Using Health IT to Improve Patient Engagement and Team Communication

Patricia C. Dykes PhD, RN, FAAN, FACMI

Research Program Director
Center for Patient Safety, Research, and Practice
Center for Nursing Excellence
Brigham and Women’s Hospital

Associate Professor
Harvard Medical School
pdykes@bwh.harvard.edu
Overview

• Background
  – Review current state of healthcare team communication
  – Define patient engagement

• Describe a series of projects that leverage health IT to improve team communication, patient engagement, and patient safety

• Review lessons learned

• Discussion
First, Do No Harm

- Ineffective communication is a leading root cause of medical errors

ANNUAL DEATHS
Medical harms and errors are the third leading cause of death nationally

- STROKE: 129,476
- CHRONIC LOWER RESPIRATORY DISEASE: 138,080
- MEDICAL HARMs: 400,000
- CANCER: 574,743
- HEART DISEASE: 597,743

Van Den Bos et. al. (2011) The $17.1 Billion Problem: The Annual Cost Of Measurable Medical Errors Health Affairs. 30(4) 596-603
Team Communication Challenges

- Multiple handoffs
- Involvement of numerous professional and paraprofessional providers
- Varied communication methods
- Simultaneous parallel conversations
- Information silos
- Inconsistent beliefs re: patient/family role on care team
Team Communication is Suboptimal: BWH Baseline Data

- Asked ICU and Oncology patients (or caregiver), bedside RN, and physician from primary team about the patient’s overall goal for hospitalization

<table>
<thead>
<tr>
<th>Goals of Care among Hospitalized Patients (Haberle 2011)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Be Cured</td>
</tr>
<tr>
<td>2. Live Longer</td>
</tr>
<tr>
<td>3. Improve &amp; Maintain Health</td>
</tr>
<tr>
<td>4. Be Comfortable</td>
</tr>
<tr>
<td>5. Accomplish a personal life goal</td>
</tr>
<tr>
<td>6. Provide support for family</td>
</tr>
<tr>
<td>7. Other</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No. (%) of patients with X unique responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category                                                N=88</td>
</tr>
<tr>
<td>No. with 1 unique response                              21</td>
</tr>
<tr>
<td>No. with 2 unique response                              44</td>
</tr>
<tr>
<td>No. with 3 unique response                              23</td>
</tr>
</tbody>
</table>
Precondition for patient-centered care

Patient Engagement + Patient Activation

Interventions/tools designed to promote activation and positive health behaviors
Activated, Engaged Patients are More likely to...

- Engage in preventive behavior (check-ups, screenings, and immunizations)
- Engage in healthy behavior such (healthy diet, regular exercise)
- Avoid health-damaging behavior (smoking and illegal drug use)
- Incur less costs

Hibbard & Green (2013). What The Evidence Shows About Patient Activation: Better Health Outcomes And Care Experiences; Fewer Data On Costs Health Affairs: 32 (2) 207-214
BWH PROSPECT Project
Promoting Respect and Ongoing Safety through Patient Engagement Communication and Technology

• Goal: To transform the intensive care environment through implementation of a patient-centered intervention to engage patients and care partners in the plan of care
Patient-Centered Tool Kit (PCTK) Components

“Patient-facing”

“Provider-facing”
PROSPECT

PROVIDER FACING TOOLS
# Safety Checklist

<table>
<thead>
<tr>
<th>Item</th>
<th>Safety Screen (MD w/RN present at rounds)</th>
<th>RN Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient/Family Toolkit</td>
<td>We have given the RN an opportunity to present any new patient or family input (from the Patient SatisfActive model, Toolkit, or Microblog).</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>Vent Bundle</td>
<td>Is the patient on mechanical ventilation?</td>
<td>○ Yes ○ No</td>
</tr>
<tr>
<td>HOB elevation</td>
<td>Indicated</td>
<td>Last documented HOB angle:</td>
</tr>
<tr>
<td>Spontaneous Awakening Trial</td>
<td>Indicated</td>
<td>Performed this calendar day Passed</td>
</tr>
<tr>
<td>Spontaneous Breathing Trial</td>
<td>Contraindicated - Hemodynamic Instability (up titration of pressors)</td>
<td>Performed this calendar day Failed</td>
</tr>
</tbody>
</table>
Multidisciplinary Plan of Care Platform
**Nursing Plan of Care**

