

Better Breathing, Better Living

A Pathway to Reducing Hospital Readmissions

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The Better Breathing, Better Living Project

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How the BBBL got started

- 2014-creation of the Maine Rural Health Innovations Network
 - A 10 hospital partnership working under a HRSA network development grant
 - Cary Medical Center (Caribou, ME)
 - Calais Regional Hospital (Calais, ME)
 - Downeast Community Hospital (Machias, ME)
 - Houlton Regional Hospital (Houlton, ME)
 - Mayo Regional Hospital (Dover Foxcroft, ME)
 - Millinocket Regional Hospital (Millinocket, ME)
 - Mount Desert Island Hospital (Bar Harbor, ME)
 - Northern Maine Medical Center (Fort Kent, ME)
 - Penobscot Valley Hospital (Lincoln, ME)
 - St Joseph's Hospital (Bangor, ME)



Maine Rural Health Innovations Network Focused On:

- Collaboration around Chronic Health Conditions to improve outcomes:
 - Diabetes
 - Chronic Obstructive Pulmonary Disease
 - Congestive Heart Failure



COPD Challenges:

- 3rd leading cause of 30 day re-admissions
- 30 day re-admission rate is 19.2% (Annals of American Thoracic Society, 2018)
- Highest rates of COPD re-admission is within the first 72 hours of discharge
- Greater than half of the COPD re-admissions occur within the first 15 days of discharge
- Medicaid payor status, Lower household income & higher comorbidity burden all contribute to higher re-admission rates

Maine Shared Community Needs Assessment County Summary (2016)

Population diagnosed with COPD:

6.5% Nationally
7.6% State of Maine
10.6% Aroostook County, Maine

COPD Admission Rates per 100,000 lives:

State of Maine: 380
Nationally: 216

Maine Shared Community Needs
Assessment County Summary, 2016

Small Healthcare Provider Quality Improvement Grant

Better Breathing, Better Living

\$600,000 for a 3 year grant to improve the quality of care that our patients with COPD received

Better Breathing, Better Living Partners

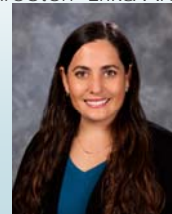
- Cary Medical Center
- Houlton Regional Hospital
- Millinocket Regional Hospital
- Mount Desert Island Hospital
- Northern Maine Medical Center

Our Team

Administrator : Leslie KR Anderson, PT, MSB



Project Director: Erika Arguello



Project Coordinator: Kate Collicott, SLP



Medical Content Specialist:
Dr. Jeffrey Hoeksma, MD



COPD Challenges

- Patients were vulnerable during times of transition

- Inpatient admission to Home



Chronic Obstructive Pulmonary Disease

- Understanding Medications
- Correctly using Inhalers
- Managing Symptoms



Re-admission

Gaps in Care & Barriers to Successful Transitions



Increase in COPD Re-admissions

Redesign the Inpatient Stay

Standardization of Care
Medication Reconciliation
Inhaler Assessment & Education
Utilization of Ancillary Services (OT, Speech)
Comprehensive Discharge Planning
Continuous Follow Up after Discharge for 1 year

Inhalers

- Most patients do not use their inhaler correctly
- Many patients cannot complete the inspiration necessary to use the inhaler

Inhaler Inspiratory Ability



In-Check Dial Device

- Low
- Med-Low
- Medium
- Med-High
- High

Clement Clarke International LTD
Edinburgh Way, Harlow, Essex

Pulmonary Function Testing

- More than half of patients admitted with COPD do not have a current Pulmonary Function Test in their medical record
- Many patients with COPD have never had a PFT completed as a part of their initial diagnosis of COPD

Pulmonary Function Testing

- Used in order to correctly stage COPD
 - Utilizes the GOLD (Global Initiative for Chronic Obstructive Lung Disease) Standards
 - Gold Stage 1: Mild
 - Gold Stage 2: Moderate
 - Gold Stage 3: Severe
 - Gold Stage 4: Very Severe

Information from The Pocket Guide to COPD Diagnosis, Management & Prevention, A CHEST for Healthcare Professionals, 2018

Pulmonary Function Testing

- Scheduled at time of discharge
 - Scheduled for 30 days post discharge
 - Coordination occurs between Hospitalist & Primary Care Provider
 - Reminder calls completed to get patient to attend PFT appointment

Speech Pathology's Role

- Evaluate patient for silent aspiration
- Educate patient on proper eating position
- Educate patient on breathing/swallowing coordination
- Referral to outpatient modified barium swallow if bedside swallow shows high possibility of aspiration during eating

Pulmonary Rehabilitation

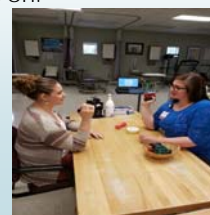
- Must have a current PFT—If one needs to be completed, must wait 30 days from acute COPD exacerbation
- Starts approximately 30 days after acute admission
- Exercise & Education

Occupational Therapy

- Bridges the GAP
Discharge to Pulmonary Rehabilitation
- Need a Pulmonary Function Test prior to starting Pulmonary Rehabilitation
- Need 30 days between acute exacerbation & Pulmonary Function Testing

Occupational Therapy

- Evaluation of Functional Abilities
- Creates a program with a focus on:
 - Symptom management
 - Energy Conservation
 - 4-8 treatment sessions only



COPD Discharge Order Set

Discharge Activity
Swallow Evaluation
Medication Reconciliation
Demonstration of Proper Inhaler Technique & Training with In-check Dial
Smoking cessation & counseling
Influenza Immunization: Date _____
Pneumovax 23: Date _____
Outpatient Occupational Therapy Ordered
Outpatient Pulmonary Function Test Ordered
Outpatient Pulmonary Rehabilitation Ordered

COPD Health Status Questionnaire

- We use the CCQ (Clinical COPD Questionnaire)
 - Recommended by GOLD
 - Assesses the patient's perception of their health status

The CCQ is used with permission from:
T. van der Molen
Department of General Practice
University Medical Center Groningen
Postbus 196, 9700 AD Groningen, The Netherlands

CCQ

- 10 Questions
- Focuses on the physical, functional & emotional components of life
- Answers are on a scale of 0 (never) to 5 (almost all the time) OR 0 (not limited at all) to 5 (totally limited)
- Responses are based on how the patient has felt over the last 24 hours
- CCQ is completed at Discharge, 2 weeks, 6 weeks, 3, 6, 9 & 12 months
- Any significant change in scores indicates a risk for re-admission

CCQ

1. Short of breath while at rest?
2. Short of breath while doing physical activities?
3. Concerned about getting a cold or your breathing getting worse?
4. Depressed because of your breathing problems?
5. Did you cough (in the last 24 hours)?
6. Did you produce sputum (in the last 24 hours)?
7. How limited were you with strenuous physical activities?
8. How limited were you with moderate physical activities?
9. How limited were you with daily activities at home?
10. How limited were you with social activities?

BBBL Patients

- 158 patients have agreed to participate in the BBBL program

30-Day Re-admission Rates:

Patients admitted with COPD & declined to participate in the BBBL program:
16%

Patients admitted with COPD & participated in the BBBL program:
11%

Conclusions

COPD requires a comprehensive management plan that the patient is actively involved in for the patient to be successful with managing their disease, especially during times in transitions of care.

Thank you!