Private Equity Acquisitions of Hospitals & Nursing Homes

NIHCM Webinar
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Zirui Song, MD, PhD
**Classic Model of a Private Equity Acquisition**

- **PE Firm**
  - GP
  - PE Fund: 30% Equity, 70% Debt
  - Hospital, Practice: 20% after hurdle
  - Limited Partners: US Pension Funds (>1/3), endowments, sovereign funds, wealthy people
  - Lenders (Bank)
  - Assets as Collateral
  - Returns: first 8%, then 80%

- **Management Fees**
  - 2% of equity
  - 98% of equity
  - Returns: fixed rate

- **IPO (5-10%)**
  - Corporate (20%) – Optum, CVS, Amazon

- **Zirui Song, MD, PhD**
  - Harvard Medical School
  - Massachusetts General Hospital
Private Equity Acquisitions of Hospitals

Changes in Hospital Income, Use, and Quality Associated With Private Equity Acquisition

Figure. Total Charge to Cost Ratios Before and After Private Equity Acquisition

Bruch JD, Gondi S, Song Z. JAMA Intern Med. 2020
<table>
<thead>
<tr>
<th>Measure</th>
<th>Hospitals</th>
<th>Differential change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Acquired hospitals (n = 204)</td>
<td>Control hospitals (n = 532)</td>
</tr>
<tr>
<td></td>
<td>Before private equity</td>
<td>After private equity</td>
</tr>
<tr>
<td>Net income per y, $</td>
<td>8,527,119</td>
<td>12,861,680</td>
</tr>
<tr>
<td>Total charge per inpatient day, $</td>
<td>5,789</td>
<td>7,766</td>
</tr>
<tr>
<td>Emergency charge to cost ratio</td>
<td>3.81</td>
<td>5.52</td>
</tr>
<tr>
<td>Total charge to cost ratio</td>
<td>4.17</td>
<td>5.02</td>
</tr>
<tr>
<td>Case mix index</td>
<td>1.42</td>
<td>1.47</td>
</tr>
<tr>
<td>Medicare’s share of discharges, %</td>
<td>40.3</td>
<td>36.8</td>
</tr>
<tr>
<td>Medicaid’s share of discharges, %</td>
<td>13.2</td>
<td>12.2</td>
</tr>
<tr>
<td>Total discharges per y, No.</td>
<td>8948</td>
<td>9181</td>
</tr>
</tbody>
</table>

Bruch JD, Gondi S, Song Z. JAMA Intern Med. 2020
Table 3. Changes in Hospital Performance on Quality Measures After Private Equity Acquisition

<table>
<thead>
<tr>
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<th>Differential change</th>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Acquired hospitals (n = 179)</td>
<td>Control hospitals (n = 404)</td>
<td>Unadjusted(^b)</td>
</tr>
<tr>
<td>Heart failure(^a)</td>
<td>75.2</td>
<td>93.6</td>
<td>18.4</td>
</tr>
<tr>
<td>Acute myocardial infarction(^a)</td>
<td>89.3</td>
<td>97.5</td>
<td>8.2</td>
</tr>
<tr>
<td>Pneumonia(^a)</td>
<td>73.7</td>
<td>95.1</td>
<td>21.7</td>
</tr>
</tbody>
</table>

Bruch JD, Gondi S, Song Z. JAMA Intern Med. 2020
Relative to controls, PE acquisitions increased:

- Composite HACs: 25%
- Falls: 23%
- Central line infections: 41%
- Sepsis mortality: 5%
- Other mortality: mixed
Mortality during COVID-19:
Covid patients    2.3% higher
Non-Covid patients  11% ↑
Relative to controls, PE acquisitions increased:

- ED visits 11%
- Hospitalizations 9%
- Medicare spending 4%

Braun R, Jung HY, Casalino L, Myslinksi L, Unruh M. JAMA Health Forum. 2021
Mortality 10% ↑

Taxpayer spending 11% ↑

A: Mortality (Stay + 90 Days)

B: Log Amount Billed per Patient Stay

B: Overall Rating

D: Nurse Asst. per Patient Day