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# Implementing a Heart Failure Quality Improvement Program

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***On Behalf of the Northwestern Heart Failure Bridge and Transition Team***

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# Heart Failure Bridge and Transition Team

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Hannah Alphs Jackson

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*Value-Based Delivery*

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*Nurse Practitioner*

Daniel Navarro
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Carly Koziol
*Nurse Educator*

Amanda Vlcek
*Social Work*

Dominique Kosk
*Registered Dietitian*

Preeti Kansal
*Physician Co-Lead*

Abbey Lichten
*Health Education*

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*Physician Co-Lead*

Kayleigh Nolan
*Galter 10 Cardiology*

Clyde Yancy

Allen Anderson

Charlie Davidson
*Division of Cardiology*

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*Bluhm Cardiovascular Institute*

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# Learning Objectives

- Describe the heart failure syndrome and relate its complexity to the complexities of other disease states

- Illustrate the composition of a multidisciplinary care team and its role in managing complex disease

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# Agenda

- Problem
- Process
- Outcomes
- Team Work

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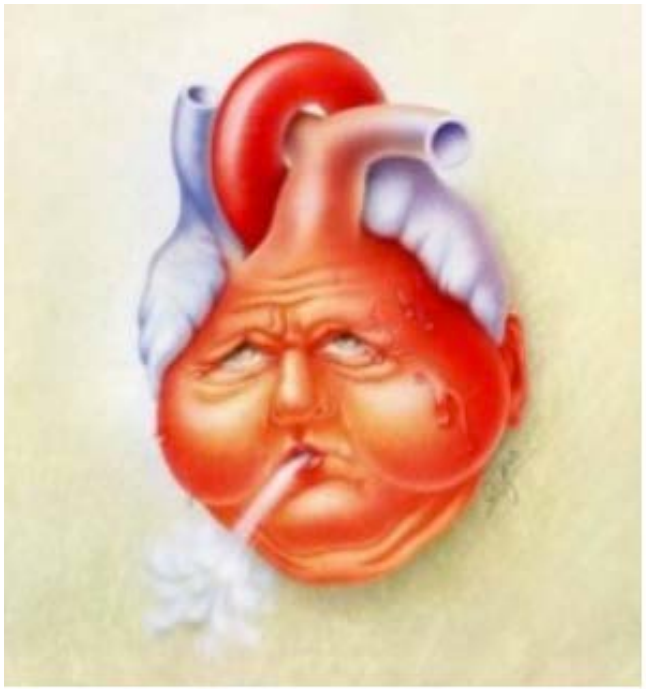
# Problem

# What is Heart Failure?

- **Syndrome** not a disease
- **Multiple** root causes
- **Final common pathway of heart disease**



- **Either** not enough perfusion
- **Or** congestion in lungs or body

- **#1 cause** for Medicare admission

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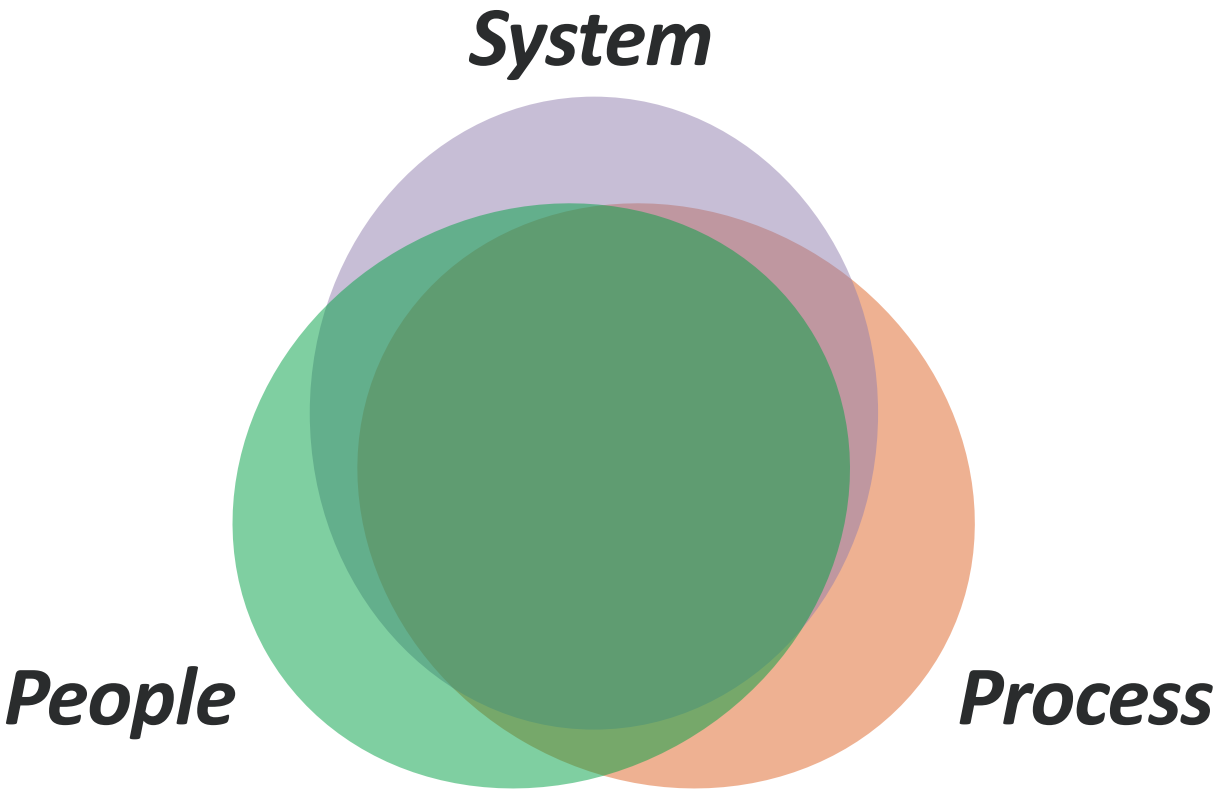
# Themes



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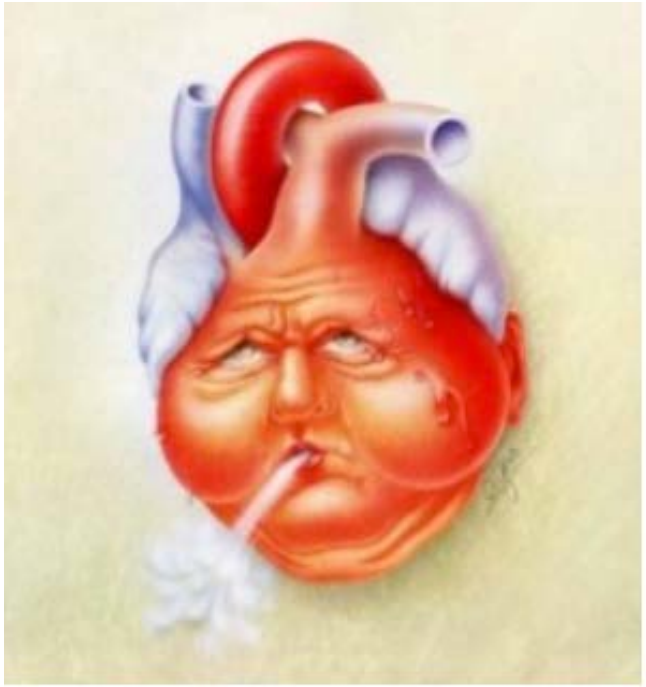
# Why are people hospitalized with HF?

- Dyspnea (can't breathe)
- Edema (swelling)
- Weak
- Organ dysfunction
- Chest pain



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# Heart Failure Rehospitalization Epidemiology

# 27%

## 30-day rehospitalization rate (Medicare) for heart failure admission

Centers for Medicare and Medicaid Services www.cms.hhs.gov/MedicareFeeforSvcParts AB/Downloads/SSDischarges0405.pdf

Jenks SF, Williams MV, Coleman EA. NEJM 2009 Apr 2; 360(14):1418-28

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# Heart Failure Rehospitalization Epidemiology

Only **37%**

**of heart failure readmissions are for heart failure again!**

Centers for Medicare and Medicaid Services www.cms.hhs.gov/MedicareFeeforSvcParts AB/Downloads/SSDischarges0405.pdf

Jenks SF, Williams MV, Coleman EA. NEJM 2009 Apr 2; 360(14):1418-28

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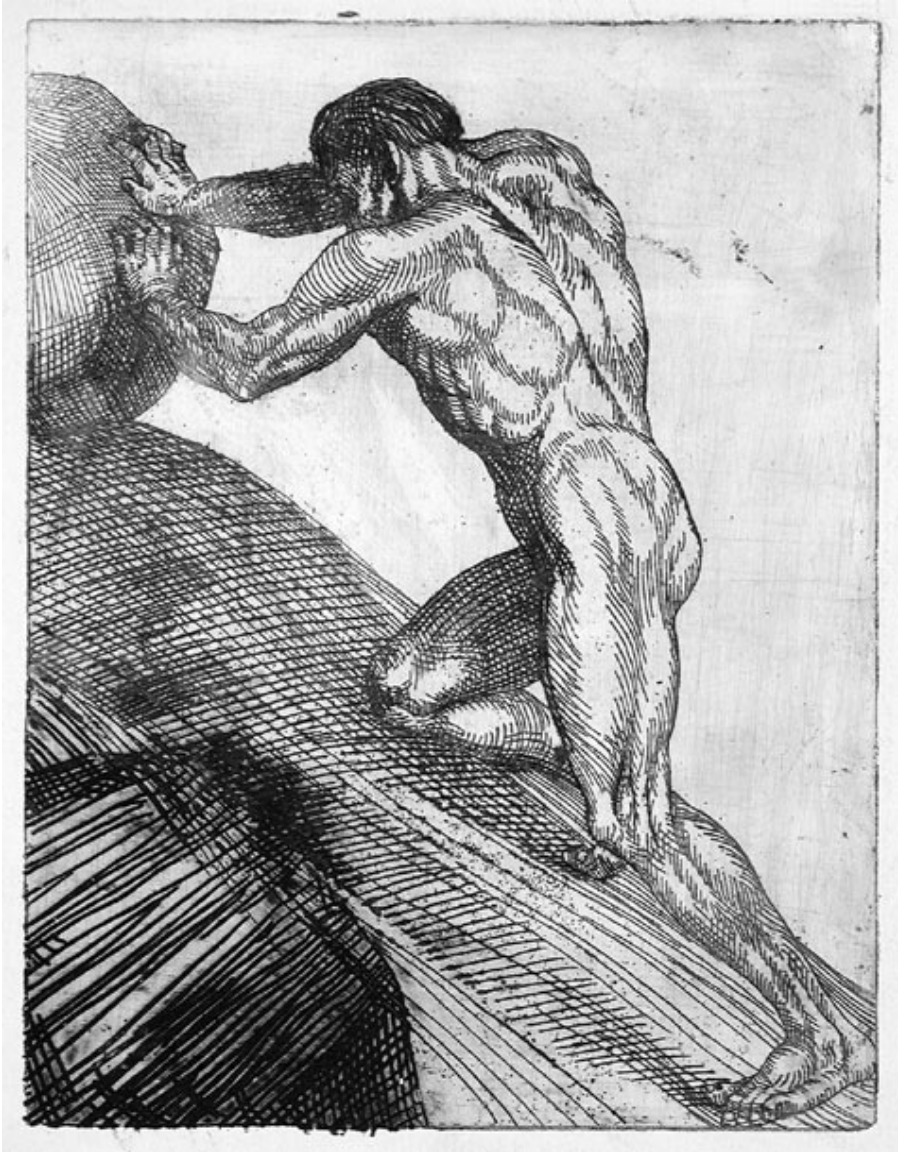

