A Step Forward: Our Journey to Implement Hourly Rounding including Step Tracking and Staff Nurse Perceptions of Barriers and Solutions

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CHI Health St. Francis
Disclosures to Participants

I would like to note that I have no financial or other conflicts to disclose.
Objectives

• After completing this activity, the learner will:
  – identify key data analysis surrounding the relationship between hourly rounding (HR) and patient safety
  – define HR strategies effective in program implementation
  – define nursing staff identified barriers and solutions to HR implementation
Who remembers trying HR?

- How many times did you try?
- What tools did you try?
- Any successes that were hardwired?
## Hourly Rounding Log:

<table>
<thead>
<tr>
<th>Time</th>
<th>7A</th>
<th>8A</th>
<th>9A</th>
<th>10A</th>
</tr>
</thead>
<tbody>
<tr>
<td>11A</td>
<td>___</td>
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</tr>
<tr>
<td>12P</td>
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<td>3P</td>
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<td>4P</td>
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<tr>
<td>5P</td>
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<td>10P</td>
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<td>11P</td>
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<td>3A</td>
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<td>4A</td>
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<tr>
<td>5A</td>
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<tr>
<td>6A</td>
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<tr>
<td>-------</td>
<td>-------------------------------</td>
<td>-------------------------------</td>
<td>-----------------------------------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>Date:</td>
<td>12am</td>
<td>2am</td>
<td>4am</td>
<td>6am</td>
</tr>
<tr>
<td>-------</td>
<td>------</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>Intentional rounds completed by (place initials in box indicating time of rounds, check all items below that apply for that time)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>3 P-a</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pain Assessment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toileting (potty) - assist patient to restroom</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positioning</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmental scan</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fall risk hazards; bed in low position, cords are secured</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phone, water, tissue, urinal, bedside table, trashcan, and call light are within reach</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temperature of room, blankets, pillows</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prior to leaving room</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ask, “Is there anything else I can do for you? I have the time.”</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Remind the patient that a staff member (let them know who) will be back in about an hour to round on them again.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Document the round on the patient’s chart</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Why Hourly Rounding?

• HR is used to improve:
  – patient safety
  – patient satisfaction
  – nursing staff satisfaction

• Implemented successfully, HR can decrease:
  – call lights
  – patient falls
Why Hourly Rounding?

• Little data available regarding nursing perceptions related to HR
• Investment of bedside nurses in HR is essential to successful:
  – implementation
  – sustainability
Something needed done

• CHI Health St. Francis had tried 4 times in the past
• Used:
  – Paper
  – White board
• These were not successful
Something needed done

• Staff not on board
• Current process not effective
Initial Hourly Rounding Study

- Qualitative pre- and post- design
  - Education on HR
  - Demonstration of skills
  - Implementation of HR software
Initial Hourly Rounding Study

• Convenience sample of bedside nurses and PCAs
  – Included staff at two separate data points
  – n=159 (2014)
  – n=137 (2016)
Initial Hourly Rounding Study

- Validated survey tool
  - Dr. Donna Fabry
  - Tool included questions about:
    - barriers and solutions to HR
    - reasons for HR
    - thoughts surrounding computerized HR tool
Additional Step Intervention

• The electronic HR tool vendor hypothesized that:
  – decreasing call lights through HR = decreased steps
Additional Step Intervention

• Nursing staff on the medical-surgical unit documented steps taken each shift
  – 2 month baseline pre-implementation of HR system
  – 6 months post-implementation
• Call light usage, on-time rounds, and falls were tracked
How did we do it?

