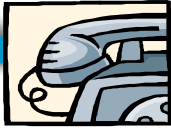


# Disease Management in the Medical Call Center

**Cathleen Mathey**  
**BSA, MSN, RN, CHC**

Director of Community Outreach and Telehealth Services  
Arnot Ogden Medical Center, Elmira, NY



---

---

---

---

---

---

---

---

## What is Disease Management?

- Case management of Chronic Disease
- System of coordinated interventions
- Education and support to promote self-care to control symptoms
- 2 Primary Goals
  1. Improve quality of life
  2. Reduce health care costs



---

---

---

---

---

---

---

---

## Chronic Disease Big 5 (alpha)

1. **Asthma**
2. **Coronary Artery Disease**
3. **Chronic Obstructive Pulmonary Disease**
4. **Diabetes**
5. **Heart Failure**

Together they consume over 50% of health care costs \$\$\$\$\$\$\$

---

---

---

---

---

---

---

---

## How Does Disease Management Reduce Health Care Costs

- Hospitalized Medicare Beneficiaries
  - 20% readmitted in 30 days
  - 34% readmitted in 90 days
- **For a tab of \$17b annually**
- **\$12 billion** considered preventable with Disease Management
- **\$12 billion** is exact amount of 2010 Medicare Shortfall (expenses > income)

---

---

---

---

---

---

---

---

## Disease Management ROI

- Many studies indicate 2:1
- AOMC- Average charge for CHF Admit
- \$8,300 - \$21,000
- Call Center cost to manage a patient is \$1,300 year

---

---

---

---

---

---

---

---

## Primary Contributing Factor to Readmission – No Medical Home

- Ongoing relationship between provider and patient – (strategy in Obama's plan)
  - Regular communications to evaluate and reinforce treatment
- PCP primary requirement of Medical Home and they are in short supply
  - 12 years ago > 50% students chose PC
  - Today < 10% students chose PC
- Without Medical Home, management comes down to **Crisis intervention**



---

---

---

---

---

---

---

---

## Why CHF Disease Management at AOMC?

- 5 million people in US have CHF
- Total Cost of CHF \$60 billion
- Readmission rate for CHF high
  - NYS - 24.1%
  - AOMC – 30.4%
- AOMC Service area has 5,094 households without PCP
- Health on Demand Call Center has infrastructure to respond with program.

---

---

---

---

---

---

---

---

## Why Telephonic DM at AOMC

- Studies support use of telephone for education and support
- No Outpatient CHF Clinics.
- Call center has triage protocols
- Experienced in telephonic evaluation
- Call Center Software in place to document and track
- Grant Monies available via a rural health network.
- Telephone bridges geographic obstacles



---

---

---

---

---

---

---

---

## CHF DM Program Format

1. In-house referral – visit by HOD Nurse. Tools
2. Call at discharge or ASAP after referral received. Initial SF12 completed
3. Home visit if required. Assessment/tools.  
**Community Health or HOD Nurse.**
4. Calls once a week for 4 weeks.
5. If stable, calls every other week for 2 months.
6. If stable, calls at one-month intervals for 3 months.
7. On the last call, (approximately 6 months)  
**Repeat SF12.**
8. Call at 1 year for health status assessment  
**Repeat SF12.**

---

---

---

---

---

---

---

---

## Tools - CHF

- Packet of educational information
  - National Heart Failure Treatment Guidelines
- Scale
  - Digital
  - Bariatric scale for patients over 350
  - Talking scale if poor eyesight
- Calendar for recording weights
- Magnet with contact number
- Weekly Medicine Dispenser
- Automatic blood pressure cuff




---

---

---

---

---

---

---

---

---

---

---

---

## Tools- Diabetes

- Packet of educational information
  - Carb counting book
- Mirror for checking bottom of feet
- Log for recording blood sugars
- Blood sugar monitoring equipment
  - To include strips as necessary
- Magnet with contact number
- Weekly Medicine Dispenser




