Lost in Transition

Eliza Borzadek, RN, Pharm.D., BCPS
Idaho State University
eliza@fmed.isu.edu

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Objectives

1. Describe the background and history of transitions of care (TOC)
2. Describe the most successful TOC programs implemented in U.S.
3. Identify stakeholders of TOC and examine measurements utilized to assess TOC outcomes
4. Recognize benefits and common barriers encountered in TOC models described in literature

Definition

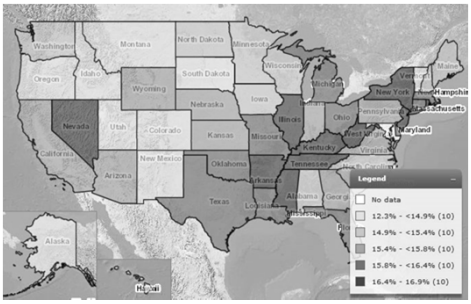
Transition of care is defined as "a set of actions designed to ensure the coordination and continuity of health care as patients transfer between different locations or different levels of care within the same location."

~ American Geriatrics Society ~

Why Focus on TOC?

- Hospital discharge is a necessary process experienced by all hospitalized patients
  - 32 million adult discharges in the US each year
- Increase in self-care responsibilities during TOC presents new challenges for patients and their families
- 1 out of 5 Medicare beneficiaries is readmitted within 30 days of hospitalization
  - Approx. 75% of these readmissions are considered preventable
  - Medicare spends $17 billion annually on preventable readmissions
- CMS imposes penalties for 30-day readmissions

Percent of Patients Readmitted within 30 Days of Discharge



Leading Causes of Death in U.S.

1. Heart disease: 597,689
2. Cancer: 574,743
3. **Hospitalizations: ~400,000**
4. Chronic lower respiratory diseases: 138,080
5. Stroke (cerebrovascular diseases): 129,476
6. Accidents (unintentional injuries): 120,859
7. Alzheimer's disease: 83,494
8. Diabetes: 69,071

James, J. A New Evidence-based Estimate of Patient Harms Associated with Hospital Stay. *J Patient Saf* 2013;9:122-128.

CMS Penalties

- Patient Protection and Affordable Care Act requirement to penalize hospitals with higher than expected readmission rates
- Reductions in Medicare reimbursement began in October 2012
  - > 2000 hospitals penalized for HF, pneumonia, and MI readmissions
- 2012: 1% reduction in base Medicare payments
- 2013: 2% maximum penalty
- 2014: 3% maximum penalty
- Next, penalties will be applied to long-term care facilities

CMS Penalties

- CMS projects $227 million in fines against hospitals in 2014
- 18 hospitals will loose 2% of Medicare reimbursement
- FY2015, some hospitals will be penalized 3%
  - Medicare will save $300 million
- Only 2 out of 14 (14%) of Idaho hospitals are receiving penalty for FY2014

http://www.kaiserhealthnews.org/stories/2013/august/02/readmission-penalties-medicare-hospitals-year-two.aspx

Medicare Penalties by Hospital

Name	City	FY2013 Readmission Penalty	FY2014 Readmission Penalty	Change 2013-14
Madison Memorial Hospital	Rexburg	0.00%	0.19%	0.19%
Saint Luke's Magic Valley RMC	Twin Falls	0.00%	0.01%	0.01%

Who Benefits?

- GM is 77 y/o male hospitalized with respiratory failure x 7 days
- New diagnoses
  - Severe COPD
  - Heart failure (EF 19%)
  - PAD
  - BPH
- No PCP
  - Has not seen a doctor x 17 yrs
- Admission meds
  - NONE
- Discharge meds
  - Simvastatin
  - Carvedilol
  - Lisinopril
  - Spironolactone
  - Digoxin
  - Furosemide
  - Aspirin
  - Tamsulosin
  - Combivent QID
  - Pulmicort BID
  - Albuterol MDI prn
  - Prednisone taper

Known Predictors for Readmission

- Number of prior hospital admissions
- Length of hospital stay
- Severity of disease
- Number of comorbidities
- Number of ED visits
- Degree of health literacy
- Lack of primary care
- ≥ 2 medication changes
- ≥ 5 prescription medications
- Lack of family caregiver support
- Documented poor past compliance

LACE* Risk Model

- L = Length of stay
- A = Acuity of admission
- C = Comorbidity
- E = Emergency department use

* Identifies patients with high predicted rate for hospital readmissions or death

8 Ps Risk Assessment Tool

- Problem medications (warfarin, digoxin, insulin)
- Polypharmacy
- Psychological conditions (depression)
- Principal diagnosis (heart failure, COPD, diabetes)
- Poor health literacy
- Patient support (absence of social support)
- Prior hospitalization (in the past 6 months)*
- Palliative care

* Most predictive risk factor for subsequent hospitalization

Kim et al. In the clinic transitions of care. *Ann Intern Med*. 5 March 2013.