- Step trackers
- Manual data aggregation
  - Nurse assignment data from EMR report
- Call light data
- Fall data from database
  - Same numbers that are entered for NDNQI
- HR data from electronic rounding tool
<table>
<thead>
<tr>
<th>Date</th>
<th>First Name, Last Initial</th>
<th>Nurse Type</th>
<th>Time-In</th>
<th>Steps-In</th>
<th>Time-Out</th>
<th>Steps-Out</th>
<th>Patient Load</th>
<th>Patient Room Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>7/6</td>
<td>Becky S</td>
<td>RN PCA Charge</td>
<td>05:55</td>
<td>Q</td>
<td>18:55</td>
<td>8:399</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7/7</td>
<td>Julie</td>
<td>RN PCA Charge</td>
<td>03:53</td>
<td>01:11</td>
<td>18:13</td>
<td>6:550</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7/7</td>
<td>Whitney W</td>
<td>RN PCA Charge</td>
<td>18:50</td>
<td>17:53</td>
<td>23:59</td>
<td>?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7/8</td>
<td>Whitney W</td>
<td>RN PCA Charge</td>
<td>00:00</td>
<td>Ø</td>
<td>00:30</td>
<td>37:50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7/8</td>
<td>Manda S</td>
<td>RN PCA Charge</td>
<td>06:35</td>
<td>33:58</td>
<td>18:45</td>
<td>11:053</td>
<td>7:695</td>
<td></td>
</tr>
<tr>
<td>7/8</td>
<td>Susie</td>
<td>RN PCA Charge</td>
<td>18:45</td>
<td>11:053</td>
<td>MN</td>
<td>11:095</td>
<td>04:49</td>
<td>9:054</td>
</tr>
<tr>
<td>7/8</td>
<td>Alicia</td>
<td>RN PCA Charge</td>
<td>06:30</td>
<td>40:12</td>
<td>18:30</td>
<td>22:403</td>
<td>18:981</td>
<td></td>
</tr>
<tr>
<td>7/9</td>
<td>Susie</td>
<td>RN PCA Charge</td>
<td>MN</td>
<td>Ø</td>
<td>00:02</td>
<td>29:496</td>
<td>3:994</td>
<td></td>
</tr>
<tr>
<td>7/10</td>
<td>Myk P</td>
<td>RN PCA Charge</td>
<td>06:00</td>
<td>Ø</td>
<td>19:00</td>
<td>8:096</td>
<td>8:094</td>
<td></td>
</tr>
<tr>
<td>7/11</td>
<td>Stephanie S</td>
<td>RN PCA Charge</td>
<td>06:00</td>
<td>Ø</td>
<td>18:30</td>
<td>12:09</td>
<td>12:109</td>
<td></td>
</tr>
<tr>
<td>7/11</td>
<td>Susie</td>
<td>RN PCA Charge</td>
<td>18:30</td>
<td>13:09</td>
<td>MN</td>
<td>19:027</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7/11</td>
<td>Susie</td>
<td>RN PCA Charge</td>
<td>MN</td>
<td>Ø</td>
<td>00:40</td>
<td>5:553</td>
<td>12:071</td>
<td></td>
</tr>
<tr>
<td>7/12</td>
<td>Nrendi</td>
<td>RN PCA Charge</td>
<td>16:30</td>
<td>5:153</td>
<td>18:30</td>
<td>2:063</td>
<td>14:910</td>
<td></td>
</tr>
<tr>
<td>7/13</td>
<td>Julie</td>
<td>RN PCA Charge</td>
<td>06:54</td>
<td>Ø</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Electronic Hourly Rounding Tool (EHRT)
Tap and Go - essential!
First Round - Room Code

Remote Patient Monitoring Reminder

1. Educate the patient about why we hourly round at our hospital.
2. Inform the patient and their family about the available Friends and Family Portal.

Active Room Code: 40CW

http://family.chihealthfones.org/40CW

Please note: The comments that you enter will be seen by the patient’s friends and family. Meaningful comments will be appreciated.
Fall Assessment - No Risk
Screen Changes

Every Patient, Every Hour

Hourly Rounding Tasks
- Pain
- Personal Needs
- Position
- Additional Comfort Needs
- Environmental Assessment
- Bed Alarm

Complete All Tasks

Hand-Washing Procedures
- Upon Entry
- Upon Exit

All Tasks Complete

Patient Comments
Patient pain level assessed. Patient is out of bed and sitting in their chair.

Submit Hourly Round

Room: Time: Rounnder:
No rooms to show yet. If you are the last person that rounded on a room, that room will be displayed here.
Reminder
Rounding Screen

 hourly rounding tasks:
- Pain
- Personal Needs
- Position
- Additional Comfort Needs
- Environmental Assessment
- Bed Alarm
- Complete All Tasks

hand-washing procedures:
- Upon Entry
- Upon Exit
- Complete All Tasks

patient comments:

submit hourly round

room not active | hourly rounds
Icons Individualized to Unit
Hourly Rounding Tasks

- Pain
- Personal Needs
- Position
- Additional Comfort Needs
- Environmental Assessment
- Bed Alarm

Patient Comments
Patient pain level assessed. Patient is out of bed and sitting in their chair.

Hand-Washing Procedures
- Upon Entry
- Upon Exit

Checklist submitted for 501!
Superstar status achieved.
You have no rooms due.

Here's what's coming up...
Room 501 is due in 60 minutes.
Don't forget to wash your hands as you exit the room.

