Optimizing Post Discharge Outreach: Ensuring safe discharges through a patient centered technology

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Challenges with Discharge Process

- No standardized way to reach out to patients post discharge
- Discharge education from EMR is excessive and not easy for patients to understand
- EMR discharge forms are not customizable for patient needs
- Prior to implementation we were not coordinating proper follow up with our patients
Program Implementation Overview

- Pilot Units ATCU and M8 – Implemented 6/26/17
  - NSSU Stroke Patients were added October 2017
  - Recordings made for patients discharged to home

- Designated Nurses (NM’s and ANM’s) were initial recorders
  - Unit RN’s subsequently trained
  - Patient educational flyer provided at discharge
  - Scripting developed to guide the nurse

- Patient receives outbound call providing access to recording day after discharge
  - Recording available for patient to access for 30 days
  - An alert is sent to NM/ANM if patient listens to recording more than 3 times
Educational Flyer for Patients

**WHAT YOU NEED TO KNOW ABOUT YOUR Discharge Instructions Phone Call**

We care about your health in the hospital and at home. After you leave the hospital, please expect an automated phone call, so we can provide access to your personalized discharge instructions.

You will receive 1 phone call from our automated system about 1 day after leaving the hospital. You will be able to hear a personalized recording of your discharge instructions during the call.

You may dial 1-205-383-1340 to hear your care instructions again. Please be certain to call back using the phone number you received the message on, to validate your identity.

Thank you for coming to UAB Hospital. It was our pleasure to care for you during your stay and we hope you feel informed about your follow-up plan.

Pocket Guide for Staff

**Echo Reference Guide**

1. Tap on the Orchid icon from the iPad home screen.
2. Login using your hospital email address and the password you created. Tap “Login” when complete.
3. Tap the “Echo” icon at the bottom of the screen.
4. Select the phone icon to confirm that the phone number is accurate. Edit the number in Evolve if it is incorrect.
5. Tap the microphone icon to begin recording. Tapstop.
6. When finished, tap “play” icon to replay, or “Upload” in upper right of the screen.

**When to Record**
- Complete the Transition of Care Round, and confirm that the patient’s phone number in Evolve is accurate (if phone number is incorrect, update the number on Evolve and select “lock”). Show the patient the call flyer, and tell them to expect a call in 1 day. When this is done, follow the steps on the other side of this card to record main points of the discharge instructions.
- **START RECORDING**
  - “My name is ___ and you are receiving this call to help in the coordination of your care.”
  - Do not say the patient’s name in the recording.
- **Introduce Yourself**
  - “Your date of discharge home was [Discharge Date]. It is very important that you take your medications as prescribed. Please review the written list of medications included in your discharge instructions and take it with you to your next physician appointment. (Provide patient specific important medication instructions, i.e., filling new prescriptions, etc.)
- **Medication**
  - Your medication list is attached. It is very important that you take your medications as prescribed. Please review the written list of medications included in your discharge instructions and take it with you to your next physician appointment.
- **Follow Up**
  - MD Name, appointment date and time, phone number is XXX-XXX-XXXX.
  - “If no follow-up appointment is scheduled, remind the patient to contact their doctor to schedule a follow up appointment.”
- **Symptoms**
  - Please watch for all key symptoms and call Dr. ___ if they occur. Include key care details, i.e. activities patients should avoid, home health/DME information, etc.
- **Safety**
  - If you have any concerns related to your health, please call your doctor right away or call 911 for emergencies.

**Closing**
Remember that you can call 1-205-383-1340 back at any time to listen to this information again. Thank you for coming to UAB Hospital. It was our pleasure to care for you during your stay and we hope you feel informed about your follow-up plan.

**STOP RECORDING**
“Upload” the discharge instructions recording immediately.

**After the Recording**
- Explain that the patient can hear the recording and a few follow-up questions on their follow-up call, or can call the phone number on the flyer to hear the recording and answer the questions at any time.
- When documenting education at the time of discharge, check discharge process and type in the comment box “recorded discharge instructions.”
The following highlights the date ranges used for the analyses included:

- **Program Review:** 06/28/17 – 1/31/2019
  - To highlight key metrics and understanding of how the Echo program has been performing thus far

- **Readmissions Review:** 01/01/17 – 12/31/2018
  - Readmissions included are only for patients discharged from ATCU
**Impact of Echo on 30 Day Readmissions**

**Patient Brief:** 28 year-old male discharged to home on 12/24/17 from unit ATCU after a 3 day LOS.

Patient has an 2 minute, 34 second Echo recorded for him on 12/24/2017 at the time of his discharge.

In the Echo the nurse records for him, she asks him to review his list of medications instructions, and reminds him of his two follow up appointments. At the 1:01 minute mark, she shares a longer list of symptoms he should watch out for and speaks very slowly and clearly.

She ends the call by sharing a number the patient can call back to re-listen to his Echo.

Patient receives first call on 12/25/2017, at 2:02 pm. Patient completes the Who Answered question, but does not listen to his Echo.