Table 3. HOSPITAL Score for 30-Day Potentially Avoidable Readmissions[a]

Attribute	Points
Low *h*emoglobin level at discharge (<12 g/dL)	1
Discharge from an *o*ncology service	2
Low *s*odium level at discharge (<135 mEq/L)	1
*P*rocedure during hospital stay (any *ICD-9-CM* coded procedure)	1
*I*ndex admission *t*ype: nonelective	1
No. of hospital *a*dmissions during the previous year	
0	0
1-5	2
>5	5
*L*ength of stay ≥5 d	2

Donze et al. Potentially avoidable 30-day hospital readmissions in medical patients: Derivation and validation of a prediction model. *JAMA Intern Med*. Published online March 25, 2013

Care Transitions is a team sport, and yet all too often we don't know who our teammates are, or how they can help."

~ Eric A. Coleman, MD, MPH ~

Successful TOC Models

The Care Transitions Program®

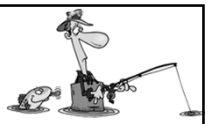
Pillar:	Medication Self-Management	Dynamic Patient-Centered Record	Follow-Up	Red Flags
Goal	Patient is knowledgeable about medications and has system	Patient understands and manages a Personal Health Record (PHR)	Patient schedules and completes follow-up visit with Primary Care Provider/Specialist	Patient is knowledgeable about indications that condition is worsening and how to respond
Hospital Visit	Discuss importance of knowing medications	Explain PHR	Recommend Primary Care Provider follow-up visit	Discuss symptoms and drug reactions
Home Visit	Reconcile pre- and post-hospitalization medication lists Identify and correct any discrepancies	Review and update PHR Review discharge summary Encourage patient to share PHR with Primary Care Provider and/or Specialist	Emphasize importance of the follow-up visit Practice and role-play questions for the Primary Care Provider	Discuss symptoms and side effects of medications
Follow-Up Calls	Answer any remaining medication questions	Discuss outcome of visit with Primary Care Provider or Specialist	Provide advocacy in getting appointment, if necessary	Reinforce when/if Primary Care Provider should be called

Coleman et al. The Care Transitions Intervention: results of a randomized controlled trial. *Arch Intern Med*. 2006; 166:1822-1828

The Care Transitions Program®

- Outcomes
  - Reduced rates of rehospitalization at 30, 90, 180 days
  - Decreased healthcare costs

Coleman Model



CATCH & RELEASE MODEL

- 3 key elements
  - Brief Hospital Visit – transitions coach meets with patient while still hospitalized
  - One-hour Home Visit
  - 3 X 10-minute Phone Calls – completed during 30-days post-discharge

COACHING = SKILL TRANSFER

- Teach patients how to fish
- Teach-back method & motivational interviewing

Coleman Model

CRITICAL ELEMENTS OF TOC

- Transitions coach
- Effective communication
  - Early PCP involvement
- Support system
- Effective patient education
  - Discharge diagnoses
  - Treatment plan
  - Follow-up needs
  - Red Flags
  - Emergency phone numbers
- Medication reconciliation
- Timely follow-up visit with PCP
- Shared accountability

Coleman Model

CAREGIVERS VIEWED AS UNSUNG HEROES

- Critical to healthcare transitions
- Must be actively involved in decision-making

STANDARIZATION OF DISCHARGE PRACTICES

- Critical to safe transitions and prevention of avoidable hospital admissions

ReEngineered Discharge (RED)

IN-HOSPITAL COMPONENT (nurse discharge advocates)

- Educate patient about relevant diagnoses
- Make appointments for follow-up care, tests, & labs
- Organize post-discharge services
- Confirm medication plan (med rec)
- Reconcile the discharge plan with national guidelines
- Review self-management education
- Transmit discharge summary to providers
- Assess the degree of understanding by asking patients to explain in their own words

Jack et al. A reengineered hospital discharge program to decrease rehospitalization: a randomized trial. *Ann Intern Med*. 2009;150:178-187.

