Crowd Science: Magnet® Hospitals Collaborate to Define Discharge Models of Care

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Objectives:
Discuss the results of a collaborative survey defining best practice discharge models of care among a cohort of Magnet hospitals
Discuss the value of using an implementation framework to guide multisite studies.

Disclosure: Linda L Costa PhD RN – Presenter
University of Maryland School of Nursing

The presenter is a Co-Investigator on the READI study that is funded by American Nurses Credentialing Center at Marquette University. She has a subcontract with Marquette University for time commitment for the READI study.
Multi-site study, commissioned by the American Nurses Credentialing Center

**READI:**
Readiness Evaluation And Discharge Interventions
• Crowd sourcing, crowd science and citizen science = collaboration among a large number of scientists and crowds or citizens in order to complete large-scale projects.
• In research “crowds” usually contribute by providing data or funding to the study.
ANCC’s goals for the multi-site study:

1. To provide opportunities for Magnet designated organizations to participate in rigorous large scale research studies that will build organizational research capacity and contribute to science.

2. Sometimes called “crowd science.” Instead of conducting small studies with small or local impact, big meaningful studies can be conducted when there are many hospitals participating.
## Multi-level Design Framework

<table>
<thead>
<tr>
<th>Unit level</th>
<th>Donabedian’s Quality Model</th>
<th>Study Variables</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Structure</td>
<td>Implementation at the unit level</td>
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<td></td>
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<td>Context variation</td>
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<td></td>
<td></td>
<td>Discharge Model of Care</td>
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<td></td>
<td></td>
<td>Nurse Staffing</td>
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<tr>
<td>Patient Level</td>
<td>Nursing Process</td>
<td>Discharge Readiness</td>
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<tr>
<td>Patient Outcomes</td>
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<td>Assessment</td>
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<td>Readmissions</td>
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<td>ED visits post-discharge</td>
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</tbody>
</table>
PURPOSE

1. To describe how Magnet hospitals are operationalizing discharge preparation processes

METHOD

- Web-based survey of Magnet hospitals participating in the READI study
- N=32, each hospital reported on 2 units (implementation and control)

ANALYSIS

- Descriptive
READI Study Unit Types

- Medical: 40.3%
- Surgical: 11.3%
- Mixed Medical-surgical: 44.5%
- Other: 4.8%

Other descriptors:
- Telemetry: 61.3%
- Step-down: 14.5%
- Intermediate Care: 12.9%
- Transitional Care: 3.3%
Unit Leadership and Unit Descriptors

Nurse manager of this unit also manages other units  35.5%

Unit has a unit-based educator  46.8%

Length of Stay  3.2 – 7.9 days
Bed Size  13-60 ( 73% are  24-36 beds)
Discharges Per Month  82-405
Unit Leadership and Unit Descriptors

What was your most recent readmission rate?
Range from 8-16%

Is there a specific initiative on this unit to reduce readmissions?
66.7% YES

Has your hospital as a whole adopted one of the national programs to reduce readmissions?

- National program/project 25%
- Statewide hospital association 8.0%
- Local/regional collaborative 16%
- Other (mostly within hospital) 16%
- None 9.5%
Framework: Discharge Model of Care

Discharge Preparation
Discharge Planning
Discharge Teaching
Discharge Coordination

Discharge Readiness

Self/Family Management of Health Needs
Unplanned return to hospital
Post acute transfer

Discharge Process
Discharge Planning

• Nearly ½ of units (46.8%) use a formal risk screening process to screen for post-discharge care needs
• Nearly ½ of units (47.5%) use a formal screening for readmission risk
• 1/5 of units (21.0%) have a discharge-related risk score calculated automatically in the section in the EHR patient’s medical record
• 85% of units have a Discharge Planning section in the EHR

Tools In Use
LACE (12.9%) BOOST (3.2%)
Transitional Care Model (3.2%) Early Screen for Discharge Planning (ESDP) (4.8%)
Locally developed screening tool or criteria (12.9%)
Other (21.3%)
Discharge planning – criteria for assigning a case manager

- All patients
- Readmission risk assessment (e.g., LACE, locally developed/modified risk assessment tools)
- Screen for post-discharge needs (e.g., BOOST, ESDP, or cognitive/issues)
- Selected Diagnoses
- By unit / location / attending MD
- By insurance type, discharge disposition , and/or durable medical equipment needs
- Social Worker assigned to social issues, RN Case Manager to medically complex
**Discharge Coordination: Daily Discharge Rounds**

Are Discharge Rounds conducted on this unit?  
80.3% YES

What roles routinely participate (% of all units):

<table>
<thead>
<tr>
<th>Role</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient</td>
<td>30.6</td>
</tr>
<tr>
<td>Family</td>
<td>25.8</td>
</tr>
<tr>
<td>Nursing</td>
<td>83.9</td>
</tr>
<tr>
<td>Medicine</td>
<td>50.0</td>
</tr>
<tr>
<td>Pharmacy</td>
<td>45.2</td>
</tr>
<tr>
<td>Home Health</td>
<td>21.0</td>
</tr>
<tr>
<td>Other</td>
<td>50.0</td>
</tr>
</tbody>
</table>
## Discharge Coordination

On this unit which of the following activities are routinely performed for each patient being discharged?

