Using Telemedicine to Reduce Potentially Avoidable Hospitalizations of Nursing Home Residents

Steven M. Handler MD, PhD, CMD
Associate Professor, Division of Geriatric Medicine and Biomedical Informatics; CMIO, UPMC Community Provider Services
Disclosure

- I am the Chief Medical and Innovation Officer for Curavi Health

- I do not own any equity interests in Curavi Health, nor do I have any options or other interests that are convertible into equity interests in Curavi Health
1. Describe the frequency, cost, and consequences of potentially avoidable hospitalizations (PAHs) of nursing home (NH) residents.

2. Summarize the evidence base for using telemedicine to reduce PAHs in NHs.

3. Identify and address the most significant barriers and articulate how you can use telemedicine in NHs to reduce PAHs.
Potentially Avoidable Hospitalizations (PAHs)

• CMS defines PAHs as hospitalizations that could have been avoided because the condition could have been prevented or treated outside of an inpatient hospital setting.

• Each year, approximately 25% of all long-stay and post-acute residents on a fee-for-service Medicare benefit in NHs are hospitalized, while over 20% are readmitted in 30-days following hospital discharge.

• NH residents are sent to the Emergency Department (ED) an average of nearly 2 times per year, and just over half of these visits do not result in hospitalization.

Six conditions responsible for 80% of PAHs:

- Pneumonia (32.8%)
- UTI (14.2%)
- CHF (11.6%)
- Dehydration (10.3%)
- COPD / Asthma (6.5%)
- Skin Ulcers, cellulitis (4.9%)

Complete List of PAH Diagnoses

- Acute Renal Failure (AKI)
- Altered mental status
- Anemia
- Asthma
- C. Difficile infection
- Cellulitis
- CHF (congestive heart failure)
- Constipation/Impaction
- COPD
- Diarrhea/Gastroenteritis
- Failure to thrive
- Falls and Trauma
- HTN (hypertension)
- Pneumonia/Bronchitis
- Nutritional deficiency
- Poor glycemic control
- Psychosis
- Seizures
- Skin Ulcers
- UTI (urinary tract infections)

Impact of PAHs

• Economic Impact - Have an avg. length of stay of 6.1 days and an estimated cost of $8 billion ($11,255/ admission) to CMS (Centers for Medicare and Medicaid).

• Clinical Impact:
  – Death
  – Disability
  – Debility
  – Delirium
  – Discharged to higher level of care
Potential Avoidable Hospitalizations Affect Many Aspects of the NH Strategy
Why We Should Care: The CMS Regulatory and Reimbursement Landscape

- **April 1, 2016**
  - CMS Comprehensive Care for Joint Replacement (CJR) to implement mandatory bundled payments for hospitals in 67 MSAs nationwide
- **January 1, 2017**
  - CMS proposed rule to allow telehealth coverage for Advanced Care Planning CPT Codes
- **October 1, 2017**
  - Impact Act includes quality measure to reflect all-cause, risk adjusted, PAH rates
- **October 1, 2018**
  - Hospital readmission rates published on CMS Nursing Home Compare
  - Expansion of CJR mandatory payment bundle to include hip and femur fracture
- **July 1, 2018**
  - CMS to implement mandatory payment bundles for cardiac episodes (heart attacks & bypass surgery) for hospitals in 98 MSAs nationwide
- **October 1, 2019**
  - Impact Act quality measure includes medication reconciliation
  - Implementation of SNF Value-based Purchasing program to tie to 2% of CMS reimbursements to prevent unnecessary hospital readmissions
The range in rates across the states was considerable, with more than a threefold difference across states.
• 16% of Medicare/Medicaid beneficiaries were in a NH, yet comprised 45% of all PAHs

• Most common setting where PAHs originate from are NHs

• PAHs from NHs are often multifactorial
Initiative to Reduce Avoidable Hospitalizations among Nursing Facility Residents

This initiative is possible through the collaboration of the CMS Innovation Center and the CMS Medicare-Medicaid Coordination Office.

This effort aims to improve the quality of care for people residing in long-term care (LTC) facilities by reducing avoidable hospitalizations.

CMS supports organizations that each partner with a group of LTC facilities to implement evidence-based clinical and educational interventions that both improve care and lower costs. The initiative is focused on long-stay LTC facility residents who are enrolled in both the Medicare and Medicaid programs, with the goal of reducing potentially avoidable inpatient hospitalizations. This initiative was launched in 2012.

