Redesigning Care Coordination to Improve Self Management of Patients With Heart Failure

Setting

- Like early models of transition home (Naylor, MD), we began with a disease specific index hospitalization. We used a coaching model in this study to demonstrate that a brief educational intervention with follow-up post-discharge phone call will result in fewer re-hospitalizations and achieve selected markers of successful self management.

Care Coordination

- We selected care coordination and making institutional/clinical change as the two key elements of our model of change.
- We defined care coordination as:
  - Incorporating patient/family in care planning as inpatient and outpatient
  - Providing lateral integration of services to reduce fragmentation of care
  - Evaluating and streamlining the post-discharge process
- We also identified patterns of post-discharge self management.

Nurse Patient Care Facilitators (PCFs)

- We have a category of BSN-RN called RN-patient care facilitator, 10 in acute care, 5 in Spinal Cord Injury.
- The RN-PCFs are "discharge planners" and provide coordination focused on improving throughput
  - They initiate greater collaboration between inpatient and outpatient services and guide the transition from acute care to outpatient care.
- PCFs working with heart failure patients conduct heart failure education, prompt physicians to write referrals, provide care coordination, and conduct post-discharge phone calls as part of their clinical duties.
- The PCFS are experts in processes of care, advising the other care team members how to accomplish clinical and non-clinical tasks.
- If PCFs feel during their conversation with the patient post discharge that referrals are necessary and were not made by the physician prior to discharge, they may recommend referrals to the Primary Care Clinician.

Intervention

- Enhanced transition home, with post-discharge follow-up calls with questions specific to HF self management at 48 to 96 hours post-discharge
- Adoption of evidence-based care maps for HF
- Follow-up with PCC scheduled within 5 to10 days of discharge
- Weight log for patients to record weight
- Enhanced education packet with nutrition guidelines
- Refrigerator magnet for patients to self-evaluate the signs/symptoms of HF exacerbations, when to seek medical assistance and who to call (with numbers)
- Referral to HF-specific clinic, home telemonitoring, nutrition classes, closed circuit TV HF education

Sample

- Inclusion criteria:
  - Patients admitted to any inpatient unit with diagnosis of heart failure
- Exclusion criteria:
  - Patients who died during their inpatient stay, had cognitive deficits, or were not discharged home
- Patients were admitted in the usual manner to Cardiology teams or to general medicine teams. Patients admitted to one of two Cardiology teams and one of seven medicine teams received the intervention(s).
- Patients were asked to complete informed consent

