Development of a Workload Tracking Tool for Inpatient Advanced Practice Registered Nurses and Physician Assistants on a Surgical Service

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Disclosure Information

I have no relevant financial relationships with the manufacturer(s) of any commercial product(s) and/or provider(s) of commercial services discussed in this activity.

I do not intend to discuss an unapproved/investigative use of a commercial product/device in my presentation.

Objectives

• The learner will be able to define the importance of capturing the workload for Advanced Practice Registered Nurses (APRNs) and Physician Assistants (PAs) working in an inpatient surgical service.

• The learner will be able to plan their own inpatient workload tracking tool based from the information presented.

• The learner will be able to compare their current surgical inpatient workload to the presented workload for the different inpatient surgical divisions utilizing APRNs and PAs.
Background Information

- Outpatient workload tracked by RVUs
- Expanding number of inpatient APRNs and PAs without associated RVUs billing
- Majority of roles encompass inpatient, clinic, emergency room consults, assisting in the OR
- Tracking system desired by leadership to follow workload of inpatient APRNs and PAs
- Workload tracking historically done by paper in limited number of departments and was inconsistent
- Trouble in viewing and summarizing data

Literature Review

Fieldston et al. (2014), Developed a tool to quantify workload and workforce to predict staffing needs at a children’s hospital
Kapu et al. (2016), Survey of 1466 APPs across 14 organization on perceived vs actual workload for 22 different specialty areas
Kleinpell et al. (2015), Survey of 433 APPs to identify the ratio of provider to patient with 25 respondents working in a PICU

Inpatient Staffing Models-Assumptions

Caseloads (patients per provider at start of day)
- Input from the APPs, APP supervisor, medical or division director establishes internal caseload benchmarks
- Caseloads vary by specialty/acute of service
- Resident caps historically used but APP caseloads higher in most areas
- Complexity considered & tracked
Inpatient Model

Challenges

• Inpatient services may have a higher percentage of inexperienced staff which influences number of patients APRNs and PAs manages and how “safety” is perceived
• Range of caseload by service can vary based on staffing/census
• Other available resources (resident, fellow, attending, RNs doing higher level care coordination and discharge) highly variable and impacts overall workload
• APRNs and PAs inpatient staffing (vacancy, FMLA) also variable, as we have replaced residents, attendings often reluctant to cover APRNs and PAs scope of work

Development of workload tracker

• Surgical departments met and developed a tracking list in January 2014
• Identified key indicators of workload and definitions
• Developed process for consistent tracking across divisions
• Create a self updating workload report to view data

Interventions

• Develop an initial agreed upon items to follow for each department
• This included:
  • Department Census
  • Number of inpatient APRNs and PAs
  • Consults, Procedures, Post-ops, Admissions, Discharges, Clinic patients seen by the inpatient APRN or PA
  • Definition of complex patients
Procedures

Pediatric Surgery
- G tube changes
- Granulation tissue fulguration
- Drain/tube removal
- Suture/staple removal
- Packing removal and/or placement in wound
- Venous graft insertion or changed
- Neurosurgery
- Shunt reprogram
- Shunt tap
- Reservoir tap
- Drain removal
- Urology
- Drain removal
- Catheterization through a stoma
- Orthopedics
- Drain removal
- Plastic Surgery
- Distractor education
- Oasis placement
- Drain removal
-Trauma
- C-spine clearance

Inpatient Surgical Complex Definition

- Require >1 hr face to face time between APRN or PA and pt/family
- Requires >1 consult service
- Consulting service pertinent for medication management
- >2 body systems affected during current hospitalization
- HR monitoring required beyond POD 2 (excepting patients with PCA/epidural)
- 3 actively managed tubes
- Nutritional dependency that deviates from home regimen (unless anticipated pre-operatively)
- Behavioral/psychological concerns that require active intervention during hospitalization that deviates from home regimen
- A patient on the watcher list

Database entry form
## 2016 Overall Average for Surgical Services

<table>
<thead>
<tr>
<th>Department</th>
<th>Average Daily Census</th>
<th>Average Adj. Pts Per DRG</th>
<th>Average Adj. Pts Per APP</th>
<th>Percentage of Complex pts</th>
<th>Days of Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENT</td>
<td>11.2</td>
<td>1.54</td>
<td>7.38</td>
<td>1.3%</td>
<td>246.00</td>
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<tr>
<td>General Surgery</td>
<td>28.1</td>
<td>4.4</td>
<td>1.37</td>
<td>31.5%</td>
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<tr>
<td>Urology</td>
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<td>1.04</td>
<td>1.0</td>
<td>16.8%</td>
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<tr>
<td>Neurosurgery</td>
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<td>2.9</td>
<td>10.99</td>
<td>17.2%</td>
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<tr>
<td>Orthopedics</td>
<td>24.9</td>
<td>4.9</td>
<td>12.7</td>
<td>27.2%</td>
<td>123.00</td>
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<tr>
<td>Plastic Surgery</td>
<td>5.5</td>
<td>1.0</td>
<td>4.3</td>
<td>1.6%</td>
<td>233.00</td>
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<tr>
<td>Thoracic</td>
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<td>1.4</td>
<td>1.89</td>
<td>17.5%</td>
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<tr>
<td>Surgery</td>
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<td>1.4</td>
<td>4.21</td>
<td>15.2%</td>
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<tr>
<td>Overall Avg</td>
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<td>1.67</td>
<td>5.67</td>
<td>25.6%</td>
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### Benchmark Comparison

<table>
<thead>
<tr>
<th>Department</th>
<th>Actual Avg</th>
<th>Internal Benchmark</th>
<th>Kapu et al. (2016)</th>
</tr>
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<tbody>
<tr>
<td>ENT</td>
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<td>7-8</td>
<td>NR</td>
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<td>Liberty Surgical</td>
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<td>Neurosurgery</td>
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<td>14-16</td>
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<tr>
<td>Orthopedics</td>
<td>11.7</td>
<td>6</td>
<td>10-12</td>
</tr>
<tr>
<td>Plastic Surgery</td>
<td>4.2</td>
<td>6</td>
<td>10-12</td>
</tr>
<tr>
<td>Urology</td>
<td>4.2</td>
<td>6</td>
<td>NR</td>
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</table>

### General Surgery Trends

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Average Adj. Pts Per DRG</th>
<th>Average Adj. Pts Per APP</th>
<th>Days of Data</th>
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<tbody>
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<td>Q3 2017</td>
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<td>13.0</td>
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<td>13.2</td>
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<td>103.00</td>
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<tr>
<td>Q4 2018</td>
<td>13.3</td>
<td>4.6</td>
<td>103.00</td>
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NEXT STEPS & DISCUSSION
QUESTIONS?

References