<table>
<thead>
<tr>
<th>Planned Assessments and Interventions</th>
<th>Goal(s)</th>
<th>Outcome</th>
<th>Status</th>
<th>Outcome</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>T &amp; R q. 2 hrs w/ PROM increase oob as tol</td>
<td>Other</td>
<td>Pain management goal 1</td>
<td>Pain management goal 1</td>
<td>Pain management goal 1</td>
<td></td>
</tr>
<tr>
<td>R: Resolved</td>
<td>Patient will appear comfortable</td>
<td>Scale used</td>
<td>Numerical (0-10)</td>
<td>Scale used</td>
<td>Numerical (0-10)</td>
</tr>
</tbody>
</table>

---

**Add Problem**

Comfort alteration

10/12/2014

**SENSORY**

<table>
<thead>
<tr>
<th>Onset Date</th>
<th>R</th>
<th>Plan of Care</th>
<th>Provider Thread</th>
<th>Care Team</th>
</tr>
</thead>
<tbody>
<tr>
<td>10/12/2014</td>
<td>R</td>
<td>Nursing Plan of Care</td>
<td>Patient Thread</td>
<td>Care Team</td>
</tr>
</tbody>
</table>

---

Only the content on the Patient Plan of Care is visible to the patient. Please adjust as needed.
Clinical Care Classification System Problems and Outcomes

Nursing Plan of Care Documentation

Patient Plan of Care Problems With Infobuttons

Patient Educational Content
Patient-Centered ‘Microblog’ Functionality

**Patient Portal:**
Patient sends a message to the care team.

**Provider Portal:**
Care team can view and respond using ‘patient thread’ and ‘provider thread’
PROSPECT

PATIENT FACING TOOLS
My Care Team
### Care Team Goals:

- Improve respiratory status
- Prevent skin breakdown
- Free of pain
- Adequate nutrition

### Problems

Choose your goals, preferences, and provide feedback on your care.

### Goals

- **My Overall Goal:** Be comfortable
- **My Daily Goal:** Get out of bed

### My Care Team is helping me to meet my goals:

- I would like my sister to be involved in my care

### My Preferences related to my care:

- Not at All
- Somewhat
- Completely
Be comfortable
Get out of bed

Team Goals:
• Pain <4
• Improve skin integrity
• Temp <100.5
### My Medications

<table>
<thead>
<tr>
<th>My Medications:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. HERPESVACINE 1,400 UNITS IM -1</td>
</tr>
<tr>
<td>2. ACETAMINOPHEN 650 MG PO 15# (5 mg/kg) PO QH</td>
</tr>
<tr>
<td>3. HYDROXYCORTISONE 1mg/ML PO Q12H</td>
</tr>
<tr>
<td>4. HYDROXYCORTISONE 1mg/ML PO Q6H</td>
</tr>
<tr>
<td>5. OMEGA-3 900MG PO QD</td>
</tr>
<tr>
<td>6. PAIN MEDICATIONS PRN</td>
</tr>
</tbody>
</table>

**Message Care Team**

---

**Room:** #3B-31 Phone: 203-755-1234

**Medication Schedule:**
- **Next Administration Due:** [Next date and time]
- **Last Administration Given:** [Previous date and time]

**Importance of Medication:**
- **Purpose:** [Provide brief description]
- **Side Effects:** [List any potential side effects]

**Dosage Notes:**
- **Dosage Instructions:** [Provide detailed dosage instructions]
- **Storage Instructions:** [Specify storage conditions]