A second phase of this Initiative was announced on August 27, 2015, and new cooperative agreements were announced on March 24, 2016.
RAVEN
Reduce AVoidable Hospitalizations using Evidence-based interventions for Nursing facilities in Western Pennsylvania

April L. Kane, MSW, LSW
RAVEN Co-Director

Chip Reynolds, MD
RAVEN Co-Director

Steven M. Handler MD, PhD, CMD
Medical Director of Health Information Technology

Phase 1: From 2012-2016

AGING INSTITUTE
of UPMC Senior Services and the University of Pittsburgh

CMS Cooperative Agreement 1E1CMS331081
1. **Evercare** (Optum™ Care Plus) model that uses NPs and Care Managers reduced hospital admissions by 47% and emergency department use by 49% (Kane et. al, 2004)

2. **Medicare Advantage** partnerships to waive 3-day qualifying hospital stay necessary for Part A benefit and treat in place

3. **INTERACT** QI program reduced hospital admissions between 17-24% (Ouslander et al, 2011)
Core Programmatic Elements of RAVEN

1. Facility-based Nurse Practitioners/Enhanced Care Nurses

2. INTERACT tools to reduce avoidable hospital admission

3. Individualized educational program/simulation

4. Enhanced medication management, monitoring, and pharmacy engagement

5. Use of telemedicine to enable remote clinical assessment, and facilitate communication.
RAVEN Facilities with 1,665 Eligible Residents

1. Ball Pavilion
2. Corry Manor
3. Oakwood Heights
4. Trinity Living Center
5. Edison Manor
6. Evergreen Health & Rehabilitation
7. Sweden Valley Manor
8. Lutheran Home at Kane
9. Golden Living Center
10. Sunnyview Nursing & Rehabilitation
11. Sugar Creek Rest
12. Friendship Ridge
13. Kane-Ross
14. Kane-Glen Hazel
15. Squirrel Hill Center for Rehabilitation & Healing
16. Kane-McKeesport
17. Westmoreland Manor
18. Mountainview Specialty Care Center
Technological Sophistication of NHs

- Approx. 60% of NHs have an EMR
- Majority use a fax for meds, labs, radiology, recaps
Telemedicine is defined as the use of telecommunication and information technologies in order to provide clinical healthcare at a distance.

Types of telemedicine:
1. Interactive services (synchronous)
2. Store-and-forward (asynchronous)
3. Remote monitoring (self-monitoring)
4. mHealth (mobile devices)
• Edirippulige et al., conducted a systematic review which provides evidence for feasibility and stakeholder satisfaction in using telemedicine in NHs across clinical specialities
  – J Telem Telecare, 2013

• Grabowski et al., showed that an after-hours physician-based telemedicine program can reduce hospitalization by 9.7% and yield $151K cost savings to Medicare/NH/yr.
  – Health Aff, 2014

• Hofmeyer et al., showed that NHs had on avg. 23 consults per/yr. and overall 69% of cases were not transferred.
  – JAMDA, 2016
Held on 3/25/15 at the UPMC Center for Connected Medicine and included 15 participants representing 91 NHs (11,842 beds)

Telemedicine is critical to the future and should be viewed as the linchpin to the transformation of NHs (60.0%; 9/15)

Factors influencing adoption include hospitals (8.5/10), managed care (8.4/10) and ACOs (8.1/10) making telemedicine a requirement of their NH partners, as well as the rise of value-based purchasing options (8.4/10)

The goal of this study was to survey NH physicians and nurse practitioners to quantify provider perceptions and desired functionality of telemedicine in NHs to reduce PAHs.

Perceptions of Telemedicine for PAHs

• Surveyed 435 physicians and nurse practitioners who attended the 2015 AMDA - The Society for Post-Acute and Long-Term Care Medicine Annual Conference

• Survey components:
  – Case vignette showing how telemedicine could be used to manage acute changes of condition in NHs
  – Perceived benefits and concerns about the use of telemedicine in NHs
  – Attributes of a successful telemedicine program
  – Demographic information
### Perceptions of Telemedicine Survey Results*