ReEngineered Discharge (RED)

AFTER-HOSPITAL CARE PLAN (AHCP)

- Individualized, spiral bound, booklet
- Developed by DAs in coordination with the hospital team
- Reviewed by DA with patient on discharge using teach-back method
- Information contained
  - Provider contact
  - Appointment dates
  - Color-coded medication schedule
  - List of tests with pending results
  - Illustrated description of discharge diagnoses
  - What to do if a problem arises

Jack et al. A reengineered hospital discharge program to decrease rehospitalization: a randomized trial. *Ann Intern Med*. 2009;150:178-187

ReEngineered Discharge (RED)

CLINICAL PHARMACIST OUTREACH

- Calls participants 2-4 days following discharge
- Reinforces the discharge plan using scripted interview
- Reviews medications and addressed medication-related problems
- Communicates problems to DA and PCP

Jack et al. A reengineered hospital discharge program to decrease rehospitalization: a randomized trial. *Ann Intern Med*. 2009;150:178-187.

ReEngineered Discharge (RED)

OUTCOMES

- Reduced rate of hospital utilization
- Improved patient understanding of discharge diagnoses and follow-up care needs
- Better patient perception of preparedness for discharge
- Higher PCP follow-up rate

Transitional Care Model

- In-hospital planning and follow-up in high-risk older individuals
- Advanced practice nurse
- Elements
  - Focus on patient and caregiver understanding
  - Helping patients manage health issues and prevent decline
  - Medication reconciliation
  - Symptom management
  - Summaries sent to patients, caregivers, and physicians
    - Plans, goals, ongoing concerns

Naylor et al. Comprehensive discharge planning and home follow-up of hospitalized elders: a randomized clinical trial. *JAMA*. 1999;281:613-620.

Transitional Care Model

- Outcomes
  - Reduced rehospitalization rate at 24 weeks
  - Fewer multiple readmissions
  - Increased time to first readmission
  - Decreased health-care costs

Pharmacy Involvement in TOC

- Medication Management in Care Transitions
  - Report by APhA and ASHP
- Best practices initiative launched in 2012
- Evaluated 82 programs
- Primary focus
  - Impact on patient care
  - Pharmacy involvement
  - Potential for implementation by other healthcare systems

Top 8 Programs Identified

- Einstein Healthcare Network
- Froedtert Hospital
- Hennepin County Medical Center
- John Hopkins Medicine
- Mission Hospitals
- Sharp HealthCare
- University of Pittsburg
- University of Utah Hospitals & Clinics

Pharmacy Involvement in TOC

- National Survey of ASHP members & pharmacy directors
  - 1246 surveys sent
  - 393 responded (31%)
- Purpose of survey
  - Assess pharmacy involvement in TOC activities

Involvement	No. (%) Respondents
Percent of a 40-hr workweek a pharmacist devotes to TOC activities (n = 373)	
<10	262 (70)
10–25	84 (23)
26–50	12 (3)
≥51	15 (4)

Kern, KA et al. Variations in pharmacy-based transition of care activities: A national survey. Am J Health-System Pharm 2014;71: 648-56.

Systematic Reviews of TOC Interventions

- Several models have been studied
- Hospital-based and "bridging" strategies can include:
  - Patient engagement
  - Dedicated transition provider
  - Medication reconciliation
  - Communication with outpatient providers
- Most research looking at rehospitalization rates rather than post-discharge AEs
- Few studies including contextual factors or implementation strategies

Rennke S, et al. Hospital-initiated transitional care interventions as a patient safety strategy: a systematic review. *Ann Intern Med*. 2013 Mar 5;158(5 Pt 2):433-40.

Systematic Reviews of TOC Interventions

- Effective interventions include
  - Medication reconciliation
  - Electronic tools to facilitate quick, clear, and structured discharge summaries
  - Discharge planning
  - Shared involvement in follow-up by hospital and community care providers
  - Use of electronic discharge notifications
  - Web-based access to discharge information for general practitioners
- Benefits
  - Reduction in hospital use (e.g. rehospitalizations)
  - Improvement in continuity of care (e.g. accurate discharge information)
  - Improvement of patient status after discharge (e.g. satisfaction)

Hesselink G, et al. Improving patient handovers from hospital to primary care: a systematic review. *Ann Intern Med*. 2012 Sep 18;157(6):417-28.