---

---

---

---

---

---

---

---

---

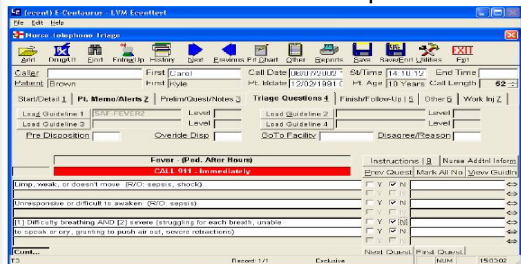
---

---

---

## Call Content – Clinical Guidelines ACC/AHA

- Survey Tool in software – E-Centaurus
- Score assessed based on response




---

---

---

---

---

---

---

---

---

---

---

---

## Survey Tool for Evaluation

- A score >20<40 – fax MD
- A score > 40 – fax and phone MD
- Items that raise score
  - SOB w/activity
  - Swelling of feet/ankles/rings tight
  - Increased coughing at night
  - Need for elevation to breathe
  - Recognized SOB during conversation
  - Weight gain –1-2 lbs =20 pts
  - 5 lbs wk = 40 pts
  - Chest or arm discomfort

---

---

---

---

---

---

---

---

---

---

## Program Specifics

- **Serve a Primary Service Area of 96,000 persons**
- **Patients from 45 different zip codes**
- **No charge**
- **Accept referrals from any MD (AOMC or other)**
- **Many patients are elderly, live alone and have limited access to persons outside home**

---

---

---

---

---

---

---

---

---

---

Program Has Had Ups and Downs.

Year	Admits	D/C	EXP	Notes
2000	13	7	7	
2001	20	12	7	
2002	8	4	4	transition
2003	17	11	4	
2004	99	78	11	Grad Student
2005	73	15	2	
2006	28	36	5	
2007	26	24	0	
2008	12	24	0	Diabetes DM
2009	51	22	0	Outpatient Clinic
Totals	347	203	37	

---

---

---

---

---

---

---

---

---

---

## Goals

- Improve Quality of Life
  - Individual treatment plan
  - Lifestyle changes
  - Consideration of co-morbidities
  - Access to questions and concerns 7 days a week and after hours
  - Supplementary Education
  - Assistance with referral and access to supplementary health care services.
    - Home care, meals, pharmaceutical, rehab

---

---

---

---

---

---

---

---

## Goals

### ■ Reduce Health Care Costs

- Reduce Re-admission
- Avoid ED visits for crisis



- Lifestyle changes vs. pharmaceutical

---

---

---

---

---

---

---

---

## Our Success

### ■ 2008 30 Day Re-admit Rate CHF

- NYS – 24.1 %
- Overall AOMC – 30.4 %
- AOMC DM Patients – 15%

### ROI for the 15% not re-admitted

Annual cost to manage a patient

= \$1,300

Average Charges for CHF Admit

= \$8,300 - \$21,000

---

---

---


---

---

---

---

---



**Our Success**

**SF12 Health Survey 2008/2009**

**Physical Health Status**

- 3 month – 70 % improved
- 6 month – 84 % improved

**Mental Health Status**

- 3 month – 55 % improved
- 6 month – 85 % improved

---

---

---


---

---

---

---

---



**Challenges**

- Attrition due to resistance
- Not all patients appropriate
- Staffing for non-revenue area
- Funding for supplies
- Hard to put exact \$ value to impact
- Space
- Time management for staff
- Call center staffing mix

---

---

---


---

---

---

---

---



**Other Call Center Functions to Balance**

- Main hospital intake line for call routing and general information
- Community Health Information and Referral Line
- Disease Management
- Program Registration
- Post Discharge Calls
- Procedure Scheduling Assistance and Instructions
- Cardiac Referral Line
- Formal Complaint Intake Center
- Physician Appointment Reminder Calls
- After Hours Answer Service for Physician
- Service Recovery follow up and tracking
- Home Care Referral Monitoring
- Incident Command Center Support
- Health Passport Distribution Center
- Language Assistance and Sensory Impaired Program Coordination
- Condition H Line
- SHHH Noise Control
- Community Wellness Screen Follow Up
- Community Needs Assessment
- Web Events Calendar

---

---

---

---

---

---

---

---

**Our Staff**

- 1 Clinical Coordinator
- 3.4 FTEs ( 6 RNs)
- 4.2 FTEs Technical Support



---

---

---

---

---

---

---

---

**Should Your Call Center Implement Disease Management?**

- Competition may be companies that specialize
  - Pros and cons to local homegrown vs. outsource
- Building a program may take 18 months or more.
  - Resources not readily available- few templates
- Need staff with telephonic triage skills
- Technical
  - Must have triage protocols
  - Must have software to document and track
- Cost: approximately \$1,300 a year to manage 1 patient.

---

---

---

---

---

---

---

---



---

---

---

---

---

---

---

---



---

---

---

---

---

---

---

---

Questions??

---

**Thank you!**

---

---

---

---

---

---

---

---