Hospital to Home Transition: Translating Research into Practice

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Objectives

- Characteristics of effective interventions- for limited health literacy patients
- Adaptation of prior interventions for low-income, multi-ethnic setting
  - Challenges for vulnerable populations
- Pilot Results

The Care Transition Intervention

- Intervention
  - 4-week program consist of
    - Patient-centered record that consists of the essential care elements
    - A structured discharge checklist of critical activities
    - In-hospital session with a Transitions Coach™
    - Transitions Coach™ follow-up visits and accompanying phone calls
- Focuses on 4 conceptual areas
  - Medication self-management
  - Patient-centered record
  - Primary Care and Specialist Follow-Up
  - Knowledge of Red Flags
- 4% reduction in 30-day re-admission (8% vs. 12%)

Coleman, *Arch Internal Med*, 2006

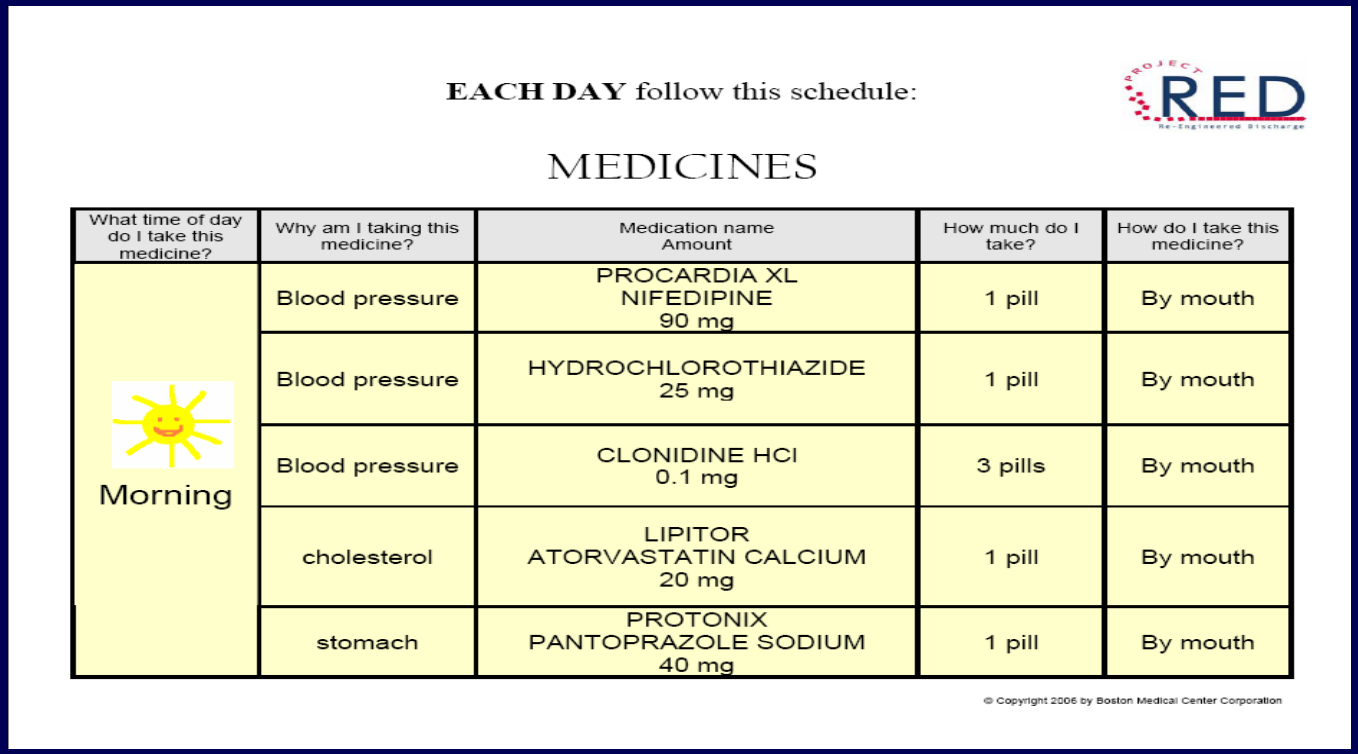
The Transitional Care Model (TCM)

- TCM includes:
  - The Transitional Care Nurse as care coordinator
- Patients are visited:
  - In the hospital within 24 hours of enrollment
  - Daily throughout the hospitalization
  - In the home within 24-48 hours of discharge
  - At least weekly during the first month
  - At least semi-monthly throughout the intervention

Naylor M, *Ann Intern Med,* 1994 Naylor MD, *JAMA,* 1999 Naylor MD, *J Am Geriatr Soc.,* 2004

