Surviving MI

AN ACC QUALITY INITIATIVE

Building the Case for Pharmacy
Tuesday, April 26, 2016

Quality Improvement for Institutions

How this webinar is organized

Time	Topic
12:00pm	Welcome and Introductions
12:10pm -12:50pm	Building the Case for Pharmacy
	UK HealthCare *Lexington, Kentucky*
	Ephraim McDowell Regional Medical Center *Danville, Kentucky*
12:50pm	Q&A
12:57pm	Wrap-up and Next Steps

Quality Improvement for Institutions

Speakers

Richard Kovacs, MD, FACC

Professor of Clinical Medicine at Indiana University School of Medicine, and Clinical Director of the Krannert Institute of Cardiology

Brett Vickey PharmD, BCPS

Clinical Pharmacist at Ephraim McDowell Regional Medical Center, Danville KY

Tracy E. Macaulay, PharmD, AACC, BCPS (AQ Cardiology)

Director of CV Pharmacy Services, Gill Heart Institute
Clinical Pharmacy Specialist
Associate Professor (Adjunct), UK College of Pharmacy

Quality Improvement for Institutions

Lower 30-Day Mortality Rates with these Seven Strategies

Quality Improvement for Institutions

Strategies Associated with Lower MI Mortality

Strategy	% Points RSMR Decrease (% implementing)
Physician AND nurse champions for AMI care	0.92 (by 43%)
Organizational culture supports creative problem solving	0.66 (by 40%)
Monthly meetings with EMS to review AMI cases	0.61 (by 15%)
Nurses are not cross trained from ICU for the cardiac catheterization laboratory	0.41 (by 82%)
Pharmacists round on all patients with AMI	**0.41 (by 35%)**
Having a cardiologist onsite 24-7	0.54 (by 14%)

Bradley EH, Curry LA, *et al*. Hospital strategies for reducing risk-standardized mortality rates in acute myocardial infarction. *Ann Intern Med*. 2012;156:618-26.

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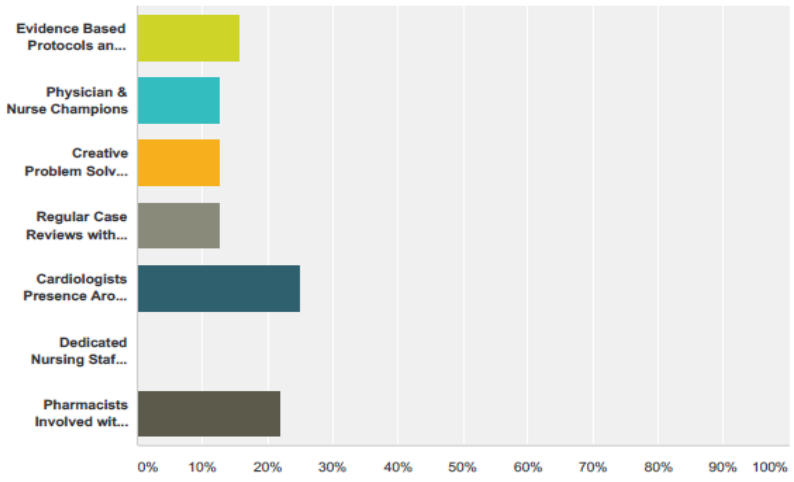
Which Surviving MI Strategy is the most difficult for institutions to achieve?



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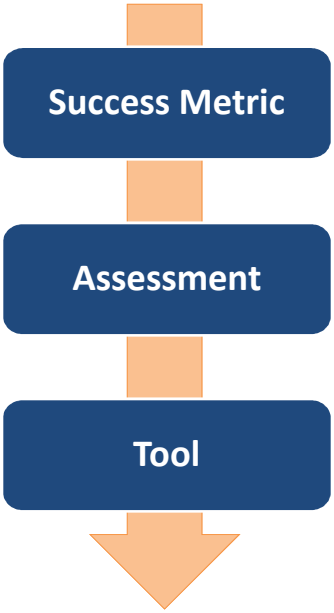
How it all Connects



- Pharmacists involved with Care

- What is the role of a pharmacist in the management of AMI care at your hospital?

- Strategies for Broad Engagement of Pharmacists
- Key Questions at Admission, during the hospital stay, and Discharge

Quality Improvement for Institutions

Pharmacists: The Newest Member of Your Personal HealthCare Team

Tracy E. Macaulay, PharmD, AACC, BCPS (AQ Cardiology)
Director of CV Pharmacy Services, Gill Heart Institute
Clinical Pharmacy Specialist, UK Pharmacy Services
Associate Professor (Adjunct), UK College of Pharmacy

Objectives

- Provide overview of UK HealthCare
- Discuss the rationale and goals for implementation of KATS-PLEDGE program
- Describe the role of pharmacy in KATS-PLEDGE
  - Medication Reconciliation
  - Inpatient clinical support
  - Discharge prescriptions services and education
  - Follow-up clinic with medication therapy management
- List quality and financial metrics that could be used to justify pharmacy services

Transitions of Care

"The movement patients make between health care practitioners and settings as their condition and care needs change during the course of a chronic or acute illness…"

60% of all medication errors occur during times of care transition

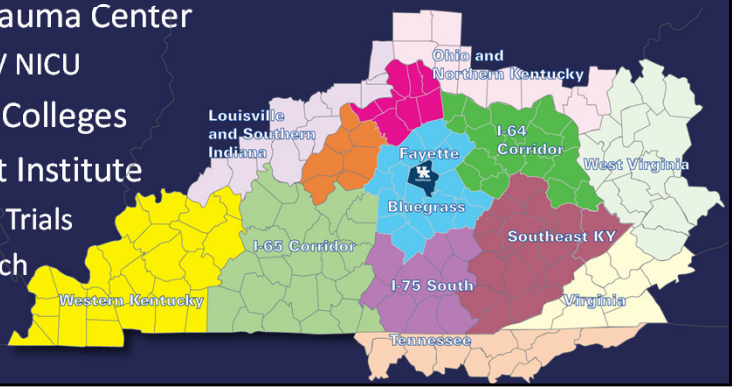
Source: Coleman EA, Boult CE on behalf of the American Geriatrics Society Health Care Systems Committee. Improving the Quality of Transitional Care for Persons with Complex Care Needs. Journal of the American Geriatrics Society. 2003; 52(4): 556-557

p. 3

UK HealthCare Overview

UK HealthCare Overview

- Located in Lexington, KY
- 600+ bed academic medical center
  - 9000+ Health Professionals
- Level I Trauma Center
  - Level IV NICU
- 9 Health Colleges
- Gill Heart Institute
  - Clinical Trials
  - Outreach