Critical Elements of Effective TOC

- Assess post-hospital needs
- Medication reconciliation & self-management
- Transition planning (transitions coach/DA)
- Patient and family engagement/education
- Information transfer/real-time communication
- Timely post-discharge follow-up care
- Shared accountability across providers and organizations

Targeted Intervention Spectrum

During hospitalization | At discharge | Post-discharge

Osei-Anto A, Joshi M, Audet AM, Berman A, Jencks S, Health Care Leader Action Guide to Reduce Avoidable Readmissions. Health Research & Educational Trust, Chicago, IL. January 2010.

During Hospitalization

- Risk stratify patients and tailor care
- Establish communication with PCP, family, home care
- Use "teach-back" method to educate patients
- Utilize multidisciplinary clinical teams
- Discuss patient treatment wishes/end of life care
- Coordinate patient care

At Discharge

- Comprehensive discharge planning
- Educate patient/caregiver using "teach-back"
- Schedule and prepare for follow-up appointment
- Help patient manage medications
- Facilitate discharge to other facilities
  - Detailed and accurate discharge instructions
  - Good partnership with facility practitioners

Post Discharge

- Promote patient self management
- Conduct home visit
- Follow-up with patients via telephone
- Use personal health records to manage patient information
- Establish community networks
- Use tele-health in patient care

Bottom Line: What Works?

- Evidence-based approach
  - Re-Engineered Discharge – widely available web-based toolkit
  - The Care Transitions Program
- Bundled discharge interventions are most effective
- Coordinator of care
  - Transitions coach
  - Discharge advocate
- Key unifying theme among successful interventions is their "high-touch" nature
  - Substantial up-front investment in personnel, training, coordination of care

Burke et al. Interventions to decrease hospital readmissions: Keys for cost-effectiveness. *JAMA Intern Med*. Published online March 25, 2013

Quality Indications/Outcome Measures

- Clinical Efficacy
  - 30-day mortality
  - 30, 90-day readmission rates
  - 30-day ED visits
- Safety
  - Adverse drug events
  - Number & type of medication discrepancies
- Number and/or Type of Interventions
  - Number of recommendations made to provider
  - Optimization of therapy
  - Reduction in pill burden

Quality Indications/Outcome Measures

- Satisfaction
  - Patient satisfaction (quality of life, functional status)
  - Provider satisfaction with service
- Productivity/workflow
  - Days post-discharge home visit completed
  - Availability of discharge summary at visit
- Cost
  - Pharmacist time
    - Time spent directly with patient
    - Time spent preparing for visit
  - Nurse coordinator time
    - Time spent making appointments
    - Time spent faxing labs/discharge summaries, etc. to providers
  - Administrative time
    - Affiliation agreement
    - Work-flow development

What Doesn't Work?

- Any single TOC intervention implemented alone has not been shown to reduce rehospitalization
- Medication reconciliation alone is not sufficient to improve patient-oriented TOC outcomes
- Applying a high-intensity intervention to all patients is unlikely to be cost-effective

Hansen et al. Interventions to reduce 30-day rehospitalization: a systematic review. *Ann Intern Med*. 2011;155(8):520-528.

"Complex problems like improving care transitions rarely can be solved with simple solutions."

~ Eric A. Coleman, MD, MPH ~

Common Barriers

HEALTH-SYSTEM LEVEL

- Limited time & resources
- Lack of physician-champion
- No buy-in from supervisors and administrators
- Lack of referrals to TOC clinic
- Follow-up apts. not scheduled at the time of discharge
- Poor/Lack of communication with
  - Providers, pharmacies, and patients
  - PCP on admission and discharge

Kern KA, et al. Variations in pharmacy-based transition-of-care activities in the United States: a national survey. *Am J Health Syst Pharm.* 2014 Apr 15;71(8):648-56. doi: 10.2146/ajhp130510.

Failure to Communicate

DOCTOR
"Your foot infection is so severe that we will not be able to treat it locally."
PATIENT
"I hope I don't have to travel far, doctor. I am afraid of flying."

TIPS

- Listen more and speak less
- Slow down the pace of your speech
- Use plain, non-medical language
- Acknowledge patient's concerns
- Encourage questions
- Limit information by focusing on 1-3 key messages per visit
- Review each point and repeat several times
- Ask the patient to restate what they have been told

"The main problem with communication is the assumption that it has occurred."

