

Activity Based Costing In the GI Unit

Michael J. Goldberg MD MBA
Clinical Professor of Medicine
Pritzker School Of Medicine

Ways to combat falling reimbursements

Accept lower payments



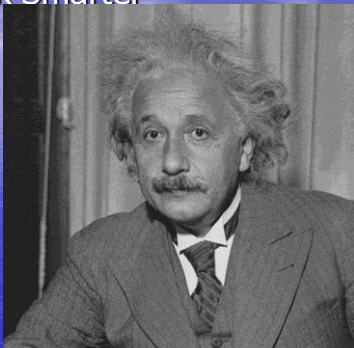
Work harder



Decrease quality



Work Smarter



Why activity based costing and management???

- Allows a firmer grasp on costs allowing for easier comparison to contractual payer prices
- Differs from traditional medical accounting in that costs are linked to activities rather than allocated to procedures, departments, and services (based on use of actual resources)
- Easier recognition of activities and processes that produce value, enhance quality and improve outcomes

Traditional Medical Accounting

- Re-imbursement-overhead=profit
- All costs are considered overhead
- Allocation of costs is either directly related to salary or evenly split between principles
- No attempt to define direct cost
- Throw back to past years where everything was done on a cost plus basis

History of Activity Based Costing and Management

- Frederick Taylor –time and motion studies (early 1900s)
- Activity Based Costing is developed by Kaplan (Carnegie Mellon) and Johnson (Portland) in the 80s
- Cooper (Harvard School of Business) concurrently develops activity based costing system in the 80s
- John Daere begins utilizing activity based costing in the 80s
- Other US companies adopt it including Northern Telecom, Hewlett-Packard, Honeywell and Avery International
- Widespread use in industry occurs in the later part of the 80s
- Healthcare organizations begin utilizing Activity Based Costing in the 90s but usage fades with the demise of managed care

Traditional ABC

- Basis-products or services consume activities and activities consume resources
(Activities drive cost ie consume resources)
- ABC attempts to assign costs to these activities so that total cost or consumption of resources is better understood
- Allows one to better manage processes by understanding what drives costs and how increases in efficiency affect costs and outcomes
- Quality improvement techniques break processes into discrete activities and can be tied to activity based costing

Activity Based Costing and how it is done

- Activity Map-maps out the activities in a process
- Activity analysis-identifies the resources used for each activity and which cost pools are drawn from
- Assignment of cost categories-resources are assigned to cost categories ie labor, material or overhead. These are further assigned to direct or indirect categories
Directly related-nursing time, md time, secretarial time, supplies used
Indirectly related-accounting, rent, IT, malpractice

Activity based costing and how it is done

- Cost drivers(any thing that changes the cost of an activity) need to be determined
An activity may have multiple cost drivers
Examples: Employee cost drivers-time
Material costs—items used
- Determine cost allocation rate (annual cost of a resource and the number of times a resource is used over a period of time)
- Cost of an activity can then be determined by multiplying the cost allocation rate by the actual quantity of the allocation base for that activity

Nuances

- Important to identify activities that generate significant costs (consume valuable resources)
- Important activities—each and every activity does not need to be detailed (especially if they do not consume important resources)
- Try to keep things simple—complex systems are expensive and difficult to maintain and data is ignored

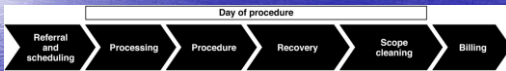
Process for developing ABC model

- Identify expense pools (activity pools)
- Convert pools into time based costs
- Dissect processes into activities and estimate time consumed by those activities
- Calculate costs (easily done with X-cel)
- Use model to see how changes in activities effect costs
- Use model to strategically plan

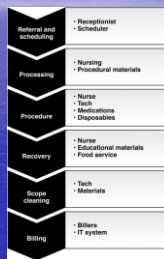
GI Labs

- Focused Factories
- Activity Maps are not complicated
- Cost Drivers are easily defined

Activity Map



Activity Map



Cost Categories

Component Activity	Cost Category
Referral and scheduling	
• Scheduling pod	Indirect labor
• Office secretary	Direct labor
• Patient education—preprocedure	Direct labor
Patient registration—RN	Direct labor
• IV insertions	Direct material
• IV tubing	Direct material

- Supplementary Table 1. Cost Drivers
- Component activity Category
- Annual
- cost Cost driver
- Annual
- quantity of
- cost driver
- Cost
- allocation

Poor Preps

- Poor preps lengthen procedure times by an average of 30 minutes
- This adds \$30.90 to the cost of each procedure
- In a unit which does 10000 procedures a year this could add \$300,000 a year
- Solutions include an educational program or preop calls

Inadequate Recovery Bays

- Many labs are not built with adequate recovery bays
- Bottlenecks can add 15 minutes to each procedure
- Costs in a unit performing 10,000 procedures a year could be \$129,000/year

Other common problems that are easily evaluated

- Delayed starts

Doctor Delay, Patient Delay, Delay in turnover of rooms

Solutions might include unassigned procedures, needs assessments preop, room turnover teams

All solutions can be studied and modeled with ABC

The future of Activity Based Costing systems

- Can be used to estimate total costs of treating patient populations and specific diseases
- Can be used to calculate costs of providing care for the total cycle of care
- Can be used to standardize ie eliminate variation and define best practices

Rising Healthcare Costs

- In his September 2011 article, economist Michael Porter states
"Almost complete lack of understanding of how much it costs to deliver patient care much less how those compare to outcomes achieved" is one of the reasons for the burgeoning cost of healthcare

Conclusions

- ABC is a costing system that can provide providers a better way to manage costs
- ABC can help to provide high quality value driven healthcare.

Chicago, Pritzker School of
Medicine, Evanston, Illinois 60201. e-mail:
mgoldberg@northshore.
org; fax: (847) 733-5041.

Conflicts of interest

The authors disclose no conflicts.

November 2011 PRACTICE MANAGEMENT:
OPPORTUNITIES AND CHALLENGES 949