<table>
<thead>
<tr>
<th>Activity</th>
<th>% YES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use a language translator/translation service for non-English</td>
<td>91.9</td>
</tr>
<tr>
<td>Make post-hospital follow-up appointments with primary and specialty care providers before the patient leaves the hospital</td>
<td>69.4</td>
</tr>
<tr>
<td>Inform patient/families when pending lab results will be available</td>
<td>43.5</td>
</tr>
<tr>
<td>Order Durable Medical Equipment before discharge if needed</td>
<td>91.9</td>
</tr>
<tr>
<td>Send discharge summary to the follow-up primary and specialist providers within 24 hours</td>
<td>53.2</td>
</tr>
<tr>
<td>Fill medications before hospital discharge</td>
<td>58.1</td>
</tr>
<tr>
<td>Pre-discharge in-hospital visit by home health or home follow-up services if home health is ordered</td>
<td>38.7</td>
</tr>
</tbody>
</table>
Discharge Coordination

Do you call all discharged patients?
30.6% All    38.7% Some    30.6% None

If patients are called, when do you place the follow-up calls
- 1 day after discharge 31.0%
- 2 days after discharge 26.2%
- 3 days after discharge 21.4%
- 4-7 days after discharge 16.7%
- More than one week 4.8%

Is there a hotline for patients? 88.7% NO
Discharge Coordination

Do Nurse (or other staff) call patients after they go home?  69.4% YES

If yes, why do you perform them?

<table>
<thead>
<tr>
<th>Reason</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluate patient satisfaction</td>
<td>62.9</td>
</tr>
<tr>
<td>Evaluate clinical condition</td>
<td>33.9</td>
</tr>
<tr>
<td>Evaluate home support system</td>
<td>29.0</td>
</tr>
<tr>
<td>Reinforce discharge teaching</td>
<td>30.6</td>
</tr>
<tr>
<td>Reinforce follow-up plan of care</td>
<td>41.9</td>
</tr>
<tr>
<td>Other</td>
<td>14.5</td>
</tr>
</tbody>
</table>
### Activities Routinely Included

<table>
<thead>
<tr>
<th>Activity</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use teach-back to assess knowledge of medications</td>
<td>87.1</td>
</tr>
<tr>
<td>Use teach-back to assess knowledge of discharge plan</td>
<td>77.4</td>
</tr>
<tr>
<td>Adjust teaching to health literacy level</td>
<td>50.0</td>
</tr>
</tbody>
</table>

What role holds primary responsibility for discharge teaching on the day of discharge?  
95.2% Staff Nurse
Recommendations:

• For Discharge Planning
  RN Case Management specific to unit patient populations
  Use of validated DC planning screens for post-discharge needs and for readmission risk

• For Discharge Coordination
  Increase patient/family inclusion in DC rounds
  Include coordination process identified by the major national projects (e.g. Project RED)
  Follow-up calls for evaluation of teaching, follow-up plans, post-discharge support/coping, and readmission risk

• For Discharge Teaching
  Provide adequate time for Discharge Teaching
  Train RN staff in DC teaching – both in content and how to teach effectively
READI Study Implementation Framework*

**Knowledge Purveyors**
- Research Team

**User system**
- System Antecedents
  - Magnet designation
  - Nursing care hours, Skill mix
  - *Baseline assessment survey - Discharge Model of Care*

### System Readiness
- Learning health care system
- Dedicated time/resources
- Site PI engagement N=34
- Webinar Conferencing
- IRB application/approval
- Logistics planning

### Adoption/assimilation:
- Frontline discharge nurse education
- CNO Advisory Group
- Patients/Discharge team engagement

### Implementation
- Discharge readiness protocols
- Start Feb2015 – August2015
- Recognize complexity

### Consequences
- Patient characteristics
- Nurse experiences
- Readmission/ED visits 30-days
- Cost-benefit

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*Adapted from Greenhalgh et al. 2004*
References

- http://www.caretransitions.org/structure.asp
- http://www.bu.edu/fammed/projectred/components.html