Establishing Safe Staffing Patterns For Nursing
HIMSS Safe Staffing Work Group

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Presentation Overview

- Discuss background on Safe Staffing
- Options for Nurse Staffing
- Data-driven Nurse Staffing Methodology
- Conclusions
Data Driven Approach to Nurse Staffing

“Hospitals are held together, glued together, enabled to function...by the nurses”
Thomas, L. 1983

“Nurses are the early warning system for early detection of complications and early detection of problems in care...”
Aiken L. et al, 2003
Cimiotti, Haas, Saiman, Larson, 2006

- Higher RN HPPD resulted in 79% reduction in risk of bloodstream infection between 2 NICUs
- Recommended that staffing decisions based on census be transformed into acuity driven staffing decisions
- Findings suggest that RN staffing associated with risk of bloodstream infection in NICU
Establishing Safe Staffing Patterns for Nursing

• “Patient Safety and Quality Patient Care can be enhanced through the collaborative efforts of all HIMSS/SHS communities to provide useful and effective information technology, enhanced processes, and appropriately designed staffing ratios for Nursing Staff”

HIMSS position paper on Safe Staffing Ratios- June 2006
Establishing Safe Staffing Patterns for Nursing

• Background
  – Mandatory Staffing Ratios
    • States and Federal Government
    • Driven primarily by CNA and other nurses’ unions
    • Being touted as “safe staffing ratios”, but based upon no documentable evidence.
    • Same ratios Days and Nights
Enacted legislation/adopted regulations to date: (13 states plus DC) CA, CT, DC*, FL, IL, ME*, NJ, NV+, OH, OR, RI, VT, WA, TX [regulations]

+ represents legislation requiring a study
* legislation was either waived or modified from that which was enacted

Introduced in 2008; (13 states); AZ, CT, FL, HI, IA, MN, MO, NJ, NM, NY, OH, VA, and WV.

As of Feb 2009
Establishing Safe Staffing Patterns for Nursing

• Only California and Massachusetts have actually passed legislation mandating minimal ratios.

• There has been *NO* evidence that these ratios have resolved any patient safety issues nor improved patient outcomes.
Alternatives to Mandatory Staffing

• HIMSS proposes alternatives to mandatory staffing
  *Benchmarking
  *Benchmarking supplemented by work sampling
  *Work sampling only
  *Detailed data collection
What Are the Options for Nurse Staffing?

Data Driven Safe Staffing Systems

– Every patient is different by dependency system
– Accounts for recent procedures
– Workload tied to evidence in patient’s chart
– Accounts for various aspects of ADL

Fixed Ratios

– Every patient is the same
– Arbitrarily set, even legislated
– All units with the same designation are the same
What Are the Options for Nurse Staffing?

<table>
<thead>
<tr>
<th>Data Driven Safe Staffing Systems</th>
<th>Fixed Ratios</th>
</tr>
</thead>
<tbody>
<tr>
<td>– Layout &amp; design issues considered</td>
<td>– All hospitals are the same</td>
</tr>
<tr>
<td>– Ancillary Department support built in</td>
<td>– Requires some nurses to work harder and longer than some others</td>
</tr>
<tr>
<td>– Family interaction with the patient is factored in</td>
<td>– Nurse has an imbalanced workload even if she has the same number of patients</td>
</tr>
<tr>
<td>– Accounts for LOS</td>
<td></td>
</tr>
</tbody>
</table>

Data Driven Safe Staffing Systems

- Layout & design issues considered
- Ancillary Department support built in
- Family interaction with the patient is factored in
- Accounts for LOS
Ratios Don’t Equal Hours

<table>
<thead>
<tr>
<th>Nurse</th>
<th>Skill Level</th>
<th>Bed Assigned</th>
<th>Class Level</th>
<th>Hours Assigned</th>
</tr>
</thead>
<tbody>
<tr>
<td>A2N</td>
<td>RN</td>
<td>0973</td>
<td>2</td>
<td>2.8</td>
</tr>
<tr>
<td>Ratio</td>
<td>1:1</td>
<td>Total</td>
<td></td>
<td>2.8</td>
</tr>
<tr>
<td>BJS</td>
<td>RN</td>
<td>0963</td>
<td>1</td>
<td>2.5</td>
</tr>
<tr>
<td>BJS</td>
<td>RN</td>
<td>0970</td>
<td>2</td>
<td>2.8</td>
</tr>
<tr>
<td>BJS</td>
<td>RN</td>
<td>0982</td>
<td>1</td>
<td>2.5</td>
</tr>
<tr>
<td>Ratio</td>
<td>1:3</td>
<td></td>
<td></td>
<td>7.8</td>
</tr>
<tr>
<td>BOM</td>
<td>RN</td>
<td>0968</td>
<td>4</td>
<td>3.4</td>
</tr>
<tr>
<td>BOM</td>
<td>RN</td>
<td>0969</td>
<td>5</td>
<td>4.2</td>
</tr>
<tr>
<td>BOM</td>
<td>RN</td>
<td>0972</td>
<td>1</td>
<td>2.5</td>
</tr>
<tr>
<td>Ratio</td>
<td>1:3</td>
<td></td>
<td></td>
<td>10.1</td>
</tr>
<tr>
<td>CAN</td>
<td>RN</td>
<td>0977</td>
<td>1</td>
<td>2.5</td>
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<tr>
<td>CAN</td>
<td>RN</td>
<td>0981</td>
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<td>CAN</td>
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## What Are the Options for Nurse Staffing?

