Risks of Transitions

- Adverse drug events
  - Number of meds, types of meds, number of transitions, adherence post-discharge
- Missed results from pending tests
  - Documentation, communication, awareness
- Lack of appropriate follow-up
  - Documentation, time to follow-up

Components of an Effective Transition

- Communication between sending & receiving providers
- Medication reconciliation
- Preparation of patient & caregiver
- Communication re: contingencies
- Follow-up plan for pending tests
- Plan for follow-up appointment
ECHO-Care Transitions: Past, Present and Future

Amber Moore, MD, MPH
Co-Director, ECHO-CT
Hospitalist, Beth Israel Deaconess Medical Center
Instructor of Medicine, Harvard Medical School

References

- Coleman EA. Falling Through the Cracks: Challenges and Opportunities for Improving Transitional Care for Persons with Continuous Chronic Care Needs. JAMA 2010;303(10):1002-1010.

The ECHO Model

People need access to specialty care for their complex health conditions.

There aren’t enough specialists to treat everyone who needs care, especially in rural and underserved communities.

ECHO trains primary care clinicians to provide specialty care services. This means more people can get the care they need.

Patients get the right care, in the right place, at the right time. This improves outcomes and reduces costs.
The ECHO Act

• 2016 mandate by congress stating that the secretary of health and human services must study Project ECHO's infrastructure and examine its effect on health care delivery and health care workforce issues.

Why Transitions to Post-Acute Care?

• Adverse health outcomes are tied to poor quality transitions, including inconsistencies with medications and follow-up care.
• Older adults account for the largest percentage of transfers to post-acute care facilities.
• Post-acute care providers receive little to no verbal sign-out, and rely on discharge documentation of varying quality that is not standardized.
• Buy-in from department leadership

Program Structure

• Weekly video conferences designed to improve transitions of care from acute care to skilled nursing facilities (SNF).
• The inter-professional hospital team includes hospital medicine, geriatrics, pharmacy, social work, primary care provider, inpatient care team, medicine residents
• SNF team includes doctors, nurses, physical therapy, occupational therapy, social work
• Funding:
  • Reynolds Foundation (July 2013 – June 2017)
  • Hospital funded (July 2017-Sept 2018)
  • AHRQ (October 2018-present)

Key Objectives

• Create a collaborative multidisciplinary, team-based learning community
• Provide peer support
• Improve patient care, quality, and cost outcomes
collaborative, multidisciplinary conversation, new solutions emerge that no one provider may come
ECHO - CT Educational Impact

- Hundreds of residents have participated in an ECHO-CT clinic
- Residents and hospitalists demonstrated an improvement in knowledge about transitions and also showed significant improvements in skill
- SNF staff self reported improved knowledge

ECHO-CT Outcomes

- 30 Day Mortality Rates
- 30 Day Readmission Rates
- Total cost of health care during 30 day period post discharge
- Length of Stay in Post-Acute Care Facility

Return on Investment
Lessons Learned

Facilitator Scorecard

1. I was pleased to see the following achievements:
   - [List achievements]

2. I was concerned that:
   - [List concerns]

3. I believe that the following actions could improve the session:
   - [Propose actions]

4. I would like to discuss the following topics in the next meeting:
   - [List topics]

5. For each of the following statements, please select one response from the given options that best reflects your opinion and degree of agreement with your group's CDAQ priorities.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The success of ECHO CT programs will depend on the cooperation and participation of all members.</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>The expectations of the facilitator are reflected in the CDAQ priorities.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The facilitator is able to express ideas clearly and effectively.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The facilitator is able to provide meaningful feedback to the group.</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

Next Steps

ECHO CT Session Video
We will take a break for the next 15 minutes. Please return at 10:00.

Logistics for ECHO-CT Session

Pre-Session Weekly Process

• Each site has designated a point person who will be completing the pre-session activities.

• Pre-Session Activities include: confirming patients to be discussed that week and sending BI intake forms and medication lists for each patient.

• The process for preparing for a session begins two days before the session.
  - BI Boston Sites - Your session is on Thursday so the preparations start on Tuesday.
  - BI Needham Sites - Your session is on Wednesday so the preparations start on Monday.

