Risk Tools in Predicting Rehospitalization from Home Care

VNAA Best Practice for Home Health
Learning objectives

The participant will be able to:
• Discuss the need for risk assessment for home health patients
• Identify the factors influencing hospitalization from a home health agency
• Identify the key risk assessment tools available for home health organization
• Discuss the barriers to implementing risk assessment tools
Early research in hospitalization risk

• Attempt to identify who at greatest risk of rehospitalization
  – Older age
  – Male
  – Lack of informal caregivers
  – Poor self-rated general health
  – Diabetes
  – Coronary heart disease
  – Recent hospitalization
  – Greater than six MD visits in the past year

Source: (Boult, 1993)
Care transitions

• “... a set of actions designed to ensure the coordination and continuity of healthcare as patients transfer between different locations or different levels of care within the same location.” Coleman & Boult, 2003, p. 556.
Care transitions

Increased patient vulnerability leading to the occurrence of adverse events:

• Medication errors (polypharmacy)
• Poor communication
• Lack of follow-up
• Unrecognized deterioration in condition

Source: (Forster et al., 2003)
Patient/family identified concerns at hospital discharge

Lack of:
• coordination between clinicians prescribing medications;
• preparation regarding care needed when returning home;
• knowledge of needed follow-up care such as tests or medical appointments;
• knowledge of symptoms indicating a deterioration in condition; and
• preparation for the debilitated condition of the patient at time of hospital discharge

Source: (Coleman et al., 2003)
How did we get here?

• DRGs
• Culture of safety
• Chronic disease model
• Patient self management/engagement
• Evidence based practice =
  – Increased acuity at discharge + increased complexity of patients
  – Increased demand for EBP to prevent readmissions
Why need for risk assessment tools?

• Early identification of those at greatest risk
• Ability to introduce EBP to decrease readmissions
Predictors of rehospitalization

Top 5 Diagnoses:

- Prior history of hospital, ER or home care
- Functional status (esp. IADLs)
- > 4 medications (polypharmacy)
- Unhealed pressure ulcer
- Urinary incontinence/catheter
- Respiratory Sx (SOB)
- Depression
- > 4 comorbidities

Clinical Factors:

- CHF
- Ischemic Heart Disease
- Diabetes w wound cx
- HIV/AIDS
- Renal Failure

Findings from OASIS data and validated with clinical judgment.

Source: (Rosati & Huang, 2007)
Current risk tools

- Determine if high risk (evaluate using risk assessment tool IHI)
- Determine hospitalizations in last year– for first question
- Utilize zone or stop light tools for second question and confidence ruler to determine importance to change and confidence to change (utilized disease specific and/or general zone tools when appropriate)
IHI: Categories of a patient’s risk of acute care hospitalization

<table>
<thead>
<tr>
<th>High-Risk Patients</th>
<th>Moderate-Risk Patients</th>
<th>Low-Risk Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient has been admitted two or more times in the past year.</td>
<td>Patient has been admitted once in the past year. Based on Teach Back results, patient or family caregiver has moderate degree of confidence to carry out care at home.</td>
<td>Patient has had no other hospital admissions in the past year Patient or family caregiver has high degree of confidence and can teach back how to carry out self-care at home.</td>
</tr>
<tr>
<td>Patient is unable to teach back or the patient or family caregiver has a low degree of confidence to carry out self-care at home.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: (Sevin, et al., 2012, p.20)
Determining degree of confidence: use of the Confidence Ruler

Assessing Importance and Confidence

Assessment Ruler
“How important would you say it is for you to ______________?” On a scale from 0 to 10, where 0 is not at all important and 10 is extremely important, where would you say you are?

<table>
<thead>
<tr>
<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>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all Important</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Extremely Important</td>
</tr>
</tbody>
</table>

“And how confident would you say you are that if you decided to ______________, you could do it?” On the same scale from 0 to 10, where 0 is not at all confident and 10 is extremely confident, where would you say you are?