<table>
<thead>
<tr>
<th>Statement</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  Telemedicine may fill an existing service gap.</td>
<td>428</td>
<td>1.95</td>
<td>1.00</td>
</tr>
<tr>
<td>2  Telemedicine may improve timeliness of appropriate resident care.</td>
<td>427</td>
<td>1.97</td>
<td>1.06</td>
</tr>
<tr>
<td>3  A step toward successful implementation of telemedicine is addressing potential workflow and process challenges.</td>
<td>427</td>
<td>2.04</td>
<td>0.99</td>
</tr>
<tr>
<td>4  Telemedicine may help avoid resident transfers to the emergency department/hospital.</td>
<td>422</td>
<td>2.13</td>
<td>1.10</td>
</tr>
<tr>
<td>5  Telemedicine may improve access to appropriate resident care.</td>
<td>425</td>
<td>2.18</td>
<td>1.05</td>
</tr>
<tr>
<td>6  Telemedicine may improve overall resource utilization in the nursing home.</td>
<td>428</td>
<td>2.46</td>
<td>1.18</td>
</tr>
<tr>
<td>7  Telemedicine may improve the overall quality of resident care in the nursing home.</td>
<td>426</td>
<td>2.50</td>
<td>1.17</td>
</tr>
<tr>
<td>8  Telemedicine may help improve service productivity of medical staff.</td>
<td>428</td>
<td>2.59</td>
<td>1.25</td>
</tr>
<tr>
<td>9  Telemedicine may increase overall efficiency.</td>
<td>422</td>
<td>2.68</td>
<td>1.22</td>
</tr>
<tr>
<td>10 Telemedicine when coupled with evidence-based consensus-developed order sets may reduce the variability of care.</td>
<td>425</td>
<td>2.80</td>
<td>1.19</td>
</tr>
</tbody>
</table>

*Responses correspond to a 7-point Likert scale, ranging from “strongly agree” to “strongly disagree,” with lower numbers indicating stronger agreement.

### Telemedicine Attributes Survey Results*

<table>
<thead>
<tr>
<th>Statement</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  Able to hear the resident without delay, choppiness, or interruption in sound quality</td>
<td>428</td>
<td>1.30</td>
<td>0.49</td>
</tr>
<tr>
<td>2  Able to see the resident without delay, choppiness, or interruption in video quality</td>
<td>428</td>
<td>1.33</td>
<td>0.50</td>
</tr>
<tr>
<td>3  Able to hear heart, lung, and bowel sounds using an electronic stethoscope</td>
<td>424</td>
<td>1.46</td>
<td>0.67</td>
</tr>
<tr>
<td>4  Able to accurately assess pressure ulcers/skin/wounds</td>
<td>428</td>
<td>1.65</td>
<td>0.72</td>
</tr>
<tr>
<td>5  Use telemedicine equipment that was specifically tested for use in nursing homes</td>
<td>427</td>
<td>1.80</td>
<td>0.85</td>
</tr>
<tr>
<td>6  Able to obtain a 12-lead electrocardiogram tracing</td>
<td>426</td>
<td>1.86</td>
<td>0.85</td>
</tr>
<tr>
<td>7  Use telemedicine software that is directly integrated and embedded within an existing electronic medical record to be able to provide appropriate clinical context</td>
<td>427</td>
<td>1.89</td>
<td>0.83</td>
</tr>
<tr>
<td>8  Ensure the consistent use of evidence-based consensus-developed order sets for conditions associated with the telemedicine consultations</td>
<td>426</td>
<td>1.89</td>
<td>0.79</td>
</tr>
<tr>
<td>9  Telemedicine should be available 24/7 and not just for after-hours and weekends</td>
<td>427</td>
<td>2.00</td>
<td>0.98</td>
</tr>
<tr>
<td>10 Include the attending physician of record/family/POA directly in the telemedicine encounter</td>
<td>428</td>
<td>2.14</td>
<td>0.94</td>
</tr>
</tbody>
</table>

APP, advance practice provider; POA, power of attorney.

*Responses correspond to a 4-point Likert scale, ranging from “extremely important” to “not very important,” with lower numbers indicating more importance.
Summary: Using Telemedicine for PAHs

- Highly positive and strongly-held beliefs of the value of telemedicine for managing PAHs in the NH setting
- Suggests that there is potentially unmet demand for telemedicine and that NHs may be receptive to appropriately designed solutions
- Need to focus on the sociotechnical aspects of implementation and continued use of telemedicine to ensure its continued use through a highly structured change mgmt. process
- Limitations include self-selected sample and potential biases in the respondent population
The goal of this study was to determine the perceived utility of providing specialty telemedicine in NHs.

Surveyed 522 physicians and nurse practitioners who attended the 2016 AMDA - The Society for Post-Acute and Long-Term Care Medicine Annual Conference.