• Note about Attendance: It is very important that facilities attend every week (unless they don’t have any patients that week). If someone is going to be unable to facilitate the session or any of the pre-session activities, please let Lauren know ASAP.

Two Days before the Session

1. The point person at each SNF will receive a secure email from me with a list of patients to be discussed that week.

2. The point person needs to confirm that all the patients on the list are still at the facility and that your team wishes to discuss them.

3. What type of patients do we discuss?
   - The only patients we exclude are long term care patients and those who are already discharged.
   - *We encourage sites to discuss ALL patients, even those who don’t seem complex*
One Day Before Session

The point person at each SNF will need to fill out the intake form and send it with each patient’s medication list. These items will be sent through secure fax.

*This needs to happen before 3:00pm on the day before the session*

What happens next?

From here, the pharmacist will reconcile the home, hospital and SNF meds looking for any discrepancies.

The hospitalist facilitators and social worker will review the case and prepare any questions in advance of the session.

Google Meet

- Through a BAA with Google, BIDMC can in a safe and HIPPA compliant way, use Google Meet for these conferences.
- Each week the same login information will be used. This information has already been sent to your sites.
- We encourage the use of video conferencing because it promotes a more engaging and collaborative environment. However, there is a phone call in number as back-up.
- We do have cameras and microphones available if your site needs one.
- IT support available as needed

DEMO:
meet.google.com/pqr-ijtn-euo
[US] +1 724-542-5258
PIN: 353 672 415#
Structure of Patient Discussion

1) Hospitalist facilitator gives case summary
2) SNF gives overview of current condition and raises questions/concerns
3) Case discussion
4) Discharge Plan
5) Areas for Improvement

Disease Specific Checklists

- [ ] Reduced ambulation may contribute to falls and decreased bone mineral density.
- [ ] Obesity: monitor for rise in BMI.
- [ ] Heart failure: monitor for signs of congestion.
- [ ] Hypertension: monitor for changes in blood pressure.
- [ ] Depression: evaluate for signs of depression and provide appropriate referrals.
- [ ] Medication reconciliation: ensure all medications are reconciled and up-to-date.
- [ ] Prophylaxis for deep vein thrombosis (DVT): ensure appropriate prophylaxis is in place.
- [ ] Nutritional status: assess nutritional status and provide appropriate recommendations.
- [ ] Skin integrity: monitor for signs of skin breakdown and provide appropriate care.
- [ ] Wound healing: monitor for signs of wound healing and provide appropriate care.
- [ ] Infection: monitor for signs of infection and provide appropriate treatment.
- [ ] Palliative care: assess for palliative care needs and provide appropriate referrals.

Video

Mock ECHO-CT Session
Mock Session Instructions: Roles

1. In your folders, you will find that each of you has been assigned a role. This may not be your usual organizational role.
2. Each role includes objectives and a process to follow, please read your roles carefully.
3. There may be two people assigned to the same role in your group. Prior to the start of the session, we suggest that you discuss the issues together and then have one person be the main speaker during the session.
4. The facilitator(s) will lead off the discussion.
5. The ECHO-CT process flow (included w/ your role) will walk you through how to run the session.
6. You will have a BI Staff member to observe/offer help if needed!

Mock Session Instructions: The Case & Objectives

1. In each of your folders, you will find case details.
   - The case details include:
     - Overview of patient’s hospital stay (overview, acute issues, transitional issues)
     - Follow up appointments
     - Medication lists
2. This case involves a lot of the typical issues that we see during the ECHO-CT sessions. Your objective is to identify as many of the issues as you can.

The patient:
77 male who presents to the ED on 3/13/2019 with report of a fall. Notes he slipped down on the ground for 30 minutes until he got help getting up. He attempted to stretch out his arms to break his fall, but did hit the front of his head. While in the hospital he was found to have urosepsis and acute kidney injury. He was discharged to a SNF on 3/22/2019.

