Transitions in Care

Randall Krakauer, MD, FACP, FACR
National Medical Director, Aetna Consumer Segment

Kathryn H. Bowles, PhD, RN
Mark V. Pauly, PhD
Mary D. Naylor, PhD, RN
University of Pennsylvania

Case Profile

- 76 year old male retired investment broker; active lifestyle
- Lives with wife of 50 years; wife showing signs of cognitive changes
- Three children living w/families in other states

Health History

- History of 7 chronic conditions
- Under the care of 6 specialist physicians; PCP retired
- Taking 9 prescribed medications daily; coping with dietary restrictions
- Health problems increasingly interfering with lifestyle

Discharge Set for Day 3: Perspectives

Patient & Family

- Multiple unmet needs
- Needs additional help at home
- Stressed family system

vs

Health Professionals

- Health needs met
- Family able to meet needs
- Strong, available support system

“The hand-off”

- No referral for nurse home visits
- Three new medications ordered; verbal + handwritten discharge instructions
- Told to schedule follow-up M.D. visit within 7 days

At Home 8 Hours Later

- Can’t read discharge instructions
- Has questions about medications but does not know whom to call
- Is weak, dizzy, and unable to eat
- First available M.D. app’t > 2 weeks

2 Weeks Later (before MD visit)

Member is rehospitalized for a 4th time with an admitting diagnosis of acute episode of heart failure “due to lack of adherence to prescribed therapies.”

Profile of Study Patients

- Age = 76 (65-99)
- Chronic conditions = 7 (3-14)
- Prescribed medications = 8 (4-14)
- Average of 4.6 problems per patient
- Nurses addressed 32 different types of problems with 173 patients

Patient Factors Contributing to Poor Post-Discharge Outcomes

- Multiple conditions/therapies*
- Functional deficits
- Emotional problems
- Poor general health behaviors
- Poor subjective health rating*
- Lack of support
- Cognitive impairment**
- Language, literacy and culture

System Factors Contributing to Poor Post-Discharge Outcomes

- Multiple providers
- Inconsistent medical management
- Poor communication
- Limited access to services (reimbursement)
- Narrow perceived accountability
- Lack of systems to bridge transitions

Consequences

- High rates of medical errors and other acute clinical events
- Serious unmet needs
- Poor satisfaction with care
- High hospital readmission rates

Elders Hospitalized with Heart Failure (HF) in 2005

- 616,000 index hospitalizations
- Readmission rates
  - 30 days - 27%
  - 60 days – 39%
  - 90 days - ~50%
- Preventing 1/4 to 1/3 readmissions @ $7,400 per admission = $473 to $621 million savings

Source: CMS

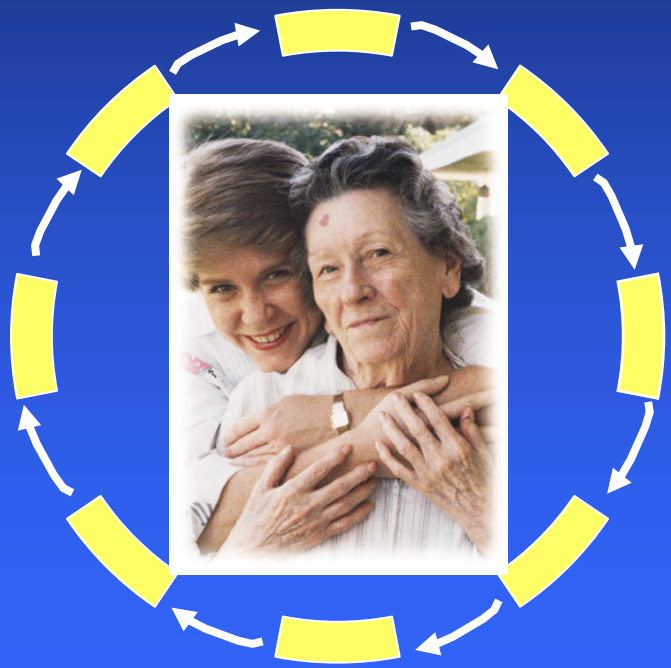
Evidence-Based Transitional Care

A proven approach to enhance quality of care and outcomes among older adults with chronic conditions.