Determine level of risk for hospitalization

- Determine if patient is at low, moderate or high risk for hospitalization
IHI: Follow-up schedule after discharge

<table>
<thead>
<tr>
<th>High-Risk Patients</th>
<th>Moderate-Risk Patients</th>
<th>Low-Risk Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prior to discharge:</td>
<td>Prior to discharge:</td>
<td>Prior to discharge:</td>
</tr>
<tr>
<td>- Schedule a face-to-face follow-up visit within 48 hours of discharge. Care teams should assess whether an office visit or home health care is the best option for the patient.</td>
<td>- Schedule a follow-up phone call within 48 hours of discharge and schedule a physician office visit within 5-7 days. Consult with the patient’s physician to identify whether home health care is needed.</td>
<td>- Schedule a physician office visit as ordered by the attending physician.</td>
</tr>
<tr>
<td>- If a home health care visit is scheduled in the first 48 hours, an office visit must also be scheduled within the first 3-5 days.</td>
<td>- Initiate a referral to social services and community resources as needed.</td>
<td>- Ensure the patient and family have the phone number for questions and concerns.</td>
</tr>
<tr>
<td>- Initiate intensive care management programs as indicated.</td>
<td></td>
<td>- Initiate a referral to social services and community resources as needed.</td>
</tr>
<tr>
<td>- Initiate a referral to social services and community resources as needed.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: (Sevin, et al., 2012, p.21)
Additional RISK tools

- Home health care-based
  - Patient self-hospitalization risk tool
  - OASIS
- EHR: Vendor-based
OASIS

(M1032) Risk for hospitalization: Which of the following signs or symptoms characterize this patient as at risk for hospitalization? (Mark all that apply.)

1. Recent decline in mental, emotional, or behavioral status
2. Multiple hospitalizations (2 or more) in the past 12 months
3. History of falls (2 or more falls - or any fall with an injury - in the past year)
4. Taking five or more medications
5. Frailty indicators, e.g., weight loss, self-reported exhaustion
6. Other
7. None of the above
Patient Self-Hospitalization Risk Assessment
EHR Vendor-based risk tools

- Check with individual EHR vendor
- Request list of data elements incorporated into tool
- Validate, if applicable in your agency
Additional RISK tools

- Hospital-based
  - ER Model
  - LACE
  - BOOST
  - REACH
ER model

High risk if score yes on two or more or cognitive impairment:

• History or evidence of cognitive impairment
• Difficulty in ambulation
• 5 or more medications (polypharmacy)
• ER or hospitalization in last 90 days
• RN Concerns including but not limited to:
  – Abuse/neglect
  – Substance abuse
  – Med non-compliance
  – Lives alone or no available caregiver

Source: (Meldon, et al., 2003)
Components of LACE Index

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length of hospital stay</td>
<td>Number of days between admission to and discharge from acute care hospital for the index hospitalization</td>
</tr>
<tr>
<td>Acuity on admission</td>
<td>Rating of need for care at time of index admission: emergent (acute) or urgent (non-acute)</td>
</tr>
<tr>
<td>Comorbidity</td>
<td>Number of co-existing medical conditions at the time of index hospitalization as measured by Charlson score with updated disease category weights</td>
</tr>
<tr>
<td>Emergency department visits</td>
<td>Number of unique emergency department visits made in the 6 months before the index hospitalization</td>
</tr>
</tbody>
</table>
## The 8Ps: Assessing Your Patient’s Risk For Adverse Events After Discharge