Mock Session Instructions: Schedule

11:05-11:15: read case details, if there are two people in one role you should discuss the case and decide what issues you want to address and which of you will play the role during the mock session
11:15-11:30: Mock case
11:30-11:40: debrief in small group with note-taker commenting on what they observed
11:40-11:50: reconvene as a large group to share lessons
11:50-12:00: wrap up and next steps
Mock Session Instructions: Tips & Tricks

1. When reading over the case, note the things that may be most important to your specific role.
2. Just like in real life, the hospital side and the SNF side have been given different types of information.
3. Follow along with the ECHO-CT process flow document.

<table>
<thead>
<tr>
<th>Group #</th>
<th>Location</th>
<th>BI Team Helper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Team 1</td>
<td>Grand Canyon Room</td>
<td>Amber</td>
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<tr>
<td>Team 2</td>
<td>Main Room</td>
<td>Lew</td>
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<tr>
<td>Team 3</td>
<td>Haleakula Room</td>
<td>Lauren</td>
</tr>
<tr>
<td>Team 4</td>
<td>Main Room</td>
<td>Anita</td>
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</tbody>
</table>

Mock Session Issues:

1. Discharge summary is unclear as to what antibiotic patient should be taking (states patient should be discharged on Ceftriaxone but patient is actually discharged on Cipro)
2. Appears antibiotic was stopped prematurely as discharge summary states to continue through 3/27 however SNF team reports that it was stopped on 3/23 — discussion of appropriateness of stopping early, consideration of blood cultures to confirm resolution given that antibiotics were stopped several days before the conference occurred
3. Might recommend discontinuing Metformin due to creatinine level
4. Patient has urology appointment on 4/2, SNF unaware
5. The inpatient team’s assessment of the cause of the fall and work-up is not clearly outlined in the dc summary—may have been missed workup.
6. Discussion of need to restart Hydrochlorothiazide 25mg, titrate BP meds given borderline low BP
7. Discussion of anticipated discharge date, barriers to discharge, discharge location (potentially cannot return to assisted living due to blindness, falls, dementia)

Mock Session Debrief

1. How did your teams address discrepancies in the care plan?
2. How did your team facilitate respect and teamwork?

Wrap-up & Next Steps

- The program officially begins next week!
  - Needham Sites: Your first session will be on Wednesday April 3rd
  - Boston Sites: your first session will be on Thursday, April 4th
- All of the logistics information covered today has been sent to your sites.
- If you have any lingering questions, need IT support or other information please see Lauren after.
ECHO Care Transitions  
Intake Form

Date of Presentation: ___________________________  
ECHO Patient ID#: ________________________________

Skilled Nursing Facility:
☐

SNF Presenter Name:

1) What issues/concerns do you have about the transition from *hospital* to your facility? Please describe below.
   ☐ None
   ☐ Medication related (specify):
   ☐ Treatment related (specify):
   ☐ Other (specify):

2) Do you have any medical or treatment-related concerns that have occurred since you admitted the patient that you would like to discuss? Please describe below.

3) Is there an anticipated Discharge Date? ☐ Yes ☐ No If Yes, When?

4) What concerns do you have for this patient as they transition from your facility back to home? Please describe below.

Please Fax to ****
### Overview:
Click here to enter text.

### Acute Issues:
Click here to enter text.

### Chronic Issues:
Click here to enter text.
<table>
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<tr>
<th><strong>Transitional Issues:</strong></th>
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<td>Click here to enter text.</td>
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<th><strong>Follow Up:</strong></th>
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# Facilitator Scorecard

Please rate the following statements below on today's session(s):

1 = Always  
2 = Usually  
3 = About half the time  
4 = Seldom  
5 = Never  

<table>
<thead>
<tr>
<th></th>
<th>Yes/No</th>
<th>Always</th>
<th>Usually</th>
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**Comments:**
SNF Satisfaction Survey

1. I am allotted sufficient time to present my patient(s) during an ECHO-CT conference.
   - Strongly Agree
   - Agree
   - Disagree
   - Strongly Disagree

2. Participating in the ECHO-CT Session does not disrupt the flow of my day.
   - Strongly Agree
   - Agree
   - Disagree
   - Strongly Disagree

