

Transition of Care for the Heart Failure Patient: From Inpatient to Outpatient

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Disclosures

- Julie Gee-no disclosures
- Sherry LaForest-no disclosures
- Kimberley Schaub-no disclosures

Objectives

- Illustrate what is happening in transitional care in HF and why
- Discuss background literature regarding transitions of care
- Identify appropriate components of an early post discharge follow-up appointment
- Examine the role of patient self-management in readmission and transitional care

What is transitional care?

■ Transitional care

- A set of actions designed to ensure coordination, integration and continuity of care among all key players when patients move within or between settings, across levels of care and among health care teams.
- Key players: the patient (caregiver), interdisciplinary care providers and facility
- Ineffective transitions lead to
 - Medical errors
 - Delays in care
 - Duplication of services
 - Waste in resources
 - Patient complaints
 - Increase costs
 - READMISSIONS



Why HF?



- Complexity of HF, more vulnerable
- Most common discharge diagnosis among patients 65 years and older
- 20-25% are readmitted in 30 days and 50% within 6 months
- Comprehensive discharge planning and follow-up may prevent up to 50% of these readmissions
- Affordable Care Act-Readmission Reduction program -“all cause” readmission penalties

HF patient goals **before** discharge

(ACC/AHA/HFSA)

- Stable oral regimen for 24 hours prior to discharge (off IV vasodilators, inotropes and diuretics)
- Optimal fluid status
- GDMT's are optimized (or document intolerances)
- Stable renal function and electrolytes
- No standing hypotension
- Ambulation before discharge to assess functional capacity, need for additional care
- Patient/family education completed
- Medication reconciliation done at discharge
- Plans in place for intensive post discharge management

Address precipitating factors during hospitalization (ACC/AHA/HFSA)

- Intentional and unintentional nonadherence
- Progression of ventricular dysfunction
- Cardiac toxins
- RV pacing
- Inappropriate or concomitant medication use (e.g. NSAIDs, NDHP calcium channel blockers, chemotherapeutic agents, steroids, “glitizones”, etc)
- Non cardiac co-morbidities (COPD, anemia, thyroid disorders, infection)
- Arrhythmias
- Cardiovascular issues: Uncontrolled HTN, ischemia, valvular disease