*"The struggle itself toward the heights is enough to fill a man's heart. One must imagine Sisyphus happy."*

*-Albert Camus*

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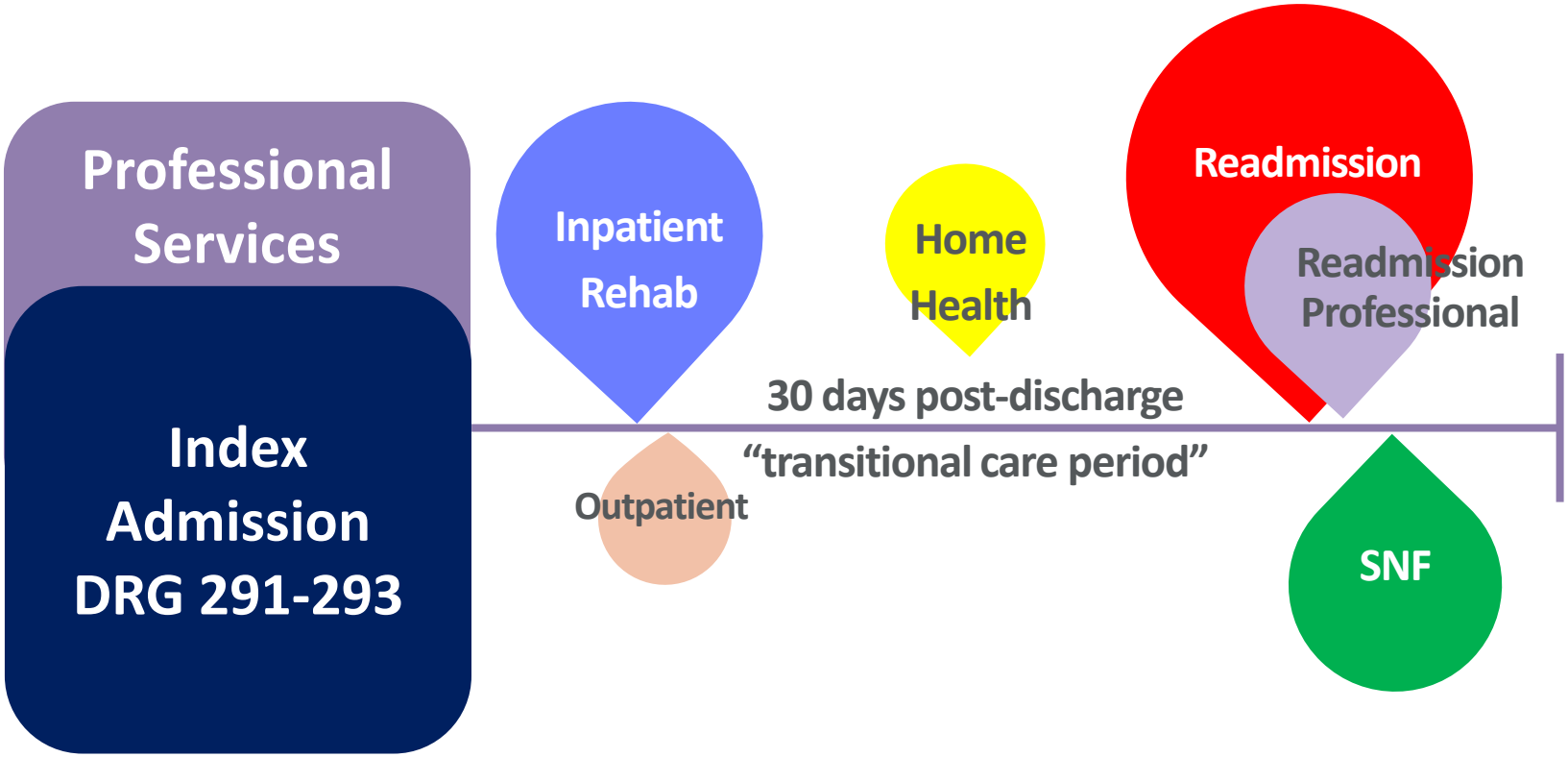
# Bundled Payments for Care Improvement (BPCI): Financial Model Schematic

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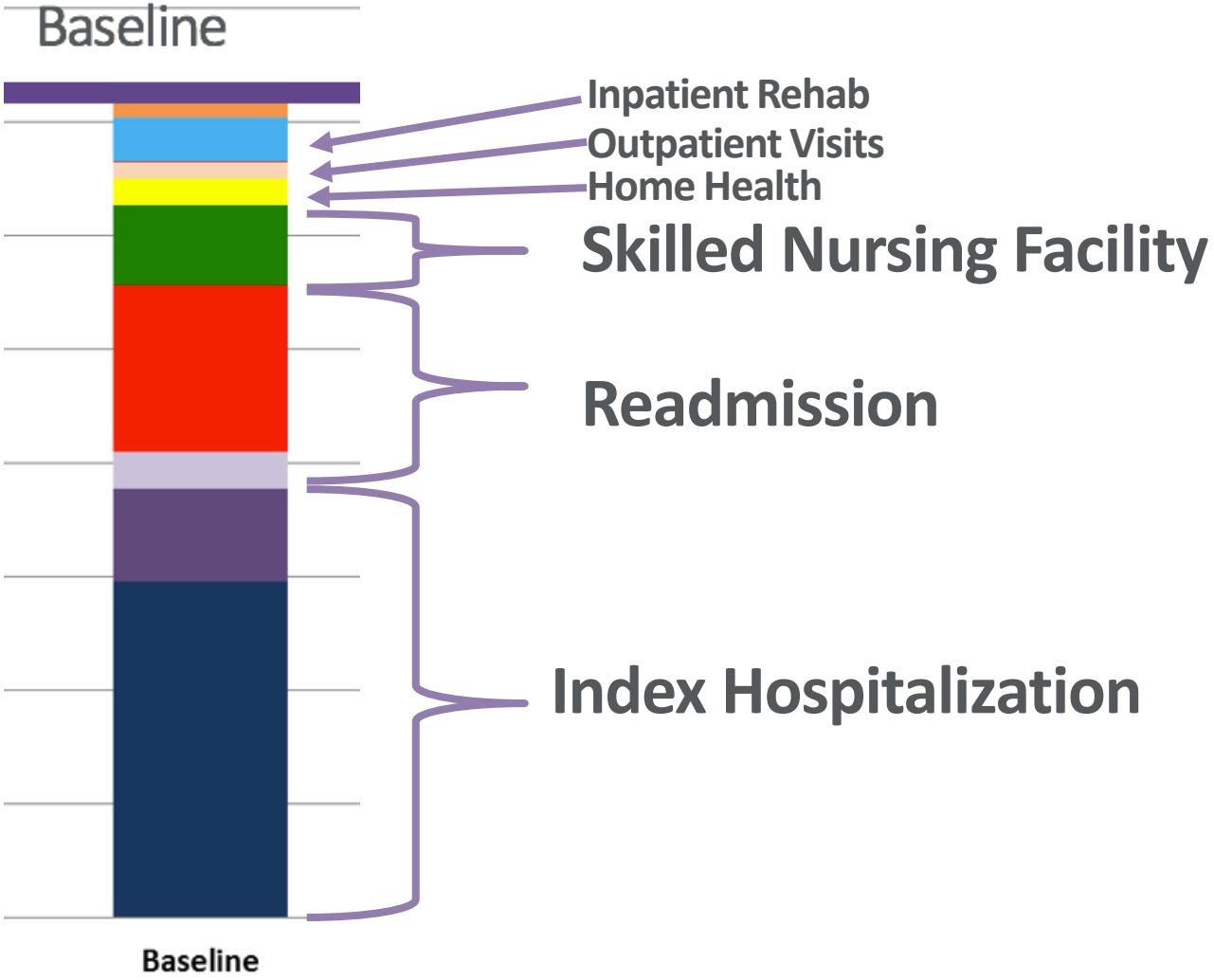
# What Drives Cost for a HF Episode of Care?

