Med-Surg CHURN

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Med-Surg Churn

Research Day 2012

Marilyn Guidi, Director, Staffing – Patient Care Services
Carolyn L. Davidson, Administrator, EBP & Clinical Excellence
WORKGROUPS

SPONSOR: Anne Panik

WORKGROUP MEMBERS
- Chair: Marilyn Guidi
- Kim Jordan
- Courtney Vose
- Maryann Rosenthal (5K, 6K)
- Lois Guerra (5C)
- Director (6T)
- Debra Sellers (4T)
- Tracie Merkle
- Carolyn Davidson
- Data: Stephanie Lenhart
- Secretary: Lori McMichael

TIME-MOTION STUDY
- Deb Halkins-Management Engineering
- Jane Dilliard-PCS
- Tracie Merkle-Nurse Interviewer
- Erin Brittingham-5B Staff Nurse
- Allison Greco- TTU Staff Nurse
- Michele Grietzer- FP Staff Nurse

SPPI EVENT: 4 Directors, 4 PCC, 8 Staff which included 3 from the original workgroup; 13 units and Float Pool representation
What is ‘CHURN’

‘Churn’ is operationally described as a persistent phenomenon associated with patient admissions, discharges, transfers and the daily care workload that is accepted as the norm of healthcare. Within the norm and the ‘churn’ effect, systems inefficiencies are exposed and have the potential to negatively impact on patient and nurse satisfaction and outcomes.
Background

- Annual review of nurse to patient ratios
  - National Benchmarks
  - Conferences
  - Colleagues
- Nurse to patient ratios are adjusted as necessary to address a specific patient population (i.e. 5T—Acute Leukemics)
- Nurse to patient ratios are flexed to meet patient demands
The ‘voices’ of med-surg staff concerns were becoming consistent, and unit directors were not only recognizing and hearing, but ‘feeling’ the escalating patient care concerns.

Additionally, the float pool staff recognized and was verbalizing the obvious strain on the medical-surgical units that was not evident on the progressive or critical care units.

These concerns were highlighted in rounds by administrators who addressed the initial wave, but ongoing issues continued to be brought forward about the burgeoning workload and feeling of “can’t keep up.”
The issues were consistent with a literature article by Kalisch et al. (2009) which highlighted findings from the MISSCARE survey of 459 nurses.

- The items most often missed were assessment (44%), interventions, basic care and planning (70%), ambulation (84%), medication effectiveness (83%), turning (82%), mouth care (82%), patient teaching (80%), prn medication administration (80%), and bedside glucose monitoring (26%).

- The reasons for missed care were identified as: labor resources (87%), material resources (56%), and communication (38%).

And, a recent Needleman, Buerhaus et al. article in NEJM published March 17, 2011 stated in their conclusions, “In this retrospective observational study, staffing of RNs below target levels was associated with increased mortality, which reinforces the need to match staffing with patients’ needs for nursing care”.
Current State

Examples of issues being voiced by staff:

- Patient turnover (*admission, discharge, transfer*) could result in a nurse caring for up to 12 patients per day
- System inefficiencies (paper v. electronic)
- Inefficiencies due to placement of Pyxis or tube stations
- Increasing patient acuity
- Expansive and high intensity nurse-managed protocols
- Patient throughput processes ('move on brown')
- Handoff Communication between departments and providers
- Interruptions

NOT JUST ABOUT RATIO
Analysis of the Problem

■ Multimodal Approach
  ● Qualitative data
  ● Quantitative data
Outcomes

- HR and OD (Organizational Development) facilitated three RN Med-Surg focus groups:
  - Nurses with at least 2 years experience who work on the evening or night shift
  - Structured sessions to allow feedback from each nurse on five open ended questions developed prior to the meetings
Focus Groups

- 17 units participated (includes FP-CC and FP-M, 1-3 RN’s per unit)
- 2 sessions at the Cedar Crest site and 1 session at the Muhlenberg site.
- 5 questions:
  1. What do you **think** about your **workload**?
  2. What has **changed** in your **workload**?
  3. What has **impacted** your **workload**? --probing made it **harder**?; made it **easier**?
  4. What are **barriers** that you face during your shift?
  5. What two things would you **change** that would **improve** your **workload**?
Outcomes

- 29 total RN’s participated
  - Shared *compelling perceptions* about their workdays relative to “not being able to provide optimal care in the current environment”. This revolved around issues of communication, inefficiencies, and lack of supplemental labor resources.