Patient calls inbound on 12/26/2017 and listens to his Echo. He also indicates that he would like to re-listen to his discharge instructions; he re-listens to his Echo at 4:30pm.

Patient attends follow up appointment a week later, on 01/03/2018. He then completes 8 PT and OT appointments over the next few months. Patient did not return to ED or inpatient setting.

**Patient Not Readmitted After 30 Days**

Report Period: 06/01/2017 – 12/31/2017

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Overall, **47% (910)** of patients accessed their Echo recordings at least once.
- Approximately **13%** of patients listened to their Echos more than once.

<table>
<thead>
<tr>
<th>Unit</th>
<th>Patients Eligible for Echo*</th>
<th>Patients with Echo</th>
<th>Patients Accessing Echo</th>
<th>Listened to Echo Again</th>
<th>Average Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATCU</td>
<td>1,910</td>
<td>47.6% (910)</td>
<td>36.0% (328)</td>
<td>13.1% (43)</td>
<td>1.94 min</td>
</tr>
</tbody>
</table>

*Patients eligible for Echo recordings include all patients discharged from each unit, with “06” or “01” as a discharge disposition code. Patients accessing is defined as having a play count of greater than 1.

**68% of patients from NSSU accessed Echo**
Echos Recorded for Eligible Patients, ATCU

The following demonstrates the percentage of patients who had an Echo recorded, for patients discharged from July 2017 to January 2019, for patients discharged from the ATCU.

Patients Receiving Echo

Average: 48%

Report Period: 07/01/2017 – 01/31/2019
Echo Access over Time, ATCU

The following demonstrates changes in the percentage of patients accessing their Echos over time, for patients discharged from July 2017 to January 2019, for patients discharged from the ATCU.

Patients Accessing Echo

Average: 45%
Program Insight

Distribution of Echo Lengths

The chart below shows the distribution of the length of Echos patients received.
- 92% of all Echos were between 65 seconds and 155 seconds (1.1 minutes to 2.6 minutes).
- 53% of all Echos were between 95 seconds and 125 seconds (1.6 minutes to 2.1 minutes).

Histogram of Echo Lengths

Count of Echo Recordings

<table>
<thead>
<tr>
<th>Echo Duration (in seconds)</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>[65, 95]</td>
<td>195</td>
</tr>
<tr>
<td>(95, 125]</td>
<td>241</td>
</tr>
<tr>
<td>(125, 155]</td>
<td>589</td>
</tr>
<tr>
<td>(155, 185]</td>
<td>62</td>
</tr>
<tr>
<td>(185, 215]</td>
<td>15</td>
</tr>
<tr>
<td>(215, 245]</td>
<td>3</td>
</tr>
<tr>
<td>(245, 275]</td>
<td>2</td>
</tr>
<tr>
<td>(275, 305]</td>
<td>2</td>
</tr>
</tbody>
</table>

Report Period: 06/28/2017 – 01/31/2019
Percent Listening by Age Group

The following shows the percentage of patients who listened to their Echo at least once if they received a Voice call, by patient age group.

### Percent Echo Listening by Age Group

<table>
<thead>
<tr>
<th>Age Group</th>
<th>% Listened</th>
</tr>
</thead>
<tbody>
<tr>
<td>41-50</td>
<td>38.9%</td>
</tr>
<tr>
<td>31-40</td>
<td>41.8%</td>
</tr>
<tr>
<td>61-70</td>
<td>46.9%</td>
</tr>
<tr>
<td>21-30</td>
<td>45.8%</td>
</tr>
<tr>
<td>71+</td>
<td>50.0%</td>
</tr>
<tr>
<td>51-60</td>
<td>57.0%</td>
</tr>
</tbody>
</table>

Report Period: 06/28/2017 – 01/31/2019

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Percent Listening by Gender

The following shows the percentage of patients who listened to their Echo at least once if they received a Voice call, by patient gender.

Report Period: 06/28/2017 – 01/31/2019
ATCU Readmissions

Report Period: 01/01/2017 – 12/31/2018
ATCU HCAHPS Discharge Domain Top Box Trend

Top Box

86.2 87.2 88.2 89.2 90.2 91.2 92.2 93.2

UCL

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ECHO Implementation
Nursing Workflow

- Receives discharge order
- Generic Education included
- Prints Paperwork and Highlights important information
- Records Echo Recording in central office on the unit
  - Knows the patient and what is most important
  - Familiar voice
  - Personal component
Lessons Learned

• Conflicting discharge information noted

• Inconsistency in scheduling/not scheduling follow up appointments

• Lack of coordination of appointments with different specialties

• Confusion of directions to clinic depending on the provider’s clinic location

• Served as a “checklist” to catch anything that was missed prior to discharging the patient
Nurses

- “Love to personalize it”
- “It’s fun”
- “Helps me know what I need to tell them before they leave”
- “Don’t listen to me record. It makes me feel weird”
- “I feel that I am making a difference even after the patient is home.”