---

**Additional Information:**

**Patient's Health:**
- **Current Health Status:** [Provide a brief update]
- **Medical Conditions:** [List any relevant medical conditions]

**Contact Information:**
- **Emergency Contact:** [Provide emergency contact information]
- **Primary Care Provider:** [Provide primary care provider's contact information]

---

**Follow-up:**

- **Recommended Actions:** [List any recommended actions or follow-up steps]
- **Next Steps:** [Outline the next steps in the patient's care plan]

---

**Notes:**

- **Notes Section:** [Space for additional notes and remarks]

---

**Print/Share:**

- **Print:** [Option to print the medication schedule]
- **Share:** [Option to share the medication schedule]

---

**Feedback:**

- **Feedback Section:** [Space for patient feedback or comments]

---

**Log Out:**

- **Logout Option:** [Option to log out of the system]

---

**Additional Features:**

- **Home:** [Back to main menu]
- **My Care Team:** [Access to care team members]
- **Messages:** [Access to patient messages]
- **Safety:** [Access to safety features]
- **Test Results:** [Access to test results]
- **Medications:** [Access to medication schedule]
- **Food and Diet:** [Access to dietary information]
- **Discharge:** [Access to discharge information]
- **Info:** [Access to additional information]
- **Feedback:** [Access to feedback options]
- **Log Out:** [Exit the system]
PROSPECT Research Question and Study Design

Does the PROSPECT framework positively impact satisfaction, care plan concordance, and lead to reduction in adverse events and healthcare resource utilization and costs?

Pre-Post Design

Data collection (control and intervention units)

Pre-implementation Period 7/1/13 – 6/8/14

PROSPECT Intervention 7/1/14 – 5/29/15

Education & Training

Wash-in Period 6/9/14 – 6/30/14
Findings*

• Patient Feedback:
  – “It’s a really great idea. We’re always asking questions so this way we won’t have to chase anyone down”
  – (In response to “My Care Team page) “These are my friends! I’ve known them for 7 years. It’s nice to see their pictures here”
  – “With something like this, you know what’s going on”
  – “This is great! Patients need more info about risks, safety, medications, ‘who is my doctor’ …”

PROSPECT Team

BWH Research Investigators
- David Bates – Principal Investigator
- Sarah Collins – Co-Investigator/Nursing Informatics Specialist
- Anuj Dalal – Co-Investigator
- Patricia Dykes – Co-Investigator/Director
- Priscilla Gazarian – Co-Investigator
- John Hanna – Research Assistant
- Jaeho Lee – Graphical Design
- Lisa Lehmann – Co-Investigator
- Stuart Lipsitz – Biostatistician
- Kelly McNally – Research Assistant
- Eli Mlaver – Research Assistant
- Conny Morrison – Research Assistant
- Kumiko Ohashi – Project Manager
- Sucheta Ravindran – Research Assistant
- Ronen Rozenblum – Co-Investigator
- Lipika Samal – Co-Investigator
- Diana Stade – Research Assistant
- Cathy Yoon – Data Analyst

Clinical Leadership
- Oncology
  - Ted Alyea – Medical Director
  - Eddy Chen – Medical Oncologist
  - Katie Fillipon – Nursing Director
  - Marsha Malone – Nursing Director
- MICU
  - Kathleen Leone – Nursing Director
  - Anthony Massaro – Medical Director

Other Collaborators
- Frank Chang – Developer
- George Getty – Developer
- Deborah Williams – Database Programmer
- Maureen Fagan – Executive Director for Patients and Families
- Care Thread Inc.
FALL TIPS \(\text{TAILORING INTERVENTIONS FOR PATIENT SAFETY}\)
Fall TIPS (Tailoring Interventions for Patient Safety)

• 2 year mixed methods study funded by Robert Wood Johnson Foundation:
  – Qualitative phase:
    • why hospitalized patients fall?
    • what interventions are effective and feasible in hospital settings?
  – Randomized control trial: to test a fall prevention toolkit designed to address issues identified during qualitative phase.

