Objectives

1. State the value of nursing research from the perspective of patient outcomes and hospital and nursing benefit
2. Discuss advancing patient outcomes in translational care research
3. State 2 transitional care programs that did not reach clinical outcome objectives

WHEN DO BEDSIDE NURSES CONDUCT & USE RESEARCH?

- A. A parent/loved one gets ill and they need to “look up” data on the topic
- B. Time is given to do it
- C. It’s time to show clinical ladder experiences
- D. The goal is optimal patient care
- E. Need evidence for “Magnet” designation

WHY PARTICIPATE IN EBP/RESEARCH?

- Quality patient care
- Best patient outcomes
- Patient safety
- Patient satisfaction
- Nurse efficiencies
- Nurse satisfaction

WHY PARTICIPATE IN TRANSITIONAL RESEARCH? WHAT’S THE PROBLEM?

- Half of what you are taught in medical school will be proved to be wrong in 10 years, and the trouble is, none of your teachers know which half. S. Burwell, Harvard Medical School
- We double our medical information every 3-5 years

Do we change nursing practices every 3-5 years to match medical knowledge?

EVIDENCE-BASED PRACTICE
The USA is an Outlier… High Cost per Life Expectancy

What’s The Problem?

Hospital discharges for the 10 leading diagnostic groups (United States: 2010)

SO: What is the Future?

Why are we Transforming?

Value = \frac{\text{Quality}}{\text{Cost}}
Patient Portability Affordable Care Act: Healthcare Reform

- CMS Innovations Center established federally qualified Patient Centered Medical Home model:
  - Delivering patient-centered preventive and primary care
- GOALS:
  - Reduce costs
  - Improve quality outcomes
  - Improve efficiency in care delivery

Healthcare Reform - PCMH:

AHRQ: 5 principles:
1. Takes the entire person into account
2. Uses an interdisciplinary approach
3. Care is coordinated and integrated across the entire health care continuum
4. Continuous access to care
   - Enhanced hours of service
   - Timely appointments
   - Alternative methods of communication
5. Systems-based approach to quality & safety

Healthcare Reform - PCMH:

Accountable Care Organizations:
- Integrated patient care across the full healthcare continuum
  - Improving clinical outcomes
  - Reducing preventable hospitalizations
  - Improving patient experience
  - Driving down costs

Healthcare Reform – PCMH and ACO Models:

Management approaches
- Care managers to smooth transitions
- Health information sharing
- Information technology connectivity
- Mechanisms to facilitate better patient care placement decisions
- Condition specific clinical programs, pathways and outcomes measures

3 CMS Programs

1. Value Based Purchasing (VBP) Program
   - 2015, 2016 and 2017 Programs
2. Readmissions Reduction Program (RRP)
   - 2015-2017 Applicable conditions
3. Hospital Acquired Condition (HAC) Reduction Program
   - 2015-2017 Program
Quality Based Payment Reform

Readmission Reduction Program Overview

Excess Readmission Rates by Condition
Excess Readmission Revenue by Condition
Total Excess Readmission Revenue (All Conditions)
Readmission Reduction Program Adjustment Factor
Program Impact

2014: AMI, HF, Pneumonia
2015: + COPD and THA/TKA
2017: + CABG

hospital Acquired Condition Reduction Program

• 2015: Domain 1 (claim-based measures)
  weight: 35% FFY 2015; 25% FFY 2016+

- Patient Safety Indicator Composite Ratio
  - Accidental puncture laceration: 49.2%
  - Postoperation PE or DVT: 25.8%
  - Postoperation sepsis: 7.4%
  - Iatrogenic pneumothorax: 7.1%
  - Central venous catheter related blood stream infection: 6.5%
  - Decubitus ulcer: 2.3%
  - Postoperation wound dehiscence: 1.7%
  - Postoperation hip fracture: 0.1%

• 2015: Domain 2 (chart abstracted measures)
  weight: 65% FY 2015; 75% FY 2016+

- Central line associated blood stream infection
- Catheter associated urinary tract infection
- Surgical site infection (FFY 2016+)
- Surgical site infection from colon surgery
- Surgical site infection from abdominal hysterectomy
- Clostridium difficile (FFY 2017+)
- Methicillin-resistant Staphylococcus Aureus (FFY 2017+)

Hospital Acquired Condition Reduction Program

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Patient Safety Indicator Composite Ratio
Weight
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- Central line associated blood stream infection
- Catheter associated urinary tract infection
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- Surgical site infection from abdominal hysterectomy
- Clostridium difficile (FFY 2017+)
- Methicillin-resistant Staphylococcus Aureus (FFY 2017+)

Quality Based Payment

What you do NOW matters!!

