing home
- Works closely with complex patients requiring support services
- Follows up with you after an ER visit to ensure that you have appropriate follow-up care in place

**Registry Coordinator**
- Reaches out to you between office visits to ensure you are up-to-date with chronic and preventative guidelines (e.g., mammograms, immunizations, high blood pressure management, etc.)

**Behavioral Health Consultant**
- Works with your provider to manage complex behavioral health issues

**Patient Flow Staff**
- Makes sure that you get the most out of your appointment by ensuring your vital signs, medication lists, allergies and immunizations are up-to-date

**Forms Manager**
- Helps to complete, track, and scan your paperwork into your medical record
- Ensures that your paperwork is done in a timely manner
- Works with pharmacist to obtain Prior Authorizations so that your prescriptions are covered by your insurance plan

**Collaborative Care Nurse**
- Works closely with your PCP to help manage state chronic disease (diabetes, high blood pressure, COPD)
- Provides education and health coaching

**Team Phone Nurses**
- Help triage and provide advice for your medical concerns/needs
- Communicates directly with your provider

**Result Management Nurse**
- Contacts you about test results and provider recommendations
- Communicates directly with your provider to help answer your questions about test results and arrange the appropriate follow-up care

**Medication Renewal Manager**
- Helps to ensure that your refills are completed in a timely fashion

**Call Center/Receptionists**
- Directs your incoming phone calls to the appropriate staff member
- Schedules appointments, tests and consults
Example: PCP
adapted from Health Care Advisory Board: Care Transformation Center; 12 Lessons on Transforming Primary Care

Typical Primary Care Office

• Spends majority of visit addressing acute ailments
• Provides chronic care management in minutes after acute issues are addressed with little standardization across patients
• Often many opportunities for interventional and well-care are missed in this setting

New Medical Home Concept

• Patients are proactively scheduled for chronic care provider appointments
• Uses chronic care guidelines which provide a framework for consistency across patients and lead to best practice and better delegation to other team members
Typical Primary Care Office

- Like providers, spends vast majority of time on acute ailments in the form of walk-in care or triage on the phone.
- Takes incoming patient calls concerning medication and lab results.

New Medical home Concept

- Prioritizes time for patient follow up
- Proactively reaches out to patients to encourage self-management
- Provider or patient can schedule time with RN for one-on-one education
- Utilizes care protocols to improve chronic disease outcome measures.
Challenges

• As the care team expands we must maintain clear role definition to avoid resource depletion, duplication of work and team burnout.

• Managing resources to allow our Collaborative Care Nurse’s timely continuing education to foster growth in the role.
Phase I: Training of the Collaborative Care Nurses

- Began in mid-May 2014.
- Focused on Diabetes, HTN and COPD, Advanced Care Planning, and, Annual Wellness Visits.
- Met with providers from primary care and specialty as well as ancillary services like dietary and pulmonary rehab around these entities.
- They have learned technical skills such as glucometer teaching, insulin initiation and spirometry.
- Had educational opportunities for motivational interviewing.
- Have ongoing plan for continued education in these arenas, with a special emphasis on Diabetes.
Phase 2: Training/Deployment of Collaborative Care Nurses

• Mid-July 2014:
  – Care Coordinators identified patients requiring COPD Action Plans and included their Teams’ Collaborative Care Nurses in the visit.
  – Collaborative Care Nurses began shadowing in the Nurse Clinic and were introduced to various visit types to familiarize themselves with the anatomy of a Nurse Visit.
  – EMR templates were created and Collaborative Care Nurses attended training on their use, as well as Version 11 note training.

• Early August 2014:
  – Collaborative Care Nurses began to perform visits in the Nurse Clinic on their own to help them put it all together (e.g., Assessment, Teaching, Documentation and Charging).