UK HealthCare Pharmacy Services

- ~450 employees
  - 150 pharmacists (including 25 pharmacy residents)
  - 70 Student Interns
- Established Inpatient, Clinical, and Community Services
- 5 Community (Retail) Pharmacy locations
  - Provide Discharge Prescriptions
  - Mail-Order
  - Specialty Pharmacy Services
- Cardiovascular Pharmacy Resources
  - 6 FTEs + 2 newly approved FTEs
  - 2 PGY2 Cardiology Pharmacy Residents

UK HealthCare Pharmacy TOC Services

- Pharmacy driven admission medication reconciliation since 2011
  - Increased involvement of extenders since 2014 (i.e. TOC techs, intern program expansion, rotational professional year students)
- House wide, pharmacists provided limited medication education (warfarin, transplant, KATS PLEDGE-AMI)
- Meds-to-Beds began facilitating discharge Rx in August 2013
- BOOST Pilot began in ~November 2014 and includes 1.4 pharmacists and 1 TOC technician

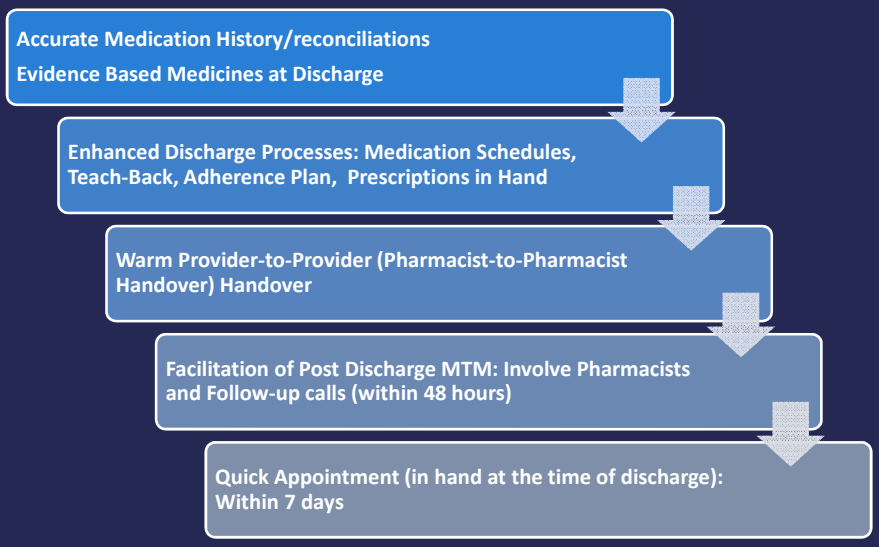
AMI at UK HealthCare

- ~600 PCIs performed annually
  - 60% for ACS (~360)
- One of the highest case mix index for UHC
- Above average readmission amongst UHC hospitals
- Above CMS targets for readmission in AMI
- Requires multidisciplinary effort and innovation solutions
- Pharmacy at UKHealthCare has unique opportunity to impact

KY Adherence to pharmacoTherapy Service: A Program to Lead, Educate, and Deliver Goal-directed care Effectively = KATS PLEDGE

- Patient and care-giver education, facilitated with iPad videos in the cath recovery area
- 30-days of FREE core medicines provided at time of discharge (aspirin, P2Y12 inhibitor, atorvastatin, lisinopril, beta-blocker, and SL NTG.
- Appointments for follow-up care in patient's hand at time of discharge
- Discharge consultation and medication education by a Clinical Pharmacist (ACS Patient's only)
- Access to healthcare provider (RN) by separate phone number
- 2-day follow-up call
- Follow-up appointment with Clinical Pharmacist within 7 days following discharge (ACS Patient's only)
- 30-day follow-up call

Essential Components of Successful Transitions Post-Acute Care



Metrics

- Post HCAHPS for medication and transitions medication questions
- Meds-to-beds utilization (revenue generation)
  - Target increase from 30% utilization to upwards of 50%
  - Data currently unavailable on % of patients who leave with a new Rx (there will be a cap)
- Evaluation of LOS and Same Hospital Readmission
- Safety – catching medication related problems
- Physician satisfaction

ACS Med Rec Process

- Pharmacy completes and documents admission med history for ALL patients
  - 25% TOC Tech
  - 40% Pharmacy Student
  - 35% Pharmacist
- Pharmacists complete admission medication reconciliation
- ACS patients have pharmacist completed/reviewed discharge medication reconciliation
- Bedside RN prints education material & new medication list and review with patients

Evidence

- Pharmacist provided medication reconciliation and education at discharge can decrease the rate of:
  - Preventable adverse drug events
  - Medication-related readmissions
  - Emergency department use
- IPITCH:
  - Recent study demonstrated that pharmacist involvement in hospital discharge can decrease composite inpatient readmissions and ED visits
- Outcomes vary by study and can be inconsistent

Arch Intern Med. 2006;166:565-71. IPITCH. J Hospital Medicine 2015.
PILL-CVD *Ann Intern Med.* 2012;157:1-10.

Discharge Paperwork

Medications You Should Take

How do I take my medicines?

This is a full list of all your medicines. It has new medicines to start taking and old medicines to keep on taking. Please note: Check to see if your old medicines have new doses.

Medication Name	Morning	Noon	Evening	BedTime	Additional Instructions
amitriptyline 50 mg oral tablet **By mouth** (Also known as: Elavil, Endep, Vanatrip)				3 tab(s)	3 tab(s) orally once a day (at bedtime)
azaTHIOprine 50 mg oral tablet **By mouth** (Also known as: Imuran)				4 tab(s)	4 tab(s) orally once a day (at bedtime) (Held currently due to surgery status per Patient)
gabapentin 300 mg oral capsule **By mouth** (Also known as: Neurontin)	1 cap(s)		1 cap(s)		1 cap(s) orally 2 times a day
omeprazole 20 mg oral delayed release capsule **By mouth** (Also known as: PriLOSEC, PriLOSEC OTC)	1 cap(s)				1 cap(s) orally once a day
Vitamin D3 2000 intl units oral tablet **By mouth** (Also known as: Vitamin D3, Thera-D 2000, Thera-D Sport)	1 tab(s)				1 tab(s) orally once a day
acetaminophen-oxyCODONE 325 mg-5 mg oral tablet **By mouth** (Also known as: Roxicet, Percocet 5/325, Endocet, Endocet 5/325)	1 tab(s) orally every 4 hours, as needed for pain				
cyanocobalamin 1000 mcg/mL injectable solution **injection** (Also known as: Cyanoject, Cyomin, Cobal-1000, Crystal B-12)	1 milliliter(s) injectable once a month				

Hospital Transition Impact on Medication Use

72% of post-discharge adverse events are medication-related

"Many patients are discharged without understanding their illness or treatment plans, or inadvertently discontinue important medicines needed to stay well"

1. Improving Care Transitions: Optimizing Medication , March 2012, APhA/ASHP
2. After Hospitalization: A Dartmouth Atlas Report on Readmissions Among Medicare Beneficiaries

CMAJ. 2004;170:345-9.