Evidence-Based Approaches

- Targeted interventions aimed at promoting effective “hand-offs”
- Comprehensive interventions designed to address “root causes” of avoidable acute care service use

Quality Cost
Transitional Care Model (TCM)



Translating Research into Practice

The University of Pennsylvania and Aetna has formed a partnership to test “real world” applications of research-based model of care for high risk elders.

Funded by The Commonwealth Fund and the following Foundations: Jacob and Valeria Langeloth, The John A. Hartford, Gordon & Betty Moore & California HealthCare

Key Indicators of Success

- Decisions by Aetna re: adoption
- Decisions by other insurers and providers to implement model
- Use of findings by CMS and insurers to reimburse evidence-based transitional care

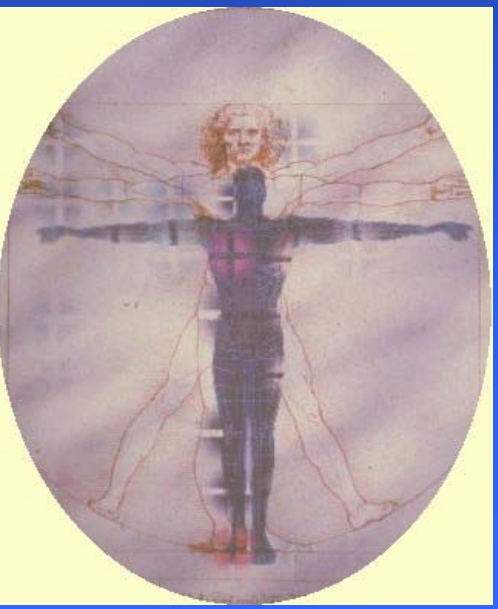
Integrating Transitional Care and Medicare Case Management

Our chief want in life is somebody who
shall make us do what we can.
—Ralph Waldo Emerson

Aetna Medicare Medical Management

Why Older Patients Require More Medical Management

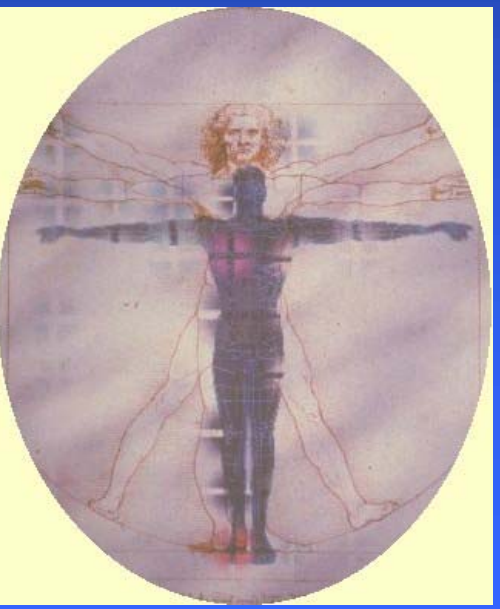
Many factors make the impact of illness greater for an older patient than a younger patient with a comparable condition. All factors must be identified and managed.



Factor	Impact
▪ Prevalence of high-risk conditions	▪ Greater burden of disease
▪ Greater incidence of comorbidities	▪ Increased need for medical care
▪ Less identifiable symptoms	▪ Greater need for surveillance
▪ Greater potential for damage from injury or condition	▪ Increased need for condition management
▪ Reduced ability to recover from injury or condition	▪ Greater need for preventive condition management
▪ Less ability to follow a medical regimen	▪ Greater intensity of medical management
▪ Less family and social support	▪ Increased need for outside help

Multiple Comorbidities and Barriers Identified and Managed Concurrently

We have developed an effective and leading Geriatric Care Management Program. We will enhance it to impact more of our high risk and vulnerable members



Factor	Impact
▪ Members in Care Management 20% with effective identification of cases by HRA, predictive modeling, and other means.	▪ These members represent >75% of total cost, > 85% of variable cost and most quality issues
▪ Comprehensive assessment, identification and management of all issues/conditions is critical	▪ Little impact unless all comorbidities and issues are managed concurrently and successfully
▪ Nurses, Social Workers, Behavioral Health, Disease Management Specialists – all trained in Geriatrics and Change Management	▪ A uniform, effective and integrated strategy, comprehensive and holistic, effective on elderly with multiple conditions; disease management is a component of the program
▪ Special Care Management Programs - End-of-Life Care - Transitional Management	▪ Expand a successful geriatric program to most populations that can benefit