• Value Based Purchasing:
  - (Baseline 2011); Performance period 2013:
    - 2015 Payment adjustment
  - (Baseline 2012); Performance period 2014:
    - 2016 Payment adjustment
  - (Baseline 2013); Performance period 2015:
    - 2017 Payment adjustment

RRP - Revenue at Risk

$60
$50
$40
$30
$20
$10
$0

2017 Program
2015/2016 Program
2013/2014 Program

March 2015; CMS

2017 Program
2015/2016 Program
2013/2014 Program

March 2015; CMS
Quality Based Payment

What you do NOW matters!!

- **Readmission Reduction Program:**
  - July 2010 - June 2013
  - 2015 Payment adjustment
  - July 2011 - June 2014
  - 2016 Payment adjustment
  - July 2012 - June 2015
  - 2017 Payment adjustment

- **Hospital Acquired Condition Program:**
  - 2015 Payment adjustment
    - Domain 1: July 2011 – June 2013
    - Domain 2: Jan 2012 – December 2013
  - 2016 Payment adjustment
    - Domain 1: July 2012 – June 2014
    - Domain 2: Jan 2013 – December 2014
  - 2017 Payment adjustment
    - Domain 1: July 2013 – June 2015
    - Domain 2: Jan 2014 – December 2015

Why “Quality Improvement” is NOT Good Enough

- “Quality projects” results usually do NOT have rigor:
  - In data collection
    - Cherry picking sample
    - Convenience sample (not generalizable)
    - Data from a retrospective sample
  - In analysis
    - Just because one variable occurs with more frequency does not mean it is more important
    - Need proper statistical analysis

In God We Trust.
Everyone Else Must Bring Data!

Cultivate a spirit of inquiry
So, You Want To Improve Patient Outcomes Across Transitions in care
Where to Start

- Identify an issue, problem or question - Most important piece!
- Then, develop the question before initiating a project

Transitions in Care Research Questions

- Transportation
- Cognitive decline
- Caregiver support
- Falls & bleeding risk
- Deconditioning; Fatigue
- Eyesight and hearing
- Safety in the home
- Economics

AHA Scientific Statement

Transitions of Care in Heart Failure
A Scientific Statement From the American Heart Association

Nancy M. Albert, RN, CN, CHFN, CCRN, FAHA, Chair;
Susan Barrios, PhD, RN, APN-BC, CND, CCNS, FAHA;
Anna Devwal, MD, NP, FAHA; Adrian Hernandez, MD, MS, FAHA;
Rohit Koulal, MD, Emorygrag Lau, PhD, RN, FNP, ACNP, FAHA;
Sara Paul, DNP, RN, FNP, CHFN, FAHA; Catherine J. Ryan, PhD, RN, FAHA, on behalf of the American Heart Association. Cardiovascular Patient and Family Care Committee of the Council on Cardiovascular and Stroke Nursing, Council on Clinical Cardiology, and Council on Quality of Care and Outcomes Research

Abstract—In patients with heart failure (HF), use of 30-day rehospitalization as a healthcare metric and increased present to provide value-based care compel healthcare providers to improve efficiency and care and an integrated care approach. Transition programs are being used to achieve goals. Transitions of care in the context of HF management refer to individual interventions and programs with multiple activities that are designed to improve shifts or transitions from one setting to the next, either from hospital to home. As transition care programs become the new norm for patients with chronic HF, it is important to understand the current state of the science of transitional care, as described in the


Transition of Care Concerns

Transition in Care Healthcare Providers and Interventions

Within Hospital Transitions in Care Research Questions

- Infection
- Pressure Ulcers
- Service Efficiency
- Multi-professional communication
- Unit Teamwork
- Hospital Falls with Injury

Patient Trajectories

- Acute Phase
- CSS
- ED
- Obs. Unit
- Hospital?
- Home
- Skilled Nursing Facility
- Hospice
- New Onset Problem
- Chronic Care Needs
- Post-Acute Phase / Chronic Phase

Continuity of HF Care

Reliable Care: Not Missing the Steps

- ED
  - Diagnosis
  - Initial
  - CCU
  - Acute Rx
  - Evaluation

- CCU
  - Telemetry Ward
  - IV Meds
  - Oral Meds
  - LV function
  - Echo and/or Cath
  - Other Evaluation
- DC
  - Oral Meds
  - Other Rx
  - IV Ed
  - Pulmonary
  - Disease Manage
- Early Post DC
  - Right vent r fraction
  - Admission
  - Disease Manage
  - Continuity Nurse
- Discharged
- Discharged
  - On right meds?
  - On right dose?
  - Fluid status
  - Re-assess EF
  - Devices
  - Self Manage?
  - Other issues?