• Late August 2014:
  – Collaborative Care Nurse schedules were built in our scheduling system.
  – Receptionists were directed to book BP follow-ups with the Team’s Collaborative Care Nurse.
  – Added Collaborative Care Nurse to our follow-up options for future care.
Collaborative Care Nurse Education Checklist

**PROVIDER-BASED**

- COPD - Andy Tremblay MD
  - Completion of the slide deck from GOLD
  - Review of COPD Action Plans
- HTN – Don Mazanowski MD
  - Completion of slide deck from AHA
  - Review of current campus-wide HTN workflow
- Diabetes –Emily Presnall APRN and Eileen Duffy RN, CDE
  - Review of Diabetic Education and Insulin-start protocol.
  - Pharmacology review
- Motivational Interviewing –Tom Stearns PhD

**Nurse Care Review**

- COPD – Mary Ann Riley RT, Kate McNally, and, Staff from Family Medicine Team D
  - Spirometry
  - Inhaler Technique Review
  - CAT Review (also part of provider review)
  - Smoking Cessation (5 A’s: Ask, Assess, Advise, Assist, Arrange)
  - Pulmonary Rehab
  - Medicare/Insurance Oxygen guidelines
- HTN – Nurse Clinic
  - Review of current campus-wide HTN workflow
- DM – Eileen Duffy RN, CDE
  - Glucometer teaching
  - Insulin administration teaching

**EMR/Documentation**

- Clinical Informatics staff
  - Create EMR Templates for use for Documentation
So What Can they Do?

Hypertension

- All Blood Pressure follow ups you would normally send to the Nurse Clinic.

Diabetes

- Glucometer teaching.
- Diabetic Education on new and established Diabetic patients
- New Insulin starts.
- Medication Adjustment per protocols

COPD

- Spirometry
- Update Immunizations
- COPD Action Plans
- Inhaler Use Teaching
- Symptom Monitoring

Annual Wellness Visits
Sample Care Guide

**COLLABORATIVE CARE NURSE COPD VISIT GUIDELINE**

**MEDICATION REVIEW**
- Review Medications Refills?
- Review Allergies
- Assess inhaler technique
- Is the patient on oxygen?
  - Last amb. O2 sat?

**COPD ASSESSMENT**
- Spirometry within last year? If not obtain and chart.
- Pneumovax completed? If not administer. (see flow chart)
- Annual Flu Vaccine given? If not administer.
- Smoking? Update status in EMR. If smoking in office counseling and suggest referral to tobacco cessation program. If pt accepts, make referral.
- Make referral to Pulm Rehab. They will then contact patient to further assess
- Any Recent Hospital stays related to COPD?
- Any ER visits for COPD related illness?
- Is there a COPD Action Plan?
- Was it recently activated? If so have meds been refilled?
- COPD Assessment Test (CAT) given, scored, documented in note and sent for scanning
- Are they using rescue inhalers more?
- Note to PCP for review
Collaborative Care HTN Guideline

- **Medication Review**
  - Review medications/Allergies Taking as prescribed?
  - Refills needed?
  - Review home B/P readings - in control

- **Metric Review**
  - Yearly BMP/ CMP if on any cholesterol meds or ACE/ARB/Diuretics
  - Blood Pressure each visit
  - Assess Smoking status in Social History - if a smoker offer and document cessation counseling
  - Annual flu vaccine given? If not, offer/administer seasonally.
  - Pneumovax completed? If not, offer/administer per guidelines.

- **HTN Assessment**
  - Any side effects of meds?
  - Cough, fluid retention
  - Review lifestyle influences –
    - Weight
    - Exercise
    - ETOH
    - Stress management
    - Diet
    - Handouts - DASH diet, HTN pamphlet and B/P card
How do you access them?

Preferred

• Warm Hand-Off
• Face-to-Face Introduction

Other Options

• Utilize the Collaborative Care Nurse for follow-up appointments
• Send a task to your Collaborative Care Nurse
How do you access them?

What is a Collaborative Care Nurse?

A Collaborative Care Nurse is a Registered Nurse (RN) who helps with the care of patients with chronic disease.

Each Collaborative Care Nurse is directly associated with, at most, three providers. They work closely with your primary care provider (PCP) to help manage stable chronic disease, and assist with implementing the care plan that has been laid out by your PCP. Most often, this is accomplished by focusing on education and health coaching, but, it can also include making sure you have received all of the appropriate labs or tests for your condition. They also monitor other preventive health care screenings you may need based on your age, family history and health, for example: a mammogram or colon cancer screening. In addition, Collaborative Care Nurse’s perform Medicare Annual Wellness visits.

Your Collaborative Care Nurse is:

Your next appointment is:

Day Date Time

Lab Appointment:

Day Date Time

If unable to keep this appointment, please give 24 hours notice by calling 603-354-5400 so we may offer that time to another patient.