HCHAPS 16, 17, and 25!

16. Before giving you any new medicine, how often did hospital staff tell you what the medicine was for?

17. Before giving you any new medicine, how often did hospital staff describe possible side effects in a way you could understand?

25. When I left the hospital, I clearly understood the purpose for taking each of my medications?

http://www.hcahpsonline.org/files/HCAHPS%20V9.0%20Appendix%20A%20-%20Mail%20Survey%20Materials%20%28English%29%20March%202014.pdf

Evidence

- Patient access to medications may be hampered
  - According to an observational study at an inner-city hospital, 22% of patients had not filled their discharge prescriptions at the time of follow-up
  - Reasons?
    - Long wait times at the pharmacy (63%)
    - High medication costs (35%)
    - Difficulties with transportation to a pharmacy (38%)
    - Difficulty understanding their new medication regimen (29%)

Mayo Clin Proc. 2008;83(5):529-35.

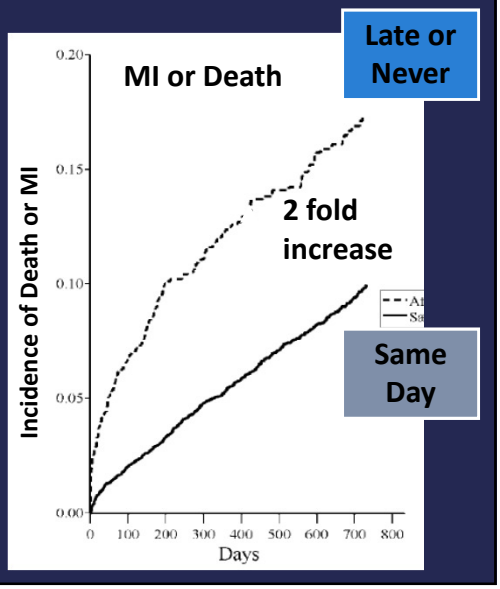
Prescriptions Abandoned in CVS Pharmacies

- Assessed > 5,000,000 patients and >10,000,000 prescriptions
  - 3.3% were abandoned
  - 1.0% were antithrombotic medications
  - New medication users had a 3x greater probability of abandonment
  - Prescription Cost >$50 there was a 5x greater probability of abandonment

Shrank WH. *Ann Intern Med*. 2010.

Delays in Filling Clopidogrel Prescription After Hospital Discharge

- 7,402 patients after MI and stent placement
- 1 in 6 patients failed to fill their prescription on the day of discharge
- Median delay 3 days



Ho MP. *Circ Cardiovasc Qual Outcomes*. 2010.

Discharge Prescription Services

- Mobile Pharmacy Services bring discharge medications to the patient's bedside
- Allows team to work through financial barriers
  - Involved Social Services
  - Prior Authorization obtained prior to discharge
  - Patient Assistant Programs involved
- Increased opportunity for pharmacist counseling, identification of medication errors, reminder of HCAHPS, etc.
- Ensures medications are in hand before departure

http://www.ashp.org/menu/News/PharmacyNews/NewsArticle.aspx?id=3856.
Hosp Case Manag. 2014 Feb;22(2):17-8.

KATS-PLEDGE Medications

- The following are provided to ALL PCI patients free of charge (30-day supply)
  - Aspirin 81 mg daily
  - Ticagrelor 90 mg bid
  - Atorvastatin 80 mg daily
  - BB: Metoprolol tartrate or carvediolol
  - Lisinopril
  - SL Nitroglycerin
- Other medications included are adjudicated through INS and co-pays are collected
- All above Rx are adjudicated and INS issues are identified and support initiated

Standardized Rx Fax Form

Select below (unless contraindication):

- ☐ Aspirin 81 mg po daily #30, 11 refills

Select one below:

- ☐ Ticagrelor 90 mg po twice daily #60, 11 refills
- ☐ Clopidogrel 75 mg po daily #30, 11 refills

Select one below (and appropriate dose):

- ☐ Atorvastatin 80 mg po daily #30, 11 refills
- ☐ Atorvastatin 20 mg po daily #30, 11 refills
  (lower dose option for patients > 75 yo)
- ☐ Pravastatin 80 mg po daily at bedtime #30, 11 refills

Select one below (and appropriate dose):

- ☐ Metoprolol tartrate (Lopressor):
  - ☐ 12.5 mg po twice daily #60, 11 refills
  - ☐ 25 mg po twice daily #60, 11 refills
  - ☐ 50 mg po twice daily #60, 11 refills
  - ☐ 100 mg po twice daily #60, 11 refills
- ☐ Carvedilol:
  - ☐ 3.125 mg po twice daily #60, 11 refills
  - ☐ 6.25 mg po twice daily #60, 11 refills
  - ☐ 12.5 mg po twice daily #60, 11 refills
  - ☐ 25 mg po twice daily #60, 11 refills

Select if indicated – *DMII, LVSD (EF<40%), HTN or CRI* (and appropriate dose):

- ☐ Lisinopril:
  - ☐ 2.5 mg po daily #30, 11 refills
  - ☐ 5 mg po daily #30, 11 refills
  - ☐ 10 mg po daily #30, 11 refills
  - ☐ 20 mg po daily #30, 11 refills
  - ☐ 40 mg po daily #30, 11 refills

Select if needed:

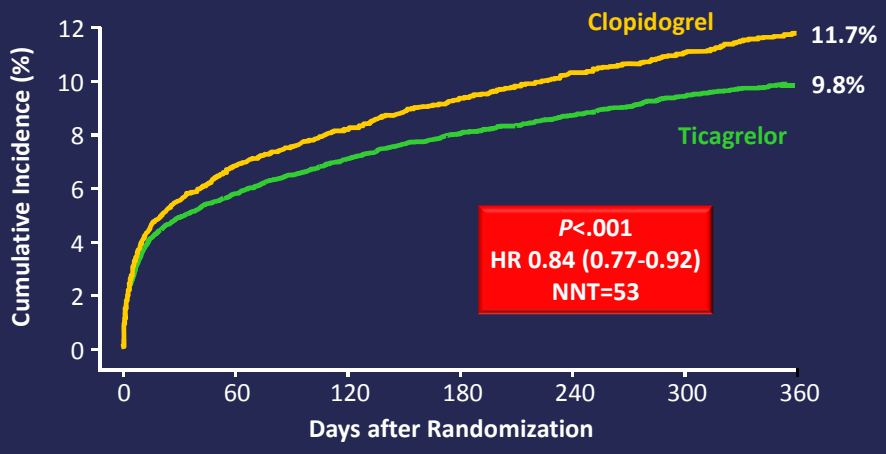
- ☐ SL Nitroglycerin 0.4 mg, place one tablet under tongue as needed for chest pain, #25, 3 refills

OTHER NON-CONTROLLED SUBSTANCES

***(Prescribed for discharge delivery as requested by patient – for patient self-pay or INS co-payment)*:**

- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____

PLATO Trial: Results
CV Death/MI/Stroke



Wallentin L, et al. *N Engl J Med.* 2009.