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<th>Fixed Ratios</th>
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</thead>
<tbody>
<tr>
<td>– Accounts for technological support (EMR, electronic med cabinets, etc)</td>
<td>– All shifts are staffed the same</td>
</tr>
<tr>
<td>– Bed turnover issues</td>
<td>– Technology is ignored</td>
</tr>
<tr>
<td></td>
<td>– Unique patient turnover is ignored</td>
</tr>
</tbody>
</table>
Patient Classification Tool Sets
(One size does not fit all)

• Evidence-based Staffing Systems must be customized for all Nursing Specialties:
  • Women’s Health
  • L&D
  • NICU/Nursery
  • PICU/Pediatrics
  • Oncology
  • Palliative Care
  • Emergency Department
Engineered Safe Staffing for Nursing

• Evidence-based or engineered Safe Staffing Systems for Nursing include two major components:
  
  — *Patient Classification* (Acuity/Dependency) Systems, which groups patients into similar groups

  — Development of Engineered Staffing Ratios, also called *workload measurement to establish a foundational database*

  — The two must be linked
Essential Elements of a Valid Dependency Staffing/Classification System

• **Objective** – Not subject to individual interpretation (high inter-rater reliability)
• **Auditble** – Traced back to patient chart/orders
• **Discriminating** – Criteria sets must differentiate between various patients
• **Statistically valid** - Using generally acceptable statistical validation methodologies
Workload Measurement

*What is it?*

- **Workload measurement** is the process of determining the hours of care required by each patient in each “bucket” or dependency level.

- Multiple options for developing engineered staffing ratios:
  - Use of hospital’s budgeted HPPD
  - Work sampling
  - Use of database of treatment profiles
  - Detailed engineered staffing ratios/treatment profile development
AONE Requirements for Setting Engineered Staffing Ratios

- It accounts for the:
  - Specific layout and design features of a facility
  - Technological support (EMR or not; CPOE or not, etc.)
  - Unique dependency/acuity requirements of the patient
AONE Requirements for Setting Engineered Staffing Ratios

• It accounts for the (cont’d):

  — Ancillary department support (pharmacy, imaging, transport, EVS, etc.)
  — Specific mission of the hospital (teaching or not; specialty of the hospital (pediatric, cardiac, cancer, etc.))
  — Skill mix and education level of the nursing staff
Benchmarking Services

• NACHRI (for Pediatrics)
• NDNQI
• CALNOC
  https://www.calnoc.org/globalPages/mainpage.aspx
• Solucient  www.thomsonreuters.com
• GHC Consulting  [garrick@garrickhyde.com]
• Delta Healthcare Consulting Group
  www.deltahcg.com
Workload Measurement

*Work Sampling*

- 3rd Party Observer
- Observations every 10-15 minutes
- Focus on Staff, not patient
- Provides work distribution by skill, by shift
- 24 hour sampling time/unit
Workload Measurement

Work Sampling

• During Work Sampling Process issues can be identified
  • Stage bed huddles in the Emergency Department so the LOS of ED patients can be observed first hand
  • Take action to prevent bolus of admissions occurring at change of shift (from the ED).
    - Staffing on inpatient units is already set (2 hours in advance of shift)
    - Transportation of patients to unit at last minute may cause overtime and delays
    - Nurses on inpatient units are not available for receiving reports on inbound patients.
Workload Measurement

Detailed Standards Development

• The hours of care by acuity level are found by measuring four types of activities:
  — Direct care activities (documented)
  — Direct care activities (undocumented)
  — Indirect care activities
  — Routine activities
Sample Results of Detailed Engineered Staffing Ratios – Where Nurses spend their time:

- Direct Care - Undocumented: 25%
- Indirect: 6%
- Routine: 18%
- Direct Care - Documented: 51%
Goals & Objectives of Safe Engineered Staffing

• Optimize staffing at the unit level

• Allocation of appropriate activities to appropriate skill levels

• Balance Patient Assignments among Caregivers

• Maximize efficiency (minimize non-value added activities)
Patient Classification Services

• McKesson
  www.mckesson.com/en_us/McKesson.com/For%2BHealthcare%2BProviders/Hospitals/Nursing%2BSolutions/ANSOS%2BOne-Staff.html

• Delta Healthcare Consulting Group
  www.deltahcg.com

• Optilink
  www.advisoryboardcompany.com/content/optilink/optilink.html

• ResQ
  www.res-q.com

• Clairvia

• API Healthcare
  http://www.apihealthcare.com/products/patient_classification/
Patient Classification + Workload Measurement

*The Result*

Aligns with accrediting & regulatory guidelines for staffing:

– ANCC Magnet Accreditation
– AONE
– JCAHO
– State Boards of Nurse Examiners recommendations for staffing
Summary

• The patient must remain the focus!
• Improved patient care outcomes is a shared goal
• Optimal nurse staffing can improve patient outcomes
• Call to action: Creation of staffing models qualified through the metrics of engineered staffing systems to provide the most effective match between available resources and desired patient outcomes.