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HOSPITAL-TO-HOME

The Role of Early Follow Up in Reducing Readmissions of HF and AMI Patients

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Purpose

The purpose of this presentation is to explain the important role of early follow up in reducing readmissions of HF and AMI patients and provide an overview of the H2H See You in 7 Challenge project.

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Why focus on early follow-up?

- Trends in care with greater segmentation of providers into inpatient vs. outpatient.
- Days immediately following discharge are a vulnerable period.
- Care is often complicated and coordination is important in preventing readmission.[1]
- Often there are additions or changes in therapies that may have unknown effects or even worsen a patient's clinical status or other co-morbid conditions.[2]

[1] Peikes D, Chen A, Schore J, Brown R. Effects of care coordination on hospitalization, quality of care, and health care expenditures among Medicare beneficiaries: 15 randomized trials. *JAMA*. 2009;301(6):603-618.

[2] Leendertse AJ, Egberts AC, Stoker LJ, van den Bemt PM. Frequency of and risk factors for preventable medication-related hospital admissions in the Netherlands. *Arch Intern Med*. 2008;168(17):1890-1896.

Relationship Between Early Physician Follow-up and 30-Day Readmission Among Medicare Beneficiaries Hospitalized for Heart Failure

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Context Readmission after hospitalization for heart failure is common. Early outpatient follow-up after hospitalization has been proposed as a means of reducing readmission rates. However, there are limited data describing patterns of follow-up after heart failure hospitalization and its association with readmission rates.

Objective To examine associations between outpatient follow-up within 7 days after discharge from a heart failure hospitalization and readmission within 30 days.

Design, Setting, and Patients Observational analysis of patients 65 years or older with heart failure and discharged to home from hospitals participating in the Organized Program to Initiate Lifesaving Treatment in Hospitalized Patients With Heart Failure and the Get With the Guidelines-Heart Failure quality improvement program from January 1, 2003, through December 31, 2006.

Main Outcome Measure All-cause readmission within 30 days after discharge.

Results The study population included 30 136 patients from 225 hospitals. Median length of stay was 4 days (interquartile range, 2-6) and 21.3% of patients were readmitted within 30 days. At the hospital level, the median percentage of patients who had early follow-up after discharge from the index hospitalization was 38.3% (interquartile range, 32.4%-44.5%). Compared with patients whose index admission was in a hospital in the lowest quartile of early follow-up (30-day readmission rate, 23.3%), the rates of 30-day readmission were 20.5% among patients in the second quartile (risk-adjusted hazard ratio [HR], 0.85; 95% confidence interval [CI], 0.78-0.93), 20.5% among patients in the third quartile (risk-adjusted HR, 0.87; 95% CI, 0.78-0.96), and 20.9% among patients in the fourth quartile (risk-adjusted HR, 0.91; 95% CI, 0.83-1.00).

Conclusions Among patients who are hospitalized for heart failure, substantial variation exists in hospital-level rates of early outpatient follow-up after discharge. [illegible]d from hospitals that have higher early follow-up rates [illegible] readmission.

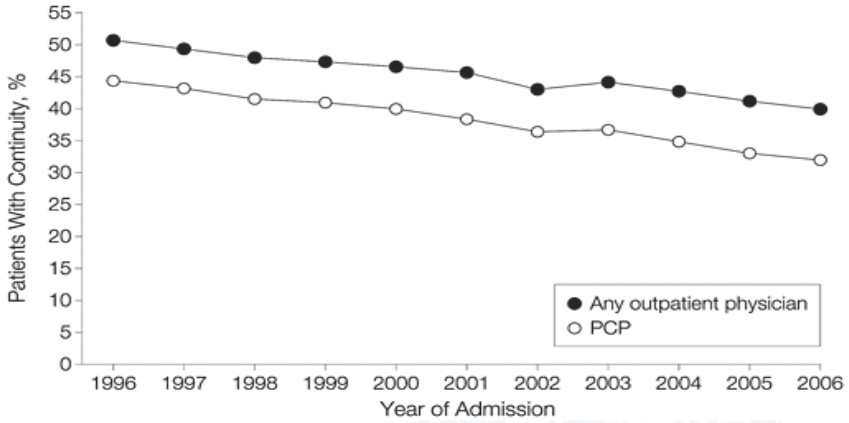
Trial Registration clinicaltrials.gov Identifier: NCT00344513