PLATO: Secondary Efficacy Endpoints

Table 3. Major Efficacy End Points at 12 Months.*

End Point	Ticagrelor Group	Clopidogrel Group	Hazard Ratio for Ticagrelor Group (95% CI)	P Value†
Primary end point: death from vascular causes, MI, or stroke — no./total no. (%)	864/9333 (9.8)	1014/9291 (11.7)	0.84 (0.77–0.92)	<0.001‡
Secondary end points — no./total no. (%)				
Death from any cause, MI, or stroke	901/9333 (10.2)	1065/9291 (12.3)	0.84 (0.77–0.92)	<0.001‡
Death from vascular causes, MI, stroke, severe recurrent ischemia, recurrent ischemia, TIA, or other arterial thrombotic event	1290/9333 (14.6)	1456/9291 (16.7)	0.88 (0.81–0.95)	<0.001‡
MI	504/9333 (5.8)	593/9291 (6.9)	0.84 (0.75–0.95)	0.005‡
Death from vascular causes	353/9333 (4.0)	442/9291 (5.1)	0.79 (0.69–0.91)	0.001‡
Stroke	125/9333 (1.5)	106/9291 (1.3)	1.17 (0.91–1.52)	0.22
Ischemic	96/9333 (1.1)	91/9291 (1.1)		0.74
Hemorrhagic	23/9333 (0.2)	13/9291 (0.1)		0.10
Unknown	10/9333 (0.1)	2/9291 (0.02)		0.04
Other events — no./total no. (%)				
Death from any cause	399/9333 (4.5)	506/9291 (5.9)	0.78 (0.69–0.89)	<0.001
Death from causes other than vascular causes	46/9333 (0.5)	64/9291 (0.8)	0.71 (0.49–1.04)	0.08
Severe recurrent ischemia	302/9333 (3.5)	345/9291 (4.0)	0.87 (0.74–1.01)	0.08
Recurrent ischemia	500/9333 (5.8)	536/9291 (6.2)	0.93 (0.82–1.05)	0.22
TIA	18/9333 (0.2)	23/9291 (0.3)	0.78 (0.42–1.44)	0.42
Other arterial thrombotic event	19/9333 (0.2)	31/9291 (0.4)	0.61 (0.34–1.08)	0.09
Death from vascular causes, MI, stroke — no./total no. (%)				
Invasive treatment planned§	569/6732 (8.9)	668/6676 (10.6)	0.84 (0.75–0.94)	0.003‡
Event rate, days 1–30	443/9333 (4.8)	502/9291 (5.4)	0.88 (0.77–1.00)	0.045
Event rate, days 31–360¶	413/8763 (5.3)	510/8688 (6.6)	0.80 (0.70–0.91)	<0.001

* The percentages are Kaplan–Meier estimates of the rate of the end point at 12 months. Patients could have had more than one type of end point. Death from vascular causes included fatal bleeding. Only traumatic fatal bleeding was excluded from the category of death from vascular causes. MI denotes myocardial infarction, and TIA transient ischemic attack.
† P values were calculated by means of Cox regression analysis.
‡ Statistical significance was confirmed in the hierarchical testing sequence applied to the secondary composite efficacy end points.
§ A plan for invasive or noninvasive (medical) management was declared before randomization.
¶ Patients with any primary event during the first 30 days were excluded.

Wallentin L, et al. *N Engl J Med*. 2009

It is MORE than the Medications!

- Post-Myocardial Infarction Free Rx Event and
- Economic Evaluation (MI FREEE)
  - Provided Statin, BB, ACE-I/ARB
  - Left out DAPT
  - No Specific Education Provided
- There was no significant between-group difference in the primary outcome (P = 0.21)
- Rates of adherence ranged from 35.9 to 49.0% in the usual-coverage group vs. full-coverage group (P<0.001)

N Engl J Med 2011;365:2088-97.

Communication

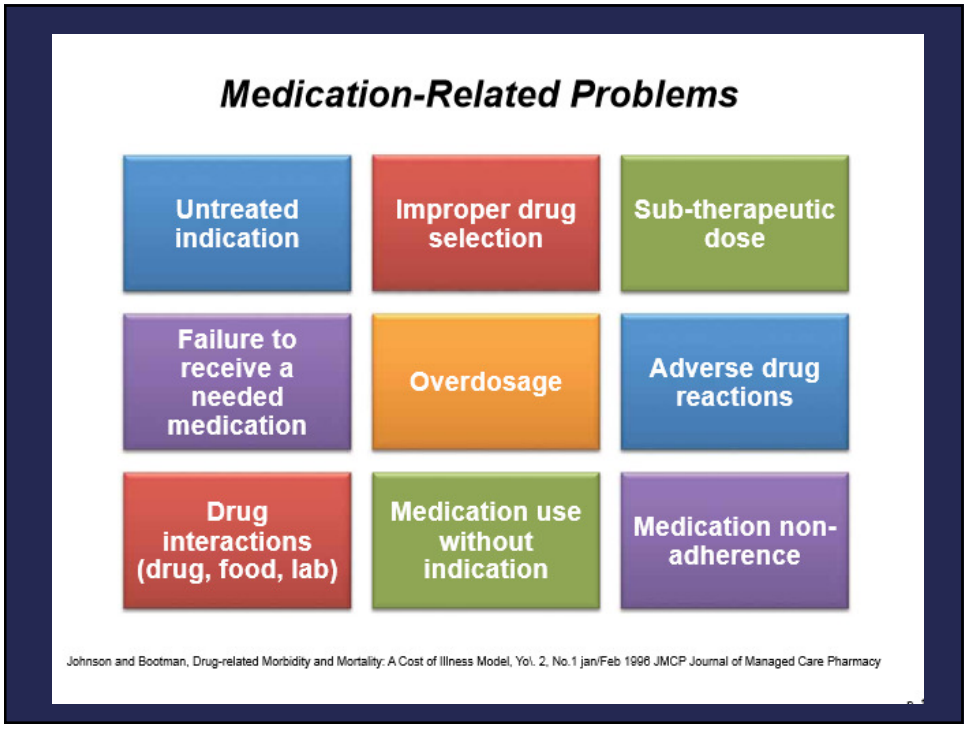
- KATS PLEDGE Pharmacist Discharge Consult note
  - Explain rationale for discharge regimen
    - Duration of triple therapy, DAPT, why no statin, etc.
  - Individual patient barriers to adherence
  - Co-payment information for refills of Rx
    - Where team is in process of PA
- Verbal communication when ever needed