<table>
<thead>
<tr>
<th>Risk Assessment: 8P Screening Tool (Check all that apply)</th>
<th>Risk Specific Intervention</th>
<th>Signature of individual responsible for ensuring intervention administered</th>
</tr>
</thead>
</table>
| **Problem medications**
  (anticoagulants, insulin, oral hypoglycemic agents, aspirin & clopidogrel dual therapy, digoxin, narcotics) | ○ Medication specific education using Teach Back provided to patient and caregiver  
  ○ Monitoring plan developed and communicated to patient and aftercare providers, where relevant (e.g., warfarin, digoxin and insulin)  
  ○ Specific strategies for managing adverse drug events reviewed with patient/caregiver  
  ○ Follow-up phone call at 72 hours to assess adherence and complications |  |
| **Psychological**
  (depression screen positive or history depression diagnosis) | ○ Assessment of need for psychiatric aftercare if not in place  
  ○ Communication with aftercare providers, highlighting this issue if new  
  ○ Involvement of support network insured |  |
| **Principal diagnosis**
  (cancer, stroke, DKA, COPD, heart failure) | ○ Review of national discharge guidelines, where available  
  ○ Disease specific education using Teach Back with patient/caregiver  
  ○ Action plan reviewed with patient/caregivers regarding what to do and who to contact in the event of worsening or new symptoms  
  ○ Discuss goals of care and chronic illness model discussed with patient/caregiver |  |
| **Polypharmacy**
  (5 or more routine meds) | ○ Elimination of unnecessary medications  
  ○ Simplification of medication scheduling to improve adherence  
  ○ Follow-up phone call at 72 hours to assess adherence and complications |  |
| **Poor health literacy**
  (inability to do Teach Back) | ○ Committed caregiver involved in planning administration of all general and risk specific interventions  
  ○ Aftercare plan education using Teach Back provided to patient and caregiver  
  ○ Link to community resources for additional patient/caregiver support  
  ○ Follow-up phone call at 72 hours to assess adherence and complications |  |
| **Patient support**
  (absence of caregiver to assist with discharge and home care) | ○ Follow-up phone call at 72 hours to assess condition, adherence and complications  
  ○ Follow-up appointment with aftercare medical provider within 7 days  
  ○ Involvement of home care providers of services with clear communications of discharge plan to those providers |  |
| **Prior hospitalization**
  (non-elective, in last 12 months) | ○ Review reasons for re-hospitalization in context of prior hospitalization  
  ○ Follow-up appointment with aftercare medical provider within 7 days |  |
| **Palliative care**
  (“Would you be surprised if this patient died in the next year? Does this patient have an advanced or progressive serious illness?” Yes together: | ○ Assess need for palliative care services  
  ○ Identify goals of care and therapeutic options  
  ○ Communicate prognosis with patient/family/caregiver  
  ○ Assess and address bothersome symptoms  
  ○ Identify services or benefits available to patients based on advanced disease status  
  ○ Discuss with patient/family/caregiver role of palliative care services and benefits and services available |  |
Hospitalization and Emergent Care
SOC Risk Factor Assessment & Plan

<table>
<thead>
<tr>
<th>Patient Name:</th>
<th>Date:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Prior pattern:</th>
<th>Check all that apply (MD 030/MD 040)</th>
<th>Diagnoses: Check all that apply (MD 030/MD 040)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;= 1 Hospitalizations or ER visits in the past 12 months</td>
<td></td>
<td>CHF HIV/AIDS</td>
</tr>
<tr>
<td>History of falls</td>
<td></td>
<td>Diabetes</td>
</tr>
<tr>
<td>(Complete Falls Risk Assessment &amp; obtain PT referral if indicated)</td>
<td></td>
<td>CVA</td>
</tr>
<tr>
<td>(Wound consult if indicated for any wounds)</td>
<td></td>
<td>COPD</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Risk Factors:</th>
<th>Check all that apply</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discharged from hospital or skilled nursing facility (MD 0170)</td>
<td>Confusion (MD 0170)</td>
</tr>
<tr>
<td>More than 2 secondary diagnoses (MD 020)</td>
<td>Cognitive/behavior problems (MD 010)</td>
</tr>
<tr>
<td>Low socioeconomic status or financial concerns (MD 0120)</td>
<td>Short life expectancy (MD 0280)</td>
</tr>
<tr>
<td>(MSW consult if unable to afford essential meds)</td>
<td>Poor prognosis (MD 0260)</td>
</tr>
<tr>
<td>Lives alone (MD 0340)</td>
<td>Guarded rehab prognosis (MD 0270)</td>
</tr>
<tr>
<td>ADL assistance needed*</td>
<td>Dystopes (MD 0450) **</td>
</tr>
<tr>
<td>Help with managing medications needed (MD 0780) **</td>
<td>Pressure ulcer (MD 0445)</td>
</tr>
<tr>
<td>Non-compliance with medication regimen**</td>
<td>Stasis ulcer (MD 0468)</td>
</tr>
<tr>
<td>Urinary catheter</td>
<td>Low literacy level</td>
</tr>
<tr>
<td>Inadequate support network</td>
<td>Consider consulting MSW</td>
</tr>
<tr>
<td>Consider Hospice referral</td>
<td>Consider admitting CNA</td>
</tr>
<tr>
<td>Consider RN, if not ordered</td>
<td></td>
</tr>
</tbody>
</table>

**ATTENTION:** 6 or greater checked boxes indicate that the patient is at high risk for rehospitalization.

Consider:
1. 1-4 visits (assessment, teaching) for the first 2 weeks.
2. Telehealth option.