LVH-CC
- Admissions
- Documentation
- I/S systems
- Meds
- Patient ED
- Physician and verbal orders
- Supplies-lack
- TPs-not enough
- Workload

LVH-M
- Admissions
- Communication
- Documentation
- Tubesystem availability
- Interruptions
- Physician coverage
- TP engagement
- Workload
RN Time-Motion Study

- Supported by Management Engineering
- Developed, tested and revised template for collecting data
- Interrater reliability established prior to observations
- Observations (n) occurred during the hours of 1500-2300 in 4 hour blocks on the following days:
  - Monday (n =1)
  - Tuesday (n =4)
  - Wednesday (n =5)
  - Thursday (n =4)
  - Friday (n =1)
Observations

- Completing Patient Safety Report at end of shift after report
- Expecting one admit, four actually arrived during 4-hour block
- RN interrupted so many times during discharge process forgot to give patient script – RN notified patient and patient returned to pick up
- Actual reflection of six patient assignment: 1 discharge, 1 admission, 1 transfer from ICU, 4 tele patients at end of shift
- RN makes many trips to med room for water or cups (meds in room)
- Patients moving to different rooms to accommodate assignments
- MD never put in orders at night, at home
- ED patients show up, no call to anyone
Outcomes

RN Time-Motion Study over 58 hours and 869 activities during the high ‘churn’ time indicated:

- nurses were **multi-tasking** at a minimum, **33%** of the time
- activities consuming **61% of their time are direct patient care**, documentation, and medication delivery
- **most activities take less than 2 minutes**, further validating the pace of the workday

<table>
<thead>
<tr>
<th>TYPE</th>
<th>NUMBER</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Activity + 1 Task</td>
<td>285</td>
<td>32.8</td>
</tr>
<tr>
<td>Main Activity + 2 Tasks</td>
<td>118</td>
<td>13.58</td>
</tr>
<tr>
<td>Main Activity + 3 Tasks</td>
<td>52</td>
<td>5.98</td>
</tr>
<tr>
<td>Main Activity + 4 Tasks</td>
<td>22</td>
<td>2.53</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Primary ACTIVITY</th>
<th>NUMBER</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Patient Care</td>
<td>212</td>
<td>24.4</td>
</tr>
<tr>
<td>Documentation</td>
<td>168</td>
<td>19.3</td>
</tr>
<tr>
<td>Medications/IV</td>
<td>152</td>
<td>17.5</td>
</tr>
<tr>
<td>Coordination of Care</td>
<td>121</td>
<td>13.9</td>
</tr>
</tbody>
</table>
Outcomes-Interruptions

- RN Time-Motion Study over 58 hours during the high ‘churn’ time indicated:

<table>
<thead>
<tr>
<th>Interrupter</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Patient call lights</td>
<td>10</td>
</tr>
<tr>
<td>2. Other staff</td>
<td>7</td>
</tr>
<tr>
<td>3. Other</td>
<td>5</td>
</tr>
<tr>
<td>4. Phone Interruptions-provider</td>
<td>5</td>
</tr>
<tr>
<td>5. Phone interruptions-other</td>
<td>4</td>
</tr>
<tr>
<td>6. Family</td>
<td>4</td>
</tr>
<tr>
<td>7. MD/provider</td>
<td>3</td>
</tr>
<tr>
<td>8. Ancillary Service</td>
<td>3</td>
</tr>
<tr>
<td>9. Pharmacy</td>
<td>2</td>
</tr>
</tbody>
</table>
One observer stated, “never once during the medication administration process in my fours of observation did a nurse not get interrupted.”
Why so Chaotic?

- Nurses struggling with workload
- Snapshot of the flow on a Med-Surg Unit
Admissions/Discharges

**LVH-CC: 5K**

- 0400-0700: 10
- 0800-1100: 10
- 1200-1500: 200
- 1600-1900: 500
- 2000-2300: 100
- 2400-0300: 100

**LVH-M: 4TM**

- 0400-0700: 5
- 0800-1100: 5
- 1200-1500: 200
- 1600-1900: 500
- 2000-2300: 100
- 2400-0300: 100

Legend:
- Total Admissions & Discharges
Admissions/Discharges

LVH-CC: 6K

LVH-M: 6TM

Total Admissions & Discharges
Admissions/Discharges

A sample of unit data indicated the ‘churn’ begins at 1200 and does not decrease until 2400, with a peak on the days of Tuesday and Wednesday.

***This does not account for transfers from other units.
Quality Issues/Time of Day

LVHN Falls and Mislabeled Lab Errors by Time of Day

<table>
<thead>
<tr>
<th>Time of Day</th>
<th>Mislab labs</th>
<th>Falls</th>
</tr>
</thead>
<tbody>
<tr>
<td>0400-0700</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>0800-1100</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>1200-1500</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>1600-1900</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>2000-2300</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2400-0300</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>
Quality Issues/Day of Week

LVHN Falls and Mislabeled Lab Errors by Day of Week

Errors

- Mislab labs
- Falls

Day of week:
- Mon
- Tue
- Wed
- Thu
- Fri
- Sat
- Sun
Outcomes

- Recommendations to Senior Leadership

  - Increase of FTE Base **(1.6 FTE/unit) for 11 medical-surgical units** between the hours of 1100 and 2300 was approved for FY12

    $1.5 Million Labor Budget

- Identified process issues along the journey to work towards improving

- Standard process for labor budget on Med-Surg Units with ≥ 30 beds
Next Pieces of the Puzzle
2 ½ day SPPI Event

- **PURPOSE:**
  - Develop standard roles/responsibilities to address the problems
- **20 participants (directors, PCC, Staff):**
  - Representative(s) from each unit
- **3 “P” Model**
  - Production, Preparation, Process
    - 7 Ways or Models are developed
    - “Moonshined” into 1 or 2 models
A Picture’s Value
Problems and Possibilities