Cheshire Medical Center
Dartmouth-Hitchcock Keene
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Our What’s Next List as of 10/2014

• Focus on Diabetes and Health Coaching education
  – Actively seeking Continuing Education Opportunities/Conferences for the Collaborative Care Nurses to attend.
  – Collaborate with Dietician to align practice/patient education.
  – Collaborate with our Clinical Pharmacist to create medication protocols for Diabetes and HTN management.
Example of Integration of Collaborative Care Role With Patient Data Coordinators, Patients and PCPS

**REGISTRY MANAGEMENT IN DM2**

- PDC to generate registry of all pts with DM2 on monthly basis
  - Review chart
  - Order HgbA1C/BMP if NOT done in last 3 months. Remove any other lab reminders from system. Notify patient.
  - Appt with PCP or team in next 1 month?
    - YES: Forward note containing information for provider visit.
    - NO: Review with patient educational info and lifestyle control
      - Review glucose monitoring and med compliance
      - Identify obstacles to better control: Diet? Cost? Activity?
      - Identify smoking status
      - Note containing info and lab results will be sent to PCP to review
      - PCP to determine appropriate med protocol for CCN to follow and sends this info back to collaborative care nurse via task.

- PDC will filter registry by HGBA1C targeting those greater than or equal to 9.0
  - PDC to review this filtered list with provider-specific Collaborative Care Nurse.
  - Collaborative Care Nurse will then:
    - Schedule appt with Collaborative Care Nurse.
    - At appt Collaborative Care Nurse will:
      - Review with patient educational info and lifestyle control
      - Review glucose monitoring and med compliance
      - Identify obstacles to better control: Diet? Cost? Activity?
      - Identify smoking status
      - Note containing info and lab results will be sent to PCP to review
      - PCP to determine appropriate med protocol for CCN to follow and sends this info back to collaborative care nurse via task.

- If barrier includes access to medication then engage Medication Assistance Program CMC
- If barrier includes inadequate physical activity consider Activity Is Good Medicine at YMCA (When program again available)
- If barriers include diet: consider referral to CMC/DHK Dietitian
- If barrier includes tobacco use then engage CMC/DHK Tobacco Cessation Program
- If needs eye exam, send referral to ophthalmology
- Administer immunization if due for pneumovax or flu vaccine

- Collaborative Care Nurse to document and initiate protocol
- Follow up with PCP/Teamlet within 3 months
# Sample of Medication Titration Protocol

**Medication titration:**

<table>
<thead>
<tr>
<th>Time</th>
<th>Medication dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>0—APC or PCP</td>
<td>Metformin 500mg (500mg in the morning, taken with food)</td>
</tr>
<tr>
<td>Week 1</td>
<td>Confirm medication adherence, review for exclusion criteria and side effects. If none, increase dose to: Metformin 1000mg (500mg in the morning and 500mg in the evening, taken with food)</td>
</tr>
<tr>
<td>Week 2</td>
<td>Confirm medication adherence, review for exclusion criteria and side effects. If none, increase dose to: Metformin 1500mg (1000mg in the morning and 500mg in the evening, taken with food)</td>
</tr>
<tr>
<td>Week 3</td>
<td>Confirm medication adherence, review for exclusion criteria and side effects. If none, increase dose to: Metformin 2000mg (1000mg in the morning and 1000mg in the evening, taken with food) - maximum effective dose</td>
</tr>
</tbody>
</table>

**Outcome monitoring:**

<table>
<thead>
<tr>
<th>Metformin 2000mg reached or maximum tolerated dose</th>
<th>Order A1c in next 3 months</th>
</tr>
</thead>
</table>

**RN 2nd level check of exclusion criteria (at each dose increase) Review for:**
- Creatinine levels in the last 12 months
  - Contraindicated in renal disease
    - SCr > 1.4 for females and SCr > 1.5 for males ,
- Problem List diagnosis of hepatitis, cirrhosis, abnormal LFTs, nonalcoholic steatohepatitis
- Age > 80
- Excessive alcohol use (Males ≥3 drinks/day; Females ≥2 drinks/day)
- Pregnancy
If any of the above are present, consult clinician.