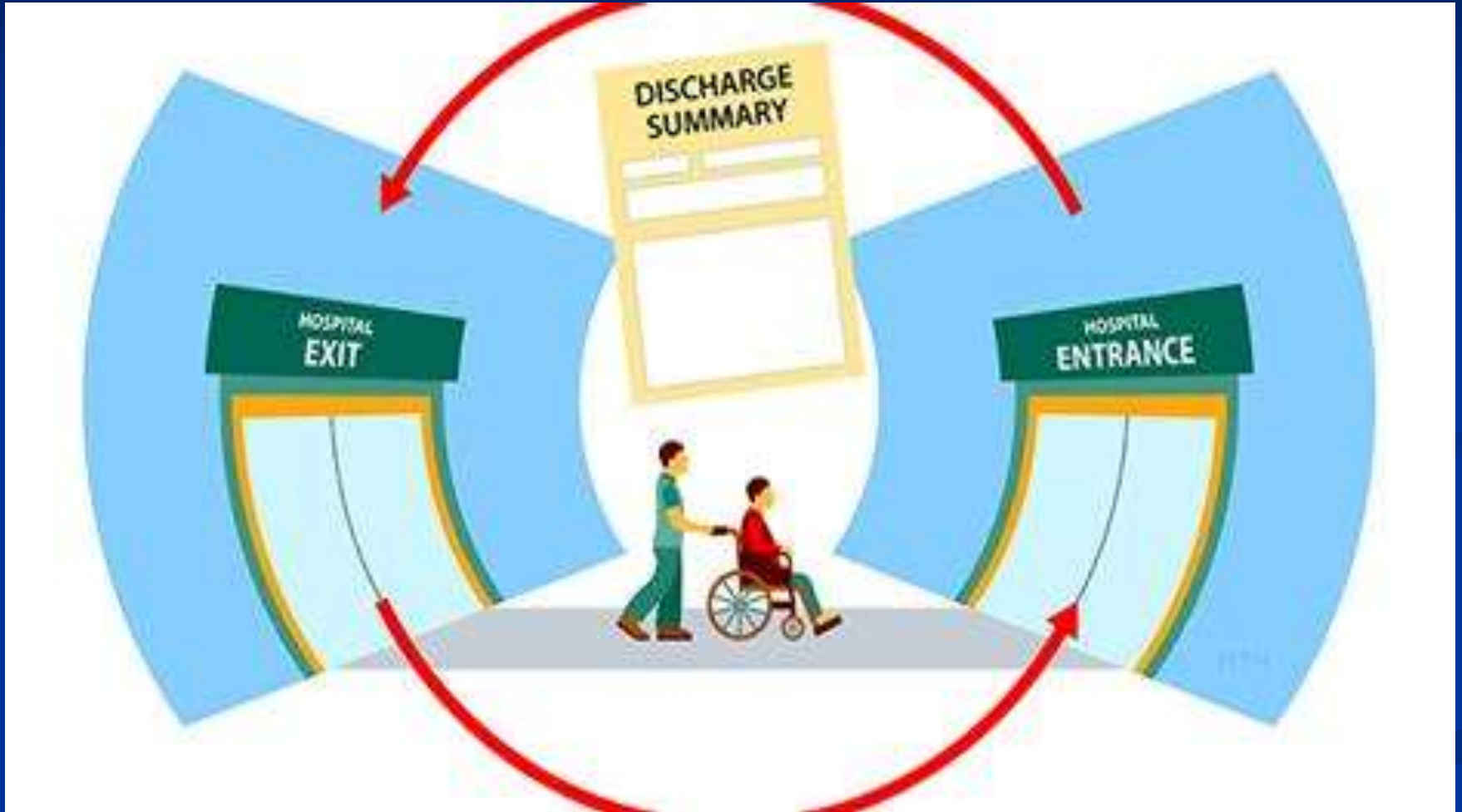
Things to consider before discharge

- Ability to care for self
 - Live alone
 - competent caregiver
 - Safety of home
 - Frailty
 - Able to do the skills
- Access
 - To appointments
 - To transportation
 - To a phone
 - To you
 - To scale
 - To medications
- Complexity
 - meds
 - health conditions
 - diet
 - appointments
- Other barriers
 - Depression
 - Cognitive impairment
 - Substance abuse
 - Finances
 - System barriers

The OLD Discharge Summary

- Medication List
- Activity restrictions
- Diet
- Fluid restriction
- Please call your primary care and make a follow-up appointment

The old discharge summary



Transmission of the Transitional Care Record/Discharge Summary

(Joint Commission, CMS and National Quality Forum)

- What we should give the patient and transmit to receiving provider (within 24 hours of discharge)
- Admission date/discharge date
- Reason for hospitalization (diagnosis)
- Advanced directive information
- Documentation of LV function
- Clear and accurate discharge medication list
 - medications stopped, started, changed (increased or decreased) and indications
 - Instructions on how to take them and how to obtain them



Transmission of the Transitional Care Record

- Pertinent or pending test results
- Reason not on ACE/ARB/BB
- Follow up appointment date and time or reason why appointment was not made at discharge
- Provider contact information and instructions on what to do if condition changes
- Referrals that were recommended after discharge
- Patient's functional status, barriers to adherence, self-care deficits, patient goals

Leveraging key players in transitional care?

- Patient/caregiver
- HF certified nurses, coaches, case managers, grande aides
- HF educated interdisciplinary professionals –nutrition, SW, psychiatry, pharmacist
- Home telehealth
 - VA reduces admissions by 35% and bed days of care by 59% due to telemedicine services in 2013 (biopsychosocial model of care-telemanagement NOT telemonitoring)
- Home care-front load the visits
- SNF/LTC
- Palliative/Hospice care-
 - When patients are referred appropriately, 30 to 180 day hospitalization rates are decreased by 40-50%.
- Cardiac rehab

Transitional Care Reimbursement

- Enhanced reimbursement when patients are discharged **from:**
 - acute hospital stay
 - rehabilitation hospital
 - long term acute care hospital
 - observational/partial hospitalization
 - To: home, domiciliary, rest home or assisted living
 - **ED-**
 - 79% of ED visits for HF are repeat visits



The new TCM Codes: 99496 or 99495

■ Required elements:

- Telephone, electronic communication or face-to-face visit with the patient and/or caregiver within 2 business days of discharge (MA, LPN, RN)
- A face to face visit within 7 or 14 calendar days of discharge (MD, NP, PA)
- Medical decision making at high complexity or moderate complexity at this visit
- Reimbursement \$230 or \$163

The follow-up phone call

The old way

- What call?
- Done any time before follow-up appointment (reminder call)
- Do they have and are they taking all of there medications?
- Do they have any other questions?
- How are they feeling?
- Follow-up appointment made for 4 weeks

The new way

- Review medication list over the phone and address discrepancies
- Do they have all of their medications?
- Review HF symptoms and assess if symptoms back to their baseline?
- Home weight at discharge and home weight now? Do they have a scale?
- Education on symptoms, daily weight monitoring, low sodium diet, who and when to call
- Do they know about next appointments, do they have transportation?
- Any other problems/concerns?
- Document and communicate

Elements of a post-discharge follow-up visit

- HF Guidelines say “vigilant follow-up during periods of instability”
- “Early” assessment and prompt intervention
 - Clinical status
 - Patient knowledge/skills/deficits
 - Patient and caregiver roles
 - Medication reconciliation
- Wide variation in transitional care literature
- “How to’s” not well described

The Post Discharge Visit

Sherry LaForest, Pharm D

Timing of Post-Discharge Follow-Up

- Observational study of over 30,000 hospitalized HF patients in 225 hospitals in Get With The Guidelines
- Hospitals divided into quartiles by percentage of patients with follow-up within 7 days
- 21.3% all cause readmission within 30 days
- Inverse relationship between percent of early follow-up and readmission

	30d Readmission	P value
Follow-up within 7 days		<0.001
Lowest Quartile (<32.4%)	23.3%	
Quartile 2 (32.4-37.9%)	20.5%	
Quartile 3 (38.0-44.5%)	20.5%	
Highest Quartile (>44.5%)	20.9%	

Challenges in Transitional Care Research

- Lack of standardized settings
 - Multidisciplinary clinic/disease management (MDM), single provider clinic, community, telephone intervention, home care, inpatient, multi-setting
- Lack of standardized outcomes
 - Mortality
 - Readmissions (all cause, HF, 30 day, 6mo, 12mo)
 - Change in hospitalizations per patient (pre/post)
 - Quality of life/Quality metrics
 - Cost
- Many interventions incorporate multiple components
 - Difficult to isolate which have greatest impact