3. There is a clear process for discussing patients during the ECHO-CT conference.
   - Strongly Agree
   - Agree
   - Disagree
   - Strongly Disagree

4. There is a clear process for patient follow up after ECHO-CT conferences.
   - Strongly Agree
   - Agree
   - Disagree
   - Strongly Disagree

5. The outcomes of ECHO-CT conferences are worth the time investment.
   - Strongly Agree
   - Agree
   - Disagree
   - Strongly Disagree

6. Having a multidisciplinary team participate in the conferences makes them more effective.
   - Strongly Agree
   - Agree
   - Disagree
   - Strongly Disagree

7. Once the project is over, I would participate in the ECHO-CT conferences again.
   - Strongly Agree
   - Agree
   - Disagree
   - Strongly Disagree
8. ECHO-CT conferences offer me added value over resources I already have access to.

   | Strongly Agree |
   | Agree         |
   | Disagree      |
   | Strongly Disagree |

9. Listening in on other facilities ECHO-CT cases is a useful learning tool

   | Strongly Agree |
   | Agree         |
   | Disagree      |
   | Strongly Disagree |

10. ECHO-CT conferences are an effective way to address communication gaps in the transition of the care process

    | Strongly Agree |
    | Agree         |
    | Disagree      |
    | Strongly Disagree |

11. At ECHO-CT conferences I learn information that I can apply to my general clinical practice.

    | Strongly Agree |
    | Agree         |
    | Disagree      |
    | Strongly Disagree |

12. My facility has incorporated advice from ECHO-CT conferences into treatment plans for patients

    | Strongly Agree |
    | Agree         |
    | Disagree      |
    | Strongly Disagree |

13. ECHO-CT conferences have helped me to provide better patient care.

    | Strongly Agree |
    | Agree         |
    | Disagree      |
    | Strongly Disagree |

14. My feedback on the hospital discharge process is welcomed.

    | Strongly Agree |
    | Agree         |
    | Disagree      |
    | Strongly Disagree |

15. I feel supported by the ECHO-CT team in my clinical practice.

    | Strongly Agree |
    | Agree         |
    | Disagree      |
    | Strongly Disagree |
16. Having access to clinicians from the hospital is important to me

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
</table>

17. Problems with connecting to the hospital team during the ECHO-CT conferences significantly reduce the conference's impact

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
</table>

18. I feel comfortable presenting cases in video-conferencing format.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
</table>

19. The video conference format adds value over other forms of communication (phone call, email etc.)

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
</table>

20. ECHO-CT conferences are collaborative.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
</table>

21. I feel that my input is valued in ECHO-CT conferences.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
</table>

22. The number of patients discussed during the conference is ... (Sliding Scale Question)

<table>
<thead>
<tr>
<th>Too Few</th>
<th>Correct Amount</th>
<th>Too Many</th>
</tr>
</thead>
</table>
23. Do you feel like the appropriate providers are attending the conference? (Yes/No Question)
24. If not, what type of providers should attend? (Comment Box/Open Ended)
25. What is the greatest benefit of ECHO-CT conferences? (Comment Box/Open ended)
26. What is the greatest drawback of ECHO-CT conferences? (Comment Box/Open Ended)
27. How could the conferences be improved?
Frailty and Transition of Care for Hospitalized Older Adults

ECHO-CT Webinar

Dae Kim, MD, MPH, ScD
Assistant Professor of Medicine, Harvard Medical School
Marcus Institute for Aging Research, Hebrew SeniorLife
Division of Gerontology, Dept of Medicine, BIDMC
Division of Pharmacoepidemiology, Dept of Medicine, BWH
dkim2@bidmc.harvard.edu

Disclosures and funding

• Research grants:
  - NIA R01AG056368, R01AG062713, R21AG060227
  - Paul B. Beeson Clinical Scientist Development Award in Aging (K08AG051187)
  - KL2 Harvard Catalyst MeRIT Award (NIH 1KL2 TR001100-01)
  - Boston Older American Independence Center Pilot Award (NIA P30 AG031679)
  - Boston Roybal Center Pilot Award (NIA P30 AG048785)

• I have no financial relationships with a commercial entity producing healthcare-related products and/or services.