Unplanned Readmissions: Pharmacist Impact Potential

50%

Reduction in preventable 30-day readmissions due to pharmacist intervention

Source: FPA/UCare Fairview Transition Pilot



Post-Acute Care Follow-up

- Face to Face visits with a CV trained Clinical Pharmacist within 7 days
  - Credentialed/Privileged in management of CVD
- Complete elements of Transitional Care Management and Comprehensive Medication Review
- How are you doing?
- What medications are you taking? Why?
- Review refill instructions
- Make medications adjustments as needed
- Review plans for further follow-up
- Document and communication plan of care

KATS-PLEDGE Interim Analysis

- Went live with all components September 1st
- In 6 months
  - ~300 PCIs got free discharge medications
    - ~200 classified as ACS
  - 60% ticagrelor and 40% clopidogrel
  - Follow-up TCM PharmD appointments made for ~160
    - ~120 completed the face-to-face visit
  - Average follow-up time at 8 days
  - At 30 days: ~28 were readmitted, ~14 patients had ED visit
    - None of these completed the face-to-face visit
    - Admitted before, not scheduled, or no showed
  - 92% of patients had a medication change during follow-up appointment

Opportunities for Revenue Generation

- Discharge Prescription Services
  - Filling other medications
  - Refill business (repeat customers)
- Billing for clinical services
  - Inpatient MTM
  - Outpatient MTM/CMR
  - TCM Provider Billing

Forbes on Pharmacists, Transitional Care

Meet The Newest Member Of Your Personal Healthcare Team

Robert J. Szczerba, Contributor
6.3.14

As most patients in the American healthcare system know, it's gotten harder and harder to maintain regular, detailed communication with your doctor. At least in terms of medication, pharmacists have begun to address this gap through regular, direct contact with their patients. In Medication Therapy Management (MTM), a pharmacist evaluates a patient's prescriptions and how the patient is feeling to identify and resolve issues including untreated conditions, drug interactions, adverse drug reactions, inappropriate drugs or doses, and whether a patient is taking the medications as prescribed. The pharmacist is rapidly becoming the newest member of your personal healthcare team.

MTM has the potential to alleviate some glaring problems in America's healthcare system. For example, about one-third of people over age 65 who take five or more medications experience some sort of adverse drug event, such as a bone-breaking fall, disorientation, inability to urinate, or heart failure.

Part of this problem is the cost of hospital readmissions, which is generally defined as a patient being hospitalized within 30 days of an initial hospital stay. If a hospital has a high proportion of patients readmitted within a short time frame, it may be an indication of inadequate quality of care in the hospital or a lack of appropriate coordination of post-discharge care.

The Centers for Medicare and Medicaid Services (CMS) estimate hospital readmissions cost the program $17.1 billion a year, at an average of $10,000 – $13,000 per patient readmitted. In many cases, readmissions are the result of adverse effects of medication therapies due to improper or non-adherence to medication regimens. Reflecting the importance of that last point, in October 2012, CMS began reducing Medicare payments for hospitals with excess readmissions (as compared to other hospitals with similar patient profiles). Because of this, there is a renewed focus on hospitals to continue to reduce their readmission rate.

To help address these issues, a new study evaluated the effectiveness of MTM on reducing hospital readmissions utilizing phone calls to patients from their pharmacist. Dr. Alan Zillich, study co-lead and Associate Professor of Pharmacy, Purdue University, explains the need driving this research. "Enhancing the quality of care for patients has always been the goal of healthcare providers, but the growing costs of Medicare and healthcare in general have put an even brighter spotlight on strategies to improve patient outcomes and reduce unnecessary costs."

The study identified 232 out of 890 patients, or 26%, as "risk-level 1 patients" who are capable of basic functions, including the ability to dress themselves, answer the phone, etc. One of the key findings was that risk-level 1 patients in the MTM group experienced an 86% reduction in readmissions compared to the control group. To put it another way, the group receiving MTM was three times more likely to remain out of the hospital after 60 days. Patrick Dunham, study co-author and CEO of Curant Health, calls this "another powerful proof point for the value of MTM and its capability to simultaneously reduce costs and improve care across the healthcare continuum."

"The Newest Member of Your Personal Healthcare Team"

Pharmacist MTM services yielded **86% reduction in readmissions** compared to the control group.

Patients receiving MTM were **3 times more likely** to remain out of the hospital after 60 days.

http://www.forbes.com/sites/robertszczerba/2014/06/05/meet-the-newest-member-of-your-personal-healthcare-team

ASHP PPMI and Professional Continuity

- B20: Pharmacists should facilitate medication-related continuity of care.
- B23l: Pharmacists should be involved in establishment of process to ensure medication-related continuity of care.
- B23m: Pharmacists should be involved in the provision of discharge education to patients.

Summary

- Pharmacists can impact patient care at discharge through medication reconciliation, education, access and follow-up
- Quality and financial metrics should be utilized to justify and offer continued support for these services
- Many hospitals have had success implementing a sustainable model of these services, UK Pharmacy Service has made significant strides and is positioned to make the next leap… HF

Ephraim McDowell Regional Medical Center - Danville KY

Brett Vickey PharmD, BCPS
Clinical Pharmacist

Ephraim McDowell Regional Medical Center

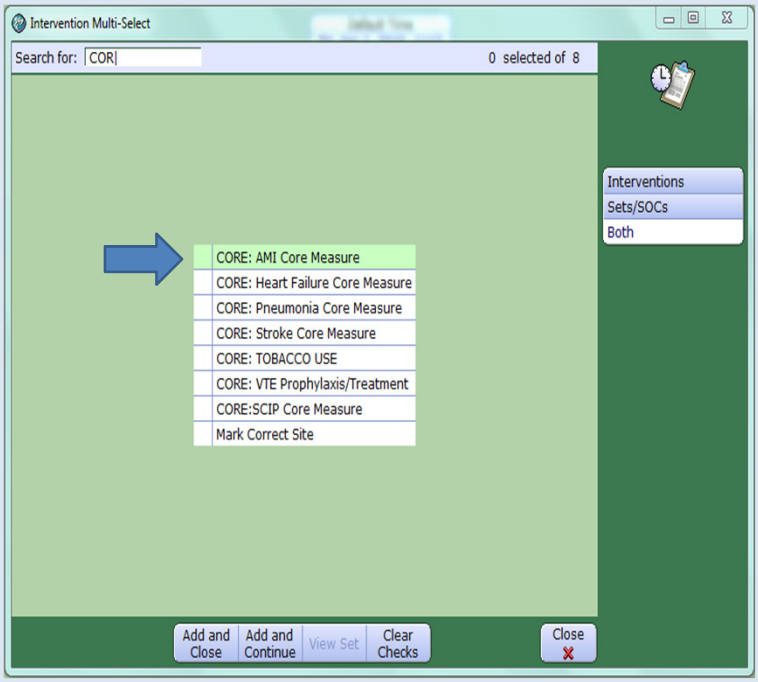
- 222 bed non profit community hospital in Danville, KY
- Part of a rural, regional health care system with a 6 county service area
- 5 cardiologists(4 interventional)