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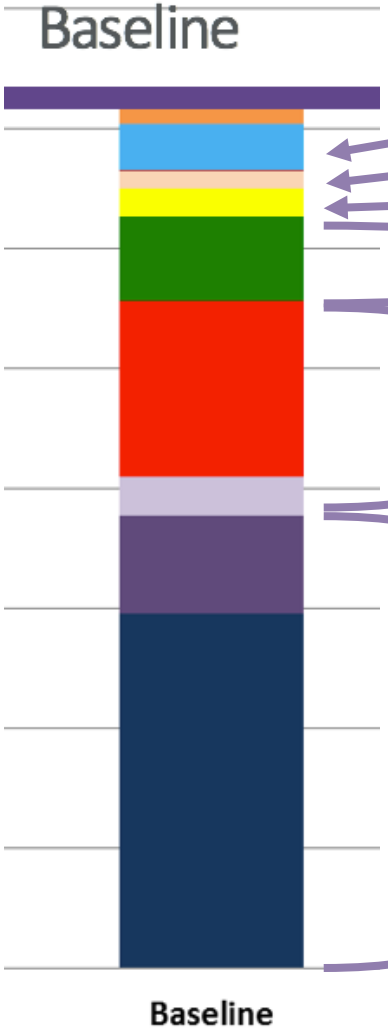


Inpatient Rehab
Outpatient Visits
Home Health
Skilled Nursing Facility
Readmission
Index Hospitalization

*Sound Investments!!*

*Potential Waste*

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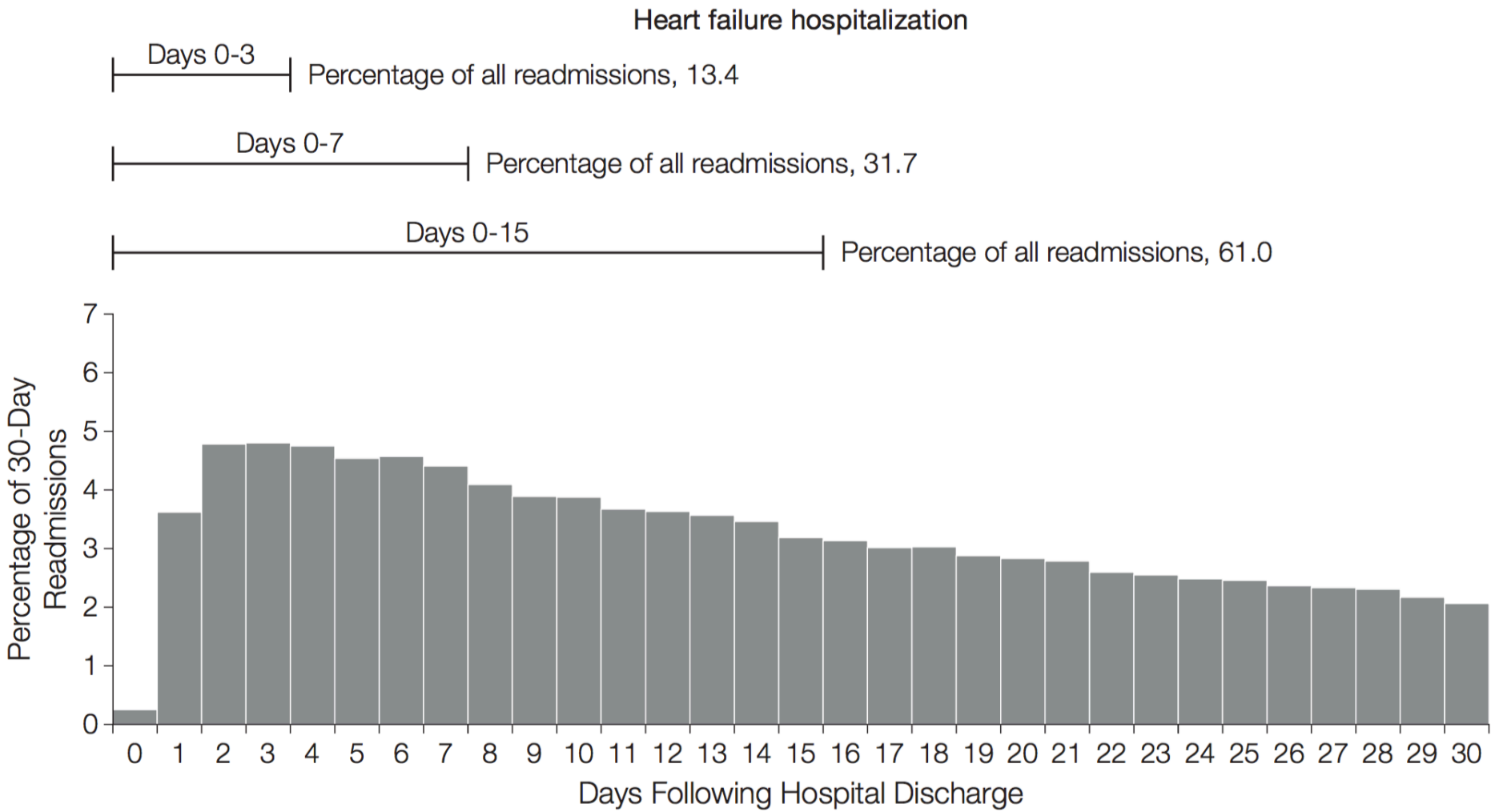
# Patients with Heart Failure Readmit Early




Dharmarajan K, et al. JAMA 2013, Jan 23;309(4):355-63



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# Why are people hospitalized with HF?

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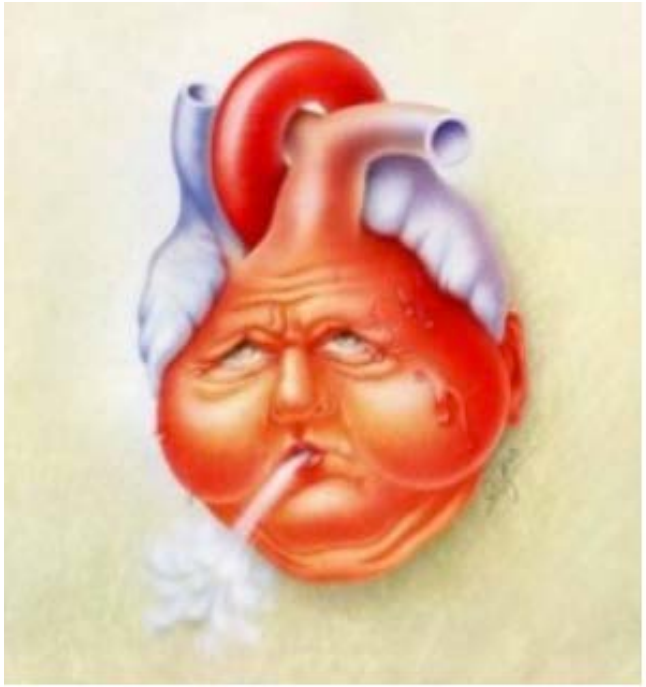



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# Why Are People Hospitalized with HF: Our Value Proposition

- Identify and correct **underlying problems** driving the heart failure syndrome
- **Initiate and titrate** guideline-directed medical therapy **in-hospital and outpatient**
- **Connect** to outpatient services
- Empower patients to **adhere** to prescribed therapy
- Empower patients to **limit** salt and fluid intake
- Develop **feedback loops** to detect /correct exacerbations early and often
  - Daily weight monitoring
  - CardioMEMS
  - 48-hour phone follow up after discharge
  - Frequent office visits if needed, **especially 7-day follow up**
  - Encourage patients to call with symptoms

***Our Strategic Bet: If we can deliver on these processes, we can improve outcomes and reduce readmissions.***


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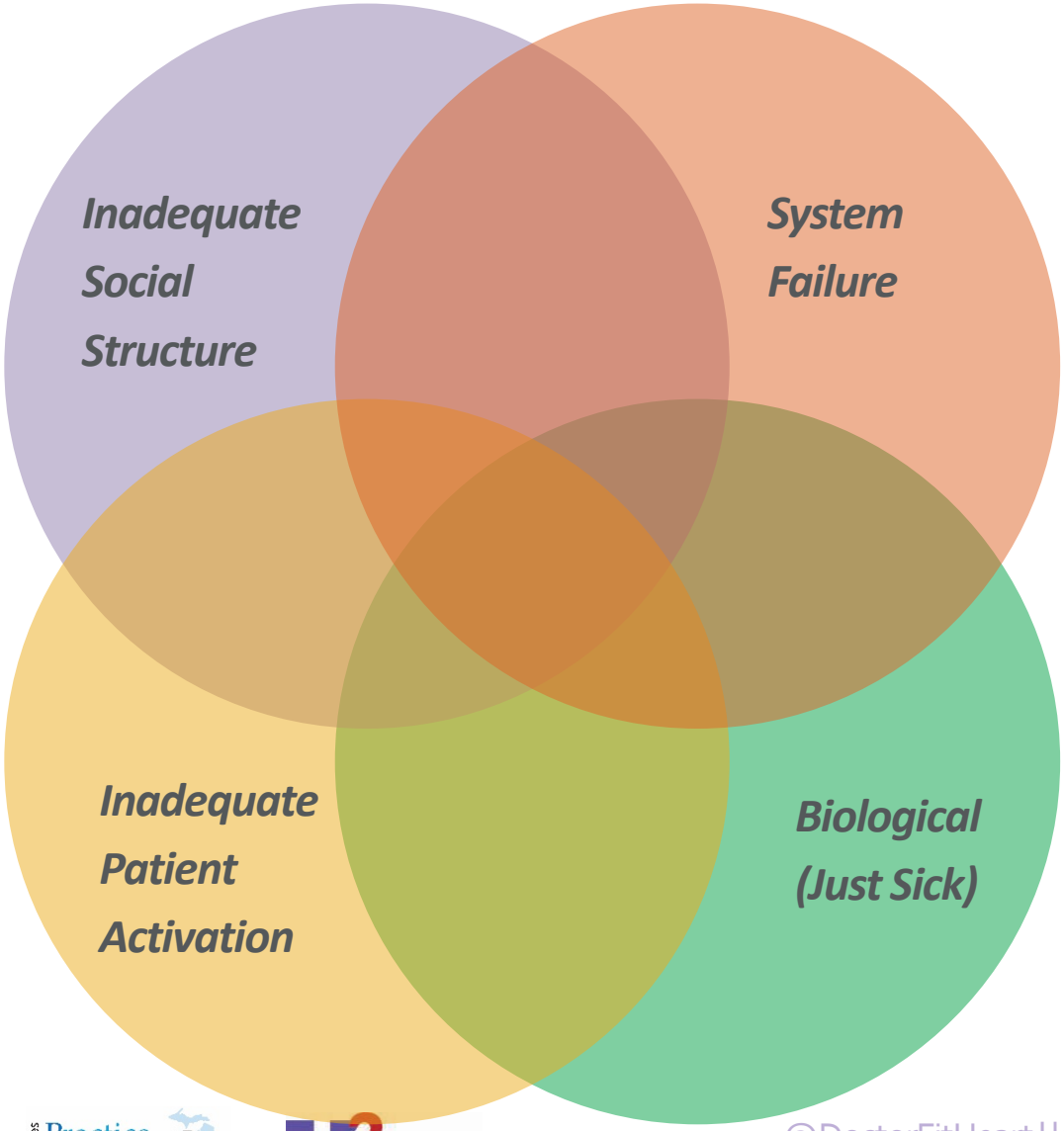
# Four Reasons Patients Readmit