JAMA. 2010;303(17):1716-1722 www.jama.com

CLINICIANS, PAYERS, AND policy makers seeking to promote efficiency and quality in health care are targeting hospital readmission rates.[1] One-fifth of Medicare beneficiaries are rehospitalized within 30 days and more than one-third within 90 days.[1] Nearly 90% of these readmissions are unplanned and potentially preventable, which translates into $17 billion or nearly 20% of Medicare's hospital payments.[2] As the most common diagnosis associated with 30-day readmission among Medicare beneficiaries, heart failure is a prime example of the challenges in transitional care.[1]

JAMA, May 5, 2010—Vol 303, No. 17

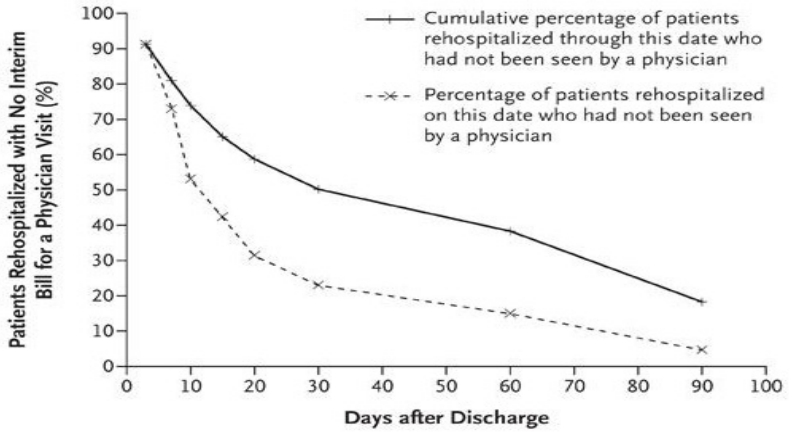
Decreasing Continuity of Care



.From 1996 to 2006, continuity of care from inpatient to outpatient settings has steadily decreased..

Sharma G et al. *JAMA* . 2009;301:1671-1680

Lack of Outpatient Physician Visit between Discharge and Rehospitalization



Patients without early follow up are at higher risk of being readmitted within 30 days of discharge. The highest percentage of readmission occurs for patients within 10 days of discharge.

Jencks SF et al. *N Engl J Med.* 2009;360:1418-1428

Timely follow-up and Readmission: Care Transitions Intervention- A Randomized Control Trial

- Intervention
  - Medication self-management,
  - Patient-centered record,
  - Timely follow-up with primary or specialty care,
  - List of "red flags" indicative of a worsening condition and instructions on how to respond to them.
- Intervention patients had a lower rehospitalization rate at 30 days (8.3% vs. 11.9; *p*=0.048)

Coleman EA et al. *Arch Intern Med.* 2006;166:1822-1828

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Relationship Between Early Follow-up and 30 Day Readmission

Objectives

- To characterize hospitals' patterns of physician follow-up after hospital discharge.
- To determine the association of early follow-up with readmission after hospitalization for heart failure.

Methods

- **Study Population:**
  - 225 hospitals in Get With The Guidelines –Heart Failure
  - Linked with Medicare Claims for follow-up
  - 65 years and older admitted with heart failure
- **Early Follow-up:** Any visit within 7 days after discharge from index hospitalization

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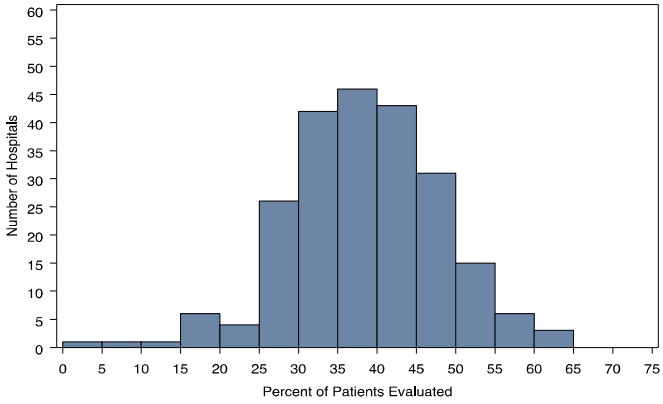
Hernandez AF et al. *JAMA* . 2010; 303(17): 1716-1722