Okay, I've got it!
Discharge and Transfer
Data Analysis
# Day Shift Outcomes

<table>
<thead>
<tr>
<th>Data</th>
<th>2 Months Before</th>
<th>6 Months After</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patients per Nurse</td>
<td>4.32</td>
<td>4.345</td>
<td>.6% increase</td>
</tr>
<tr>
<td>Total Call Lights</td>
<td>8.17/patient</td>
<td>7.87/patient</td>
<td>3.7% decrease (12.5% today)</td>
</tr>
<tr>
<td>Day RN Steps</td>
<td>8,415 steps/shift</td>
<td>8,502 steps/shift</td>
<td>1.1% increase</td>
</tr>
<tr>
<td>Day PCA Steps</td>
<td>11,108 steps/shift</td>
<td>13,013 steps/shift</td>
<td>14.7% increase</td>
</tr>
<tr>
<td>Day Charge RN Steps</td>
<td>7,480 steps/shift</td>
<td>8,727 steps/shift</td>
<td>14.3% increase</td>
</tr>
</tbody>
</table>
Call Light Outcomes

**Call lights vs. Response Time**

<table>
<thead>
<tr>
<th>Study Periods</th>
<th>Average Call Light Numbers</th>
<th>Average Response Time (Seconds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-study</td>
<td>5.6</td>
<td>112</td>
</tr>
<tr>
<td>Baseline</td>
<td>5.8</td>
<td>115</td>
</tr>
<tr>
<td>Intervention</td>
<td>6</td>
<td>130</td>
</tr>
<tr>
<td>Study</td>
<td>6</td>
<td>145</td>
</tr>
<tr>
<td>Post-study</td>
<td>6</td>
<td>155</td>
</tr>
</tbody>
</table>
# Average Patient Calls

<table>
<thead>
<tr>
<th>Time Frame</th>
<th>Average Call Lights</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan.2015-May.2015</td>
<td>6.32</td>
<td>N/A</td>
</tr>
<tr>
<td>Jun.2015-Jul.2015</td>
<td>6.1</td>
<td>3.5% decrease</td>
</tr>
<tr>
<td>Sep.2015-Feb.2016</td>
<td>5.89</td>
<td>6.8% decrease</td>
</tr>
<tr>
<td>Sep.2015-Aug.2016</td>
<td>5.64</td>
<td>10.8% decrease</td>
</tr>
<tr>
<td>Sep.2015-Jan.2017</td>
<td>5.86</td>
<td>7.3% decrease</td>
</tr>
</tbody>
</table>
Call Lights versus RN Steps

Correlation= 0.08 (no correlation)
Call Lights versus PCA Steps


Correlation= 0.42 (low correlation)
On-Time Rounds versus RN Steps

Correlation= 0.04 (no correlation)
On-Time Rounds versus PCA Steps


Correlation= 0.12 (no correlation)
# Night Shift Outcomes

<table>
<thead>
<tr>
<th>Data</th>
<th>2 Months Before</th>
<th>6 Months After</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patients per Nurse</td>
<td>4.6</td>
<td>4.55</td>
<td>1.1% decrease</td>
</tr>
<tr>
<td>Total Call Lights</td>
<td>8.17/patient</td>
<td>7.87/patient</td>
<td>3.7% decrease (12.5% today)</td>
</tr>
<tr>
<td>Night RN Steps</td>
<td>7,571 steps/shift</td>
<td>7,062 steps/shift</td>
<td>6.8% decrease</td>
</tr>
<tr>
<td>Night PCA Steps (6 hour shift)</td>
<td>4,640 steps/shift</td>
<td>4,660 steps/shift</td>
<td>.5% increase</td>
</tr>
</tbody>
</table>
Call Lights versus RN Steps


Correlation= -0.18 (no correlation)
Call Lights versus PCA Steps


Correlation = 0.01 (no correlation)
On-Time Rounds versus RN Steps

Correlation = 0.78 (strong correlation)
On-Time Rounds versus PCA Steps


Correlation = 0.73 (strong correlation)
So- how did this affect patient safety and satisfaction?
Initial Overall On-Time Rounds and Calls

Correlation= -0.52 (moderate correlation)
Post-Intervention Overall On-Time Rounds and Calls

Correlation= -0.3756 (moderate correlation)
Post-Intervention 5th Floor On-Time Rounds and Calls

Correlation= -.3108 (moderate correlation)
Post-Intervention 4\textsuperscript{th} Floor On-Time Rounds and Calls