Ephraim McDowell Regional Medical Center

- Decentralized clinical model provides dedicated floor based pharmacists to 4 units
- Mixed Decentralized/Centralized Pharmacist staffing model:
  - flexibility required
  - varied schedule
  - cross trained on all units
  - preceptors have some unit preferences
- Central pharmacists provide services to non-dedicated units
- 11 PharmDs with BPS certifications
- Two PGY1 residents
- Outpatient pharmacy with concierge and ambulatory services

Core Measure Intervention: AMI

- EMRMC nursing and pharmacy collaboration
- Helps achieve core measure compliance:
  - Medications
  - Documentation
  - Counseling
- Flags for prescribers to be notified



Core Measure Intervention: AMI

	03/30/2016 Wed 1453 VICBRE
CORE: AMI Core Measure	Freq: PRN
Core Measure Type	
Noted by Documentation from:	
LDL Within 24 Hours of Admission	
Aspirin Ordered	
Reason Aspirin at Discharge Not Ordered	
Comment	
Beta Blocker Ordered	
Reason Beta Blocker Not Ordered	
Comment	
EF <40%	
EF Results	
Date of ECHO	
Cardiologist	
ACE/ARB Ordered	
Reason ACE/ARB Not Ordered	
PHA Comment	
Statin Ordered	
Reason Statin not Ordered	
Lipid Lowering Agent (Non-Statin) Ordered	
Comment	
Does Patient Meet Core Measure During Admission	
Does Patient Need Review at Discharge	
Pharmacist Confirmation	
Follow-up Required	

Core Measure Intervention: AMI

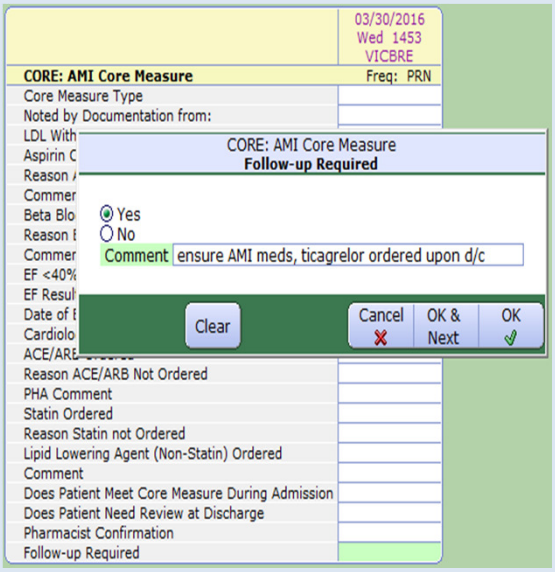
Data to file	04/01/2016 Fri 1115 VICBRE
CORE: AMI Core Measure	Freq: PRN
Core Measure Type	MI
Noted by Documentation from:	
LDL Within 2	
Aspirin Orde	
Reason Aspi	
Comment	
Beta Blocke	
Reason Beta	
Comment	
EF <40%	
EF Results	
Date of ECH	
Cardiologist	
ACE/ARB Or	
Reason ACE/ARB Not Ordered	
PHA Comment	
Statin Ordered	
Reason Statin not Ordered	
Lipid Lowering Agent (Non-Statin) Ordered	
Comment	
Does Patient Meet Core Measure During Admission	
Does Patient Need Review at Discharge	
Pharmacist Confirmation	
Follow-up Required	

CORE: AMI Core Measure
Reason ACE/ARB Not Ordered

- ☐ Allergy
- ☐ Angioedema
- ☐ Hyperkalemia
- ☐ Hypotension
- ☐ Renal Artery Stenosis
- ☐ Worsening Renal Function
- ☐ Mod/Sev Aortic Stenosis

Clear | Cancel | OK & Next | OK

Core Measure Intervention: AMI



Home Medication Intervention

- Final check for discharging RPh
  - Documentation
  - concierge service
  - Delta service
  - Issues/concerns

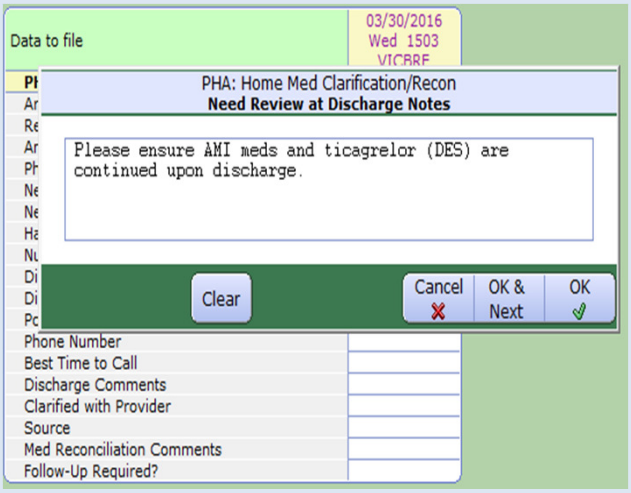
Home Medication Intervention

Data to file	04/12/2016 Tue 1616 VICBRE
PHA: Home Med Clarification/Recon	
Are Home Meds in Pharmacy	
Requests Discharge Med Concierge Service	Yes
Anticoagulation Clinic Patient	
Physician	
Need Review at Discharge	
Need Review at Discharge Notes	
Has Discharge Instruction Sheet Been Reviewed	
Number of Prescriptions?	
Discharge Concierge Service Provided	
Discharge Med Counseling Provided	
Post Discharge Call Needed	
Phone Number	
Best Time to Call	
Discharge Comments	
Clarified with Provider	
Source	
Med Reconciliation Comments	
Follow-Up Required?	

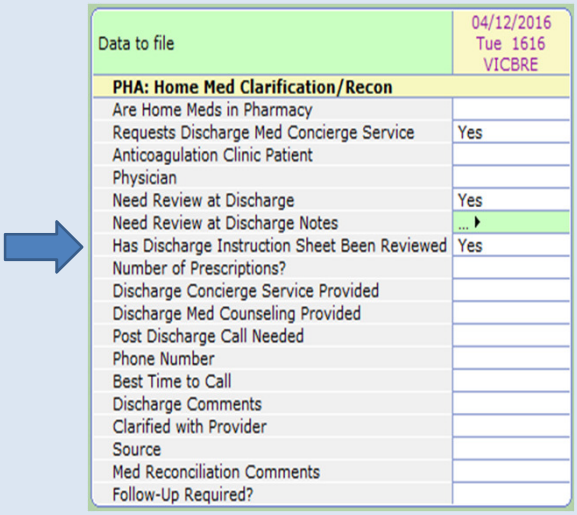
Home Medication Intervention

Data to file	03/30/2016 Wed 1503 VICBRE
PHA: Home Med Clarification/Recon	
Are Home Meds in Pharmacy	
Requests Discharge Med Concierge Service	Yes
Anticoagulation Clinic Patient	
Physician	
Need Review at Discharge	Yes
Need Review at Discharge Notes	
Has Discharge Instruction Sheet Been Reviewed	
Number of Prescriptions?	
Discharge Concierge Service Provided	
Discharge Med Counseling Provided	
Post Discharge Call Needed	
Phone Number	
Best Time to Call	
Discharge Comments	
Clarified with Provider	
Source	
Med Reconciliation Comments	
Follow-Up Required?	