Supported by the Robert Wood Johnson Foundation, Dykes PI
The Fall TIPS Toolkit Requirements

- Leverage Existing Workflows
- Surveillance
- Tailoring
- Teamwork
- Communication
The Fall TIPS Toolkit: Fall Risk Assessment/Tailored Plan

**Patient Name:** Jane Doe

**Morse Fall Scale:**
- History of Fall past 3 months: Yes (25)
- Secondary Diagnosis: Yes (15)
- Ambulatory Aid: None / Bed Rest / Nurse Assist (0), Crutch / Cane / Walker (15), Furniture (30)
- IV or Hep Lock Present: Yes (20)
- Gait: Normal / Bed Rest / Wheel Chair (0), Weak (10), Impaired (20)
- Mental Status: Oriented to own ability (0), Overestimates, forgets limitations (15)
- Morse Fall Score: 65

**Interventions:**
- Safety documentation
  - *Safety Precautions*
  - Document previous fall
  - Review Medication List
- Consultations
- Assistance with ambulating
  - Provide Ambulatory aid:
    - Crutches
    - Cane
    - Walker
    - Other Device
- Assistance with toileting
  - Toileting schedule using:
    - Bed Pan
    - Commode
    - Assist to bathroom
- Bedside assistance
  - Bed/Chair alarm turned on
  - Bed close to nurse station
  - Frequent checks, re-orientation

**Print Documents:**
- Bed Poster
- Plan of Care
- English
- Spanish

**Location:** 14-10A

---

For more information about Fall prevention visit our website. For Fall TIPS Training Guide Go To Status Dashboard. For more information about Fall TIPS project contact our team.
## Fall Prevention Plan of Care

**Problem:** ***Patient is at risk for falls***

<table>
<thead>
<tr>
<th>Patient Name: Jane Doe</th>
<th>MRN: 12345678</th>
<th>Printed: March 04, 2009</th>
</tr>
</thead>
</table>

### Patient has a history of falls
- [ ] Safety Precautions
- [ ] Document circumstances of previous falls

### Patient uses ambulatory aid
- [ ] Place WALKER at bedside

### Patient's gait is Weak
- [ ] Patient needs AssistX1

### Patient overestimates ability; forgets limitations
- [ ] Bed/Chair alarm turned on
- [ ] Move pt. close to nurse station
- [ ] Freq Checks; re-orientation; distractions

### Total Morse Fall Score: 66

**Sign/Credentials:** Patricia C. Dykes RN  
**Date/Time:** 3/04/09  

---

Fall T.I.P.S. Research Study Plan of Care Documentation Form October 1, 2008 - June 30, 2009  
Medical Record Copy
There were fewer falls in intervention units than in control units

No significant effect was noted in fall related injuries

Patients aged 65 or older benefited most from the Fall TIPS toolkit

Findings:

- Patient falls were significantly reduced on intervention units.
Fall Prevention Lessons Learned

Fall Prevention is a 3-Step Process*

1. Fall Risk Screening/Assessment

2. Tailored/Personalized Care Planning

3. Consistent Preventative Interventions
   - Universal Precautions
   - Tailored Interventions to address patient-specific areas of risk

3-Step Fall Prevention Process

Strategies and tools to facilitate the 3-step fall prevention process will prevent patients from falling!
Fall Prevention Lessons Learned

• Fall TIPS reduced falls by 25% but >90% of falls are preventable...what happened?
  – Why did some patients with access to the Fall TIPS Toolkit fall?
    • What factors are associated with falls in younger patients?
    • What factors are associated with falls in older patients?
  – Secondary analysis of fallers (cases) n=48 and 144 matched controls exposed to the Fall TIPS toolkit*
  – Found that in all cases, planned interventions were not followed consistently by the patient (most frequently) or the nurse
    • i.e., Out of bed with assistance

How do we get patients to CONSISTENTLY follow their fall prevention plan?
Primary Aim:

