Transitions of Care: Encouraging Patients to Take an Active Role in the Hospital Discharge Process

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Background

Transitions of care between different care settings, such as discharge from the hospital back to a prior living situation, are crucial points during patient care at which information is often lost or poorly communicated to patients and their caretakers. Furthermore, these events potentially symbolize a major life change for patients, encompassing new diagnoses, modifications to medications, need for additional medical equipment, referrals to specialists, additional transportation to follow-up appointments, and more. Additionally, low health literacy is estimated to affect approximately 36% of U.S. adults and has been linked to poorer health outcomes, including increased hospital admission rates, use of the emergency room, and poorer ability to adhere to proper medication use. An estimated $17 billion in Medicare expenditures is spent on unplanned readmissions each year. However, when patients are able to participate in their own care, the rate of adverse events, and therefore hospital admissions, decreases.

Project Aim

By the end of March 2019, improve patient understanding of their own health conditions and further management plans upon discharge from UCHealth Memorial Central Hospital through use of a patient education handout.

Intervention

The intervention consisted of attempting to provide all adult patients at UCHealth Memorial Central Hospital who were nearing discharge with a five-question handout on regular letter paper at the time of their hospital discharge. Before leaving the hospital, please make sure you have the answers to the following questions:

1. What medical conditions were you treated for in the hospital?
2. What medications are you taking and why?
3. What issues did your doctor tell you to come back to the hospital for?
4. Who should you contact if you have problems at home?
5. When should you schedule a follow-up with your primary care physician?

Instructions were provided to fill it out concurrently or immediately after being instructed by their discharging nurse, and to keep it for their own reference. Verbal consent was simultaneously obtained to contact the patient after his/her discharge to follow up in the next week. This was done over the course of two weeks in mid-March 2019. Patients were excluded if they planned to be discharged to another facility, such as a rehabilitation center or skilled nursing facility; they did not have a phone number or permanent residence where they could be reached; or their diagnosis and hospital course indicated that they were neurologically impaired.

Results

### Patient Demographics

<table>
<thead>
<tr>
<th>Gender</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>6</td>
<td>42.9%</td>
</tr>
<tr>
<td>Female</td>
<td>8</td>
<td>57.1%</td>
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</tbody>
</table>

### Age Distribution (yrs)

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Count</th>
</tr>
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<tbody>
<tr>
<td>20-30</td>
<td>2</td>
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<tr>
<td>31-40</td>
<td>2</td>
</tr>
<tr>
<td>41-50</td>
<td>0</td>
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<tr>
<td>51-60</td>
<td>5</td>
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<tr>
<td>61-70</td>
<td>2</td>
</tr>
<tr>
<td>71-80</td>
<td>3</td>
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</tbody>
</table>

### Conditions Treated of Patients Contacted by Post-Discharge Phone Call

- SIRS secondary to odontogenic infection
- Femur and patella fractures
- GI hemorrhage with melena, hyperglyceremia, cardiac arrhythmia
- Crohn’s colitis and strictures, right hemicolectomy, SBO, chronic pain
- Acute respiratory failure secondary to S. pneumonia and Human metapneumovirus infection, diabetes mellitus type II, CKDIII, cardiac arrest in ICU

### Medication Changes

<table>
<thead>
<tr>
<th># of Patients</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient 1</td>
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<tr>
<td>Patient 2</td>
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<td>Patient 3</td>
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<tr>
<td>Patient 4</td>
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<tr>
<td>Patient 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>1</td>
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</tr>
</tbody>
</table>

### Patient Response Rate

- Not able to reach, 36%
- Declined to answer, 21%
- Answered questions, 36%
- Unable to contact, 7%

### Results of One-Week Phone Call

- # of Patients: 20-30, 1
- # of Patients: 31-40, 2
- # of Patients: 41-50, 0
- # of Patients: 51-60, 5
- # of Patients: 61-70, 2
- # of Patients: 71-80, 3

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### Discussion

- The age range of patients approached ranged from 22-80 yrs.
- Patients were evenly divided between male and female participants.
- The average number of medication changes reported by participants was 3.4.
- The highest number of medications taken by a single participant was 23.
- Most of the participants had complex medical issues for which they were being treated.
- Predictably, a low number of patients answered the phone for a follow-up call. However, those who did were able to answer most of the questions appropriately.
  - None of the patients filled out the handout provided.
  - Possible that patients with chronic conditions are familiar with their own needs and medications without this added intervention.
  - Also possible that simply providing the handout and speaking to the patient prior to discharge primed them to keep track of these concerns more readily.
  - Previous studies have shown that only 77% of patients are able to accurately name discharge diagnoses, 27% are able to name all of their medications, and 43% are able to identify a contact to call with issues.
- Unlikely that these randomly-selected patients are more health literate than the general population, but extrapolation is limited by small sample size.

### Future Directions

- Repeat PDSA cycle with the following modifications:
  - Ensure that the patient understands that he/she is to fill out the handout during the discharge conversation.
  - Increase number of participants.
  - Obtain access to hospital discharge tracking site in order to increase efficiency in identifying discharging patients.
  - Eventually incorporate into discharge protocol with involvement from nursing staff.

### References


Special thanks to Jaime Baker, MD for her support and guidance