



Setting Defensible Prices

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Over the past year, our firm has worked with over fifty hospitals to develop CDM level prices. In every case, two major conflicting hospital management goals were present. First, the hospital needed to generate a reasonable return on its investment to remain financially viable. Second, hospital executives were concerned with public reaction to prices that might be viewed as too high or unreasonable. The balance between these two conflicting goals is not easy to manage, but their resolution is critical to the financial welfare of the hospital industry. We believe there are four steps that may make this resolution easier.

1. Determine the level of profit required

Rhetoric is rampant in the hospital industry, but sometimes facts are ignored. Sid Abrams, chair of Calpers Health Benefits Committee, recently stated, “We need to send hospitals in this state the message that Californians will not be held hostage by those who are motivated by greed.”¹ The statement makes nice press copy but is totally wrong. Figure 1 shows relative rates of industry profitability. US acute-care hospitals are not and have never come close to being greedy.

<i>Industry</i>	<i>ROA (5-yr avg)</i>	<i>ROE (5-yr avg)</i>
US Acute-care hospitals	2.5	5.9
Pharmaceutical	14.7	32.7
Insurance (accident & health)	5.1	18.2
S&P 500	6.9	19.4

Figure 1. Industry Profitability

How much profit should a not-for-profit hospital target? While there is no unique answer that fits all hospital situations, there is an acceptable methodology based upon the principle of sustainable growth. Sustainable growth says that any business must generate growth rate in equity equal to its projected long-term growth rate in assets. The median five-year growth rate in hospital investment is approximately 6% per year. This implies a need for equity growth or return on equity (ROE) of 6% per year. Hospitals in growth areas would need larger rates, and hospitals with highly leveraged capital structures or low cash reserves would also require larger ROE values. Also, changes in expected rates of economic inflation would affect required earning rates.

Defining the required ROE sets a target for total net income but does not define the amount of profit required from a pricing change. The amount required from pricing changes is simply the difference between fixed-fee payments and costs subtracted from required net income:

$$\text{Revenue from non-fixed fee patients} = \text{Required net income} + \text{Costs} - \text{Fixed-fee schedule payments}$$

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The larger the deficit from fixed-fee payment plans – which includes Medicare, Medicaid, and many large managed-care plans – the more profit will be required from patients who pay on a billed-charge basis.

2. Assess the reasonableness of present costs

Profitability is acceptable, but your costs reflect countless inefficiencies. In short, you are being paid too much not because of greed but because of cost inefficiencies.

This is a legitimate argument and should not be dismissed too quickly. If costs are excessive, they should be reduced to more reasonable levels. But what represents a reasonable level is often a question that becomes difficult to answer. Historically, facility-wide measures such as cost per adjusted patient day or cost per adjusted discharge were used with possible adjustments for case mix and/or cost of living. We believe using an adjusted patient day or adjusted discharge methodology is fundamentally flawed. In the July 2002 issue of *HFM*, we proposed a new measure of facility cost: the “Hospital Cost Index[®]” (HCI).²

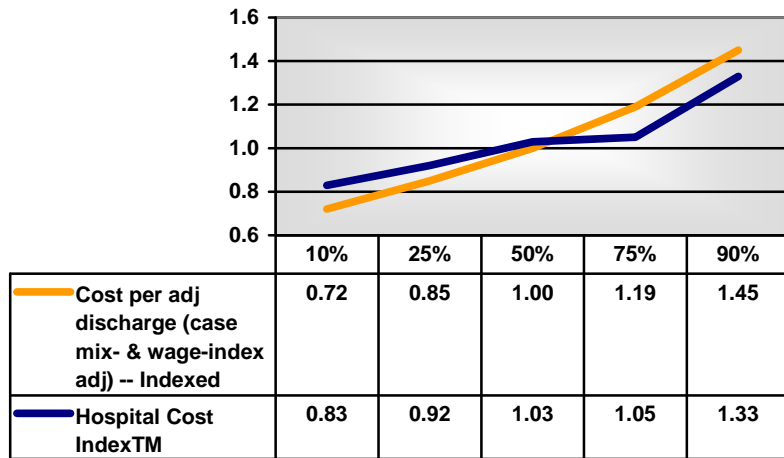
We believe that a better measure of facility-wide hospital costliness can be constructed by weighting two measures:

1. Medicare cost per discharge – Case mix- and wage-index adjusted (MCPD)
2. Medicare cost per outpatient claim – Relative weight and wage-index adjusted (MCPC)

The Hospital Cost Index[®] is then constructed as follows:

$$HCI = \% \text{ Inpatient revenue} \times \frac{MCPD}{US \text{ avg}} + \% \text{ Outpatient revenue} \times \frac{MCPC}{US \text{ avg}}$$

Figure 2 shows the relative distribution of cost per adjusted discharge (case mix- and wage-index adjusted) indexed to 1.0 compared to the Hospital Cost Index[®]. The Hospital Cost Index[®] is much tighter because it removed variability caused by outpatient services not accurately reflected in an adjusted-discharge or adjusted-patient day basis.