• To engage patients and their family caregivers as well as providers in the design and development of a fall prevention toolkit.
Mixed Methods/Participatory Design Approach

- Surveys, observations, semi-structured interviews
  - Nurses, patients, families
- Interviews recorded, analyzed for themes
- Focus end-user requirements for patient participation in 3-step fall prevention process
- Feedback on prototype tools
  - Electronic
  - Paper
# Fall TIPS Paper Tool Prototype

## Fall Risk Assessment

**Why you are at risk for falling while in the hospital**

1. You have fallen recently.
2. You have a medical condition and are taking medications that may make you dizzy, unsteady, or cause you to urinate frequently.
3. You need a walking aid to walk safely.
4. You have an intravenous ("IV") or other equipment attached to you.
5. Your walk is unsteady.
6. You may forget or not want to call for help to get out of bed.

### Injury Risk Assessment

- Age (85 years old or older, frailty)
- Bones (osteoporosis, risk of history of fracture, etc.)
- Cognition: Risk for bleeding, low platelet counts or taking anticoagulants
- Surgery (recent), lower limb amputation or major abdominal or thoracic surgery

## Evidence-Based Fall Interventions

**How can we work together to prevent you from falling while you are in the hospital?**

1. **History of Falls**
   - Tell your nurse about recent falls.

2. **Bed Alarm on**
   - Ask for help to move the IV pole or other equipment.

3. **IV Order**
   - Call for help to get out of bed.
   - You may need assistance to get up safely.

4. **Out of Bed with Assist**
   - We will stay with you while you use the toilet or commode.

5. **Call for help to use the commode.**
   - Your nurse may help you move by using special equipment.
   - He or she will explain how the equipment works.

6. **Call for help to use the bathroom.**
   - We would be happy to help you up to the commode.

7. **Be sure to use your crutches, cane or walker.**

### Patient Comfort Rounds, Because we care

We are coordinating & formalizing the excellent care we give by anticipating your needs. We are rounding every _______ to make sure:

- Your pain is controlled
- Assist you with toileting
- Make sure you are comfortable
- Your Personal Items are within reach
- Environment is safe

We are coordinating the care we give you by anticipating your needs.
## Requirement: Validate Icons with Patients

<table>
<thead>
<tr>
<th>Fall Risks Assessment Concepts</th>
<th>Initial Mean CIV Score (Patient)</th>
<th>Initial Icon</th>
<th>Dislikes</th>
<th>Suggested Improvements</th>
<th>Final Icon</th>
<th>Final Mean CIV Score (Patient)</th>
<th>Final Mean CIV Score (Nurse)</th>
</tr>
</thead>
</table>
| History of Falls              | 2.8                             | ![History of Falls Icon](image) | - looks like a cage  
- days are too small | - use “January” instead of days as header | ![History of Falls Icon](image) | 3.0                        | 3.2                        |
| You have a medical condition and are taking medications that may make you dizzy, unsteady, or cause you to urinate frequently. | 3.2 | ![Medication Icon](image) | - black background  
- only a prescription  
- seemingly unrelated to falls | - eliminate background  
- perhaps draw patient as well as prescription | ![Medication Icon](image) | 3.0 | 3.1 |
| You need an ambulatory aid (walking aid) to walk safely. | 3.7 | ![Walking Aid Icon](image) | - only includes one device | - possibly include more devices | ![Walking Aid Icon](image) | 3.4 | 3.6 |
| You have an intravenous (“IV”) or other equipment attached to you. | 3.1 | ![IV Icon](image) | - shows the act of tripping | - standing patient with IV | ![IV Icon](image) | 3.7 | 3.7 |
| Your gait is unsteady.        | 2.6                             | ![Warning Icon](image) | - looks like someone slipping on wet floor, not unsteady gait | - draw person looking unsteady  
- lines around arms/legs to indicate unsteadiness  
- feet misaligned  
- put stars around head  
- some iterations too closely resemble dancing | ![Warning Icon](image) | 3.0 | 3.0 |
| You may forget (or refuse) to call for help to get out of bed. | 2.3 | ![Confused Icon](image) | - suggests deep thoughts rather than desired concept | - draw a patient sitting on bed looking confused  
- use question marks  
- include phone or call bell  
- have person with string tied around finger to indicate remembering  
- include stop sign | ![Confused Icon](image) | 3.1 | 2.7 |

