Professional Staffing Models for Observation Care: How the Money Works

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Disclosures

Agenda

• Payer trends
• Professional payments
• Calculating the true value of observation

Evolution of Medicare Policy: 1980’s-90’s

• 1983 – Diagnosis-Related Group (DRG) implemented
• 1986 & 90 – Omnibus Budget Reconciliation Act (OBRA)
• 1995 – HCFA reports to congress

Evolution of Medicare Policy: 2000’s

• 2000 (OPPS/APC) – Observation “packaged”
• 2002 – New APC 0339 for observation
• 2004 – Code 44
• 2007 – APC 8003 following ED visit; 8002 following clinic visit

Evolution of Medicare Policy: 2010-Present

• 2013 – “2 Midnight Rule”
• 2014 – APC 8009 replaces 8003 and 8002
• 2016 – C-APC 8011 replaces 8009

1.

2.

3.

4.

5.

6.
The Payer Perspective: Spend Less Without Compromising Patient Care

Observation APC 8011 < Inpatient DRG

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Alternative Payment Models

**Mini-DRG:** Eliminate observations status: all hospitalized patients are inpatients but short-stay inpatients paid at a lower rate

**Retrospective adjustment:** Eliminate observation status; adjust the DRG retrospectively to account for actual time/resources consumed and use formula to keep costs in check (e.g., don’t grow the pie, just change how it is divided)

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Policy Reform: SAM and SNF

**Home medications:** Medicare should reimburse for home medications administered while in observation status (self-administered medications)

**Qualifying inpatient minimum for SNF benefit:** Midnights in observation status should count toward 3-night minimum for SNF benefits

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Relative Professional Payments Vary by Payer

![Graph showing relative professional payments varying by payer, with categories: Medicare, Private, Medicaid, Self-Pay.](image)

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Medicaid Professional Payments by Region

<table>
<thead>
<tr>
<th>CPT Code</th>
<th>East Coast (NC)</th>
<th>Mid-West (IA)</th>
<th>West Coast (OR)</th>
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<td>99217</td>
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<td>99220</td>
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</table>

Source: LogixHealth 2018

Billing Models: One versus Two Service

- Can’t control the date of service, so there are two options to get paid for both the ED visit and observation visit on the same date if you staff with a separate physician:
  - Different group (Tax ID number)
  - Different specialty (NPI number)

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Billing Models: One versus Two Service

- CPT/Payers: cannot bill two E&M codes on the same calendar date from the same specialty and group

  - Stark Law: self-referral risk

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Staffing Model for One Service Dedicated Unit

- 2 Nurses
- 1 Medical Assistant
- 1 Physician (inpatient and FQHC)
- 1 Advanced Practice Provider
- 1 Unit Secretary
- 1 Case Manager (shared)

- 10 beds

Key collaborators: Physical therapy, social work, pharmacy, IB, radiology, consulting services

Leadership: Medical director, APP leader and nurse manager

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One Service Cash Flow Model

Revenue = marginal difference between observation and ED E&M payments

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Net Loss at All Levels of Patient Throughput
Monte Carlo Simulation

Run 1000 trials

Simulation – Annual Net Loss from One Service Model

Assumes 10-bed EDOU with throughput of 9 patients/day
12h of APP staffing
2.5 hours of EM attending coverage

Net loss = $315,382 +/- $89,635

Staffing Model for Two Service Dedicated Unit

Key collaborators: Physical therapy, social work, pharmacy, IS, radiology, consulting services
Leadership: Medical director, APP leader and nurse manager

Two Service Cash Flow Model

Breakeven Potential Over 20 Patients/Day

Simulation – Annual Net Cash Flow in Two Service Model

Assumes 25 bed EDOU with throughput of 22 patients/day
24h of APP staffing
12 hours of EM attending coverage

Net profit = $37,569 +/- $359,583
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What Can We Learn from the Finance Industry?

Real Options

Back to Observation Medicine

Value of an Observation Unit Stay

Total Value Per Observation Unit Patient
Summary
• Observation visits are increasing and are supported by payer policies
• One and two-service models of observation care have large financial implications for professional groups
• The true value of observation accounts for the creation of hospital capacity

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Hospital-Level Short-Stay Classification is Variable

2014: 2 Midnight Rule to Reduce Variation

Medicare’s Push to Increase Observation

% change, 2013 to 2014

Source: CMS analysis of CMS data, 2014
Disproportionate Rise in Observation Spending

Agenda
• Payer trends
• Facility payments
• Professional payments
• Patient out of pocket costs

Comparison Between Models of Observation Care

Making a Case for a Dedicated OU
Two assumptions:
1. Discharge home not an option
2. Inpatient care not required

Financial Risk: Inpatient Care of Observation Patients
The Business Case: OU is Key

• “Observation” is just a billing status

• All evidence for cost savings = protocol-driven observation unit care

• To be efficient and lower cost by using observation, you need a dedicated unit with protocols

Observation Unit Size Calculation

<table>
<thead>
<tr>
<th>Percentage of Visits Managed in EDOU</th>
<th>5%</th>
<th>7.5%</th>
<th>10%</th>
<th>15%</th>
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<tbody>
<tr>
<td>30K members</td>
<td>3</td>
<td>5</td>
<td>6</td>
<td>10</td>
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<tr>
<td>40K members</td>
<td>5</td>
<td>8</td>
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<td>50K members</td>
<td>6</td>
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<td>90K members</td>
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<td>110K members</td>
<td>15</td>
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<tr>
<td>120K members</td>
<td>15</td>
<td>22</td>
<td>30</td>
<td>44</td>
</tr>
</tbody>
</table>