Transitional Care Research – Meta-Analyses

- Impact on outcomes
 - Readmissions impacted by in-home visits, MDM, single clinic interventions
 - Higher intensity interventions (multiple contacts with patients across time) more likely to impact 3, 6, or 12 month readmissions
 - Mortality impacted by MDM
 - Telephone only, telemonitoring (with or without device technology) and primarily educational interventions had less impact

Medication Reconciliation

- Component of early post-discharge visit
 - Medication discrepancies have been found in 14-67% of patients following hospital discharge
 - 30-50% of these are unintentional nonadherence, up to 50% result from system level errors in discharge process
 - Older patients with more medications have higher rates of discrepancies
 - 62% more discrepancies were detected at face-to-face visit vs telephone interview
 - 13% of patients experience an adverse drug reaction within 3 weeks of hospital discharge

Medication Reconciliation

- Patients bring their bottles and prefilled pill boxes (if appropriate)
 - Quantity in bottles, refill dates, pill appearance
- Ask open-ended questions
 - “Tell me/show me how you take this”
 - Patient may not recognize name but may recognize pill appearance
 - What, when, how they are using their medications
- Provide updated list at the end of visit

SERIOUS Model for Medication Reconciliation

Solicit (from patient)

- Medication list and bottles, allergies, include all medications and herbal supplements
- Obtain information from other pharmacies if needed

Examine

- The list at each inpatient and outpatient encounter and examine the actual bottles and regimen after an acute care stay or ED visit
- Look for discrepancies between list and their actual regimen

Reconcile

- Make changes to the list to make them match as appropriate
- Reconcile with interactions and allergies and take appropriate actions

Inform

- Educate patients and caregivers about indications and adverse effects of medications

Optimize

- According to clinical presentation
- Optimize medications to optimize symptoms and GDMT (adjust diuretic, increase BB)
- Reduce medications if appropriate to improve adherence

Update

- Update list with appropriate changes

Share

- With patient/caregiver and all providers caring for patient

SERIOUS Medication Reconciliation Clinic Description

- Consult referral
- Designed as a single clinic visit
 - Ensure patient has subsequent follow-up scheduled with cardiology provider or PCP
- Integrated inpatient and outpatient pharmacy and medical EMR
- 60 min appointments
- Communication via EMR to next provider
 - Standardized note template

SERIOUS Medication

Reconciliation Clinic Description

- Multidisciplinary
 - Clinical Pharmacist interview (specialty trained)
 - Symptom questionnaire
 - Medication reconciliation, adherence assessment
 - Self-management tools
 - Limited physical exam (vital signs, peripheral edema)
 - HF education if needed
 - Medical provider (NP)
 - Moderate or High complexity decision making based on presentation
 - Medication titration to guideline-directed medical therapy

SERIOUS Medication Reconciliation

Clinic Pilot Evaluation

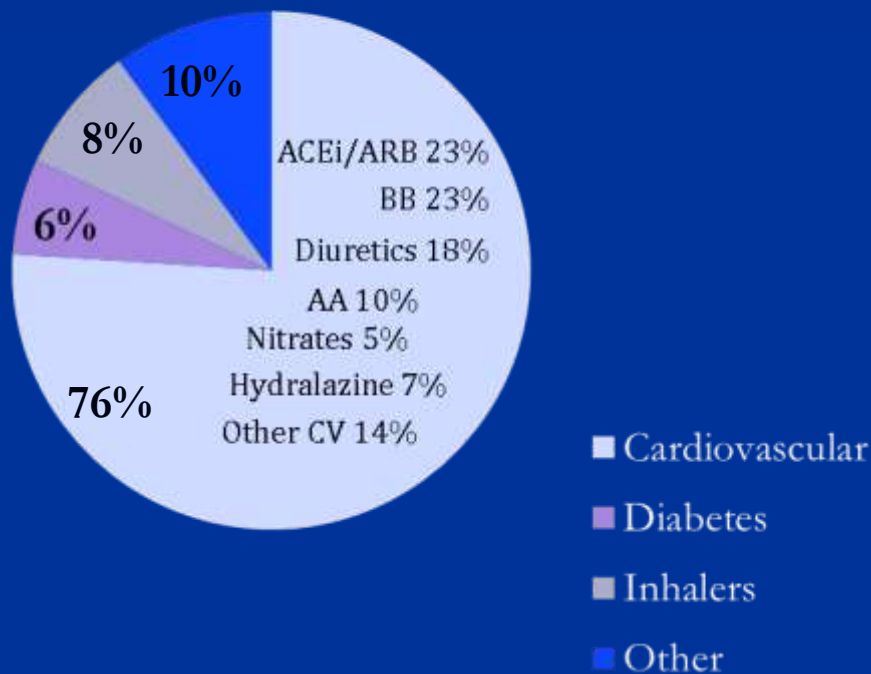
- 80 patients from 2008-2010 at Louis Stokes Cleveland VAMC following discharge for ADHF
 - Mean age 69 ± 11 years, 16% age 80 or older
 - 54% LVEF $\leq 40\%$
 - 95% brought medication bottles to visit
 - Number of medications at discharge: 14 ± 5
 - Time to clinic visit following discharge: 10 ± 6 days
 - 9% 30-day all cause readmission rate
 - 30 day mortality: 3% (n=2)