Home Medication Intervention



Home Medication Intervention



Delta Program Summary

- Transition of care
- Identify/designate patients admitted with a core measure diagnosis
- Cross departmental collaboration: prescribers, case management, nurses, pharmacists, respiratory therapists, dietitians
- Provides:
  - Inpatient education
  - Free discharge medications per protocol
  - Multi-disciplinary coaching telephone consults for 30 days after discharge

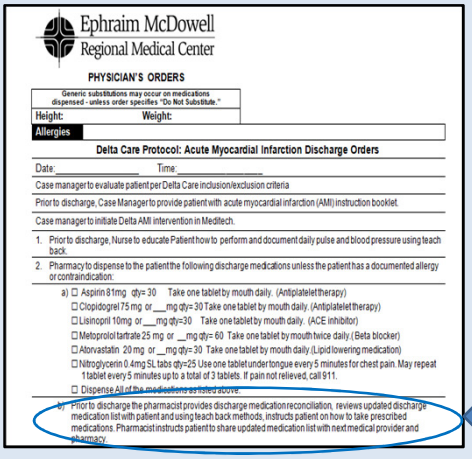
AMI Discharge Protocol: Medications

- Inexpensive, sustainable options
- Evidence based quality of care
- List was reviewed and approved by EMRMC cardiologists
- Prescriber may choose from Delta AMI protocol medications (free)
- Certain classes may be substituted with alternative agents to accommodate prescriber preferences, insurances, coupons/vouchers

AMI Discharge Protocol: Medications

a) ☐ Aspirin 81mg qty= 30 Take one tablet by mouth daily. (Antiplatelet therapy)
☐ Clopidogrel 75 mg or ___mg qty= 30 Take one tablet by mouth daily. (Antiplatelet therapy)
☐ Lisinopril 10mg or ___mg qty=30 Take one tablet by mouth daily. (ACE inhibitor)
☐ Metoprolol tartrate 25 mg or __mg qty= 60 Take one tablet by mouth twice daily.(Beta blocker)
☐ Atorvastatin 20 mg or __mg qty= 30 Take one tablet by mouth daily.(Lipid lowering medication)
☐ Nitroglycerin 0.4mg SL tabs qty=25 Use one tablet under tongue every 5 minutes for chest pain. May repeat 1 tablet every 5 minutes up to a total of 3 tablets. If pain not relieved, call 911.
☐ Dispense All of the medications as listed above.

AMI Discharge Protocol: RPh Instructions



Ephraim McDowell Regional Medical Center

PHYSICIAN'S ORDERS

Generic substitutions may occur on medications dispensed - unless order specifies "Do Not Substitute."

Height: Weight:

Allergies

Delta Care Protocol: Acute Myocardial Infarction Discharge Orders

Date:_____ Time:_____

Case manager to evaluate patient per Delta Care inclusion/exclusion criteria

Prior to discharge, Case Manager to provide patient with acute myocardial infarction (AMI) instruction booklet.

Case manager to initiate Delta AMI intervention in Meditech.

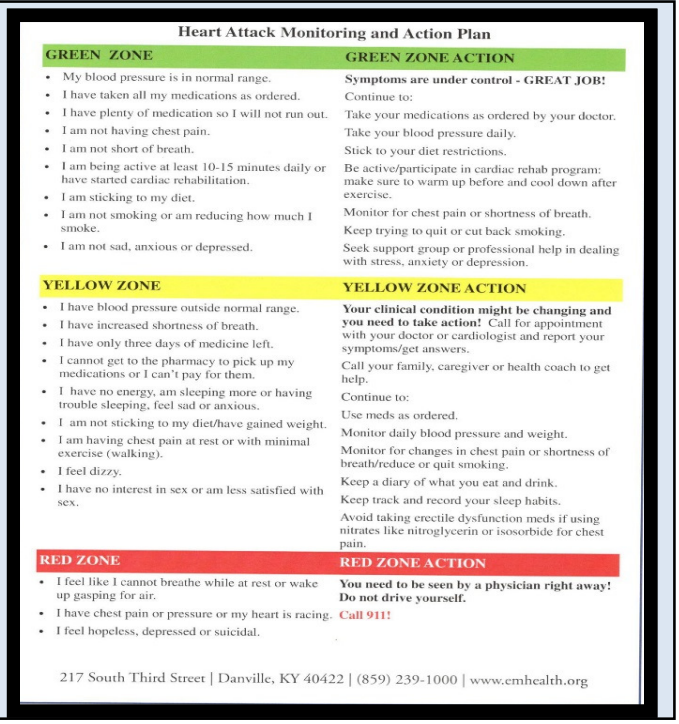
1. Prior to discharge, Nurse to educate Patient how to perform and document daily pulse and blood pressure using teach back.
2. Pharmacy to dispense to the patient the following discharge medications unless the patient has a documented allergy or contraindication:

a) ☐ Aspirin 81mg qty= 30 Take one tablet by mouth daily. (Antiplatelet therapy)
☐ Clopidogrel 75 mg or ___mg qty= 30 Take one tablet by mouth daily. (Antiplatelet therapy)
☐ Lisinopril 10mg or ___mg qty=30 Take one tablet by mouth daily. (ACE inhibitor)
☐ Metoprolol tartrate 25 mg or __mg qty= 60 Take one tablet by mouth twice daily.(Beta blocker)
☐ Atorvastatin 20 mg or __mg qty= 30 Take one tablet by mouth daily.(Lipid lowering medication)
☐ Nitroglycerin 0.4mg SL tabs qty=25 Use one tablet under tongue every 5 minutes for chest pain. May repeat 1 tablet every 5 minutes up to a total of 3 tablets. If pain not relieved, call 911.
☐ Dispense All of the medications as listed above.

b) Prior to discharge the pharmacist provides discharge medication reconciliation, reviews updated discharge medication list with patient and using teach back methods, instructs patient on how to take prescribed medications. Pharmacist instructs patient to share updated medication list with next medical provider and pharmacy.

b) Prior to discharge the pharmacist provides discharge medication reconciliation, reviews updated discharge medication list with patient and using teach back methods, instructs patient on how to take prescribed medications. Pharmacist instructs patient to share updated medication list with next medical provider and pharmacy.