- Outpatient
  - On right meds?
  - Titration
  - Patient Education
  - Disease Manage
  - Continuity Device?

- CCU
  - IV Meds
  - Oral Meds
  - LV function
  - Echo and/or Cath
  - Other Evaluation
- ED
  - Diagnosis
  - Admit
  - CCU?
  - Acute Rx
  - Evaluation

- F/U
  - Disease Manage

* Who is responsible?

Transitional Care Model

10 Essential Elements

1. APN as primary coordinator to assure consistency of provider
2. In-hospital assessment; develop EBP plan of care
3. Home visits by APN + ongoing telephone support (7 days/week) x 2 months
4. Continuity of medical care between hospital and PCP; APN accompanies pts to FU visit
5. Focus on reason for hospitalization, co-existing health conditions and risks

Transition of Care Recommendations

1. Systematically implement principles of transition care in high risk patients
   - Medication reconciliation
   - Very early follow-up
   - Patient education
   - Communication of patient health record
   - Interdisciplinary collaboration/communication
   - Education initiated in hosp. and continues

**Transition of Care Recommendations**

2. Assess for high risk characteristics associated with poor outcomes; i.e., cognitive decline, frailty...
3. Ensure qualified and trained HF nurse/other providers deliver HF services
4. Allot adequate time in hospital and post-discharge to deliver complex interventions and assess patient and caregiver responses
5. Implement handoff procedures at discharge


6. Develop, monitor and ensure transparency of results of quality measures using a structure, process and outcome framework
7. Consider patients’ perceptions of QoL as a surrogate for physical, psychological and social concerns
8. Ensure availability of transition of care details in writing (training manual)
9. Use health informatics technology to assist with program sustainability


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**Transition of Care Research Recommendations**

1. Determine the most effective, economically sound transition of care interventions that are broadly applicable to hospitalized patients with HF.
2. Implement small observational studies and RCTs as proof of concept and evolve into large-scale multicenter RCTs.
3. Minimize site contamination by using site-level randomization.


4. Use pragmatic study designs, minimizing exclusion criteria to best approximate real-world settings.
5. Include cost-effective or cost-saving analyses in assessments of interventions.
6. Choose outcomes carefully after discussion among multiple key stakeholders, including patients.


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**Discussions with Others**

- Other nurses
- Internal and external
- Non-nurses
- Social workers
- Pharmacy
- Dietician
- Physicians
- Psychologists...

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**RESEARCH QUESTION CRITERIA**

0 = not present, 2 = highly/fully present

- Important to clinical practice?
- Area of interest?
- Have a high degree of expertise?
- Large number of patients available/eligible?
- Measurement tools available?
- Data collection fits with practice routines?
- No political landmines?
- Reasonable in scale and simple?
- Fun to do?!

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**This is NOT Research:**

1. Fact-finding mission
2. Literature search
3. Product evaluation
4. QA/QI/PI
5. Data collection

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**This is Research:**

1. Describe the characteristics of...
2. Examine the relationship between...
3. Compare groups...
4. Identify predictors of...
5. Determine the effect of...

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**Research POINTS**

- Quantitative Research designs
  - Retrospective chart review
  - Prospective chart review
  - Descriptive (observational)
  - Correlational
  - Quasi-experimental
  - Experimental

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**Setting up a Research Project**

- Must match the research question
- Must be doable

Association ≠ Causality

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**FEASIBILITY**

- Be careful when developing Inclusion and Exclusion criteria

- The trial was so exclusive that no one was ever randomized
Comments about Lit Review

- Literature review can be taxing to novice researchers
  - Don’t know how to tell a good article from junk
  - Don’t know how to interpret results
  - Get support; Find a mentor

- Use the literature to find data collection tools
  - Don’t design your own survey unless you know how to do so
  - Not publishable if not valid or reliable

PREVENT: The Christmas Tree Effect!

Comment about OUTCOME Variables (FEASIBILITY)

Comment about Data Collection

Data collection takes time & attention to detail
- Momentum can be lost if team does not support

TEAMWORK
- Research Plan
- Proposal development
- Data collection
- Data cleaning
- Analyses
- Implications of results
- Translation
- Dissemination

COLLABORATE!!!!!!

Comment about DISSEMINATION

NEGATIVE RESULTS ARE STILL POSITIVE!

"I'm feeling great... I think they're giving me the placebo."