~ George Bernard Shaw ~

Common Barriers

HEALTH-SYSTEM LEVEL

- Absence of medication reconciliation process upon admission and discharge
- Insufficient recognition of the value of pharmacists in provision of TOC services
- Continuation of medications that were only required during hospitalization
  - Proton pump inhibitors for GI prophylaxis
- Redundancy in provision of services

Common Barriers

HEALTH-SYSTEM LEVEL

- Unavailability of discharge summaries at the time of TOC visits
- Discharge summaries lacking critical data
- Incongruence between discharge summary and patient discharge instructions
- Discharge instructions inaccurate, incomplete, illegible

Discharge Summary

SIX COMPONENTS MANDATED BY JCAHO

- Reason for hospitalization (admission diagnoses)
- Significant findings (e.g. key test results)
- Procedures and treatment provided
- Patient's discharge condition
- Patient's and family education & understanding
- Attending physician signature

Discharge Summary

- Transitions literature also recommends these:
  - Home services ordered, home agency, timing of initiation of services
  - Medication changes
  - Status of active problems at time of discharge
  - Follow-up appointments
  - Tests pending at discharge or follow-up required after discharge
  - Any anticipated problems and suggested interventions
  - Resuscitation status
  - Equipment ordered

Tang, N. A Primary care physician's ideal transitions of care – where's the evidence? *Journal of Hospital Medicine* 2013:8:427-477.

Discharge Medication List*

- New medications
  - Reason for taking
  - Intended duration
- Continued medications with change
  - Reason for change
  - Intended duration of change
- Continued medications without change
  - Dose, frequency, directions remain the same
- Discontinued medications
  - Meds taken prior to hospital admission that should be stopped

* To facilitate transfer of information, med rec must be provided to patients, caregivers, outpatient providers, and community pharmacies

Kim et al. In the clinic transitions of care. *Ann Intern Med*. 5 March 2013.

Common Barriers

PATIENT LEVEL

- Lack of updated contact information
- Low health-care literacy
- Financial barriers: discharge home on expensive medications
- No shows to in-office TOC visits
- Patient refuses the service (intentional non-adherence)

Increased Medicare Reimbursement

- Effective January 1, 2013 CMS offers increased reimbursement for TOC visits
- New CPT codes: 99495 & 99496
- Patient must be contacted
  - Via phone by staff member within 2 days of discharge
  - Provider visit within 7-14 days
- Medication reconciliation must be included

Next Steps

MILLION DOLLAR QUESTIONS

- How to effectively identify high-risk patients who will benefit from TOC interventions?
- What is the most cost-effective intervention bundle during care transitions?

Summary

- Identify interested stakeholders & collaborate
  - Hospitals
  - Academic centers
  - Home health providers
  - Long-term care facilities
  - Community pharmacies
  - Provider offices
- Create an effective team
  - Identify a transitions coach
  - Accountability

Burke et al. Interventions to decrease hospital readmissions: Keys for cost-effectiveness. *JAMA Intern Med.* Published online March 25, 2013

Summary

- Define Interventions
  - Inpatient
    - Discharge education
    - Medication reconciliation on admission and discharge
  - Outpatient
    - In-clinic follow-up
    - Home visit
    - Phone follow-up by centralized/community pharmacist
    - Secure messaging via EMR
  - Avoid commonly used interventions which have not been shown to be effective

Summary

- Utilize a trigger tool to identify at-risk population
- Risk stratification
  - Match the intensity of interventions to patient's risk for readmission
- Measure your intervention
  - Must identify outcomes up front
  - Pre- and post study
- Engage in continuous quality improvement
  - **Plan – Do – Study – Act**

Resources

- Coleman, EA. The Care Transitions Program. http://caretransitions.org
  - Medication Discrepancy Tool
  - Ideal Discharge for the Elderly Patient: A hospitalist checklist
- The National Transitions of Care Coalition
  - www.ntocc.org
- The Institute for Healthcare Improvement
  - www.ihi.org
- Society of Hospital Medicine: Project Boost
  - www.hospitalmedicine.org/BOOST
- Agency for Healthcare Research & Quality
  - Medications at Transitions and Clinical Handoffs (MATCH): Toolkit for med rec

Questions?