If patient is identified as at high risk for Hospitalization/Emergent Care:

**SOC VISIT**
1. Call office and schedule to visit the patient the next day.
2. Fax this form to office or give to case manager to prepare for the follow-up visit.
3. Compare pre-hospitalizations or medications on inpatient discharge list (or review current medications if patient was discharged from inpatient setting prior to HH admission).
4. Prepare the patient medication list (including OTC/over-the-counter meds) for the patient and review with patient during visit.
5. Identify any meds prescribed but not obtained (MSW consult if unable to afford medication).
6. Determine/authorize patient’s ability to safely and accurately administer medications. (Note: assistance is required and what compliance aides are used, e.g., pill box/buddy, Illinois).
7. Obtain patient agreement to keep updated, complete, and current written list of medications.

24 hours Post SOC Visit Followup:
1. The case manager or visiting clinician must develop an individualized emergency care plan with patient-specific instructions, review with patient, and leave in home. Document intervention in clinical record.
2. Review patient’s medication chart for accuracy and begin med teaching.

48 hours Post SOC:
1. Perform a telephone follow-up and document.
2. Review patient’s emergency plan with patient and caregiver.
3. Discuss patient’s medication chart for accuracy.
4. Continue teaching regarding disease and medications.
5. Contact physician if assessment indicates need for visit frequency adjustment.

**Clinician Signature:** Date:

*Adapted by Deborah O’Keefe, RN, BC, ICP, COPG, CCS-C from tools developed by Personal Touch Home Care and At Home Care Richmond, VA; Bawell, R.J.; Liping, H.; Naveen-Watson, M.; & Feldman, P.H. (2009) Risk Factors for Repeated Hospitalizations among Home Healthcare Recipients. Jour Healthcare Quality, March/April 2009. Copyright permission to use this material is currently in process. If you are the original copyright holder of this material, please contact Laura Dugan at ldugan@vnhc.org.
How to use risk scoring

• Issue is not lack of access to risk tools, but how and if they are being used to fullest potential:
  – Use liaison nurse to do assessment while patient in hospital-IHI Risk Tool easily administered at bedside
  – Develop a process for early identification and intervention with high risk patients within 24 hours of discharge
  – At referral to agency to preemptively begin intense interventions for high risk patients, i.e., admit within 24 hours
  – Initiate plan of care based on findings
How to use risk scoring and process

- At admission to home care identify preventative interventions
- Review interventions in initiation visit and implement those that are appropriate
- Validate if tool is effective in correctly identifying your patients and if interventions are effective; and
- Link to outcomes scores
Prior to discharge home

• Do the referral agencies utilize a risk tool?
  – If so: Which tool and how was it scored?
    • Is it shared with your agency upon discharge?
    • How does the referral agency use it?
    • Does your agency use it to initiate, plan care?
Evaluate your process

• What is the standard used in your agency?
• How does staff interpret and use score?
• Do you have specialized tools for known high risk patients, such as HF, COPD?
• Do you have processes in place to guide staff?
• Who is “responsible” for identification and follow through with identified “high risk” patients?
• What EBP does your agency use with these patients?
Common barriers to implementation

• How do you ensure “every patient, every time”?
• Are guidelines being followed: process maps, flow charts, care plans, documentation?
• Does your chart audit check for these processes?
• Does staff know guidelines, current process scores to provide consistent measurements?
What guidelines do you need to develop or adopt for your agency?

- Falls: Assessment, teaching guidelines, PT referral, home health aide education
- Cardiac: Weight, telehealth, front-loading
- Respiratory: Assessment, inhaler usage
- Cognitive Impairment: Assessment, OT referral, MS referral
- Polypharmacy: Advanced Medication Review, MDT
- Social Isolation: MS referral
- Rehospitalization: Risk assessment, interventions
Plan of action: (PDSA)

• **P**- Identify **problem** you wish to solve.
  – Gather data on current state
  – Identify measurements to use: HHCAPS, CMS hospitalization rates - set goal
  – Identify SMART Goal
• **D**- **Develop** or adopt tool. Incorporate into process (Every patient every time) - recommended IHI tool
• **S**- **Small** tests of change. Revise
• **A**- Retest with more people
  Repeat PDSAs, then spread to organization
Measurement

• IHI Risk Assessment Tool—measurement of risk level
• Confidence Ruler: Measure those at 7 or above
• Percentage of patients at moderate or high risk
• Percentage of high risk patients admitted to home care within 24 hours
• Evaluate hospitalizations from prior month to determine if risk tool was used
• Evaluate hospitalizations from prior month to determine whether those at moderate or high risk received early interventions
• Evaluate monthly hospitalization rates