Pilot Evaluation

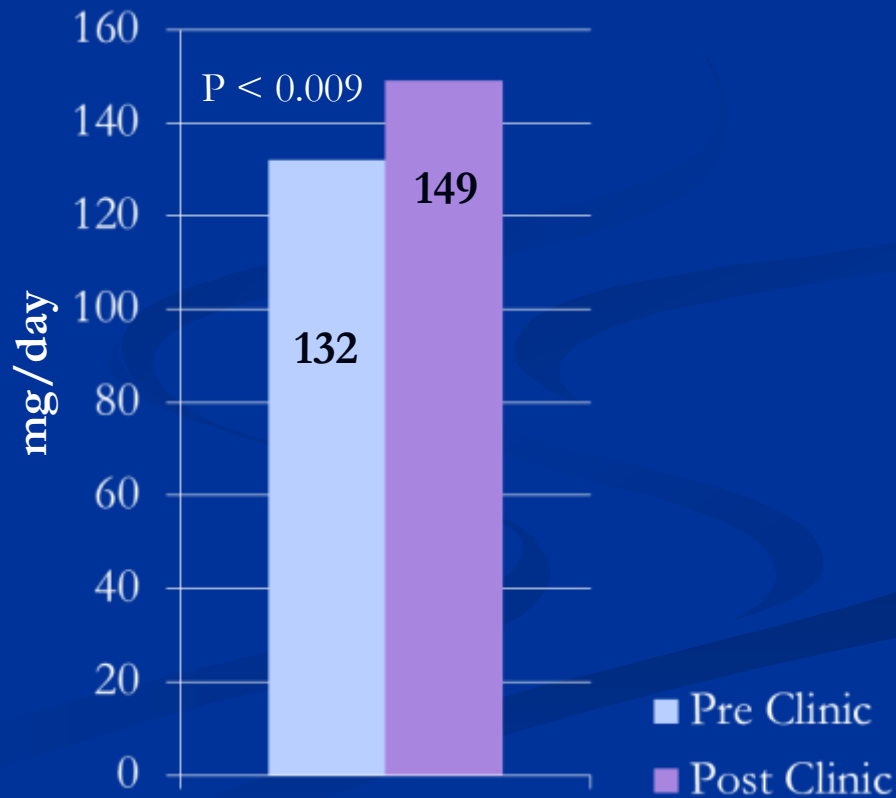
- Medication discrepancies
 - 52% with discrepancies
 - Mean number of discrepancies per patient 2.5 (range 0-12)
 - 77% received medication reconciliation at discharge
- Medication optimization: 70%
- Self-management tools or education provided
 - Scales and BP cuff issued in 6%
 - Pill box issued in 13%
 - Pill box filled in clinic in 8%

Medication Adjustments in Patients Post-Discharge

Medications Adjusted



Mean Daily Beta-Blocker Dose Patients with EF \leq 40%



Clinical Outcomes

- Retrospective chart review comparing patients recently discharged from hospitalization at Cleveland VAMC for ADHF between 2010-2012
 - SERIOUS Med Reconciliation clinic visit
 - Usual care
- Primary outcome:
 - 30-day all-cause readmission rate (Cleveland VAMC)

Baseline Characteristics

	Med rec (n=83)	Control (n=83)	P-value
Age, mean \pm SD	66 \pm 8.6	67 \pm 11.0	0.504
Male Gender, n (%)	82 (98%)	80 (96%)	0.311
HFrEF, n (%)	51 (61%)	37 (45%)	0.029
Number of medications, mean \pm SD	15 \pm 5	15 \pm 5	0.835
History of Non-adherence	24 (29%)	13 (16%)	0.040
Length of stay (days), mean \pm SD	5 \pm 4	5 \pm 5	0.506
Number of prior admissions, mean \pm SD	1 \pm 1.3	1 \pm 1.9	0.310

Outcomes

	Med rec (n=83)	Control (N=83)	P-value
30-day all cause readmission, n (%)	8 (10%)	19 (23%)	0.021 OR 0.36 95% CI 0.15-0.88
30-day HF readmission, n (%)	7 (8%)	11 (13%)	0.321
Time to readmission, days, mean \pm SD	21.8 \pm 4.5	15.3 \pm 6.6	0.019
Total hospitalizations within 6 months, mean \pm SD	0.9 \pm 1.4	1.1 \pm 1.5	0.390
Death within 6 months, n (%)	6 (7%)	12 (15%)	0.134
Time to first follow up, days, mean \pm SD	8.8 \pm 4.7	10.8 \pm 7.4	0.037

SERIOUS Post-Discharge Clinic Outcomes

■ Conclusions

- A multidisciplinary post-discharge clinic with an emphasis on a systematic approach including medication reconciliation and optimization
 - Identified a large percentage of medication discrepancies
 - Resulted in frequent medication adjustments and optimization of guideline-directed medical therapy
 - Patients were more likely to have a reduced EF and prior history of non-adherence compared to usual care
 - Associated with a 64% decrease in the risk of 30-day all cause readmission compared to usual care

Patient self-management in readmission and transitional care

Kimberley Schaub, PhD

HF Readmission and Psychosocial Factors

- Data from chart review suggests that many readmissions are preventable
 - Little is known about actual causes
 - Reliance on secondary sources for data such as:
 - Randomized trials
 - Databases
 - Registries
 - Medicare Administrative claims
 - Clinical impression gleaned from chart review

Patient Perspective

- Qualitative study
- Sample (n=28)
 - 8 from a community based hospital
 - 20 from an academic medical center (younger, lower mean EF, 2 with VAD, and 1 post heart transplant w/ subsequent cardiac allograft vasculopathy)
- Combined deductive/inductive methods using semi-structured interview
 - Explored issues found in previous research related to HF readmission
 - Identified new themes that emerged during interview