Top 5 specialties that physicians and APPs would refer to:
- Derm > Geri psych > ID > Neuro > Cards

Top 5 Statements of agreement:
- Fill an existing service gap > Improve timeliness of resident care > Increase access to appropriate care > Decrease ED/hosp > Increase overall quality of care

Manuscript submitted for peer-review
RAVEN Telemedicine Team and Approach

- Ashley Boots, CRNP
- Christa Bartos, RN, PhD
- Julie George, RN
- RAVEN CRNPs and eRNs
- Telemedicine Support Group
- Community Provider Services IT
- Facility engagement
- Facility and telemedicine readiness
- Facility telemedicine training
Case Vignette
Stop and Watch
Early Warning Tool

If you have identified a change while caring for or observing a resident, please circle the change and notify a nurse. Either give the nurse a copy of this tool or review it with her/him as soon as you can.

Seems different than usual
Talks or communicates less
Overall needs more help
Pain – new or worsening; Participated less in activities
Ate less
No bowel movement in 3 days; or diarrhea
Drank less
Weight change
Agitated or nervous more than usual
Tired, weak, confused, or drowsy
Change in skin color or condition
Help with walking, transferring, toileting more than usual

Temperature 102°F
Generalized Weakness
Left forearm with warm reddened area 3” by 2½”
Traditional Telephonic Clinical Case

- Chris Bartos is an 86 yo female (new resident) transferred to Jane St NH following a recent hospitalization for a UTI with sepsis

- Resident has a PMHx of diabetes, hypertension, osteoarthritis, Alzheimer’s disease and malnutrition

- Resident has indicated FULL TREATMENT on her POLST form and would like antibiotics if life can be prolonged

- Family wants to send her out because they believe that the hospital can take care of sick patients better
How can we do this differently?
“Telly” the Telemedicine Cart

- HP All-in-one PC
- Washable keyboard/mouse
- Pan/tilt/zoom camera
- HD Web camera
- Speakerphone
- Bluetooth stethoscope
- Digital otoscope
- 12-lead PC-Based EKG
- Portable Doppler ultrasound
- Teleconference/med software
- Wireless gateway (Verizon/ATT LTE)
Video of a telemedicine consultation
RAVEN Telemedicine Results

- 15 RAVEN Partner NHs
- CRNP-based model; 6 hrs./day; long-stay residents (>100 days) only
- Completed 205 telemedicine and 2,196 telephonic-only consultations between 2/2014 and 2/2017

<table>
<thead>
<tr>
<th>Percentage of hospital transfers avoided:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sep 2014 – February 28, 2017</strong></td>
<td></td>
</tr>
<tr>
<td>Telemedicine consults (111 of 174)*</td>
<td>63.8%</td>
</tr>
<tr>
<td>Telephonic-only consults (212 of 2,196)</td>
<td>9.7%</td>
</tr>
<tr>
<td>Condition</td>
<td>Percent</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>Acute confusion, delirium, altered mental status</td>
<td>13.5%</td>
</tr>
<tr>
<td>Agitation, psychosis, depression</td>
<td>4.2%</td>
</tr>
<tr>
<td>Cellulitis, skin breakdown</td>
<td>21.0%</td>
</tr>
<tr>
<td>CHF</td>
<td>10.9%</td>
</tr>
<tr>
<td>Constipation</td>
<td>1.7%</td>
</tr>
<tr>
<td>COPD</td>
<td>6.7%</td>
</tr>
<tr>
<td>Dehydration</td>
<td>11.8%</td>
</tr>
<tr>
<td>Diarrhea, C diff, gastroenteritis</td>
<td>9.2%</td>
</tr>
<tr>
<td>Failure to thrive</td>
<td>2.5%</td>
</tr>
<tr>
<td>Falls and or trauma</td>
<td>4.2%</td>
</tr>
<tr>
<td>Glycemic control</td>
<td>5.9%</td>
</tr>
<tr>
<td>Hypo/hypertension</td>
<td>2.5%</td>
</tr>
<tr>
<td>Pneumonia or bronchitis</td>
<td>21.9%</td>
</tr>
<tr>
<td>Urinary Tract Infection</td>
<td>10.9%</td>
</tr>
<tr>
<td>Other</td>
<td>10.1%</td>
</tr>
<tr>
<td>None of the above</td>
<td>28.6%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
</tr>
</tbody>
</table>
# Post-Consult Telemedicine Survey