Correlation= -.6897 (strong correlation)
Post-Intervention IRU On-Time Rounds and Calls

Correlation= -0.2098 (low correlation)
## Patient Falls per 1000 Patient Days

<table>
<thead>
<tr>
<th>Time Frame</th>
<th>Fall Rate</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan.2015-May.2015</td>
<td>2.99</td>
<td>N/A</td>
</tr>
<tr>
<td>Jun.2015-Jul.2015</td>
<td>3.98</td>
<td>33.11% increase</td>
</tr>
<tr>
<td>Sep.2015-Feb.2016</td>
<td>2.62</td>
<td>34.17% decrease</td>
</tr>
<tr>
<td>Sep.2015-Aug.2016</td>
<td>3.34</td>
<td>16.08% decrease</td>
</tr>
<tr>
<td>Sep.2015-Jan.2017</td>
<td>3.35</td>
<td>15.83% decrease</td>
</tr>
</tbody>
</table>
Initial Overall On-Time Rounds and Falls

Correlation = -0.69 (strong correlation)

On-Time Rounds vs Falls

Falls/1000 Patient Days


As the unit’s percent of On-Time Rounds gets closer to 100%, Falls decrease.

CHI Health
Post-Intervention Overall On-Time Rounds and Falls

Correlation= -0.0826 (no correlation)
Post-Intervention 5th floor On-Time Rounds and Falls

Correlation = -0.5123 (strong correlation)
Post-Intervention 4th Floor On-Time Rounds and Falls

Correlation = 0.1572 (no correlation)
Post-Implementation IRU On-Time Rounds and Falls

Correlation = 0.1879 (no correlation)
Hourly Rounding Perceptions, Barriers, and Solutions Survey
• Barriers

- Assist
- Questions
- Difficult
- pt Assignments
- Staffing
- Nurses
- Room
- Management
- Critical Patients
- Rounding
- Patient Satisfaction
- Staff
- Duties
- Pts
- pt Acuity
- Tasks
- Emergency
- Work Load
- Constraints
- Bathroom
- Job
- Important
- RNs
- Hassle
- Team Work
- Believe
- Think
- Staffing
- Mind
- Middle of the Night
- Room
- Patient Load
- Hourly Rounding
- Kids
- Staff
- Attention
- Care
- Effectively
- Check
- Wanting
- Ask
- Frequently

• Solutions

- Room
- Plan
- Unknown
- Flow
- Pts
- Way to Chart
- Staffing
- Patients
- Instead
- PCA
- Continue
- Teamwork
- Rounding
- Management
- Nurses
- pt Ratio
- Staff
- Undecided
- Team
- Promote
- Floors
- Reminders

- Instead
- Beneficial
- Accountable
- Screen
- Think
- Reasons
- Nurses
- Positive
- Patients
- BUSY
- Rounding
- Good Communication
- Staff
- LPN
- Team
- Play
- Staffing
- Rid
- Job Scripting
- Assist
Hourly Rounding Survey

- 2 questions applicable to electronic tool
  - Having a computerized tool would make HR more convenient to complete
  - There is a good way to determine if HR is being done

- 3 questions added for vendor
  - I feel that I am more efficient with the use of HR
  - I feel that when I HR I decrease return visits to the patient room each hour
  - I feel that I walk less with proper HR
Computerized tool makes HR more convenient

- Strongly agree
- Somewhat agree
- Undecided
- Somewhat disagree
- Strongly Disagree

2014 vs 2016
Effects of Electronic HR Tool

- More efficient: 3.65
- HR equals fewer return visits: 3.21
- Walk less: 2.84
Significant Outcomes

- Higher on-time rounds = fewer lights per patient
- Higher on-time rounds = fewer patient falls on the orthopedic unit
- Reduced call lights ≠ higher or lower walking steps
- Higher or lower on-time rounding percentage ≠ higher or lower day shift steps
- Higher on-time rounding percentage = = higher night shift steps
- Staff strongly agrees having an electronic documentation tool
  - ✓ = HR more convenient to complete
  - ✓ = easier to determine that HR is being completed
Special Thanks

- Beth Bartlett, MSN, RN, CENP, Vice President of Patient Care Services, CHI Health St. Francis
- Katie Hottovy, Director of Client Services for Nobl, for project and data assistance
- Dr. Brenda Bergman-Evans, PhD, CHI Health, for initial data analysis
- Natasha Quinones, BSN, RN for initial research assistance

Questions?