Project Re-Engineered Discharge (RED)

- RN in-hospital, Follow-up pharmacist telephone call
- Fewer re-admissions + ED visits at 30 days
  - 55% vs 76%



EACH DAY follow this schedule:

PROJECT RED Re-Engineered Discharge

MEDICINES

What time of day do I take this medicine?	Why am I taking this medicine?	Medication name Amount	How much do I take?	How do I take this medicine?
Morning	Blood pressure	PROCARDIA XL NIFEDIPINE 90 mg	1 pill	By mouth
	Blood pressure	HYDROCHLOROTHIAZIDE 25 mg	1 pill	By mouth
	Blood pressure	CLONIDINE HCl 0.1 mg	3 pills	By mouth
	cholesterol	LIPITOR ATORVASTATIN CALCIUM 20 mg	1 pill	By mouth
	stomach	PROTONIX PANTOPRAZOLE SODIUM 40 mg	1 pill	By mouth

Jack BW, et al. *Ann Intern Med.* 2009.

PILL-CVD Study

- RCT of intervention to reduce post-dc ADEs
- Results not yet complete

Medication Name and Dose	What It's For	Morning/ Breakfast	Afternoon/ Lunch	Evening/ Dinner	Night/ Bedtime	Common Side Effects	Special Instructions
Aspirin **81 mg** Take 1 a day	Heart 	●				Upset stomach, rash, bleeding	Take with food if you get upset stomach
Metoprolol (Lopressor) **50 mg** Take 2 in the morning and 2 in the evening	Blood pressure 	● ●		● ●		Feel tired or depressed, feel dizzy, rash, trouble breathing, problems with sex	
Simvastatin (Zocor) **40 mg** Take 1 at night	Cholesterol 				●	May make your muscles hurt or feel weak. Urine may turn dark, skin and eyes may turn yellow. Let doctor know if this happens.	Doctor will check blood test results to make sure they're ok. Do not drink grapefruit juice or Fresca.

Schnipper et al. *Circ Cardiovasc Qual Outcomes*. 2010.

Support from Hospital to Home for Elders

- Collaborate with BUMC researchers to adapt their intervention to patients at SFGH
  - Large, academic, urban public hospital
  - 66-75% have limited health literacy
- Age 60 and older
- High level of chronic illness
- Multiple languages
- Significant health care use

PIs: Sue Currin, RN and Jeff Critchfield, MD
Supported by the Gordon and Betty Moore Foundation

Key Questions

- Can we reduce re-admissions among low-income, English, Chinese and Spanish speaking elders using key components of prior clinical trials?
- Is telephone follow-up feasible?
- Why is this population re-admitted?

Study design and population

- English, Spanish, or Chinese (Mandarin or Cantonese)-speaking patients, age 60 or older
- Admitted to medicine, family medicine, cardiology, and neurology
- Discharged to home
- Target enrollment: 700 patients
- 200-patient pilot (all received intervention)

SHHE Intervention Plan

- Pre-Discharge
  - In-hospital SHHE Nurse
  - Computer-assisted after-hospital care plan
- Post-Discharge Follow-up
  - Follow-up telephone calls by Nurse Practitioner/ Physician Assistant

Implementation Issues: In-Hospital

- Dedicated SHHE nurse
  - Culture/ language concordance
  - Focus on coaching and patient goal-setting
- Computer-assisted discharge packet
  - Licensing
  - Interface with our hospital's IT system
  - Engineered Care's software
    - Re-design the medication instructions
  - Translation time/costs

Implementation: Post Discharge Follow Up

- Home visits
  - Funding for lay health workers
  - Unable to intervene effectively
  - Not included
- Follow-up telephone calls
  - Prescribing ability- Nurse Practitioner
  - Day 3 and day 7-9

Pilot Results: Patient Characteristics

	N (%)
Age Mean (Stdv)	69 (8)
Race	
Black/African-American	57 (29)
Latino/Hispanic	55 (28)
Asian	44 (22)
White	34 (17)
Other	9 (5)
Education	
<High school (0-12)	95 (48)
High school/GED	44 (22)
>High School	60 (30)