Patient Identified Themes

■ 5 Main Themes

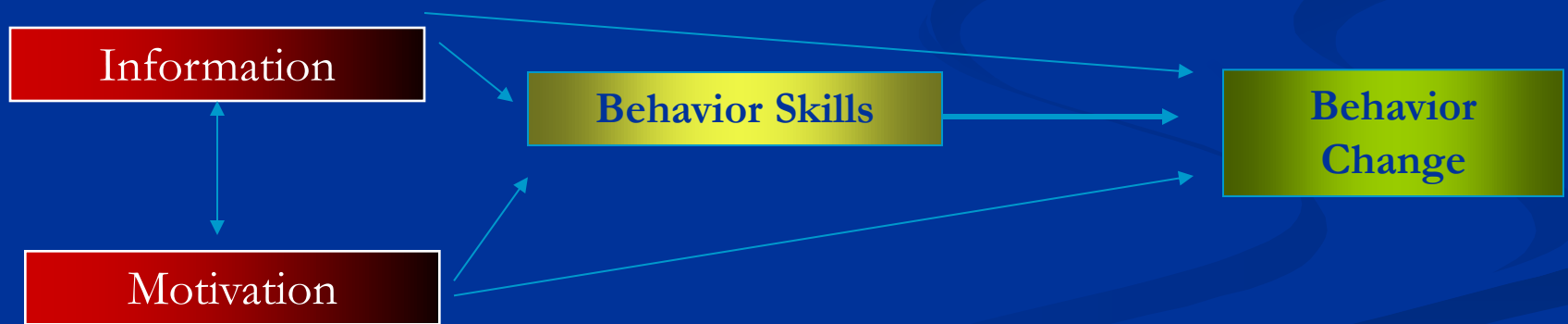
- Distressing symptoms
- Unavoidable progression of illness
- Psychosocial factors
- Non-adherence with self-management recommendations
- Health system failures

Findings

- Can rarely be attributed to a single preventable event
- May be related to patient, provider, healthcare system, or combination of these factors
- May over-attribute self-care deficiencies as primary cause of readmission
- Under recognize the role of system failures regardless of reason for readmission which leads to the need for transitional care planning

Behavioral model: Information-Motivation-Behavior Skills Model

- Presence of both information and motivation increase the likelihood of behavior change
- Skills are essential to behavior and serve to increase self-efficacy



Source: Fisher JD, Fisher WA. *Psychol Bull*, 1992, 111:455–474; Fisher JD et al. *Health Psychol*, 1996, 15:114–123; Carey MP et al. *J Consult Clin Psychol*, 1997, 65:531–541; Mazzuca SA. *J Chronic Dis*, 1982, 35:521–529. as quoted in WHO, 2003.

Skill Demonstration

- Eric Coleman concept
- Operationalized through a VA funded quality improvement grant
- Developed in partnership with quality improvement staff, psychology, PACT, cardiology, pharmacy, nutrition, and HBPC





Skill Based Assessment: Bootcamps

- Development of heart failure “bootcamps”, skill-based sessions where patients and family members demonstrate knowledge/skills in:
 - Recognizing symptoms
 - Managing medications
 - Weight monitoring
 - Low Sodium diet
- 70 unique patients
 - Mean number of sessions = 2, range 1-7 sessions

Skill Assessment

- Each 90 minute session assesses 2-3 skills central to self-management
- Skills scored using:
 - “1/yes” = correctly demonstrates skill or
 - “0/no” = unable to correctly demonstrate skill
- Score combinations determine what additional services are necessary and are tailored to address skill deficits

Understanding the Symptoms of Heart Failure

Symptoms to Watch For	The Most Important Steps You Can Take
 <p>You have gained weight</p>	<ul style="list-style-type: none"> - Check and be sure all medications have been taken - Reduce salt intake to less than 2000mg/day - If gained more than 2 pounds in a day: <ul style="list-style-type: none"> *Call PACT Provider/Team, HF Team, or Nurse Help Line *Reduce fluid intake *If have been instructed, increase water pills
 <p>You have swelling in your legs or belly</p>	<ul style="list-style-type: none"> - Check and be sure all medications have been taken - Elevate legs and use compression stockings - Reduce salt intake to less than 2000mg/day - If gained more than 2 pounds in a day: <ul style="list-style-type: none"> *Call PACT Provider/Team, HF Team, or Nurse Help Line *Reduce fluid intake *If have been instructed, increase water pills
 <p>You become more short of breath than usual Or You become short of breath sitting still</p>	<ul style="list-style-type: none"> - Check and be sure all medications have been taken - Reduce salt intake to less than 2000mg/day - Take breaks in activity - If gained more than 2 pounds in a day: <ul style="list-style-type: none"> *Reduce fluid intake *If have been instructed, increase water pills - Call PACT Provider/Team, HF Team, or Nurse Help Line
 <p>You are feeling more dizzy than usual</p>	<ul style="list-style-type: none"> - Check blood pressure - If you are vomiting or having diarrhea, STOP your water pill and CALL your Provider

If after hours, or you are unable to reach your PACT Team, call VA Nurse Help Line 1-888-838-6446