<table>
<thead>
<tr>
<th>Statement</th>
<th>strongly disagree</th>
<th>disagree</th>
<th>neutral</th>
<th>agree</th>
<th>strongly agree</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>I was able to see the resident and/or images on the screen without delay, choppiness, or interruption in video quality.</td>
<td>11 (9.4%)</td>
<td>13 (11.1%)</td>
<td>4 (3.4%)</td>
<td>32 (27.4%)</td>
<td>57 (48.7%)</td>
<td>117</td>
</tr>
<tr>
<td>I was able to hear the RN/resident without delay, choppiness, or interruption in sound quality.</td>
<td>11 (9.4%)</td>
<td>15 (12.8%)</td>
<td>10 (8.5%)</td>
<td>30 (25.6%)</td>
<td>51 (43.6%)</td>
<td>117</td>
</tr>
<tr>
<td>The resident seemed comfortable communicating during the Telemedicine consult.</td>
<td>3 (2.6%)</td>
<td>1 (0.9%)</td>
<td>20 (17.1%)</td>
<td>31 (26.5%)</td>
<td>62 (53.0%)</td>
<td>117</td>
</tr>
<tr>
<td>The nurse seemed comfortable communicating during the Telemedicine consult.</td>
<td>3 (2.6%)</td>
<td>3 (2.6%)</td>
<td>9 (7.7%)</td>
<td>32 (27.4%)</td>
<td>70 (59.8%)</td>
<td>117</td>
</tr>
<tr>
<td>I was able to obtain an adequate history of present illness, past medical history, and review of symptoms.</td>
<td>4 (3.4%)</td>
<td>2 (1.7%)</td>
<td>11 (9.4%)</td>
<td>36 (30.8%)</td>
<td>64 (54.7%)</td>
<td>117</td>
</tr>
<tr>
<td>I was able to complete an adequate physical exam.</td>
<td>16 (13.7%)</td>
<td>11 (9.4%)</td>
<td>12 (10.3%)</td>
<td>34 (29.1%)</td>
<td>44 (37.6%)</td>
<td>117</td>
</tr>
</tbody>
</table>
### Post-Consult Telemedicine Survey (Cont.)

<table>
<thead>
<tr>
<th>Statement</th>
<th>strongly disagree</th>
<th>disagree</th>
<th>neutral</th>
<th>agree</th>
<th>strongly agree</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Telemedicine cart allowed me to provide appropriate care.</td>
<td>12</td>
<td>5</td>
<td>11</td>
<td>35</td>
<td>54</td>
<td>117</td>
</tr>
<tr>
<td></td>
<td>10.3%</td>
<td>4.3%</td>
<td>9.4%</td>
<td>29.9%</td>
<td>46.2%</td>
<td></td>
</tr>
<tr>
<td>The Telemedicine consult helped avoid the need for a face-to-face visit by</td>
<td>9</td>
<td>5</td>
<td>12</td>
<td>36</td>
<td>55</td>
<td>117</td>
</tr>
<tr>
<td>a NP or physician.</td>
<td>7.7%</td>
<td>4.3%</td>
<td>10.3%</td>
<td>30.8%</td>
<td>47.0%</td>
<td></td>
</tr>
<tr>
<td>The use of Telemedicine is an appropriate and effective use of my skillset</td>
<td>6</td>
<td>1</td>
<td>8</td>
<td>36</td>
<td>66</td>
<td>117</td>
</tr>
<tr>
<td>and time.</td>
<td>5.1%</td>
<td>0.9%</td>
<td>6.8%</td>
<td>30.8%</td>
<td>56.4%</td>
<td></td>
</tr>
<tr>
<td>Overall, I was comfortable and satisfied using the Telemedicine cart.</td>
<td>8</td>
<td>6</td>
<td>9</td>
<td>23</td>
<td>71</td>
<td>117</td>
</tr>
<tr>
<td></td>
<td>6.8%</td>
<td>5.1%</td>
<td>7.7%</td>
<td>19.7%</td>
<td>60.7%</td>
<td></td>
</tr>
<tr>
<td>Overall, I found the technology effective in the medical management of</td>
<td>11</td>
<td>10</td>
<td>10</td>
<td>23</td>
<td>63</td>
<td>117</td>
</tr>
<tr>
<td>this resident.</td>
<td>9.4%</td>
<td>8.5%</td>
<td>8.5%</td>
<td>19.7%</td>
<td>53.8%</td>
<td></td>
</tr>
<tr>
<td>The Telemedicine consult helped to avoid resident transfer to the hospital</td>
<td>5</td>
<td>14</td>
<td>29</td>
<td>23</td>
<td>46</td>
<td>117</td>
</tr>
<tr>
<td>ED.</td>
<td>4.3%</td>
<td>12.0%</td>
<td>24.8%</td>
<td>19.7%</td>
<td>39.3%</td>
<td></td>
</tr>
</tbody>
</table>
Lessons Learned