**Fall Risks**
*(Check all that apply)*

- History of Falls
- Walking Aid
- IV Pole or Equipment
- Medication Side Effects
- May Forget or Choose Not to Call
- Unsteady Walk

**Fall Interventions**
*(Circle selection based on color)*

- Communicate Recent Falls
- Use Ambulatory Aid
  - Crutches
  - Cane
  - Walker
- IV Assistance When Walking
- Toileting Schedule: Every __ hours
  - Bed Pan
  - Commode
  - Bathroom
- Bed Alarm On
- Assistance Out of Bed
  - None
  - None
  - None

*Requirement: Simplify, add decision support, add Spanish version*
**Fall risk assessment**

<table>
<thead>
<tr>
<th>Determinants of Risk</th>
<th>Interventions for Falls</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Historia de Caídas previas</td>
<td>- Comunique caídas recientes</td>
</tr>
<tr>
<td>- Efectos adversos a medicamentos</td>
<td>- Ayudas para caminar</td>
</tr>
<tr>
<td>- Ayudante para caminar</td>
<td>- Muletas</td>
</tr>
<tr>
<td>- Equipos para intravenosas (IV)</td>
<td>- Ayudante con IV/Equpos para caminar</td>
</tr>
<tr>
<td>- Marcha inestable</td>
<td>- Horario para ir al baño: Cada ___ horas</td>
</tr>
<tr>
<td>- Olvida llamar o decide no pedir ayuda</td>
<td>- Sanitario</td>
</tr>
</tbody>
</table>

**Tailored plan based on patient’s determinants of risk**

- Asistencia para salir de la Cama
  - Una persona
  - Dos personas
# Usability Results: Fall TIPS Paper Tool

<table>
<thead>
<tr>
<th>Survey Question</th>
<th>Old (N=27)</th>
<th>New (N=27)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I think that I would like to use these tools frequently.</td>
<td>2.333</td>
<td>3.704</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>2. I find the tools unnecessarily complex.</td>
<td>3.148</td>
<td>1.667</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>3. I think the tools are easy to use.</td>
<td>2.692</td>
<td>4.222</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>4. I think that I would need the support of a fall prevention expert to be able to use these tools.</td>
<td>1.852</td>
<td>1.500</td>
<td>.112</td>
</tr>
<tr>
<td>5. I find the various functions in the tools are well-integrated.</td>
<td>2.593</td>
<td>3.852</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>6. I think there was too much inconsistency in available tools.</td>
<td>2.704</td>
<td>2.111</td>
<td>.06</td>
</tr>
<tr>
<td>7. I would imagine that most people would learn to use these tools very quickly.</td>
<td>2.889</td>
<td>4.296</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>8. I find the tools very cumbersome to use.</td>
<td>3.296</td>
<td>2.222</td>
<td>.005</td>
</tr>
<tr>
<td>9. I felt very confident using these tools.</td>
<td>3.222</td>
<td>4.259</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>10. I needed to learn a lot of things before I could get going with these tools.</td>
<td>2.423</td>
<td>1.852</td>
<td>.04</td>
</tr>
<tr>
<td>11. I am satisfied with the tools to support the fall prevention process at this hospital.</td>
<td>2.481</td>
<td>3.704</td>
<td>&lt;.001</td>
</tr>
</tbody>
</table>

System Usability Scale, responses ranged from 1 (strongly disagree) to 5 (strongly agree).