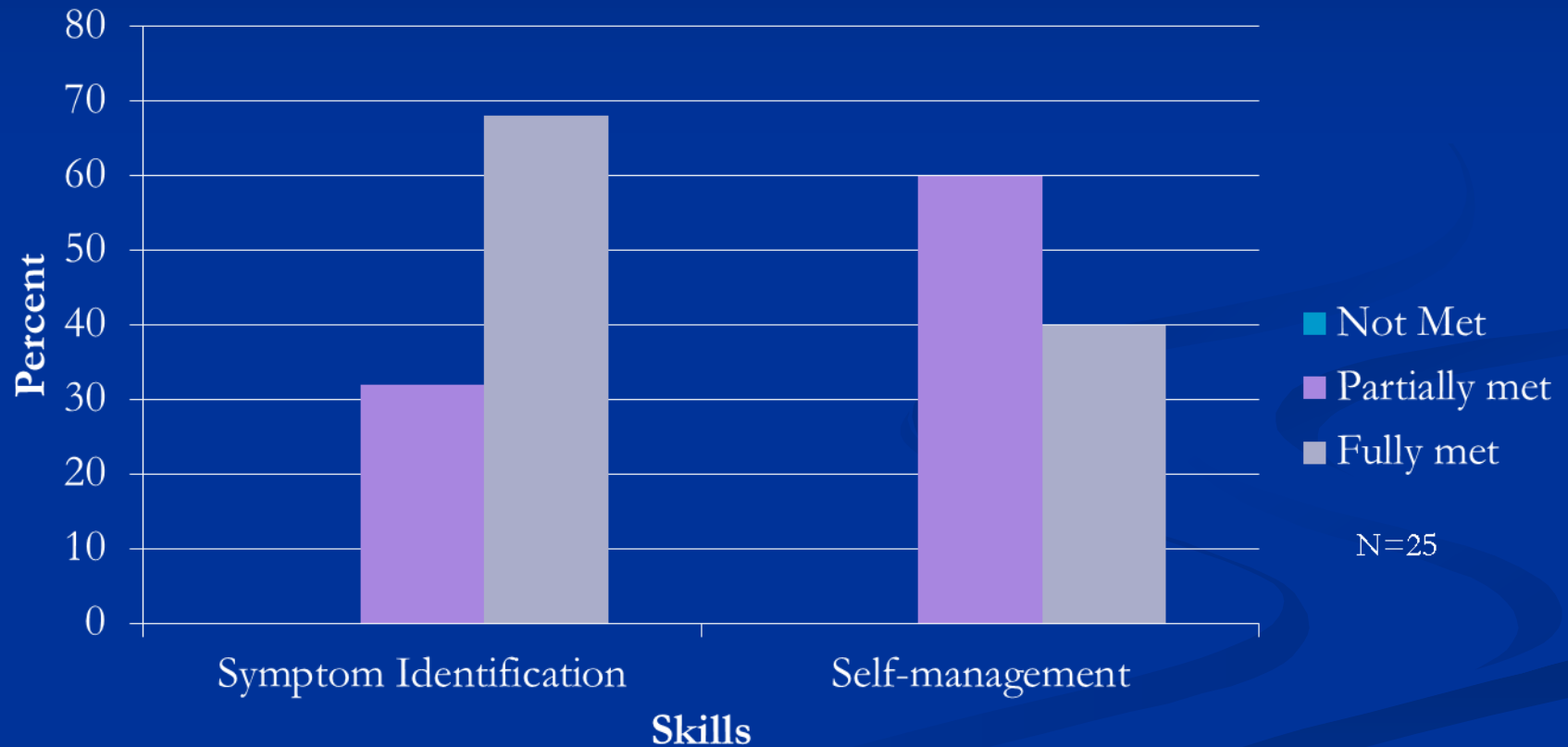


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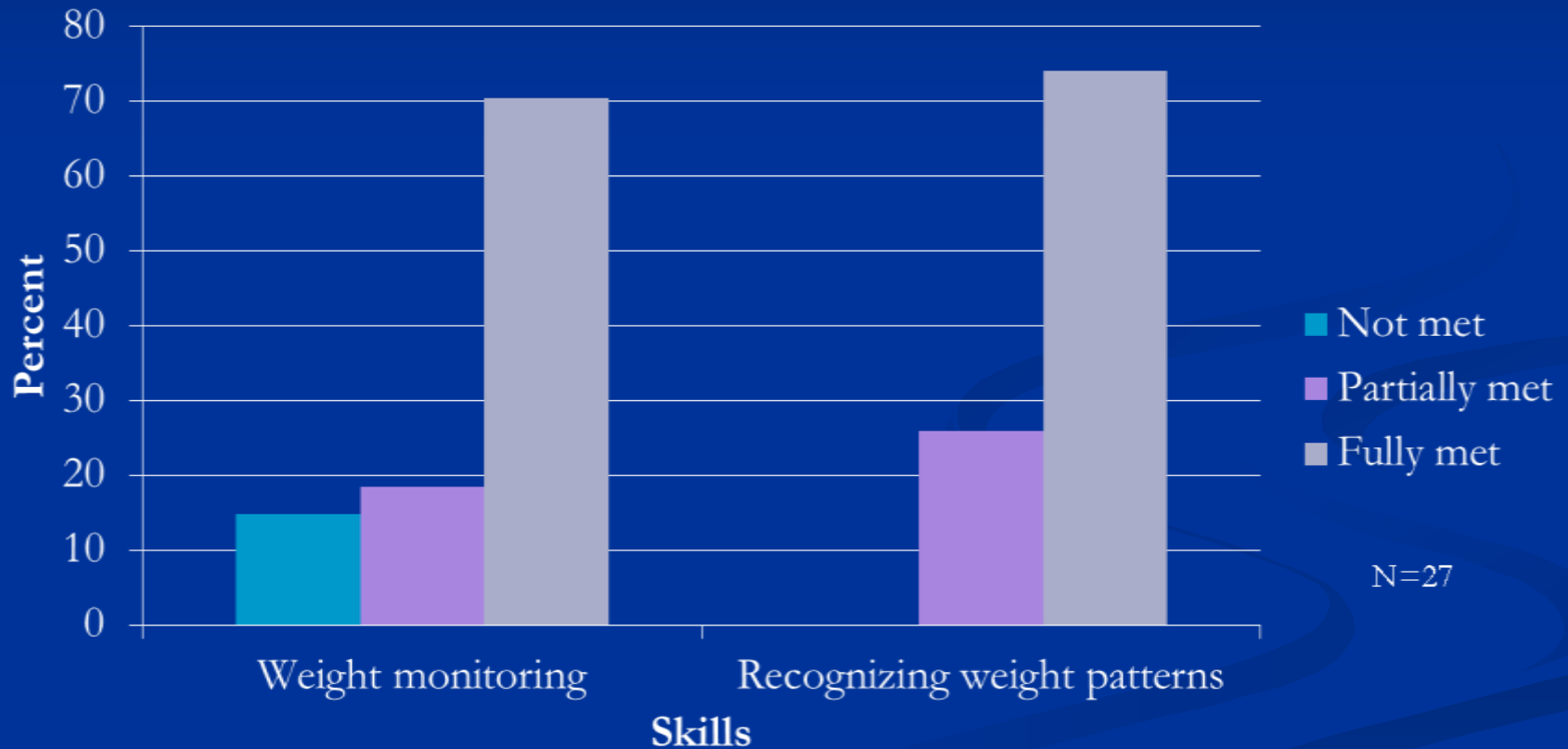
Pilot Evaluation

