Advanced Costing Techniques
to Improve Service Line Decision Making
Introduction

The role of cost accounting in healthcare

Healthcare’s new value-based business model requires that providers have reliable patient-level performance analytics to support strategic decision making.

Detailed cost accounting provides the foundation necessary to assess and understand operating results.
CHALLENGES TO EFFECTIVE COSTING

Resource-intensive process and data issues

Achieving accurate and effective costing requires addressing several common challenges:

The time and resource-intensive process
- Cumbersome costing applications
- Time-consuming to maintain and update

Poor data quality
- Validation and reconciliation are tedious
- “Black box” calculations limit buy-in

Data not leveraged for strategic decision making
- Reports aren’t timely or actionable
- Data are not well-integrated with other systems (budgeting and reimbursement, strategy, capital, productivity)

While the strategic value of Service Line cost and performance analytics is increasingly important, many organizations lack access to timely and actionable management reports that they can trust.
DEFINING THE PROCESS
Overcome challenges with the right process for you!

INPUTS
- Financial
- Patient Detail
- Reference Tables

VALUE-ADDED PROCESSING
- COST SUMMARY
  Department Account Level Costs summarized into Cost Pools
- CHARGE SUMMARY
  RVUs, Cost Per Unit stored by Department Charge Item
- Overhead Allocations
- Cost Factor Workbooks
- Cost Assignment
- Allocations to Patient
- Derive Product Lines Estimate Net Revenue
- Cost Summary to Patient

ENCOUNTER
- Clinical, Demographic and Financial Data by Patient Encounter
- Encounter Charge and Activity Item Detail by Date of Service

OUTPUTS
- REPORTING
  • Service Line Trends
  • Population Analysis
  • Payer Trends
  • Physician Analysis
  • Strategic Modeling
  • Workload Projections
  • Ad Hoc and distributed reporting

Requirements:
- Streamline data validation and reconciliation tasks.
- Ensure transparency across charge item costing and allocations modeling.
- Maintain cost detail across all levels of departmental and encounter reporting.
- Leverage dynamic ad hoc and distributed reporting capabilities.
While the cost accounting process used in healthcare has similarities to other industries, it is unique in many ways. The following are commonly used methodologies for assigning costs to activities and patients.

<table>
<thead>
<tr>
<th>Relative Cost to Charge (RCC)</th>
<th>Relative Value Units (RVU)</th>
<th>Activity-Based Costing (ABC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Costs are assigned using the charge as the cost basis</td>
<td>Activities or (charge items) are weighted with relative units to establish a % of Total relationship</td>
<td>An approach used in manufacturing where discrete “activities” are costed uniquely</td>
</tr>
<tr>
<td>Can be done at a patient or activity (charge item) level</td>
<td>Can be time-consuming when getting buy-in from Managers</td>
<td>Often correlated with “time-driven” approaches, for which cost/minute is the driver</td>
</tr>
<tr>
<td>Efficient to implement</td>
<td>A well-accepted method if RVUs are accurate</td>
<td>Pure ABC methods not well-deployed but expanding</td>
</tr>
<tr>
<td>If used exclusively as the method, resulting costs are viewed as inaccurate</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3 Practical Approaches for Improving Healthcare Costing

Unfortunately, many organizations struggle to produce accurate and timely views of service volumes, cost, and performance analytics. Ineffective costing approaches are a direct result of using antiquated technologies that are either too complex and resource-intensive to be effective, or too simplistic to meet their needs.

In the following pages, we’ve outlined three practical steps for improving your costing accuracy to improve decision making in your healthcare organization.

1. Build in sufficient cost detail to maximize flexibility

2. Improve costing accuracy using activity and charge item costs

3. Adjust supply costing by assigning costs at an encounter level
Avoid highly summarized models that provide limited visibility into cost drivers.