## Fall TIPS Poster Pilot Test

- January – June 2016
- Targeted units with fall/injury rates above hospital and state mean

<table>
<thead>
<tr>
<th>Site/Number of Units</th>
<th>Service</th>
<th>Number of Beds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brigham and Women’s Hospital/3</td>
<td>Neuroscience Intermediate Care</td>
<td>43</td>
</tr>
<tr>
<td>Brigham and Women’s Hospital/2</td>
<td>Medical Intermediate Care</td>
<td>31</td>
</tr>
<tr>
<td>Brigham and Women’s Hospital/2</td>
<td>Oncology</td>
<td>20</td>
</tr>
<tr>
<td>Montefiore Medical Center/1</td>
<td>Medical Intermediate Care</td>
<td>36</td>
</tr>
</tbody>
</table>
Fall TIPS Pilot Test Results

Average Fall Rate 2015 vs. 2016 with Average Fall TIPS Completion

Average Fall Rate with Injury 2015 vs. 2016 with Average Fall TIPS Completion

Fall TIPS Adherence: 82%
Pre-Fall TIPS Fall Rate: 3.28
Post Fall TIPS Fall Rate: 2.80
Pre-Fall TIPS Injury Rate: 1.00
Post Fall TIPS Injury Rate: .54

Patient-centered Fall Prevention Tools

- Laminated paper Fall T.I.P.S.
- Web-based and mobile patient portals to access Fall T.I.P.S.
- Patient Safety Plan Screensaver for providers
Patient Portal (Mobile Application view)—Fall T.I.P.S. displayed

Use this mobile app with your nurse to complete your fall risk assessment and to develop a personalized fall prevention plan. This app is part of a research project called Patient-centered Fall Prevention. Thank you for agreeing to participate in this study to improve patient safety at our hospital.

Do your Assessment
View Your Plan

Status: Changes Pending Approval
Your Fall Prevention Interventions
Here’s what you can do with your nurses to prevent falling.

Communicate recent falls
Assist to Bathroom, Every 1 Hour
Use Cane
IV Assistance when walking
2 People assist
Bed Alarm On

Update Plan
Patient Preferences:
Hearing aid, translator, glasses/contacts, latex allergy, arm restriction

Safety Reminders:
Braden score, diet order, catheter infection, ulcer, restraints, PT exercises etc

Fall Prevention:
Toileting schedule, help to walk with IV Pole, use ambulatory aid etc
Thank You: BWH/NEU Patient Safety Learning Lab Team

Brigham and Women’s Hospital
- David Bates
- Alex Businger
- Sarah Collins
- Brittany Couture
- Anuj Dalal
- Patricia Dykes
- Sarah Khorasani
- Lisa Lehmann
- Emily Leung
- Stuart Lipsitz
- Eli Mlaver
- Ronen Rozenblum
- Jeffrey Schnipper
- Kumiko Schnock

Partners HealthCare
- Frank Chang
- Ramesh Bapanapalli
- Mohan Babu Ganasekaran
- Gennady Gorbovitsky

Northeastern Institute of Healthcare Systems Engineering
- James Benneyan
- Corey Balint
- Jennifer Coppola
- Nicholas Fasano
- Zachary Katsulis
- Meredith Clemmens
- Lindsey Baldo
- Awatef Ergai
- Dominic Breuer
- Jillian Hines
- Jessica Cleveland

Patient-centered Fall Prevention
- Patricia Dykes
- Emily Leung
- Awatef Ergai
- Jillian Hines
- Zachary Katsulis
- Ramesh Bapanapalli
- Mohan Babu Ganasekaran
- Jason Adelman
- Maureen Scanlan
Conclusions

• Making care better:
  – Will involve partnering with patients.
  – Will require high-tech and low-tech solutions
    • Clinician attitudes still have a ways to go
  – Will be highly multidisciplinary
    • Roles of nurses and other clinicians will change

• Health IT is opening new doors and we need to take advantage!
Thank you

pdykes@bwh.harvard.edu