- Stress = Critical Thinking
- Potential for errors
  - PL. Satisfaction
  - Productivity
  - Cost-effectiveness
  - Quality
- Staff satisfaction & care provided
- Adequate breaks & lunch

- Intersections
  - Increased workload on staff
  - Increased waitlist for patients
  - Reduced OR capacity
  - Increased waitlist for patients
  - Increased waitlist for patients

- Priority Tree
  - Work plan: Fluid Community (CNH)
  - One Computer System
  - One Communication System (RN only)
  - Appropriate transfusion

- Inappropriate Bed Placement
  - Inappropriate Bed Placement

- Professional Function
  - One Computer System
  - One Communication System
  - Appropriate transfusion

- Utilization of 1100-2300 NURS
Increased Stress
Potential for error
Delay in care
Decreased patient perception of unimportance
Extra Re-work
Forget critical info - patient safety issues
↓ Quality
↓ Overtime (↑ Cost)

INTERRUPTIONS

ASCOM PHONES
Physician/TP's
Testing needs
Families

Colleagues
Telemetry
IS complications

Problem Tree
### Model Selection

#### Key Tasks and Characteristics

<table>
<thead>
<tr>
<th>Task/Characteristic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meal Break Relief (scheduled):</td>
</tr>
<tr>
<td>Coordinated Unit Communication:</td>
</tr>
<tr>
<td>Checklist of duties</td>
</tr>
<tr>
<td>Consider coverage for shift changes</td>
</tr>
<tr>
<td>Acuity - use 'bed ahead'</td>
</tr>
<tr>
<td>No Patient Assignment</td>
</tr>
<tr>
<td>Structured Times for 11 - 11 Support/Relief</td>
</tr>
<tr>
<td>1x1 Flow for Charting</td>
</tr>
<tr>
<td>Standard Work</td>
</tr>
</tbody>
</table>

- **Standard Work**
- **6S**
- **Tight Connection**
- **1X1 flow**
The “CHURN” Model

- **STANDARDIZATION**
  - Develop checklists and standard work for the unit and “CHURN” RN
  - Directors, PCC’s and staff nurses from the representative units were assigned to one of six teams for the action items and testing phase
  - Evaluation of the model effectiveness
# Standardization

## Med/Surg Churn Model Development

<table>
<thead>
<tr>
<th>Topic</th>
<th>Lead</th>
<th>Support</th>
<th>Process Owner Support</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meal Break Structure and Structured Relief/Support provided by 11-11 Nurse</td>
<td>Angie</td>
<td>Todd, Kelly Erb, 4T/7T</td>
<td>Marilyn Guidi</td>
<td></td>
</tr>
<tr>
<td>Checklist Development</td>
<td>Deb</td>
<td>Lori, Tammy Gallagher (5C), 4T/7T</td>
<td>Carolyn Davidson</td>
<td></td>
</tr>
<tr>
<td>Standard Work</td>
<td>Amber</td>
<td>Lori, Christine, Kelly, Chrissy Schirer</td>
<td>Marilyn Guidi</td>
<td></td>
</tr>
<tr>
<td>Education and Communication Plan</td>
<td>Lois</td>
<td>Maryann, 6T, Marketing</td>
<td>Marilyn Guidi</td>
<td>Communication Plan includes: Tasks for 11-11 Nurse, Responsibility(ies) of Primary Nurse, Sample of activity in the shift</td>
</tr>
<tr>
<td>PDCA (Staging, phasing and conducting testing)</td>
<td>Allie</td>
<td>Tracey, Nicky Melneck</td>
<td>Carolyn Davidson</td>
<td></td>
</tr>
<tr>
<td>Measurement Team</td>
<td>Jody</td>
<td>Sue G, Pam Carrion</td>
<td>Carolyn Davidson</td>
<td></td>
</tr>
</tbody>
</table>
Outcomes
Interim Findings

1 month after implementation:
- Employee survey in November 2011 elicited at least one (1) qualitative comment from every unit about the value of the role.

Based on one unit’s experiment with the Churn nurse being accountable for reviewing completeness of Med Rec—the compliance improved from 83% to 94%.
1-YEAR LATER

Staff RN perceptions improved from baseline to 4-months

- ON A SCALE OF 1 to 10, with 1 being out of control and 10 being highly controlled, RATE your typical day on this unit?
  - Pre: 58.5% (n=138) rated day 6-10.
  - Post: 75% (n=274) rated day 6-10.

- In general, how would describe the quality of nursing care you deliver to your patients? Rated as excellent
  - Pre: 26% (n=73)
  - Post: 36% (n=120)
1-YEAR LATER

- Orientation plan for M-S Churn Nurse Role
- Revision of Checklist
- 1-year Staff Satisfaction/Perception Survey (COMING SOON)
Next Steps

- FY 2013 – each unit has identified a quality outcome for the M-S Churn nurse to impact

- MISSCARE Nursing Research Study (January)
  - Kathy Baker
  - Dr. T. Bernecker (Academic Partner)
  - Dr. M. Pasquale (Academic Partner)
Questions?

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