Goals and objectives

After participating in this activity, you will be able to

• Define frailty using commonly used frailty definitions
• Perform a brief screening test of frailty
• Interpret the results of comprehensive geriatric assessment-based frailty index
• Develop a transition-of-care plan for medically complex older adults based on frailty assessment

94-yo man with fall and fracture

• Fall, resulting in 4 rib fractures (concern for flail chest) and vertebral fracture
• PMH: AF on warfarin, COPD, hypothyroidism, PE, BPH, HTN, HFrEF, CAD, anemia, valvular heart disease (s/p mitraclip)
• Hospital course: ICU admission for respiratory monitoring
  • Pain control: APAP, hydromorphone PRN, oxycodone PRN
  • Tachycardia (due to AF), fatigue
• Prior to admission: lives with wife at home; use a rollator; ADLs independent; IADLs help with housekeeping
• Inpatient functional change: impaired safety awareness, requires assistance with functional mobility
• Discharged to rehab on hospital day 4
89-yo woman with pneumonia and AF

- Fell at home, unable to get up; pneumonia and new-onset AF with RVR
- PMH: depression, weight loss (>10 lbs), osteoporosis, incontinence, syncope, recurrent falls, macular degeneration
- Hospital course: IV antibiotics, metoprolol and apixaban for AF, straight cath PRN for urinary retention, delirium
- Prior to admission: live alone independently (ADL/IADL)
- Inpatient functional change: loss in endurance, mobility, and self-care ability
- Discharge to rehab on hospital day 12

Part 1: Overview of frailty

What is frailty?

Same treatment, different outcomes: some patients are more prone to poor outcomes
Frailty: a geriatric syndrome underlying heterogeneity

- A state of reduced physiologic reserve to maintain homeostasis (homeostenosis)
- Increased vulnerability to poor health outcomes after a stressor
- Manifestation: fatigue, weight loss, falls, delirium, and fluctuating disability

Frailty prevalence and outcomes

- Frailty affects one in every 10 community-dwelling older adults and one in every 2 nursing home residents.
- Frailty prevalence is higher with advancing age and in women.
- Frailty is a risk factor for adverse health outcomes, independently of demographic characteristics and comorbidities.
  - Falls
  - Worsening disability
  - Hospitalization
  - Long-term care institutionalization
  - Mortality

Frailty phenotype (physical frailty)

- Frailty is diagnosed based on the 5 characteristics:
  - Weight loss
  - Exhaustion
  - Inactivity
  - Slowness
  - Weakness

- Identify a clinically recognizable group of people who have unique characteristics

<table>
<thead>
<tr>
<th>Score</th>
<th>Classification</th>
</tr>
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<tbody>
<tr>
<td>0</td>
<td>Non-frail</td>
</tr>
<tr>
<td>1-2</td>
<td>Pre-frail</td>
</tr>
<tr>
<td>3-5</td>
<td>Frailty</td>
</tr>
</tbody>
</table>

Frailty phenotype attempts to measure altered stress response and energy metabolism abnormalities

- Unexplained weight loss
- Low physical activity
- Reduced grip strength
- Impaired glucose tolerance
- Decreased energy expenditure
- Reduced walking speed
- Weakened spirit
Frailty as deficit accumulation: “The problems of old age come as a package”

Deficit-accumulation frailty index (FI)

- Frailty can be quantified as deficit accumulation.
- Proportion of deficits (range: 0 to 1): \( FI = \frac{n_{\text{of health deficits present}}}{n_{\text{of health deficits considered}}} \)
  - Need 130 deficit items
  - Deficits should be age-associated and acquired (e.g., symptoms, diagnoses, functional limitations, physical examination, diagnostic test abnormalities)
  - The overall burden is important; less emphasis on specific items
  - Increasing popularity for implementation in EHR

Frailty phenotype vs deficit-accumulation FI

- Correlation between the two measures: 0.65
  - (A) Physical Activity
  - (B) Disability

Submaximal limit of a deficit-accumulation FI

- Submaximal limit of a frailty index (typically ~0.7) indicates “very few people can survive with more than 70% deficits.”