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# Process

# *Caveat: Our Local Solutions for Our Local Challenges Leveraging Our Local Resources*

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# High-Level Process Overview for BAT team


***Strategic Goal: ID patients early to build relationships and intervene***

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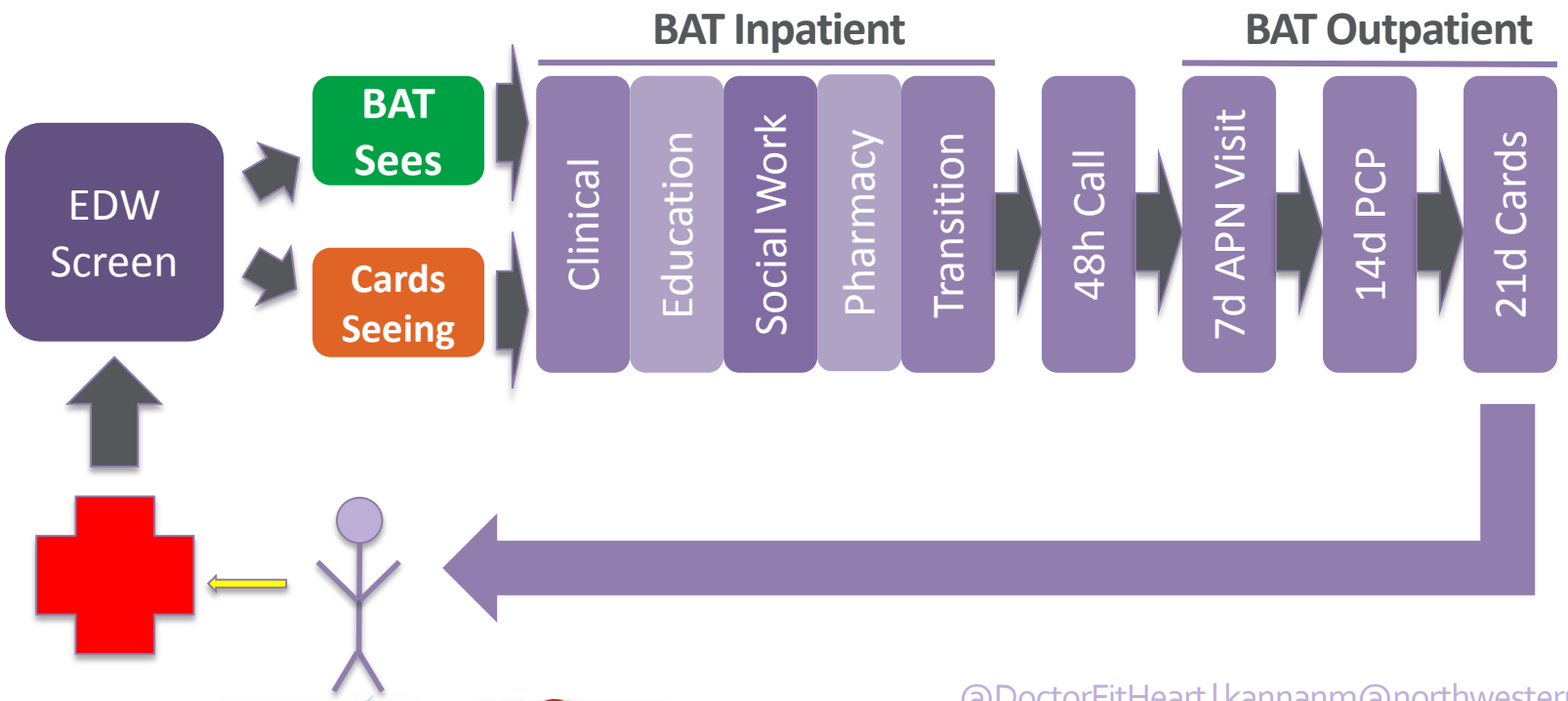
# Deeper View of BAT Core Value Chain

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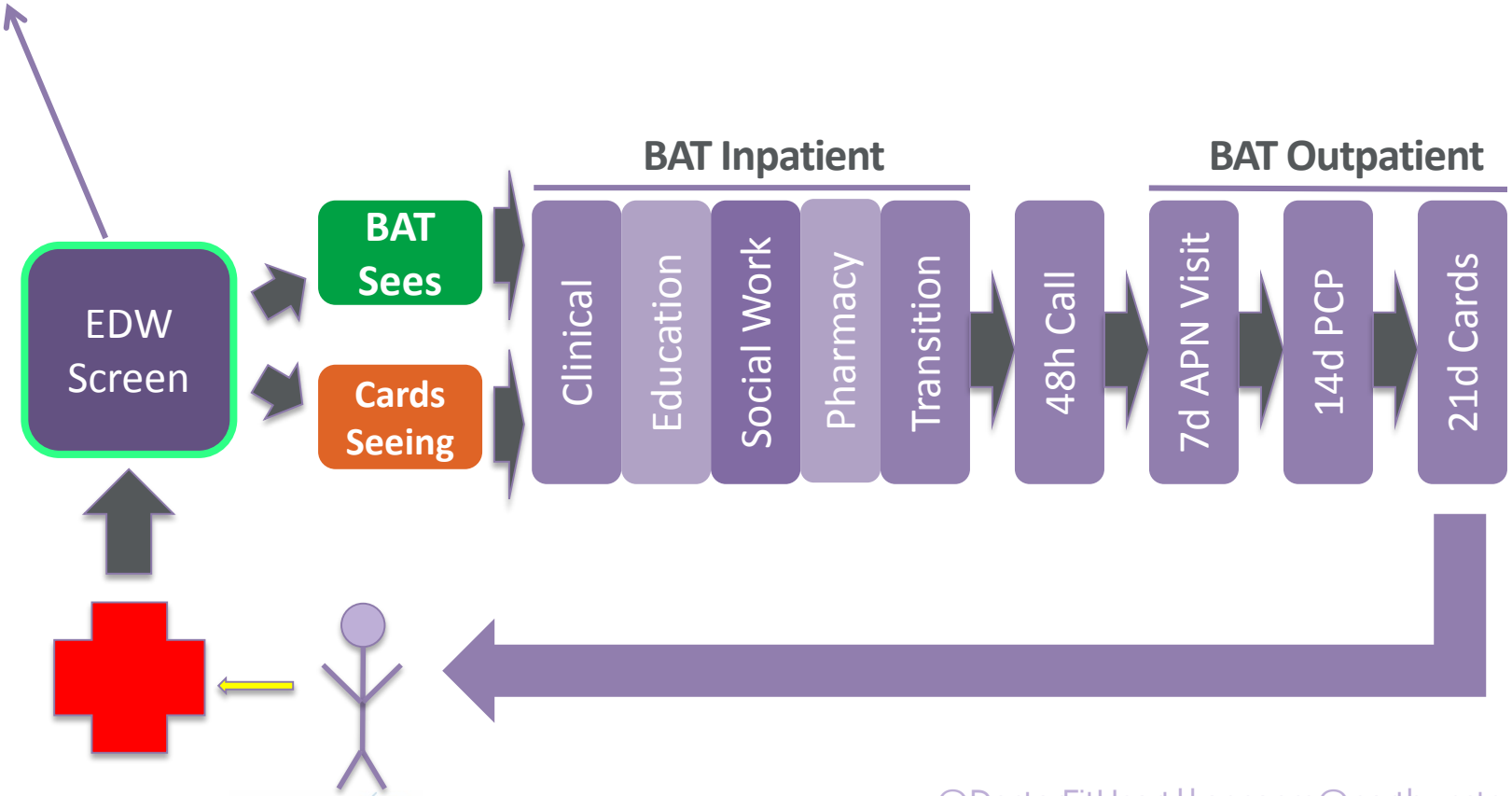
# EDW Screen

- Based on administration of IV diuretics, BNP > 100, tele reason = HF
- 95% sensitive for HF admissions
- For every 3 active HF patients: 1 ends up in the bundle

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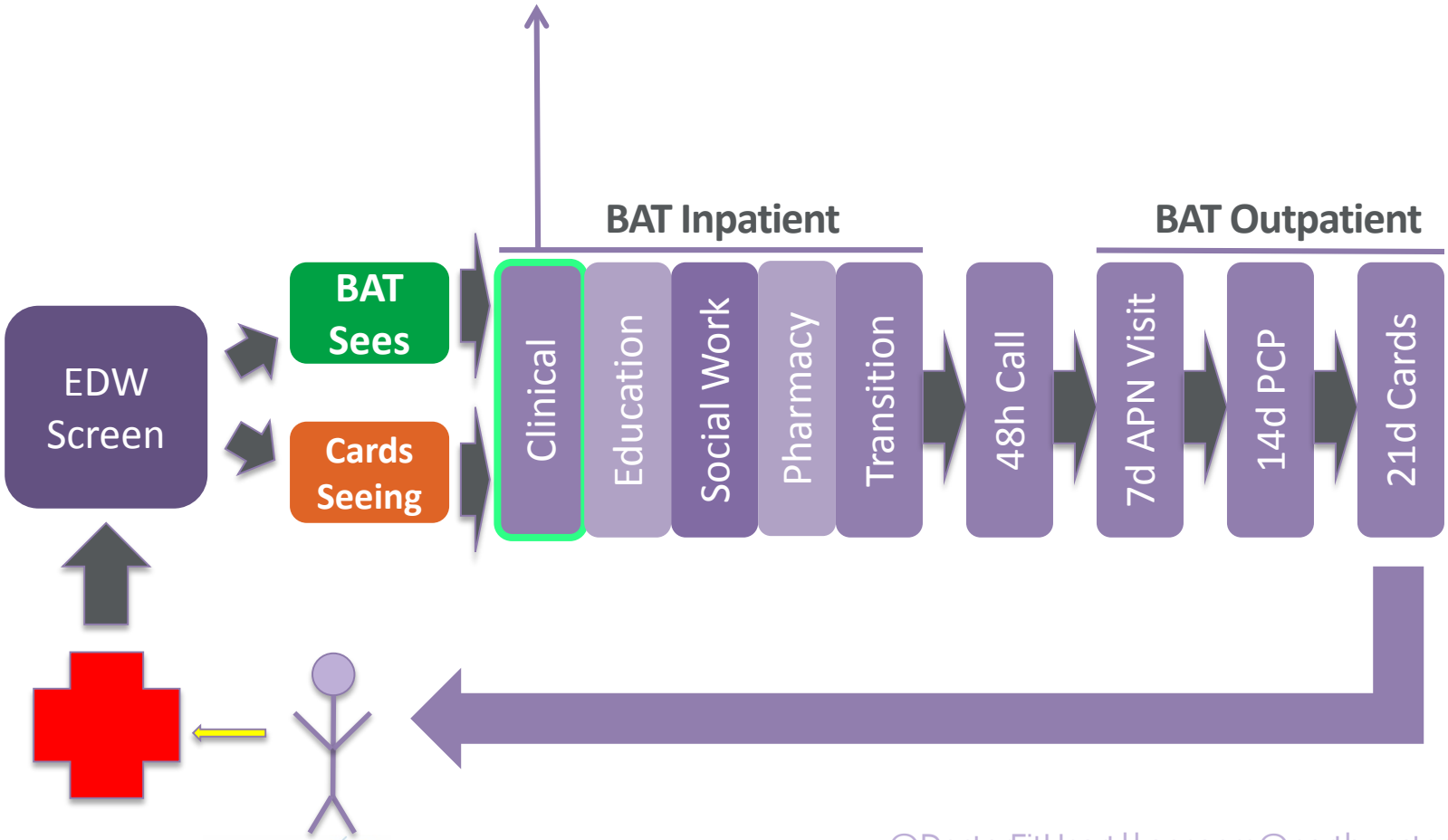
# Clinical Consultation