• Facility physician and administration support is critical for success
• Telemedicine is not just a technology change, but also a culture change for NH staff (sociotechnical aspects)
• Consistent connectivity is crucial for successful consults
• Keep everything as simple and intuitive as possible
• No individual user IDs and passwords
• Ongoing education and support – refreshers provide repetition and keep NH staff aware
RAVEN Phase 1 Interim Results

- Net savings to CMS of over $5 million (first 3 yrs. of data)

### Table 2-63

<table>
<thead>
<tr>
<th>Probability of having at least one:</th>
<th>Mean, 2012 (percent)</th>
<th>Effect (percentage points)</th>
<th>p-value</th>
<th>Effect (% of mean)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All-cause hospitalization</td>
<td>31.0</td>
<td>-6.8</td>
<td>0.001</td>
<td>-21.9%</td>
</tr>
<tr>
<td>Potentially avoidable hospitalization</td>
<td>15.2</td>
<td>-3.7</td>
<td>0.030</td>
<td>-24.3%</td>
</tr>
<tr>
<td>All-cause ED visit</td>
<td>22.3</td>
<td>-3.1</td>
<td>0.144</td>
<td>-13.9%</td>
</tr>
<tr>
<td>Potentially avoidable ED visit</td>
<td>7.6</td>
<td>-3.1</td>
<td>0.001</td>
<td>-40.8%</td>
</tr>
</tbody>
</table>

Initiative To Reduce Avoidable Hospitalizations Among Nursing Facility Residents Shows Promising Results

Estimated effects of ECCP interventions on the probability of any hospitalization among long-stay nursing facility residents

- 2014
- 2015

All-cause hospitalizations

Potentially avoidable hospitalizations

Estimated effect (percentage points)
RAVEN
Reduce AVoidable Hospitalizations using Evidence-based interventions for Nursing facilities in Western Pennsylvania

April L. Kane, MSW, LSW
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Phase 2: From 2016-2020

AGING INSTITUTE
of UPMC Senior Services and the University of Pittsburgh

CMS Cooperative Agreement 1E1CMS331081
RAVEN
Reduce AVoidable Hospitalizations using Evidence-based interventions for Nursing facilities

Initiative to Reduce Avoidable Hospitalizations Among Nursing Facility Residents

Payment Model

CMS Cooperative Agreement 1E1CMS331491
Why Implement Payment Model?

The initial four years of the demonstration project (2012-2016) addressed preventing avoidable hospitalizations through various clinical quality models.
Why Implement Payment Model?

HOWEVER....

the initial demonstration did NOT address the existing payment policies that may be leading to avoidable hospitalizations.
Payment Reforms

CMS is adding new codes to the Medicare Part B schedule specifically for this Initiative

- Facility payment
  - Treatment of six qualifying conditions
- Practitioner payments
  - #1 - onsite treatment of six qualifying conditions
  - #2 - care coordination & caregiver engagement
CMS states that six conditions are linked to approximately 80% of potentially avoidable hospitalizations among nursing facility residents nationally.

<table>
<thead>
<tr>
<th>Condition</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Pneumonia</td>
<td>32.8%</td>
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<tr>
<td>Urinary tract infection</td>
<td>14.2%</td>
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<tr>
<td>Congestive heart failure</td>
<td>11.6%</td>
</tr>
<tr>
<td>Dehydration</td>
<td>10.3%</td>
</tr>
<tr>
<td>COPD, asthma</td>
<td>6.5%</td>
</tr>
<tr>
<td>Skin ulcers, cellulitis</td>
<td>4.9%</td>
</tr>
</tbody>
</table>
## Facility Payment for Six Qualifying Conditions

### Purpose
- Create incentive for facility to enhance staff skills to provide higher level of service in-house

### Payment
- **“Onsite Acute Care”**
- Limited to 5-7 days, based on qualifying condition
- Limited to residents not on a covered Medicare Part A SNF stay and who meet the long stay criteria
Facility Payment for Six Qualifying Conditions (cont’d)

• The six conditions have very specific, detailed qualifying criteria that could trigger the benefit
  – **Detection** of acute change of condition documented in the medical record by a physician or a nurse at the LPN level or higher
  – STOP AND WATCH tool, SBAR, free text note, structured clinical documentation are acceptable formats as long as they are part of the medical records
Facility Payment for Six Qualifying Conditions (cont’d)