Hospital Variation in Early Follow-up

Median Follow-up Visit within 7 days = 37.5%

225 GWTG-HF Hospitals



Rates of physician follow-up within 1 week of discharge were low and varied substantially across hospitals.

Hernandez AF et al. *JAMA* . 2010; 303(17): 1716-1722

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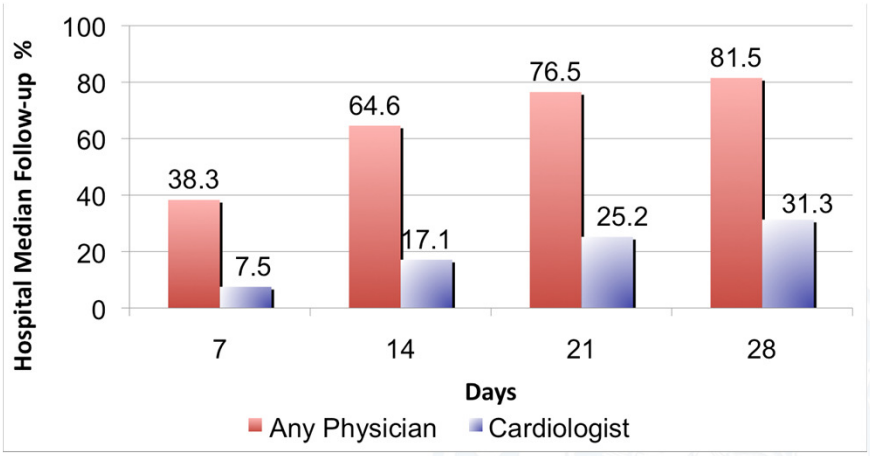
Follow-up by Physician Type



Patient follow-up after discharge is important to continuity of care however fewer outpatient visits occur within seven days of discharge for cardiologists than all physicians.

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Hernandez AF et al. *JAMA* . 2010; 303(17): 1716-1722

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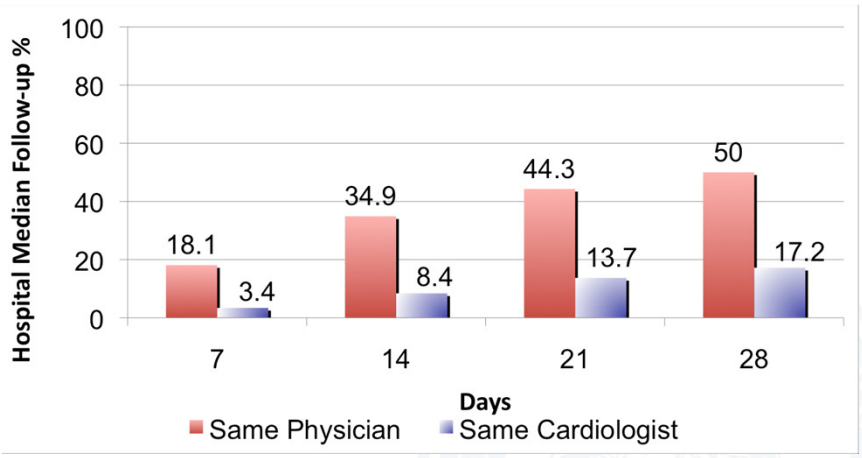
Follow-up by Same Physician



Follow-up outpatient visits with the same physician and/or same cardiologist strengthens the continuity of care provided to the patient however, less than 20% of patients receive a follow-up visit with the same cardiologist within a month of discharge.