- Goal: Cardiology consultation on all HF patients
- Rationale: Root causes; more diuresis; develop relationship

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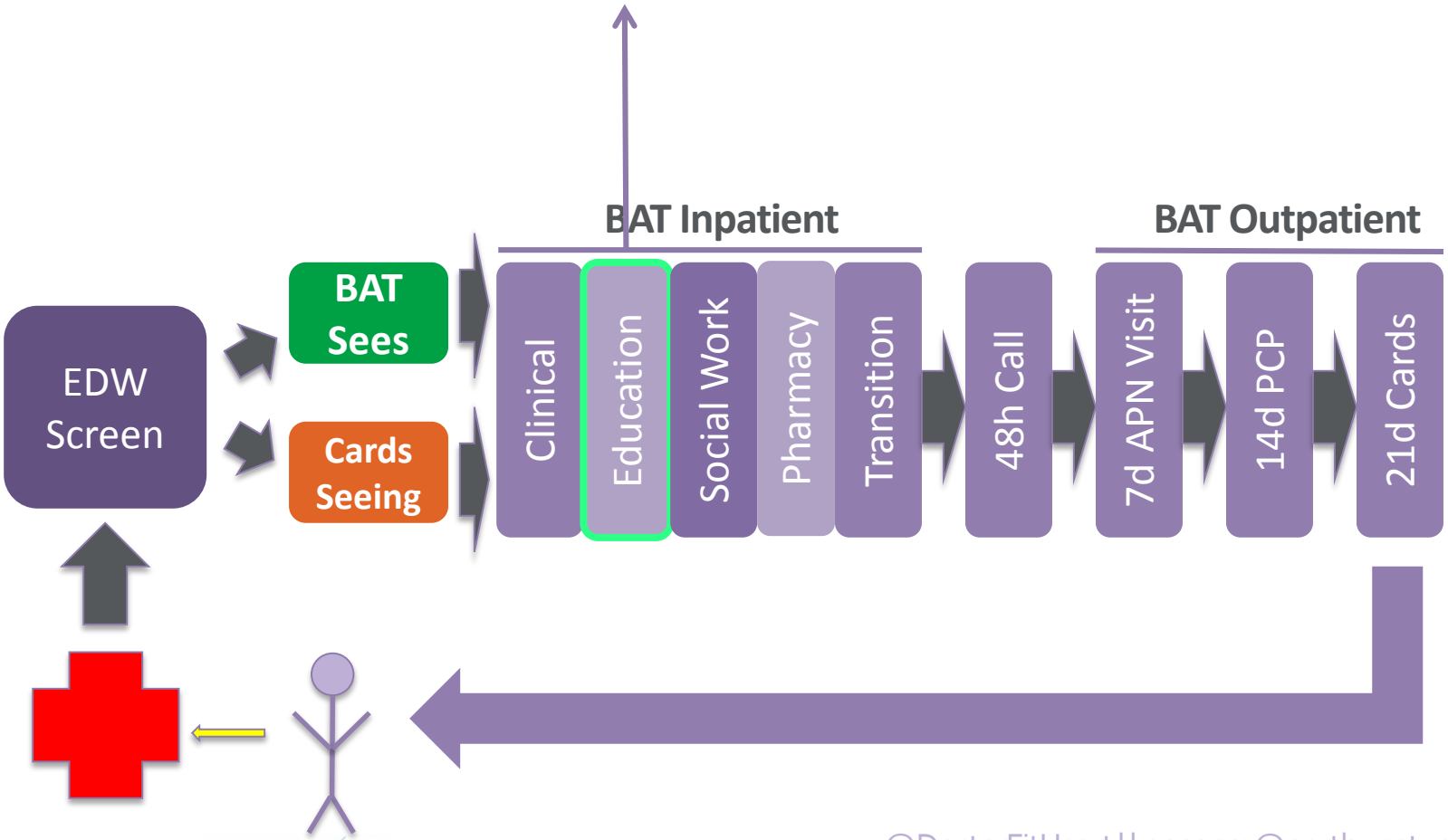
# Nurse HF Education

- Goal: Nurse HF education on all patients
- Rationale: Empower patients to adapt behavior change

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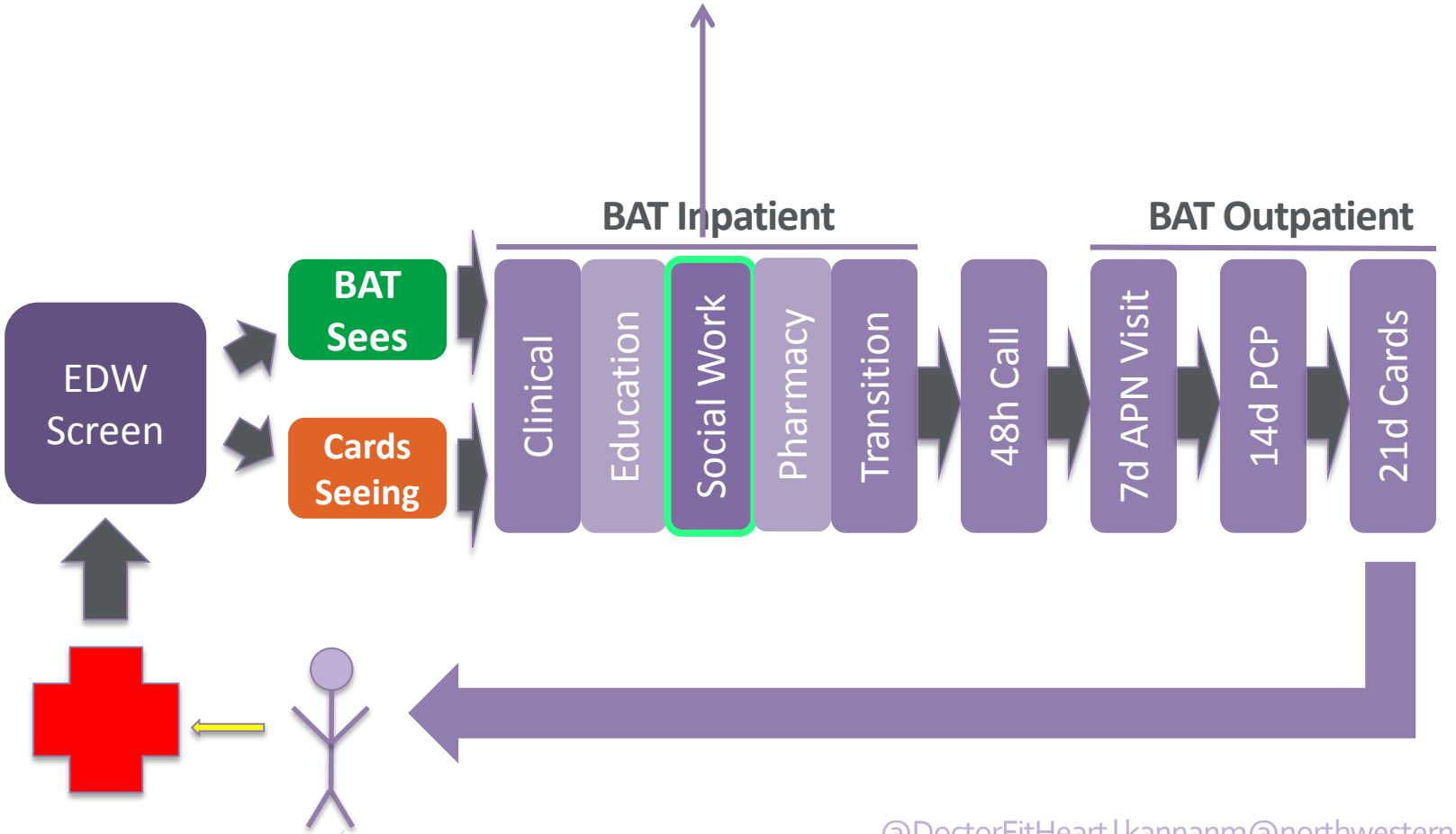
# Social Work

- Goal: Social work intervention to address barriers to care
- Rationale: Root causes; develop relationship