• Qualifying criteria that could trigger the benefit
  – MD, NP or PA must confirm qualifying diagnosis through in-person evaluation or qualifying telemedicine assessment
  – ANY attending practitioner can provide confirming diagnosis for the purposes of facility payment
Facility Payment for Six Qualifying Conditions (cont’d)

• Qualifying criteria that could trigger the benefit (cont’d)
  – Evaluation or assessment must occur by the end of the 2nd day after change in condition
  – Evaluation must be documented in resident’s medical record
  – If there is more than one qualifying diagnosis, both should be reported even though facility may only bill code once per day
Practitioner Payment #1 for Six Qualifying Conditions

**Purpose**

- Create incentive for practitioner to conduct nursing facility resident visits to treat acute change in condition
- Equalize payment for acute change of condition visit regardless of location of service

**Payment**

- Billing Code G9685; Acute Nursing Facility Care
- Payment will be equivalent to what would be received for a comparable visit in a hospital.
- Limited to first visit in response to a beneficiary who has experienced an acute change in condition (to confirm and treat the diagnosed condition)
- NPs & PAs reimbursed at 85% of physician
Practitioner Payment #1 for Six Qualifying Conditions (cont’d)

• In decisions regarding provision of care, the focus should always be on providing the best setting for the resident/patient

• Six conditions have qualifying criteria
  – MD, NP or PA must confirm qualifying diagnosis through in-person evaluation or qualifying telemedicine assessment
  – Evaluation or assessment must occur by end of the 2nd day after acute change in condition
  – Evaluation documented in resident’s medical record
Practitioner Payment #1 for Six Qualifying Conditions (cont’d)

• The new code can be billed even if the exam reveals that the resident does NOT have one of the six qualifying conditions.

• If ECCP staff or Telemedicine visit confirms diagnosis to allow facility payment, an eligible practitioner can still see resident for a face-to-face visit by the end of the second day and bill at increased initial visit rate.
Practitioner Payment #2 for Care Coordination

Purpose

- Payment to create incentive for practitioners to participate in nursing facility conferences, and engage in care coordination discussions with beneficiaries, their caregivers, and LTC facility interdisciplinary team.

Payment

- Billing Code G9686; Nursing Facility Conference
Practitioner Payment #2 for Care Coordination (cont’d)

• Code can be billed within 14 days of significant change in condition that increases likelihood of hospital admission.

• If billed, change in condition must be documented in beneficiary’s chart and reflected in comprehensive MDS assessment.
Proposed Skilled Nursing Facilities for Phase Two
Using Telemedicine to Reduce Potentially Avoidable Hospitalizations in UPMC-Owned Nursing Homes
Telemedicine in UPMC NHs

- 6 UPMC NHs (~700 beds)
- Geriatrician-based model; 6 hrs./day; whole-house model
- Completed 98 telemedicine and 38 telephone consultations Since 3/15

<table>
<thead>
<tr>
<th>Percentage of hospital transfers avoided:</th>
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<tr>
<td>cumulative totals reflect Mar 2015 – August 2016</td>
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<tr>
<td>Telemedicine (39 of 98)</td>
<td>40.0%</td>
</tr>
<tr>
<td>After-Hours Telephone Consults (6 of 38)</td>
<td>16.0%</td>
</tr>
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</table>

Thanks to Kambria Ernst, RN, MSN
Testimonial by Dr. Adele Towers
Anecdotes

• NP: “We can do a lot at these facilities…Sometimes patients get sent out during the night and I get frustrated because we could have safely managed the resident.”

• Nurses: “This is going to be very useful. Sometimes it is just really hard to describe a resident’s condition on the telephone.”

• DON: “I see this is really great, it is going to let our nurses be nurses.”

• Residents families: Aw struck and I think they were shocked. The only question I got was “do we have to pay for this” They were surprised. One lady said “I saw this on Dr. Phil, dial a doctor.”

