How are Rural Hospitals Using Hospitalists?

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AcademyHealth | June 2013

Supported by the Office of Rural Health Policy, Health Resources and Services Administration, PHS Grant No. U1CRH03717
Background and Objectives

• Paucity of research with rural context
  – Hospitalists may be part-time with additional responsibilities
  – Unclear whether prior research findings are generalizable to smaller rural facilities

• Study objectives were to examine:
  – Trends in hospitalist use by rural hospitals
  – Impacts of hospitalist use in rural hospitals
Methods: Data

• Primary data from a national phone survey of rural hospitals May-August 2011
  – *Survey sample*: CAHs and other rural hospitals with <100 beds using hospitalists in 2008 AHA survey
  – *Respondents*: CEOs (2/3) & staff (1/3)
  – *Response rate*: 86.4% (N=402)
  – Statistical analysis of quantitative survey data and qualitative analysis of open-ended responses

• Secondary data from American Hospital Association Annual Surveys FY 2005-2010
Survey Respondents

• 329 respondents
  – 42.6% represent hospitals with 25 or fewer beds
  – 69.6% represent private, not-for-profit hospitals
  – Distribution across four census regions

• 52 non-respondents
  – Nearly half (25) represent facilities with 51-100 beds
  – Majority (35) from the south census region
Primary Reasons for Using Hospitalists

- Improving care quality/continuity: 19.3%
- Cover unassigned patients: 6.9%
- Alleviate physician shortage: 6.6%
- Medical workload: 10.3%
- Non-medical workload arrangement: 16.4%
- Recruit & retain physicians: 8.6%
- Requests from physicians: 26.6%
- Improve care quality/continuity: 19.3%

The diagram visually represents the pie chart with percentages for each reason.
Hospitalist Specialties

*May include PAs, NPs, and/or other specialties

- Without Family Practice: 40%*
- With Family Practice: 42%
- With Internal Medicine: 42%
- Others*: 6%
- PAs and/or NPs: 24%

*May include PAs, NPs, and/or other specialties
Use of Hospitalists

- Hospitalists care for adult medical patients in 100% of surveyed hospitals; most also care for surgical patients.
- Fewer (39%) have hospitalists caring for newborns or OB patients; some rural hospitals don’t provide those services.
- Hospitalists in rural hospitals frequently play multiple roles – providing outpatient, emergency, and/or primary care.
Perceived Quality Impacts

Positive, 84.4%

Positive & negative, 9.8%

No change, 5.8%

Hospitalists:
• Are available when needed & quick to respond, spend more time with patients
• Improve quality, patient safety measures, communication with nurses, teamwork
• Possess expertise, ability to handle more acute patients
• Provide consistent, standardized care; use evidence-based medicine
Perceived Financial Impacts

No change, 5.8%

- Increased admissions
- Improved primary care physician productivity, ability to treat higher-acuity patients
- Reduction in patient complications, avg. length of stay, transfers

Both positive & negative, 16.9%

- Costs more than revenue generated
- Hospital has to subsidize hospitalist program
- High costs of hospitalists’ salaries or contracts

Positive, 14.8%
Perceived Recruitment / Retention Impacts

- Easier, 74.4%
  - PCPs don’t want to do inpatient care or want flexibility in doing it
  - Reduced call, more work/life balance for PCPs
  - New candidates are only interested in places with hospitalists
- No change, 25.4%
- Harder, 0.6%
Survey Respondents’ Assessment with Hospitalist Use

**Physician Satisfaction**
- Very satisfied: 61.5%
- Satisfied: 35.4%
- Neither satisfied nor dissatisfied: 2.8%
- Dissatisfied: 0.3%

**Patient Satisfaction**
- Very satisfied: 35.6%
- Satisfied: 53.2%
- Neither satisfied nor dissatisfied: 9.1%
- Dissatisfied: 2.1%
Methods: Logistic Regression

- What facilities are using hospitalists?
  - Outcome: Binary hospitalist use variable
  - Explanatory variables: inpatient days, Medicare payment classification, ownership, total primary care physicians, system membership, census division

- Multivariate logistic regression model calculated probabilities of hospitalist use given hospital characteristics
## Probability of Hospitalist Use by Small Rural Hospitals

<table>
<thead>
<tr>
<th>Medicare Payment Classification</th>
<th>Est.</th>
<th>Std. Err.</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Critical Access Hospital (CAH)</td>
<td>-9.2%</td>
<td>3.7%</td>
<td>0.012</td>
</tr>
<tr>
<td>Medicare Dependent Hospital (MDH)</td>
<td>-8.6%</td>
<td>4.4%</td>
<td>0.054</td>
</tr>
<tr>
<td>Sole Community Hospital (SCH)</td>
<td>-3.7%</td>
<td>3.8%</td>
<td>0.331</td>
</tr>
<tr>
<td>Rural Referral Center (RRC)</td>
<td>5.0%</td>
<td>4.6%</td>
<td>0.271</td>
</tr>
</tbody>
</table>

[Reference = Rural PPS]
Conclusions

• Hospitalist use by rural hospitals increased threefold, 2005-2010
• Multiple hospitalist models are being used in rural facilities
• In most rural hospitals that use them, hospitalists care for more than half of adult inpatients
• Survey respondents report strong positive impacts of hospital use on quality, recruitment & retention, and patient & physician satisfaction; financial results are more mixed.
• Medicare payment classification and inpatient volume are significantly related to the likelihood of hospitalist use.
Implications

• Rural hospitals may benefit from using hospitalists

• Situation is more complex than cost vs. revenue:
  – Financial impact of some benefits can be difficult to quantify
  – Use of hospitalists can enhance recruitment, retention, and efficiency of PCPs
  – Hospitalists can provide inpatient care for unassigned and uninsured patients