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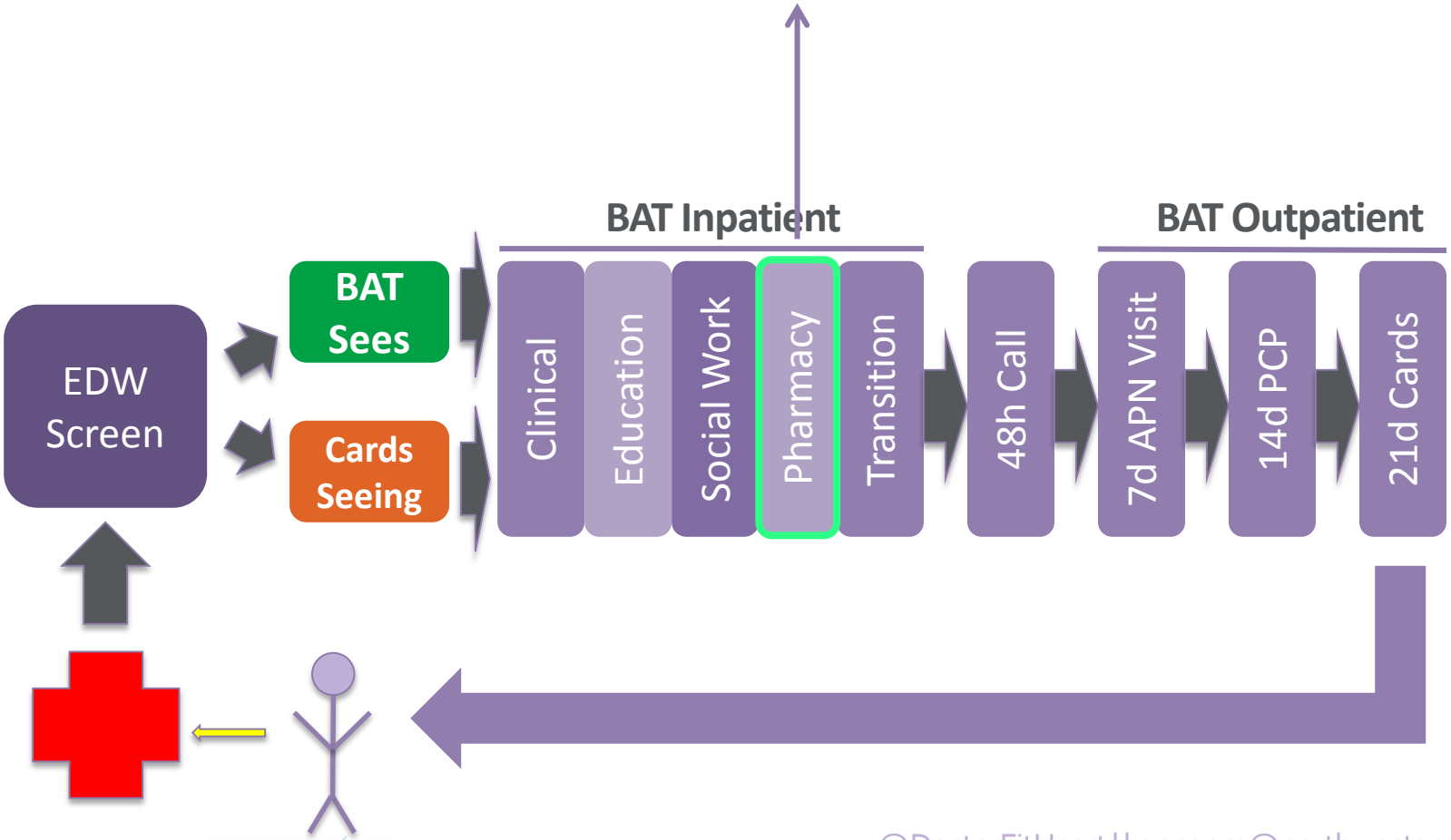
# Pharmacy Intervention

- Goal: Encourage med adherence (**55%** cardiac med error rate)
- Rationale: Medicine works

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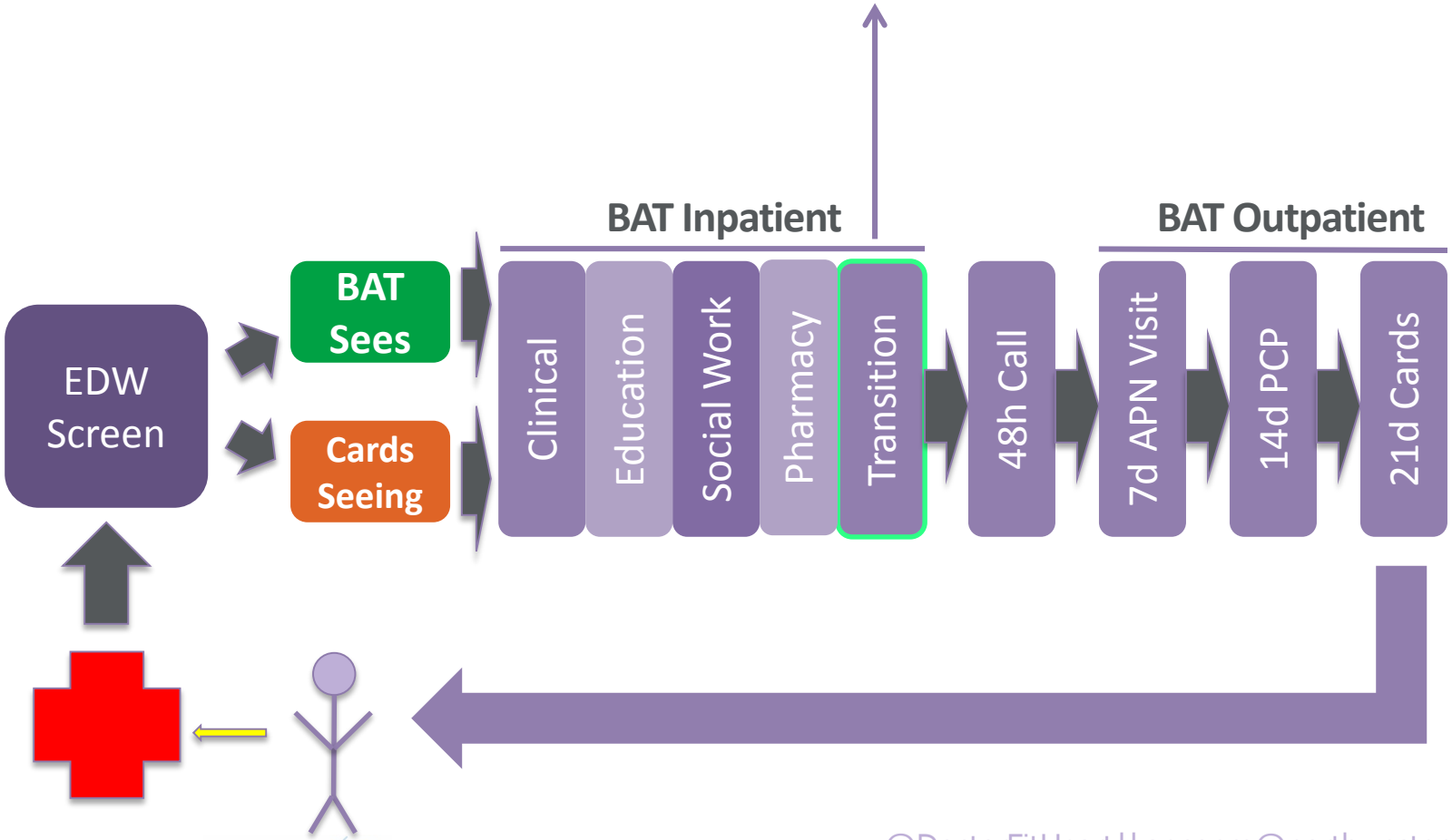
# Transition of Care

- Goal: Partner with post-acute partners
- Rationale: ~30% of patients go to SNF, inpt rehab, or have home health

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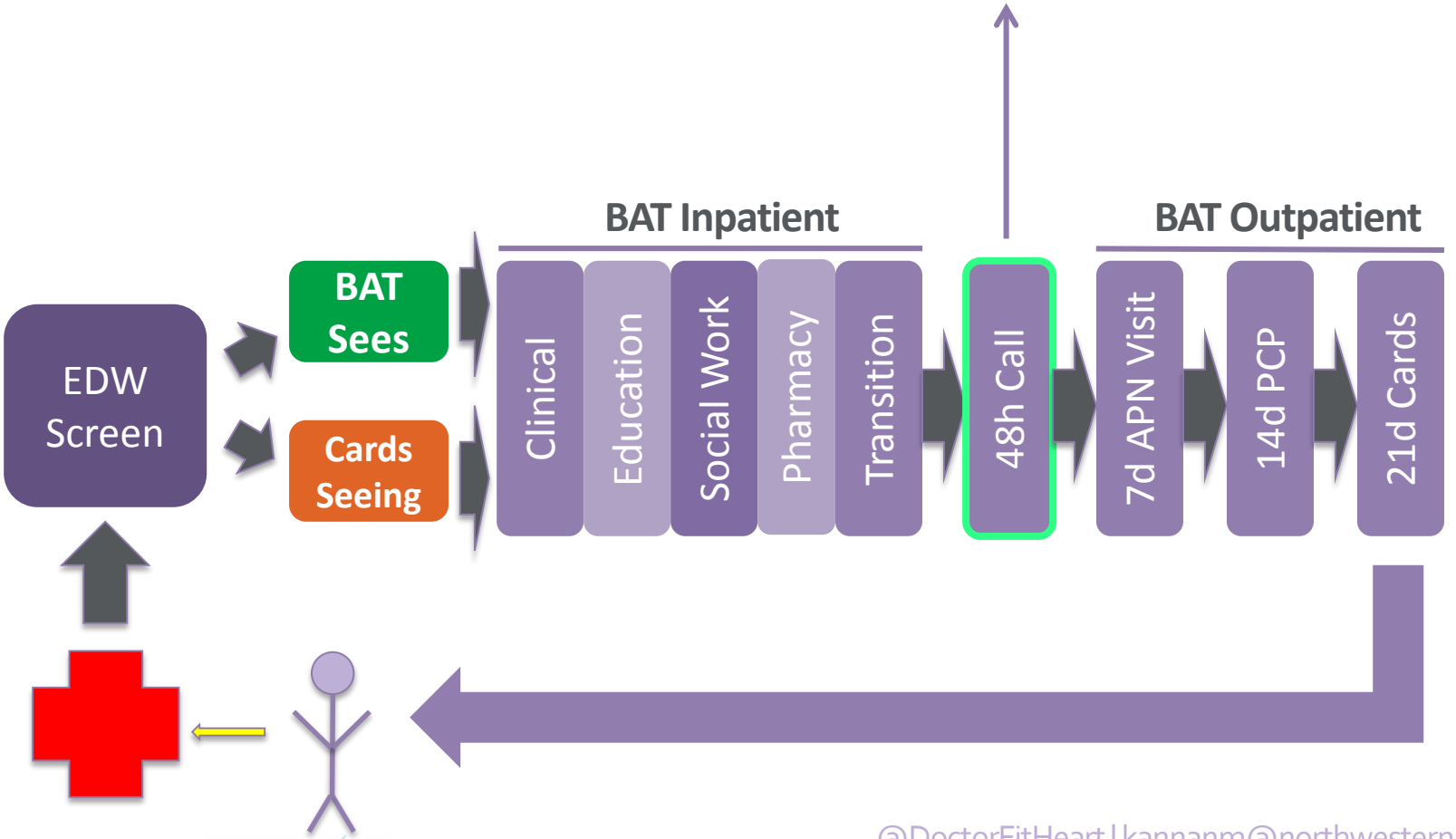
# 48-Hour Phone Call