• Doctors: “This is great if it cuts down on the phone calls I get at night.”
• Improve *alignment* of care to be more consistent with goals of care, advanced directives, and family preferences

• Increase *access* to appropriate care when physicians and CRNPs are not typically available on-site

• Expand *clinical capabilities* of NHs (e.g., EKG services)

• Reduce *variability* in care that is provided to NH residents by using standardized order sets
Implications for NH/Payor/Provider/Family

• Lower cost of care by providing it in the NHs rather than the ED or hospital which can reduce the number of PAHs and lowers readmission rates

• Maintain NH census stabilization and referral relationships with hospitals

• Reduction of pending CMS payment penalties for PAHs (value-based purchasing initiative) and alignment with other alternative payment models (bundled payments, ACOs)
Barriers to Telemedicine in NHs

- Physician and APP State licensure
- Physician and APP facility credentialing
- Establishment of physician/APP resident relationships
- Lack of belief in the value or potential of the technology
- Limited information technology infrastructure/connectivity in NHs
- Administrative support/buy-in
- High nursing staff turnover
- Reimbursement
• Originating sites
• Distant site practitioners
• Telehealth services
• Billing and payment for professional services
• Billing and payment for originating site facility fee

https://tinyurl.com/TelehealthServices2017
Originating sites

• An originating site is the location of an eligible Medicare beneficiary at the time the service furnished via a telecommunications system occurs.

• Medicare beneficiaries are eligible for telehealth services only if they are presented from an originating site located in:
  – A county outside of a Metropolitan Statistical Area (MSA)
  – A rural Health Professional Shortage Area (HPSA) located in a rural census tract

• Determine if your NH is an authorized (rural non-MSA) originating site: [http://tinyurl.com/HRSAcheck](http://tinyurl.com/HRSAcheck)
Originating Sites Authorized by Law Are

- The offices of physicians or practitioners
- Hospitals
- Critical Access Hospitals (CAHs)
- Rural Health Clinics
- Federally Qualified Health Centers
- Hospital-based or CAH-based Renal Dialysis Centers
- Community Mental Health Centers (CMHCs)
- Skilled Nursing Facilities (SNFs)
Distant Site Practitioners

- Physicians
- Nurse practitioners (NPs)
- Physician assistants (PAs)
- Nurse-midwives
- Clinical nurse specialists (CNSs)
- Certified registered nurse anesthetists
- Clinical psychologists (CPs) and clinical social workers (CSWs)
Telehealth Services

• As a condition of payment, you must use an interactive audio and video telecommunications system that permits real-time communication between you, at the distant site, and the beneficiary, at the originating site.

• Asynchronous “store and forward” technology is permitted only in Federal telemedicine demonstration programs in Alaska or Hawaii.
For medical necessity, use the Subsequent Nursing Facility Care CPT E&M codes 99307-10 and include the “GT” modifier.

After January 1, 2017, you must use Place of Service (POS) 02: Telehealth.

Ensure that your H&P meets all requirements for that particular CPT E&M code and is documented in the NH medical record.

Limited to 1 visit per the same resident every 30 days.
For advance care planning (ACP) services, use CPT E&M codes 99497 (first 30 min.) and 99498 (each addl. 30 min.) (starting January 2017)

Include the “GT” modifier (via interactive audio and video telecommunications system) and POS 02 for Telehealth

Ensure that your H&P meets all requirements for that particular CPT E&M code and is documented in the NH medical record

There is no limits on the number of times ACP can be reported for a given beneficiary in a given time period
Determine if your NH is an authorized (rural non-MSA) originating site: http://tinyurl.com/HRSAcheck

HCPCS code Q3014, Telehealth originating site facility fee
- Can be billed for Short-term and LTC Medicare Beneficiaries
- The NH bills the MAC for the originating site facility fee, which is a separately billable Part B payment = revenue in addition to the daily RUGs rate for skilled residents
- Managed care companies can reimburse NHs for code Q3014 for all products if they elect to do so
Basic requirements do not change for state licensure of a physician seeking only one license or who chooses to become licensed in additional states through the existing process.

Once a physician receives a Compact-issued license from a state, the physician still must adhere to the existing renewal and CME requirements of that state.

The Compact in no way overrides a state’s authority and control over the physician’s practice of medicine.

State participation in the Compact is voluntary, and states are free to withdraw from the Compact at any time by repealing the enacted statute.

The process of licensure proposed in the Compact would reduce costs by streamlining the process for licensees.
How Can You Do Telemedicine in the NH?

• Communicate the value of telemedicine residents/family

• Work with the NH to ensure facility engagement, facility and telemedicine readiness, and facility telemedicine training

• Use HIPAA-compliant and secure telemedicine software and hardware (Guidance from CMS; Appendix C)

• Confirm that NH has notified the Dept. of Health
How Can You Do Telemedicine in the NH?

- Ensure that you are licensed to practice medicine in the State where the originating site is located.
- Ensure you have notified your malpractice insurer.
- Strongly consider becoming credentialed in the facility where you provide telemedicine services.
Questions?

handlersm@upmc.edu