Build in sufficient cost detail to maximize flexibility

Sample Service Line Report:

<table>
<thead>
<tr>
<th>SERVICE LINE</th>
<th>CASES</th>
<th>ALOS</th>
<th>NET REV</th>
<th>VAR COST</th>
<th>VAR CM</th>
<th>FIX COST</th>
<th>INCOME</th>
</tr>
</thead>
<tbody>
<tr>
<td>01 - Cardiology</td>
<td>346</td>
<td>4.01</td>
<td>3,076,197</td>
<td>1,718,591</td>
<td>1,357,606</td>
<td>1,281,925</td>
<td>75,681</td>
</tr>
<tr>
<td>17 - OB/Gyn</td>
<td>299</td>
<td>3.33</td>
<td>1,370,721</td>
<td>1,016,892</td>
<td>353,829</td>
<td>502,289</td>
<td>(148,460)</td>
</tr>
<tr>
<td>20 - Orthopedics</td>
<td>275</td>
<td>4.56</td>
<td>4,795,574</td>
<td>3,542,531</td>
<td>1,253,043</td>
<td>1,227,484</td>
<td>25,558</td>
</tr>
<tr>
<td>07 - Gastroenterology</td>
<td>215</td>
<td>4.42</td>
<td>1,253,741</td>
<td>890,284</td>
<td>363,456</td>
<td>436,847</td>
<td>(73,391)</td>
</tr>
<tr>
<td>09 - General Surgery</td>
<td>198</td>
<td>8.04</td>
<td>3,341,840</td>
<td>1,942,188</td>
<td>1,399,652</td>
<td>973,108</td>
<td>426,544</td>
</tr>
<tr>
<td>02 - Cardiovascular Surg</td>
<td>177</td>
<td>7.20</td>
<td>3,951,207</td>
<td>2,246,034</td>
<td>1,705,173</td>
<td>1,227,140</td>
<td>478,033</td>
</tr>
</tbody>
</table>
Build in sufficient cost detail to maximize flexibility

Avoid highly summarized models that provide limited visibility into cost drivers.

Instead implement:
- Cost categories that map to familiar financial groups
- Detail that is retained across Department and Encounter

### Financial and Patient Data Tables

<table>
<thead>
<tr>
<th>COST SUMMARY</th>
<th>CHARGE ITEM SUMMARY</th>
<th>COST SUMMARY</th>
<th>ENCOUNTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department</td>
<td>Department/Charge Item</td>
<td>Encounter/Charge Item</td>
<td>Encounter</td>
</tr>
<tr>
<td>Medical Supplies</td>
<td>Medical Supplies</td>
<td>Medical Supplies</td>
<td>Medical Supplies</td>
</tr>
<tr>
<td>Implants</td>
<td>Implants</td>
<td>Implants</td>
<td>Implants</td>
</tr>
<tr>
<td>Pharmacy</td>
<td>Pharmacy</td>
<td>Pharmacy</td>
<td>Pharmacy</td>
</tr>
<tr>
<td>Patient Care Labor</td>
<td>Patient Care Labor</td>
<td>Patient Care Labor</td>
<td>Patient Care Labor</td>
</tr>
<tr>
<td>Purchased Services</td>
<td>Purchased Services</td>
<td>Purchased Services</td>
<td>Purchased Services</td>
</tr>
<tr>
<td>Indirect Facilities</td>
<td>Indirect Facilities</td>
<td>Indirect Facilities</td>
<td>Indirect Facilities</td>
</tr>
</tbody>
</table>

### Costing Processes and Data Flow

Costs Mapped ➔ Costs Derived ➔ Costs Assigned ➔ Costs Summarized

Consistent Detail
Avoid highly simplistic cost modeling using cost-to-charge ratios.

Instead implement:

- Costing at the activity and charge item level using appropriate cost assignment methods
- Intuitive costing models with transparent calculations
- Workflows that are efficient and repeatable

### DEPT: 1234 – CATH LAB
**YTD JUNE 2012**

<table>
<thead>
<tr>
<th>DEPT: 1234 – CATH LAB</th>
<th>LABOR</th>
<th>VAR EXP</th>
<th>SUPPLIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>YTD Financial $s</td>
<td>$100,000</td>
<td>$85,000</td>
<td>$120,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Methodology</th>
<th>TIME-BASED</th>
<th>RVU</th>
<th>DIRECT COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charge Item #1</td>
<td>15</td>
<td></td>
<td>$8,500</td>
</tr>
<tr>
<td>Charge Item #2</td>
<td>15</td>
<td>1</td>
<td>$7,500</td>
</tr>
<tr>
<td>Activity Item #3</td>
<td>15</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>
**KEY:** Address costing needs on a charge item level. Assign costs on an encounter level.

**Implement a combination approach:**
- **Direct cost** for fixed price items
- **Reverse markup** for variable charge items
- **RVUs** for remainder of cost pool
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