- Goal: Ensure meds, appts, feeling ok, answer questions
- Rationale: At home it's real

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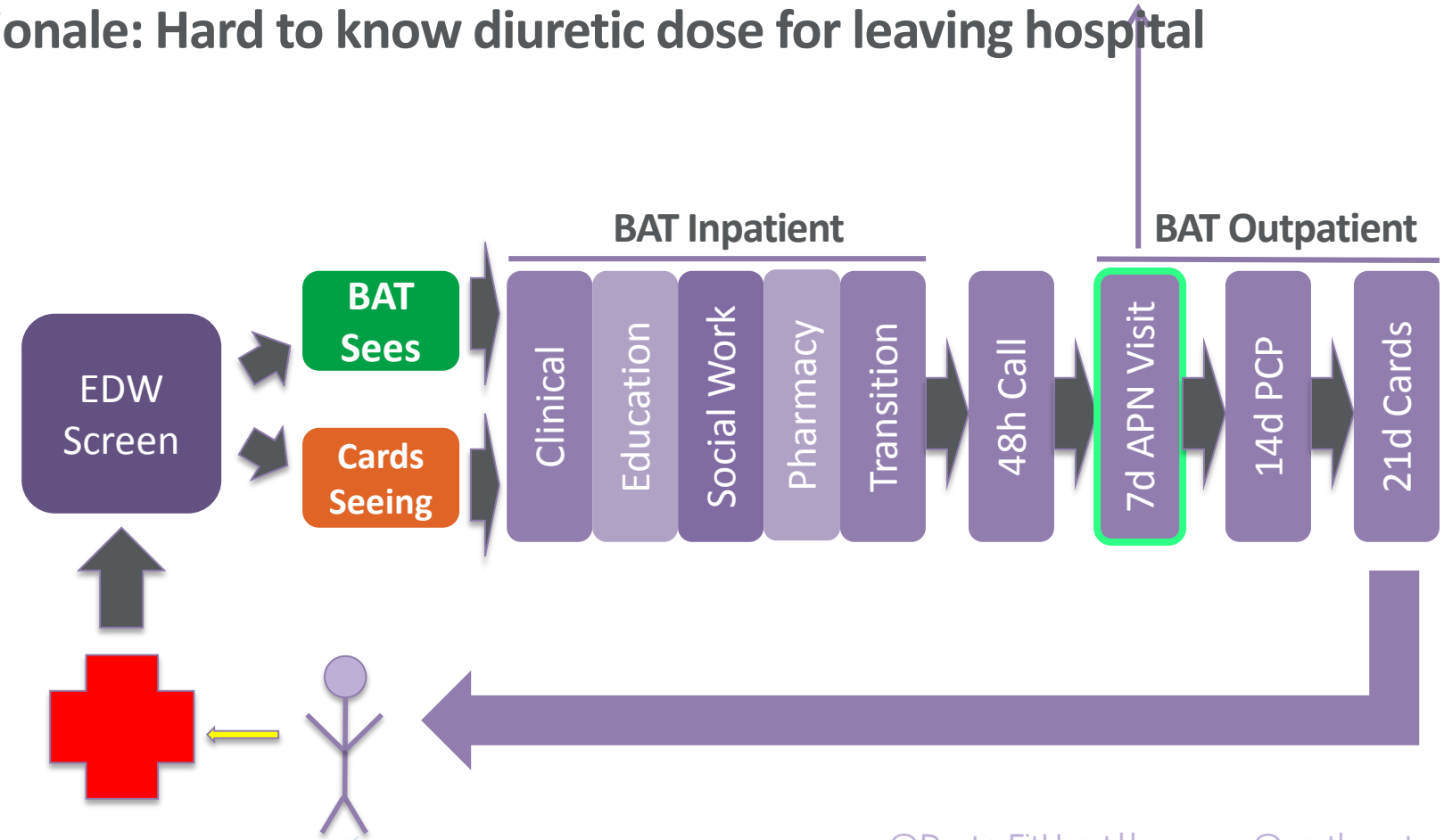
# 7-day Visit in HF Discharge Clinic with APN

- Goal: Volume status assessment; advance plan of care if possible; pull in other disciplines
- Rationale: Hard to know diuretic dose for leaving hospital

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# Further Targets for Improvement

- Weekend coverage
- Medication adherence
- Scheduling patients
- Appointments for patients at SNFs
- Motivating patients
- Tracking process metrics
- ? Interventions in the ED to prevent admissions
- Facilitating discussions surrounding palliative care
- Looping in the primary care physician



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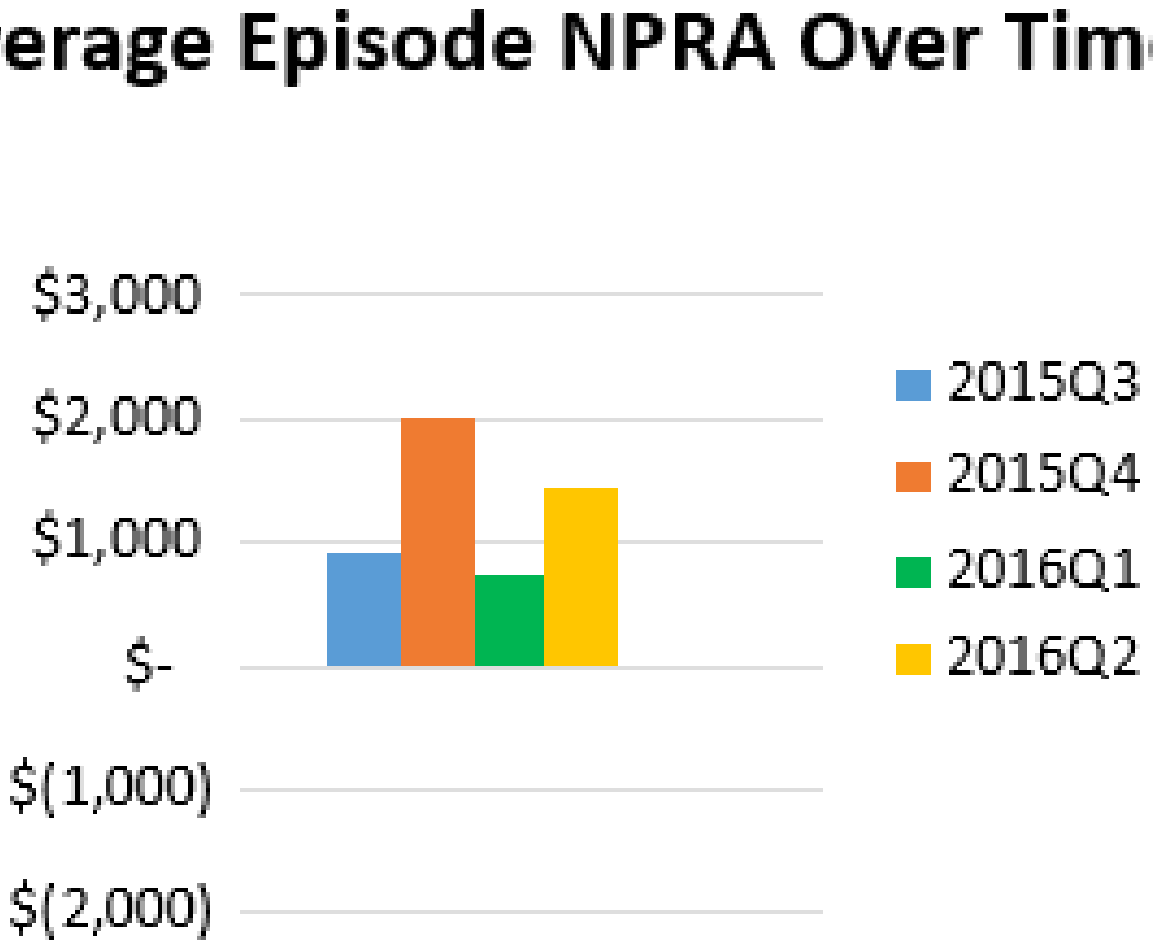
# Outcomes

# Outcomes: Average Savings / Episode



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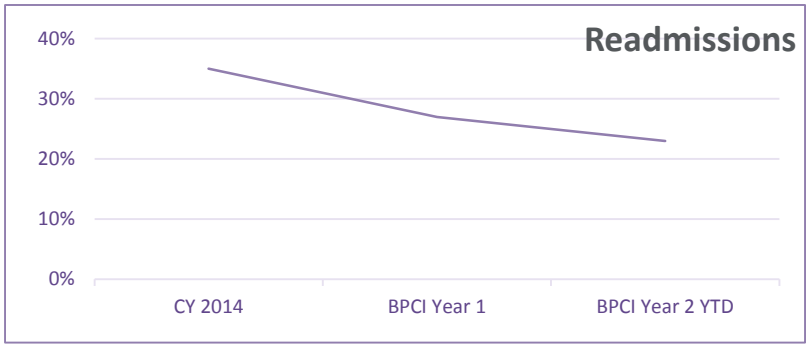
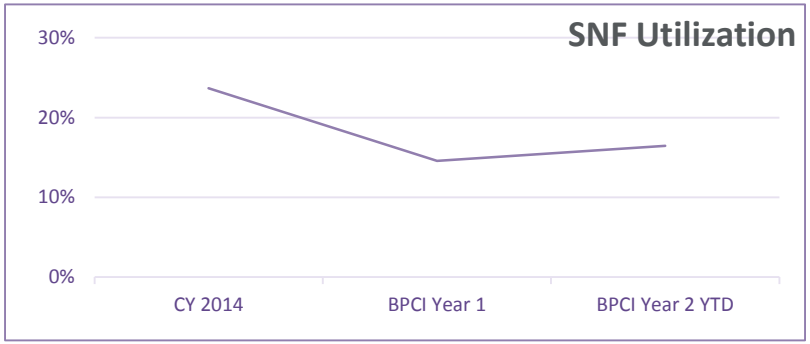
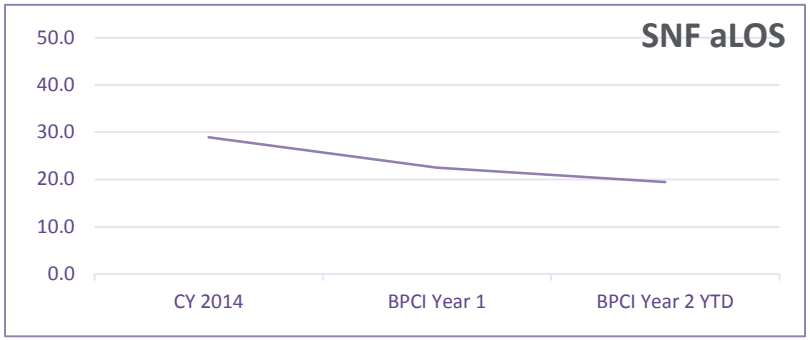
# Drivers of Our Results