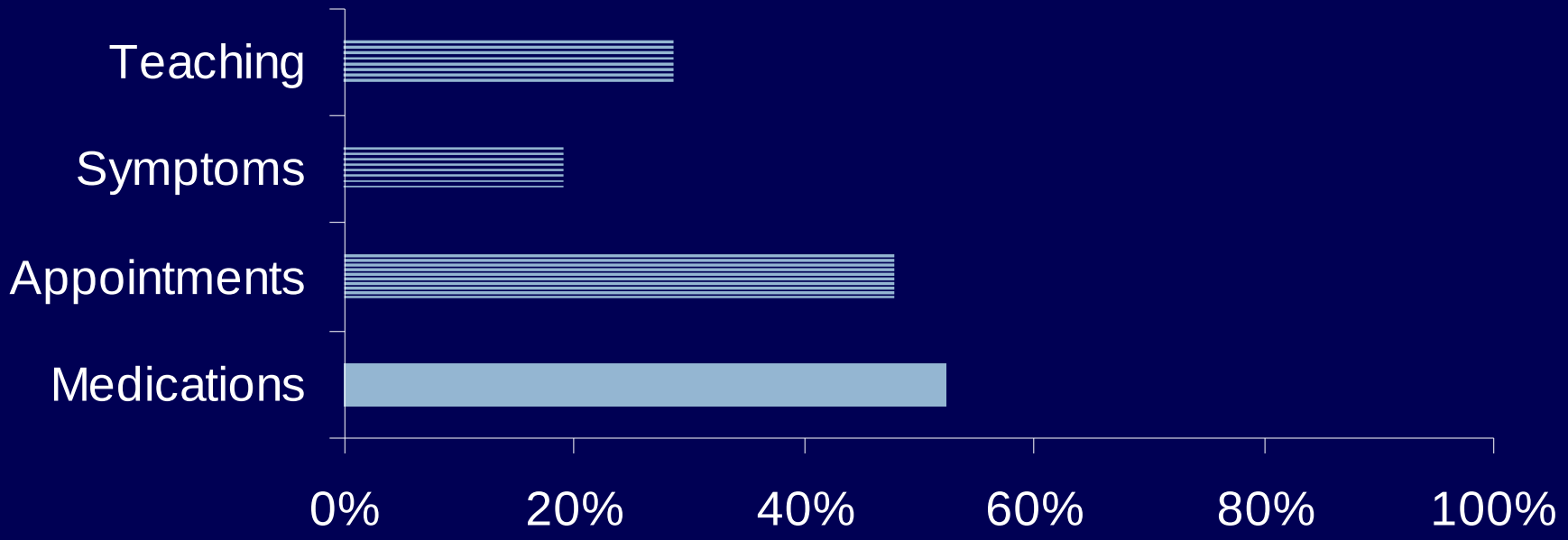
Pilot Results: Patient Characteristics

	N (%)
Income	
< $5,000	92 (46)
$5,001 - $10,000	53 (27)
$10,001 - $20,000	35 (18)
$20,001 - $30,000	5 (03)
> $30,000	8 (04)
Born in US	98 (49)

Pilot Results: Health Care Needs

- Virtually all had active primary care
  - (93%) PCP visit in prior 6 months
- Frequent utilization of acute care
  - 41% ED visit in 6 months prior
  - 32% Hospitalization in 6 months prior
- Very different from prior transition intervention populations

Pilot Results: Follow-up Phone Call Interventions



Pilot Outcomes

- 5.5% 30-day mortality (11/200)
- 80% of discharged patients or caregivers completed at least one post-hospitalization phone call with NP
- Over 98% of discharged patients completed 30-day follow-up interviews.
- 17% of patients were re-hospitalized or re-presented to the ED within 30 days
- 26% of re-admissions/ ED visits outside SFGH

Pilot led to changes in design

- Change enrollment criteria
  - Exclude metastatic cancer
- Change intervention
  - Add warmline
  - Timing of telephone calls: day 1-3 and day 6-7
- Changes to recruitment
  - Identifying patients
  - Interface with various services

Randomized Controlled Trial

- Enrollment started in July 2010
- Extensive baseline interview (Health literacy, social support, substance use, mental health, neighborhood)
- Extend follow-up to 180 days
  - Interviews at 30, 90 and 180 days
- Outside hospital record review
- Preventability assessment

Lessons Learned

- Reflect the local environment (e.g., 10-d medication supply)
- Feasibility first!
- Seek feedback and adapt
- Some patients too sick to benefit

Questions?


SAN FRANCISCO GENERAL HOSPITAL
MEDICAL CENTER
MAIN ENTRANCE

KM6

SHHE Team

Co-Principal investigators
- Sue Currin, RN
- Jeff Critchfield, MD

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- Tip Tam
- Barbara Walter
- Catheryn Williams

Evaluation
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- Urmimala Sarkar
- Liz Goldman
- Edgar Pierluissi

Slide 22

KM6 I would put degrees only in so far as it shows the diversity and multi disciplinary effort....(I started, but did not finish)

Somewhere in talk, might say something about collaboration (University/City and Nursing/Medicine
Kushel, Margot, 10/9/2010

Thank you

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