Annual ED Visit Volume

- Assumes 1.1 patients/bed/day

Systematic Review of Facility Cost Savings

<table>
<thead>
<tr>
<th>Disease</th>
<th>First Author</th>
<th>Year</th>
<th>Total Cost Savings of Observation Unit vs. Inpatient Admission</th>
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<tbody>
<tr>
<td>Asthma</td>
<td>Rydman</td>
<td>1998</td>
<td>$1,726</td>
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<tr>
<td>Chest Pain</td>
<td>Gaspoz</td>
<td>1994</td>
<td>$1,322</td>
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<tr>
<td>Sayre</td>
<td></td>
<td>1994</td>
<td>$2,745</td>
</tr>
<tr>
<td>Field</td>
<td></td>
<td>1995</td>
<td>$2,645</td>
</tr>
<tr>
<td>Mikhail</td>
<td></td>
<td>1997</td>
<td>$2,505</td>
</tr>
<tr>
<td>Roberts</td>
<td></td>
<td>1997</td>
<td>$966</td>
</tr>
<tr>
<td>Stomel</td>
<td></td>
<td>1999</td>
<td>$2,387</td>
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<tr>
<td>Robinson</td>
<td></td>
<td>2002</td>
<td>$1,675</td>
</tr>
<tr>
<td>Chang</td>
<td></td>
<td>2008</td>
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<td>Chang</td>
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<td>2008</td>
<td>($1,219)*</td>
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<tr>
<td>Miller</td>
<td></td>
<td>2010</td>
<td>$605</td>
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<tr>
<td>Infections</td>
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<td>1997</td>
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<tr>
<td>Pediatrics</td>
<td>Listernick</td>
<td>1986</td>
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<td>Neonatal</td>
<td>Greenberg</td>
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<td>Sickle Cell</td>
<td>Benjamin</td>
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<td>$968</td>
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<tr>
<td>TIA</td>
<td></td>
<td>2007</td>
<td>$748</td>
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<tr>
<td>Upper GI Bleed</td>
<td>Longstreth</td>
<td>1995</td>
<td>$1,795</td>
</tr>
</tbody>
</table>

Average: $1,528 (SD ± $789)

Mean savings: $4.6 million
Mean avoided admissions: 3,600

TIA: A Randomized Trial

<table>
<thead>
<tr>
<th>Metric</th>
<th>Observation Unit</th>
<th>Inpatient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length of Stay</td>
<td>25.6 hrs</td>
<td>61.2 hrs</td>
</tr>
<tr>
<td>Cost</td>
<td>$890</td>
<td>$1,547</td>
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<tr>
<td>Full testing</td>
<td>97%</td>
<td>91%</td>
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<tr>
<td>Subsequent stroke</td>
<td>3</td>
<td>2</td>
</tr>
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</table>

From: All Authors, Equitable Diagnosis: Preventing Patients from Teenage Inpatient Treatment. A Randomized Controlled Trial (Shorey C et al. Pediatrics 1990; 86; 631-635).

Syncope Cost Savings

Modeled Savings: Hospital Level

Mean avoided admissions: 3,600
Mean savings: $4.6 million

Making Greater Use of Dedicated Hospital Observation Units For Many Short-Stay Patients Could Save $3.1 Billion A Year
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Why Observation?

Medicare’s Push to Increase Observation

![Bar chart showing annual percent change from 2013 to 2014 for Inpatient and Observation](chart.png)

- **Observation**: 8%
- **Inpatient**: 0%

Source: MedPAC

Stock Options

- **Call option**: 100 shares, $125 strike price, January 17, 2020 expiry, cost: $6/share
  - Share price: $131, profit: $2,000
- **Put option**: 100 shares, $90 strike price, January 17, 2020 expiry, cost: $6.98/share
  - Share price: $131, profit: $612

Call Option Example

- **Share price**: $151, September 2, 2019, profit: $2,000

Back to Observation Medicine
Observation Unit vs. Premium

- Saves hospital bed hours
- Default cost

Value of an Observation Unit

- Saves $1,528 in direct costs
- Default cost

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Did You Say “Observation?”

- Medicare Payment Breakdown

- Total Value Per Observation Unit

<table>
<thead>
<tr>
<th>Patient</th>
<th>Total = $2,990</th>
</tr>
</thead>
<tbody>
<tr>
<td>Premium</td>
<td>$2,386.80</td>
</tr>
<tr>
<td>2018 APC 8011 = $2,386.80</td>
<td></td>
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<tr>
<td>20% = $477.36</td>
<td></td>
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<tr>
<td>2019 Part A deductible = $1,364</td>
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</tr>
<tr>
<td>Medicare Payment Breakdown</td>
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</tr>
</tbody>
</table>

- Direct Profit of Observation Unit
- Avoidance of Loss on Admission
- Stabilized Opportunity Cost
OIG Report – Inpatient vs. Observation Expense

94% of observation beneficiaries had a lower expense than the inpatient deductible.

How to Handle Home Medications

$18 For A Baby Aspirin? Hospitals Hike Costs For Everyday Drugs For Some Patients

Patient Expense Examples

"On average, beneficiaries paid almost two times as much for a short inpatient stay than for a short outpatient stay."

SNF Expense Real But Rare

Average SNF patient expense = $10,503

Observation Use Higher in Low-Income Patients

Lower Expense for the Commercially-Insured
Wealth May Impact Patient Expense

Odds ratio for out of pocket expense for observation services = Medicare Part A deductible

Dual eligible?