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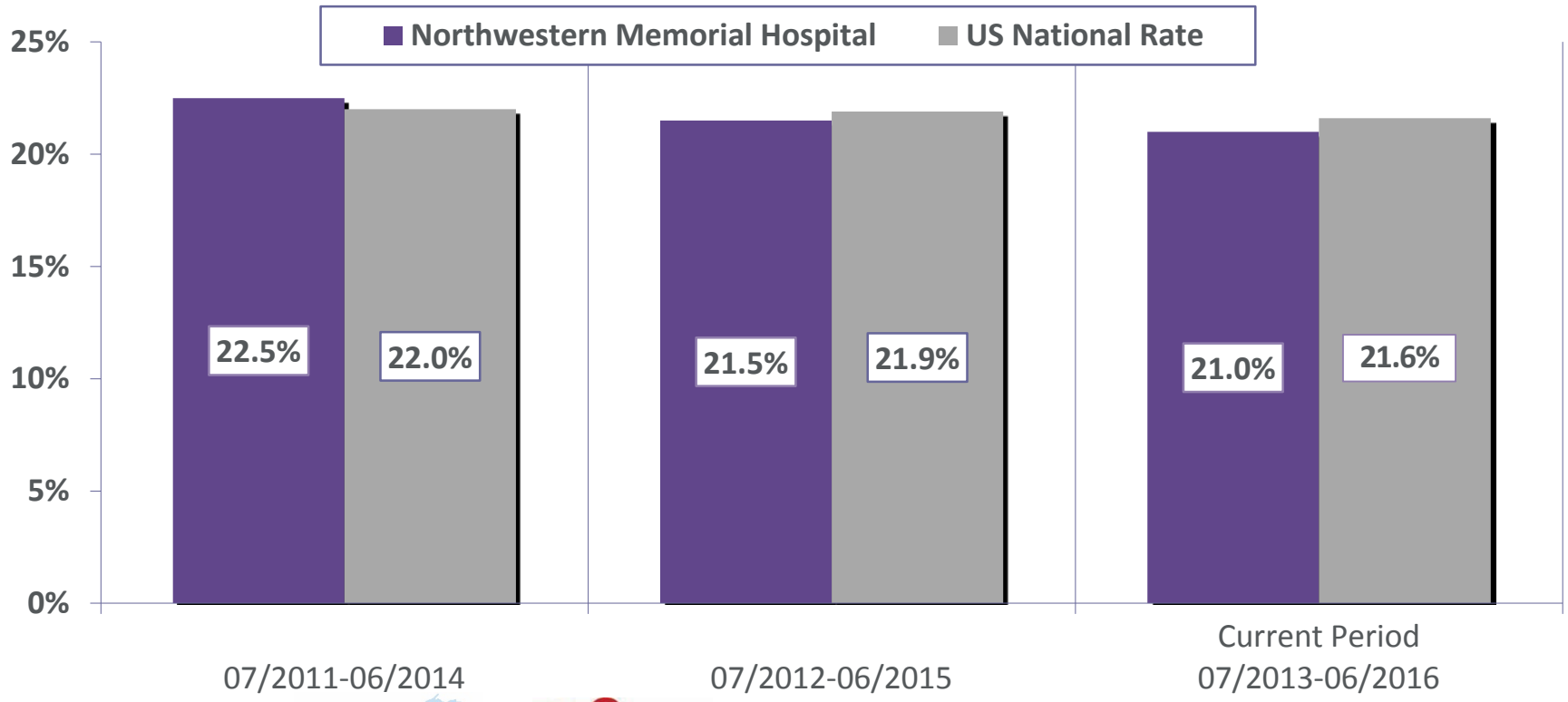
# Medicare Risk-Adjusted 30-Day Unplanned Readmissions (Hospital Compare)

- **"No Different Than National Rate"** but improved 1.5 percentage points over previous two reporting periods
- Expect to see further improvement in rate due to reduced readmissions under BPCI

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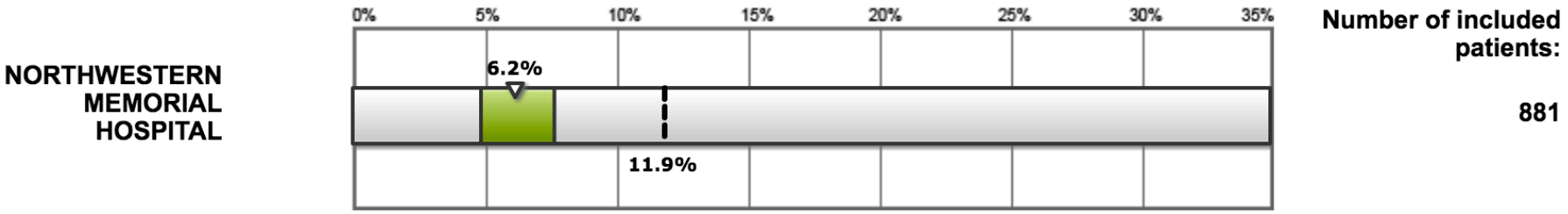
# An Interesting Thing Happened on the Way to Reducing Readmissions: (Medicare.gov/hospitalcompare)

***Among national leaders – reduction in 30-day heart failure mortality rates, 2013 - 2016***




http://medicare.gov/hospitalcompare



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# Team Work

# *How Do We Do Our Work?*

- **Constant communication: In person, messaging**
- **Kaizen: Continuous process improvement**
- **Scrum: Shun overanalysis; prioritize and execute**

***Autonomy*** ***Mastery*** ***Purpose***

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# Next Steps

- Share your institution's lessons learned!
- How do you address complexity in your practice?
- How can different disciplines synergize to solve problems?


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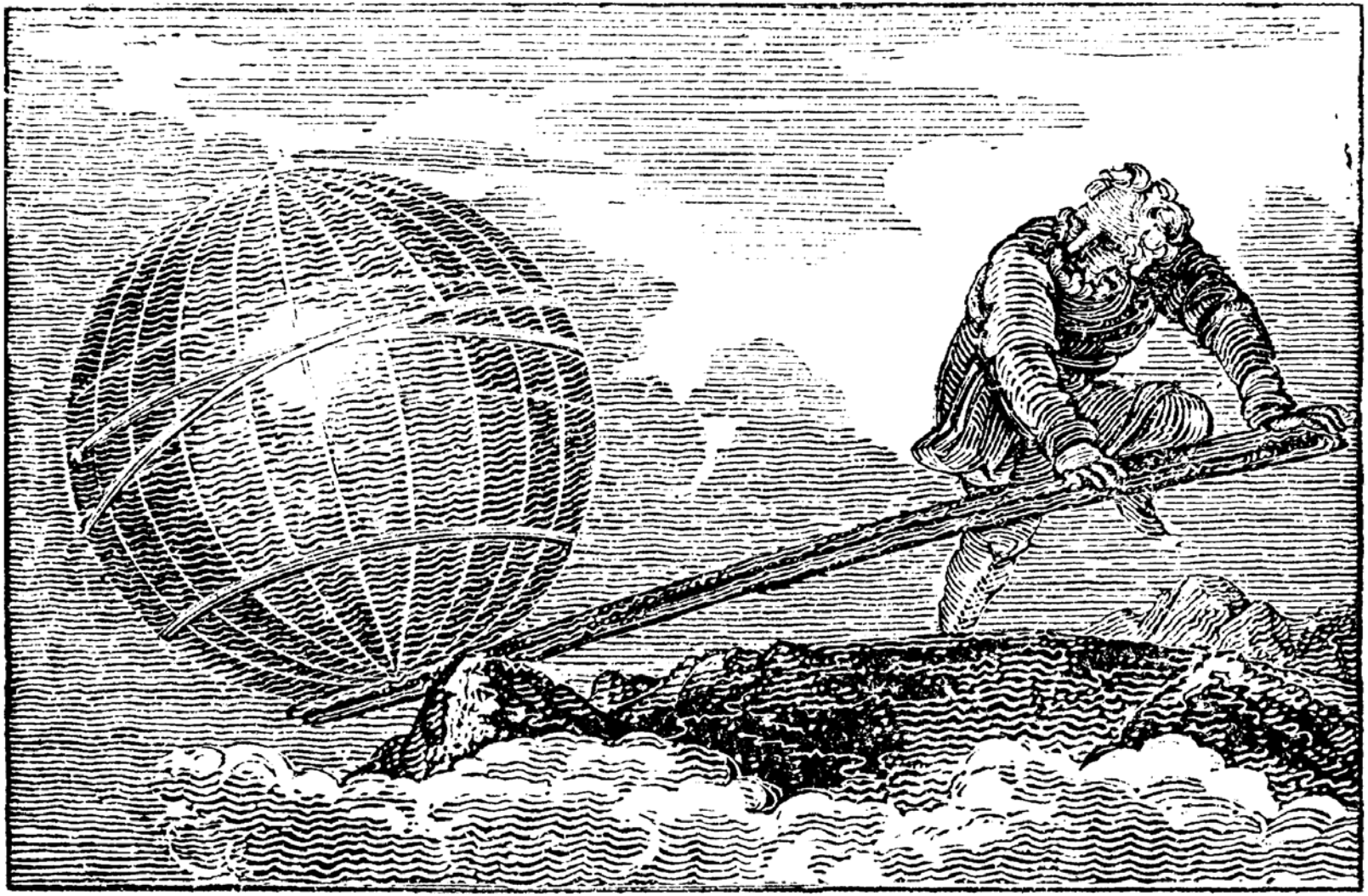

*"Give me a lever long enough and a fulcrum on which to place it, and I shall move the world."*

*-Archimedes*

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# Thank You!!


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*for the*

## Northwestern Medicine Heart Failure Bridge and Transition Team