Integration of Model within Aetna

- Project team and processes
- Key decisions
  - Link to geriatric case management program
  - Partner with home care agency
  - Target 200 members in mid-Atlantic region
  - Clearly define roles and work flow processes

$$\text{Value} = \frac{\text{Quality}}{\text{Health Resource Utilization (Costs)}}$$

Environment: Extant comprehensive system of telephonic care management

Question: Does the Transitional Care Model offer greater value in this environment?

Goodness of Fit

TCM compatible with Aetna's values and goals. Model is designed to…

- Improve care and quality of life among elders coping with chronic illnesses
- Enhance communication among providers and across settings
- Manage "high risk patients" more effectively and efficiently
- Reduce avoidable admissions and readmissions

Quality

Measures of interest…

- Health status and quality of life (QoL)
- Members' satisfaction
- Physicians' satisfaction

Health Status + QoL (N=172)

Significant improvements in each of the following outcome variables:

- self-reported health status (1 item)
- symptom status (Symptom Bother Scale)
- depression (Geriatric Depression Scale)
- functional status (SF-12)
- quality of life (one item)

Members' Experience with TCM (N=171)

Overall high satisfaction

- Mean score of 3.0 on each of the 15 items in survey

  (1=low satisfaction, 4=very high satisfaction)

Physicians' Experience with TCM (N=25)*

Overall high satisfaction with APN involvement in members' care

- Mean score 3.5 on each of the 10 item in (1= strongly disagree, 4 = strongly agree)

* Satisfaction data obtained from MDs with at least 3 patients involved in TCM

Health Resource Utilization (Costs) (N=154)*

Measures of interest…

- Rehospitalization rates
- Skilled nursing visits
- Home visits

*154 TCM cases compared to clinically matched 154 controls

Hospitalization Rates

Reductions in hospitalizations at 3 months post-intervention but not sustained

- 0-3 months, 44 TCM vs. 55 controls (20% reduction; $p<0.1$)
- 0-6 months, 105 TCM vs. 101 controls
- 0-12 months, 185 TCM vs. 189 controls

Skilled Nursing Facility (SNF) Rates

Moderate reductions in SNF visits observed between TCM vs. controls

- 0-3 months, 5 TCM vs. 9 controls
- 0-6 months, 14 TCM vs. 17 controls
- 0-12 months, 26 TCM vs. 31 controls

Home Visit Rates

Use of home visits substantially higher for controls vs. TCM cases

- 0-3 months, 252 TCM vs. 426 controls
- 0-6 months, 393 TCM vs. 693 controls
- 0-12 months, 658 TCM vs. 1108 controls

Factors Considered in Interpreting Health Resource Findings

- Hospital component of TCM was not implemented in applying model with Aetna's members
- Regional variations in service use:
  - Hospital use higher in TCM case region
  - Home health care use higher in control region

Impact on Cost

Costs (Reimbursements) for Rehospitalizations, ED, Home Health Visits, & SNF Admissions			
	TCM Cases	Matched Controls	Difference
Number of subjects	155	155	
Rehospitalizations			
0-3 months	526,500	702,000	-175,500*
0-6 months	1,216,800	1,310,400	-93,600
0-12 months	**2,152,800**	**2,375,100**	**-222,300***
Home Visits			
Visiting Nurse	164,500	288,250	-123,750
Advanced Practice Nurse	217,000	-	217,000
Skilled Nursing Facility	449,280	656,640	-207,360
Total Costs	2,983,580	3,319,990	-336,410
Savings Per Member			**2,170***
Savings Per Member Per Month			
0-3 months			**439***
0-12 months			181

*p<0.05

Funding for this partnership was provided by The Commonwealth Fund and the Jacob & Valeria Langeloth Foundation.

Next Steps

- Pursuing support of TCM for Aetna members involved in UPHS roll out
  - Incorporate Inpatient portion of the model
- TCM expansion within Aetna as part of 2010 Strategic Plan