Hernandez AF et al. *JAMA* . 2010; 303(17): 1716-1722

30-Day Readmission & Early Follow-up with Any Physician

Early Follow-up	Unadjusted HR	95% CI	P Value	Adjusted HR	95% CI	P Value
Quartile 1	1.0 (REF)			1.0 (REF)		
Quartile 2	0.86	0.78-0.94	<.01	0.85	0.78-0.93	<.01
Quartile 3	0.85	0.76-0.94	<.01	0.87	0.78-0.96	<.01
Quartile 4	0.87	0.79-0.95	<.01	0.91	0.83-1.0	.05

Covariates: age, sex, race, anemia, atrial arrhythmia, COPD, CKD, CAD, depression, diabetes, hyperlipidemia, hypertension, PVD, prior CVA/TIA , smoker, creatinine, systolic blood pressure, serum sodium, hemoglobin, LVSD, discharge process, LOS>7 days, year of admission

Hernandez AF et al. *JAMA* . 2010; 303(17): 1716-1722

Study Conclusions

- Rates of physician follow-up within 1 week of discharge were low and varied substantially across hospitals.
- Patients discharged from hospitals with more consistent early follow-up with 7 days have lower risk of 30-day readmission.
- Enhanced transition planning and ensuring that patients are evaluated within a week of discharge represents an achievable target for hospital quality improvement.

Hernandez AF et al. *JAMA* . 2010; 303(17): 1716-1722

Important Elements for Early Follow-up

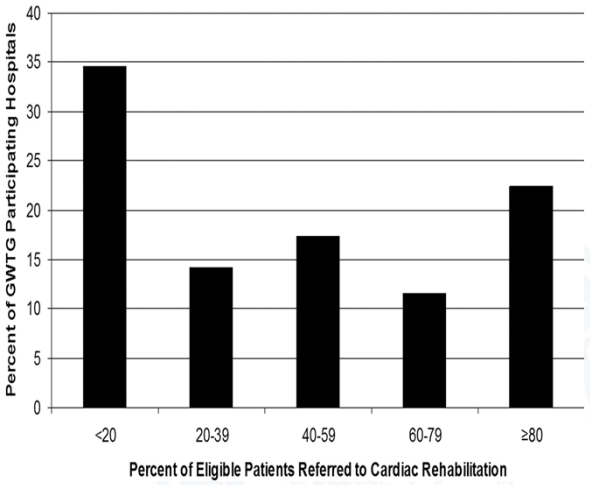
- Establishing communication between sending and receiving clinicians
- Natural opportunity for reconciliation of medications at follow up visit
- Review outstanding tests and follow-up plans from recent tests
- Discussions about monitoring signs and symptoms of worsening conditions

Coleman EA. Falling through the cracks: challenges and opportunities for improving transitional care for persons with continuous complex care needs. *J Am Geriatr Soc.* 2003;51(4):549-555

Other Opportunities for Follow-up: Cardiac Rehabilitation

GWTG-CAD Hospitals

- Cardiac Rehabilitation Referral Rates After acute myocardial infarction, PCI, or CABG
- Median referral rate by hospital was 43%



Brown TM et al. *J Am Coll Cardiol.* 2009; 54:515-521

H2H Early Follow-Up Challenge: "See You in 7"

Goal

All patients discharged with a diagnosis of HF or MI have a follow-up appointment/cardiac rehab referral scheduled within 7 days of discharge

- HF patients have an appointment to see any healthcare professional within 7 days
- MI patients have a referral to go to cardiac rehab within 7 days

"See You in 7" Success

The hospital discharge process is successful if:

- HF and MI patients are identified prior to discharge.
- Clinic or cardiac rehab appointment within 7 days is scheduled and documented in the medical record.
- Patient is provided with documentation of the scheduled appointment (e.g., appointment card).
  - Date, time, location, provider contact information
- Possible barriers to keeping the appointment are identified in advance, addressed, and documented in the medical record.

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"See You in 7" Success

The follow-up clinic or cardiac rehab appointment is successful if:

- Patient arrives at appointment within 7 days of discharge from hospital.
- Discharge summary (including summary of hospitalization, updated medication list) available to follow-up provider.
- Patient brings his/her medications or a medication list to clinic visit.
- Reason for referral available to cardiac rehab center and patient brings referral letter or provider prescription.

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Thank You

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