**Side Effects to Assess for:**
- Diarrhea, nausea, vomiting, bloating, abdominal discomfort, flatulence, GI intolerance
  - If GI side effects are present, verify medication is taken with food
- Weakness
- Metallic taste
- Rash, headache
- Hypoglycemia* (if used in combination with other DM agents)
If any side effects, consult with clinician.

**Monitoring (at time of enrollment):**
- Creatinine every 12 months. If no creatinine within the past 12 months, order creatinine
If any lab abnormalities, consult with clinician.

**Safety Instructions:**
- Stop Metformin at the time of and for 48 hours after IV contrast studies, procedures or surgery
- During acute episodes of sickness, please consult clinician.
Collaborative Care Nurse Working Algorithm for Patients with Diabetes

**Lifestyle Modification and Education**

**DIABETES MANAGEMENT**

**Engaged Patient with opportunity for improvement in lifestyle**

**ENTRY HGBA1C less than 9.0?**

- **YES**
  - Monitor glucose bid x 2 weeks
  - **YES** Improvement?
    - Continue same pathway with every 2 week check-ins until routinely fbs is less 130 or random/postprandial glucose is less than 180.
    - **NO**
      - Repeat HGBA1C in 3 months

- **NO**
  - Consider addition of medications. Discuss with provider.
  - **YES**
    - Consider addition of medications. Discuss with provider.
  - **NO**
    - **ENTRY**
      - HGBA1C is less than 7.5 OR less than 8.0 based on age and comorbidities
      - **MONOTHERAPY**:
        1) Metformin ER
        2) Metformin
        3) Glimperide (intended for pts with elevated Cr who can not use Metformin)
      - **YES**
        - Institute Protocol for Medication of Choice
      - **NO**
        - **ENTRY**
          - HGBA1C greater than 7.0 or greater than 8.0 in older patients with comorbidities?
          - **YES**
            - **DUAL THERAPY**:
              - Metformin ER
              - Metformin + Glimperide
            - **YES**
              - **ENTRY**
                - HGBA1C greater than 9.0
                - **YES**
                  - Are Symptoms present?
                  - **YES**
                    - Start Metformin if not present,
                    - **ENTRY**
                      - BASAL INSULIN:
                        1) Lantus
                        2) Levemir
                      - **TITRATION AND FOLLOW UP per protocol**
                      - **YES**
                        - **ENTRY**
                          - HGBA1C greater than 7.0 or greater than 8.0 in older patients with comorbidities?
                          - **YES**
                            - **3RD ORAL AGENT per PCP**
                          - **NO**
                            - **ENTRY**
                              - Basal Insulin per PCP
                              - **TITRATION AND FOLLOW UP per protocol**

- **ENTRY**
  - HGBA1C is greater than 9.0
  - **YES**
    - Are Symptoms present?
    - **YES**
      - Start Metformin if not present,
      - **ENTRY**
        - BASAL INSULIN:
          1) Lantus
          2) Levemir
        - **TITRATION AND FOLLOW UP per protocol**
        - **YES**
          - **ENTRY**
            - HGBA1C greater than 7.0 or greater than 8.0 in older patients with comorbidities?
            - **YES**
              - **3RD ORAL AGENT per PCP**
            - **NO**
              - **ENTRY**
                - Basal Insulin per PCP
                - **TITRATION AND FOLLOW UP per protocol**
Collaborative Care Nurse Appointment Scheduling Statistics 9/1/14-10/31/14 (n=660)

CCN Appointment Scheduling Stats
N = 660

- Arrived: 71%
- Bumped: 7%
- NOS: 16%
- Cancelled: 6%
Collaborative Care Nurse Appointment Scheduling Statistics 9/1/14-12/31/14 (n=1,124)

Collaborative Care Nurse Visit by Team 9/1/14-12/31/14

- **CCA**: 273 visits
- **CCB**: 226 visits
- **CCC**: 235 visits
- **CCD**: 390 visits
Collaborative Care Visits by Diagnosis

Collaborative Care Nurse Visits by Diagnosis
9/1/14-11/30/14

- HTN: 82%
- DM: 10%
- COPD: 5%
- Immunizations: 3%

Legend:
- Blue: HTN
- Red: DM
- Green: COPD
- Purple: Immunizations
Collaborative Care Nurses

Partners in Chronic Disease Management