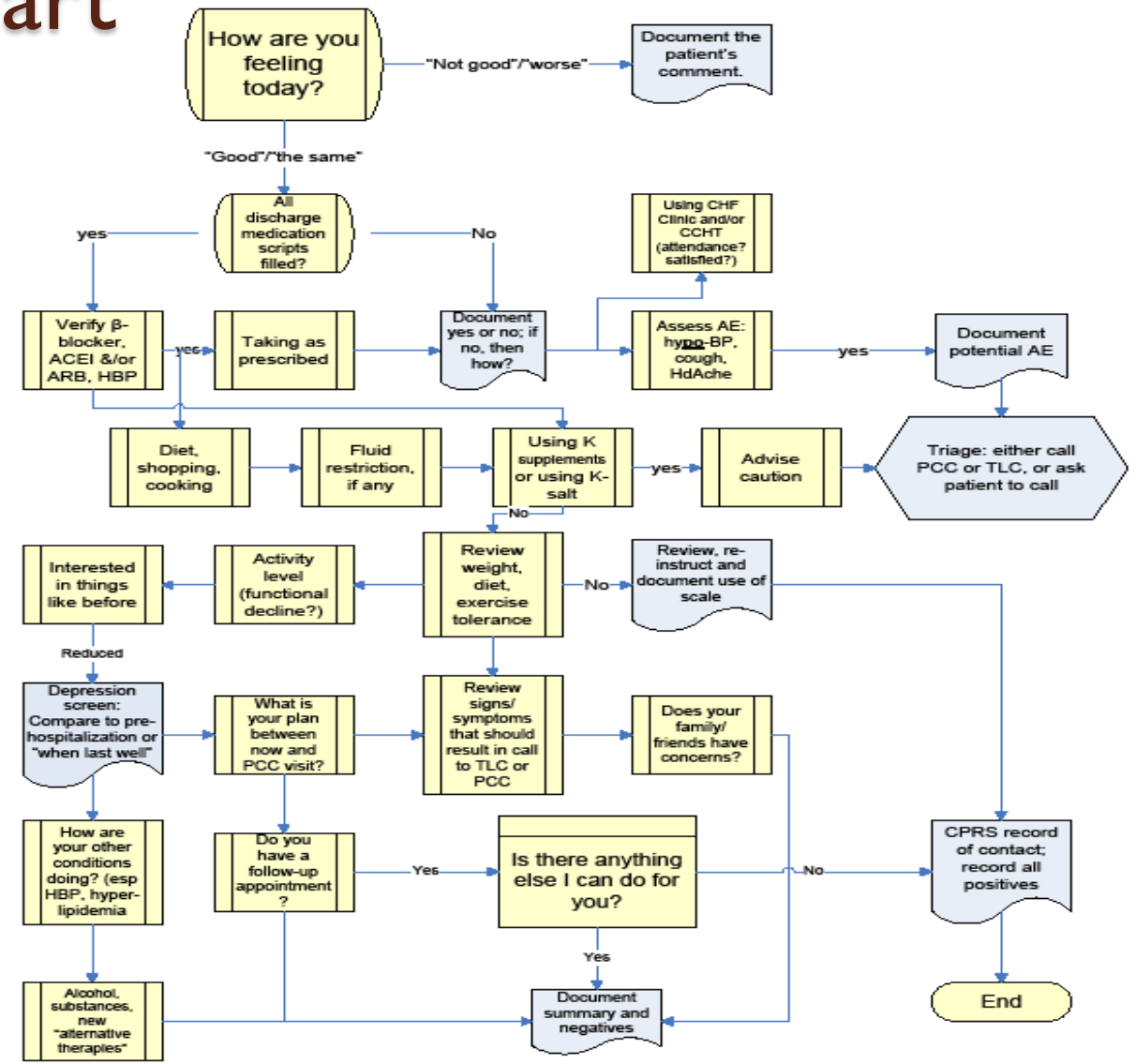
Sample

- 131 HF patients screened 5/19/2010-5/18/2011 (650 patients with HF as ICD-9 primary DX)
- 74 refused or did not meet entry criteria
- 57 enrolled
- 17 excluded (death, withdrew from study, could not be reached for follow-up)
- 40 completed follow-up phone call
  - 20 intervention/20 non-intervention

Post discharge follow-up

- Patients were called post-discharge and asked a set of questions concerning the following:
  - Heart failure education they received while admitted
  - Follow-up visits – appointment made? transportation?
  - Weight post-discharge
  - Blood pressure post-discharge
  - Diet, by diet recall
  - Medication reconciliation
  - Social support
  - Symptom identification

Post-discharge Phone Call Flow Chart



Results

	Intervention Group	Control Group	
	% yes	% yes	p-val
Does patient have a follow-up appointment scheduled	85.71	80.00	0.63
Patient has scale at home *	90.48	55.00	0.02
Patient weighs self every day *	90.00	30.00	<0.001
Patient writes down weight *	85.71	35.00	<0.002
Patient is watching BP since discharge	76.19	65.00	0.43
Patient has BP cuff at home	80.95	85.00	0.73
Patient checks BP everyday	66.67	52.63	0.37
Patient told by VA to restrict diet	100.00	85.00	0.11
Patient told by VA to restrict fluids	76.19	65.00	0.43
Patient understands consequences of high sodium diet	93.33	64.71	0.08
Patient has all the medications	95.00	100.00	1.00
Does patient recall HF symptoms to watch out for	95.00	85.00	0.31
Patient has understanding of what to do when HF symptoms present	85.71	78.95	0.58
Patient knows who to call if HF symptoms present *	100.00	80.00	0.05
Patient is practicing different/new health behaviors *	85.00	55.56	0.05
Did patient have a HF event within 3 months	23.81	20	0.77

Focus groups

- Focus groups conducted with patients
  - 6 patients in the intervened group participated
  - 4 patients in the non-intervened group

- Focus group with providers
  - 7 clinicians (pharmacist, nurses, dieticians, social workers, home telehealth providers) involved in HF care coordination process
  - 3 physicians rotating in cardiology unit (HF specialists and hospitalists)

- Purpose was to describe both patient and provider perspectives of the barriers and facilitators to implementation of a set of care coordination processes.
  - What are the elements of the care coordination from the patients' perspective that are associated with the success or failure of preventing HF readmissions?
  - From the provider perspective, which areas are identified to improve care coordination processes for patients with HF?

Provider Focus Group Results

Findings:

- When asked to evaluate the care coordination process related to discharge, all providers reported working closely with patient care facilitator
- Providers stated that they see mostly new onset HF, not HF readmissions
- Follow-up of HF readmissions difficult
  - Would like an alert if a HF patient was readmitted
- Main concerns they see with readmissions
  - Prior HF education not retained
  - Diet/medication non-compliance
  - Patient lack of interest in managing HF

Patient Focus Group Results

- Patients would like greater meal planning assistance
- Patients experienced difficulty in adjusting to low sodium diet. Those living alone had more difficulty making the adjustment
- Some difficulty in refilling medications
- Caregivers would like more education about HF – they were not always there when the education was presented

Patient Focus Group Results

- Patients want more education and information related to exercise and how to combat fatigue
- Educational classes in the hospital post-discharge were very informative about medications and exercise for HF
- MyHealtheVet useful in making follow-up appointments and refilling their medications
- Weighing themselves daily made them more aware of how their diet affects their weight and how they feel

Sustainability

- Clinical practice change
  - Evidence based care pathway developed
  - Earlier follow-up adopted as a strategy to improve readmission
  - The regular attendance at meetings of ad hoc coordination group, the group's productivity and the willingness to stay on task is an indicator of the institution's culture of performance improvement
  - The coordination group seemed to adopt a translational science mode of thinking; i.e., "this is reported to work…", "a new finding is…."
  - The human factors elements of this study seemed to "grab" a wide audience
    - A systems view of population outcomes
    - The clinical problem (HF) provided a solid opportunity to get buy in from the "C suite" (chiefs of services) and from frontline clinicians
- Organizational change
  - Order sets were ushered through development
  - The Patient Education Committee devoted meeting time to creating a product that was not part of its usual charter
  - The organization understands optimizing outcomes better than testing hypotheses
- Conclusion: we think the project can be re-examined for further improvement in the future faster and with greater buy-in.

Future Steps

- Spread intervention throughout inpatient units
- Continue to analyze data
  - Last patient of study enrolled in May 2011– need more follow-up time to trend outcomes
- Write a Services Directed Proposal to examine better care coordination between acute care, specialty care and PACT teams
- Presentations/abstracts
  - Heart Failure Society of America
  - Nurses Improving Care for Healthsystem Elders, Clinical Nurse Leader Symposium, state nurse association membership meeting.

QUESTIONS?????????????