Health Literacy Tool



Heart Attack Monitoring and Action Plan

GREEN ZONE	GREEN ZONE ACTION
• My blood pressure is in normal range. • I have taken all my medications as ordered. • I have plenty of medication so I will not run out. • I am not having chest pain. • I am not short of breath. • I am being active at least 10-15 minutes daily or have started cardiac rehabilitation. • I am sticking to my diet. • I am not smoking or am reducing how much I smoke. • I am not sad, anxious or depressed.	**Symptoms are under control - GREAT JOB!** Continue to: Take your medications as ordered by your doctor. Take your blood pressure daily. Stick to your diet restrictions. Be active/participate in cardiac rehab program: make sure to warm up before and cool down after exercise. Monitor for chest pain or shortness of breath. Keep trying to quit or cut back smoking. Seek support group or professional help in dealing with stress, anxiety or depression.
YELLOW ZONE	**YELLOW ZONE ACTION**
• I have blood pressure outside normal range. • I have increased shortness of breath. • I have only three days of medicine left. • I cannot get to the pharmacy to pick up my medications or I can't pay for them. • I have no energy, am sleeping more or having trouble sleeping, feel sad or anxious. • I am not sticking to my diet/have gained weight. • I am having chest pain at rest or with minimal exercise (walking). • I feel dizzy. • I have no interest in sex or am less satisfied with sex.	**Your clinical condition might be changing and you need to take action!** Call for appointment with your doctor or cardiologist and report your symptoms/get answers. Call your family, caregiver or health coach to get help. Continue to: Use meds as ordered. Monitor daily blood pressure and weight. Monitor for changes in chest pain or shortness of breath/reduce or quit smoking. Keep a diary of what you eat and drink. Keep track and record your sleep habits. Avoid taking erectile dysfunction meds if using nitrates like nitroglycerin or isosorbide for chest pain.
RED ZONE	**RED ZONE ACTION**
• I feel like I cannot breathe while at rest or wake up gasping for air. • I have chest pain or pressure or my heart is racing. • I feel hopeless, depressed or suicidal.	**You need to be seen by a physician right away! Do not drive yourself.** **Call 911!**

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Delta Return on Investment

With value based purchasing, the potential loss of revenue for readmissions was estimated to be 1% of total Medicare reimbursement for all patients served during 2013 and will increase by 1% each year up to 3% in 2015.

- 1% equated to an est. **$300,000 loss** if we did nothing

- Potential projected expense for all HF and Delta patients **$47,528**
- Actual expense for Delta enrolled HF and Delta patients **$8,944**

42 HF Delta enrolled x $104= $4,368
44 COPD Delta enrolled x $104= $4,576
ACTUAL TOTAL for 86 Delta enrolled patients = $8,944

YEAR 1 NET REVENUE SALVAGED by DELTA CARE $291,056

Delta Return on Investment

205 HF pts/yr x $93.75 = $19,219

252 COPD/yr x $99 = $24,948

TOTAL $44,167 expense per year for ALL HF & COPD pts*

*not all patients will be part of Delta clinic due to inclusion/exclusion criteria so this is max expenditure

NET REVENUE SALVAGED by DELTA CLINIC $255,833

Delta Care Results
Comparison of Readmission Rates

DRG	2012% readmission	2013% readmission	2012 O/E	2013 O/E	Change %
COPD 190	33	24.18	1.73	1.4	-19%
COPD 191	25	24.18	1.56	1.4	-10%
COPD 192	0	0.6	0.0	0.6	Increase
HF 291	50	23.23	2.44	1.08	-56%
HF 292	25	19.32	1.19	0.98	-18%
HF 293	50	17.28	2.73	1.05	-62%

Delta Care Results

Data	HF patients	COPD patients	Combined
Enrolled in Delta	42	44	86
Complete 2 or more calls with coach	18	24	40
Avg # calls completed	3.5	3.1	3.3
PCP visit w/in 7 days	83% (15/18)	41% (9/22)	60% (24/40)
Adhere to meds 6-7 days /week	78% (14/18)	88% (21/24)	83%
Daily self monitoring	Weights 53% (208/396)	Peak flow 41% (55/133)	50% (263/529)

Delta Care Results

Data	HF patients	COPD patients	Combined
Avg labor cost per Delta patient/month	$93.31	$60.39	$76.85
Cost of Delta discharge protocol meds/support kit	$10.75	$43.54	
Avg Total expense per Delta patient per month	$104.06	$103.93	$104.00
# patients readmitted w/in 30 days	11% (2/18)	17% (4/24)	14%
# readmissions within 12 months	32% (9/28)	63% (15/24)	

Delta Care Results

Objective	Results %
Patients are seen by primary care provider within 5-7 days of hospital discharge.	60%
Patients are able to obtain and comply with prescribed medications post discharge	83%
Patients are able to meet clinical goal for self monitoring their disease states (daily weights for HF, peak flow for COPD)	50%
Patients are able to identify and implement at least one recommended dietary change goal	77%
Patients are able to recognize and seek appropriate level of care when their condition worsens to avoid hospital re-admission within 30 days of discharge	85%

Delta Care- Patient Survey Results

38% rate or return

Scale of 1-5 with 1 being least helpful and 5 being most helpful

Data	Survey response
Do you think Delta program helped you understand your disease?	4.6 Avg
Do you think Delta program helped you understand your medications?	4.8 Avg
Do you think Delta program helped you recognize symptoms of your condition?	4.8 Avg
Do you think Delta program helped you understand your diet and exercise?	4.5 Avg

Success & Recognition

- 2014 KHA Quality Award
- 2014 Premier Partnership for Patients Award finalist
- 2014 KY Quality Improvement Organization Recognition – Top 10% in nation of all care transition communities , Top performer of 130 hospitals in KY

Summary

- Decentralized clinical model provides dedicated floor based pharmacists to various units
- Pharmacists serve as clinical liaisons and facilitators to discharge process
- Documentation system assists transitions of care
  - Inpatient pass-off
  - Discharge check
  - Delta Program
  - Concierge

Thank You

Surviving MI

AN ACC QUALITY INITIATIVE

Please submit your questions for the moderated question and answer session.

SurvivingMI@acc.org
CVQuality.ACC.org/SurvivingMI

Quality Improvement for Institutions

Quality Improvement for Institutions

The Quality Improvement for Institutions program combines the ACC's NCDR data registries with toolkits and proven hospital-based quality improvement initiatives like Hospital to Home, the D2B Alliance and Surviving MI.

Simple Solutions. Big Impact. CVQuality.ACC.org.

Quality Improvement for Institutions