Symptom Recognition Bootcamp



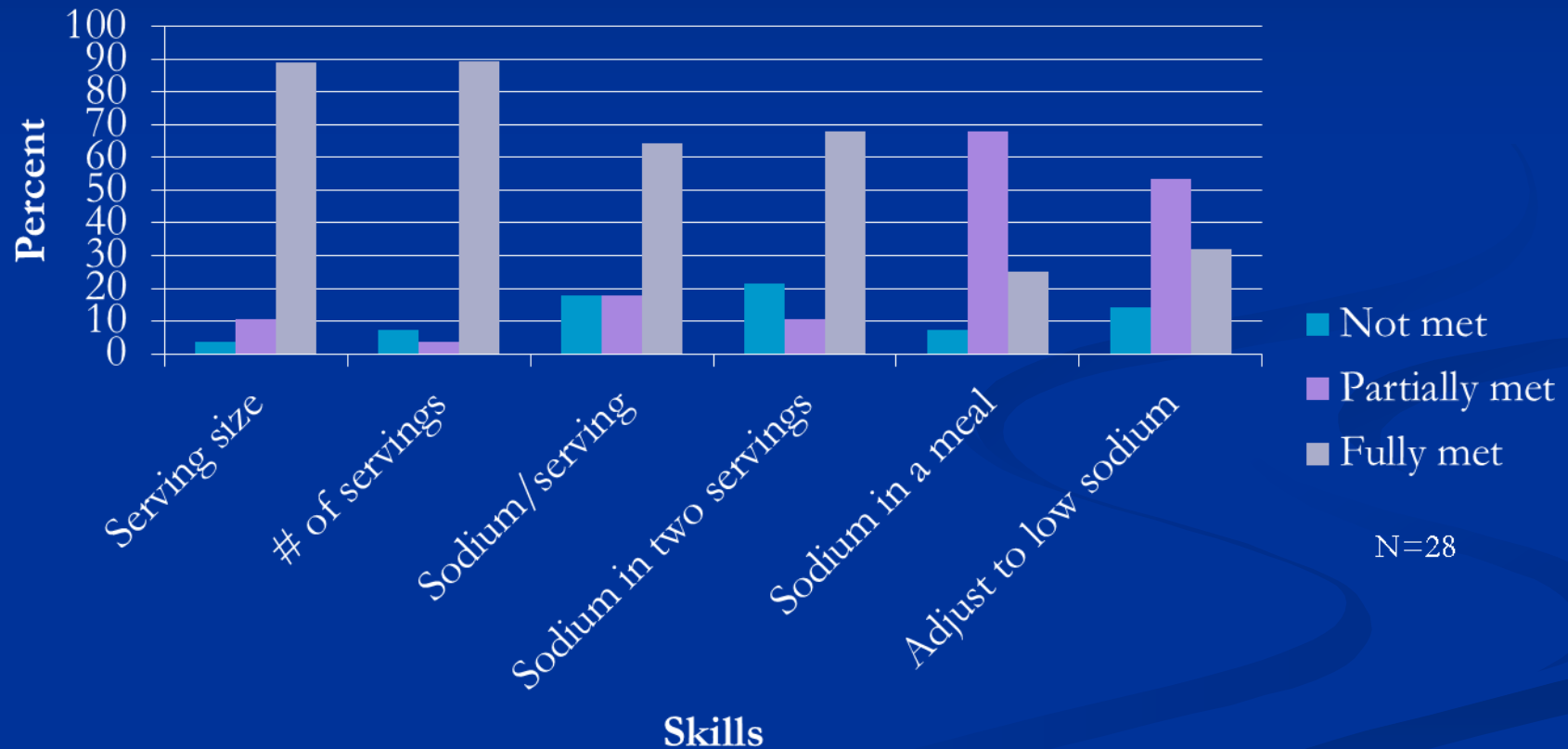
Pilot Evaluation

Weight Monitoring Bootcamp



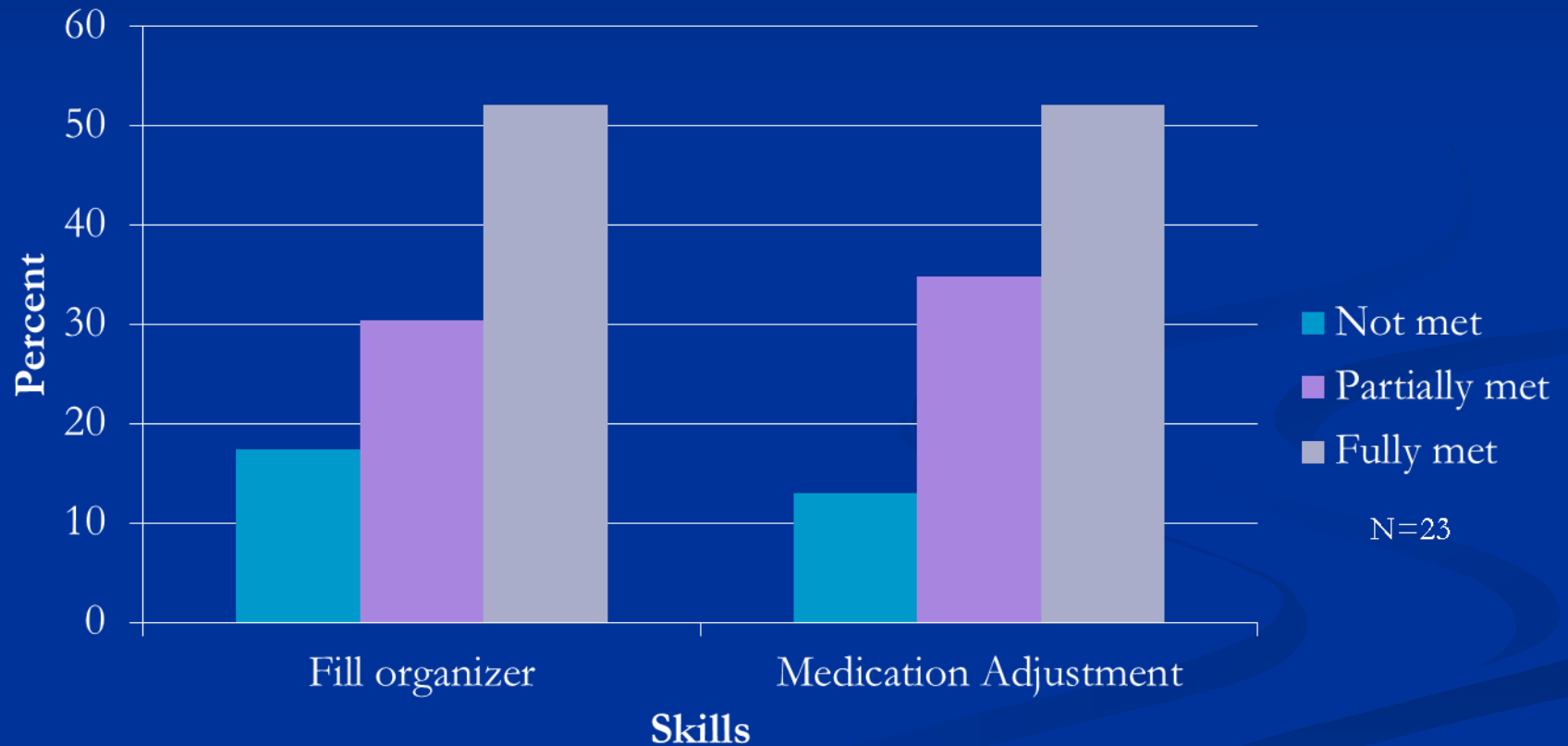
Pilot Evaluation

Low Sodium Diet Bootcamp



Pilot Evaluation

Medication Management Bootcamp



Recommendations For Transitional Care Program Content

- Routinely assess patients for high-risk characteristics that may be associated with poor outcomes
 - Cognitive impairment, poor health literacy, non-English speaking, long travel time to medical appointments
- Ensure qualified and HF trained providers deliver the intervention
- Allot adequate time to deliver complex interventions and assess patient/caregiver response inpatient and outpatient settings
- Implement hand-off procedures in hospital and post-discharge visits

Tailoring Transitional Care Principles for Your Practice

- Identify and characterize the HF population in your system
- Look at resources available
 - Identify how and when to use transitional care codes
 - 2 day post-discharge phone call (maximize utility)
 - 7-14 day follow-up visit structure/emphasis
- What should your outcome measures be?
 - Are you part of an ACO?
 - 30 day readmission rate
 - Acute care utilization
 - Quality metrics

Tailoring Transitional Care Principles for Your Practice

- Educate smart
 - Identify and assess patient knowledge deficits
 - Tailor education
 - Ensure appropriate tools for self-management behaviors
- Use multi-disciplinary team members
 - Nursing, medical providers
 - Seek out additional partners to add depth
 - Train in HF skills