**Figure 2. Comparative Cost Measures – 2002
US Acute-Care Hospital Industry**

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Both facility-wide measures are based upon public-use file data and can, therefore, be reported for virtually all US hospitals. Comparisons of Hospital Cost Index[®] values and their two supporting measures – Medicare cost per discharge (case mix- and wage-index adjusted) and Medicare cost per outpatient claim (relative-weight and wage-index adjusted) – with local market hospitals or relevant peer groups should be useful in assessing the reasonableness of current costs.

3. Assess the reasonableness of current prices

Oftentimes both payers and hospitals will assess the reasonableness of their prices based upon comparisons with similar or local hospitals. A number of states and local communities have reporting mechanisms for hospitals to report charges for either specific procedures or some aggregate measure of facility output such as discharges. Most recently, some states, including California, have made portions of hospital Charge Description Masters publicly available. One of the difficulties with comparing hospital charges is that they may vary significantly across hospitals, not necessarily because of operating cost differences but because of payer differences. Hospitals with heavy percentages of Medicare, Medicaid, and indigent patients will have higher prices in order to realize minimal levels of profitability.

We know of only one state, Maryland, which mandates uniform discounts from billed charges. Under this type of regulatory control, hospital markups (the relationship of charges to cost) are much lower than in other states in the US, and there is much less variation in price across hospitals in Maryland.

Comparing prices at hospitals is a tricky business for a variety of reasons, but one of the first issues to address is the unit-of-service question. Are we comparing prices for individual procedure prices (e.g., CDM-level prices), or is the basis of comparison an encounter (e.g., an admission or outpatient visit)? The level of variation is great at both the CDM level and the admission or visit level, but the comparison of units should be more comparable at the CDM level. For example, a chest x-ray two-view should be more comparable across hospitals than a DRG 127 (heart failure and shock).

Comparing CDM prices is the level most often referenced in articles on hospital pricing. Many people have read or heard of the infamous \$58 Tylenol and reacted with disgust at the unfair pricing policies of hospitals. Products like Tylenol or services that are well understood by the general populace are the easiest to reference because almost everyone knows what the retail price of Tylenol is and has most likely purchased some in the recent past. Buried in this price comparison, however, is the significant labor cost involved in packaging, distributing, and recording the usage. This is not to affirm a \$58 charge for Tylenol, rather it suggests that hospitals incur significant expenses in the delivery of care that may or may not be reflected in a particular facility's price for various items.

Comparing the cost of procedures such as a CT scan or a chest x-ray two-view is not quite so easily accomplished because awareness of the service is not in the general knowledge bank of most consumers. Most people know very little about the cost of equipment or labor requirements for the production of chest x-ray. Figure 3 shows the 2002 distribution of prices for a two-view chest x-ray (CPT[®] code #71020) compared to prices for DRG 127 (heart failure and shock). As expected, there is more variation at the encounter (DRG) level than at the procedure level.

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<i>Percentile</i>	<i>Chest X-ray (Two-view) #71020</i>	<i>% above 10th Percentile</i>	<i>DRG 127 (Heart failure and shock)</i>	<i>% above 10th Percentile</i>
10	91.73	0%	5,231	0%
25	114.00	24%	7,020	34%
50	145.11	58%	9,768	87%
75	190.16	107%	14,401	175%
90	254.33	177%	21,167	305%

Figure 3. 2002 Median Charge

Variation in pricing at the encounter level is shown in Figure 4. To develop the figure, four quartiles were created based on the 2002 Medicare Charge per Discharge (case mix- and wage-index adjusted). The table shows the variation between the lowest-charge quartile and the other three quartiles. For instance, the highest-charge quartile had a median charge per discharge of \$18,198, which was approximately 165% above that of the lowest-charge quartile. While significant variation exists in median charges among the four-quartile groups, higher costs do not appear to be the primary driving factor for higher charges. In that regard, Medicare Cost per Discharge for the highest-charge quartile at \$6,082 is only 35% above the lowest-charge quartile group. Clearly, there is some relationship between higher cost and higher charge; however, the variation is more impacted by payer-mix variables. Perhaps, more important to note is the variation among the Deduction Ratio values. The lowest-charge quartile had a Deduction Ratio of 34% compared to the highest-charge quartile value of 65%, which is approximately 90% higher. While the high-charge group may have significantly higher charges, they are clearly writing-off a much larger percentage of their gross charges compared to the lowest-charge quartile. Finally, the EBIDA-to-assets variance shows that the highest-charge quartile group is not using higher charges to realize more significant levels of profit – very little difference is seen among the values.

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	<i>Charge/ Discharge (CMI/WI Adj)</i>	<i>% above Q1</i>	<i>Cost/ Discharge (CMI/WI Adj)</i>	<i>% above Q1</i>	<i>Deduction Ratio</i>	<i>% above Q1</i>	<i>EBIDA to Assets</i>	<i>% above Q1</i>
Lowest- Charge Quartile (Q1)	\$6,860	0%	\$4,509	0%	34.3	0%	8.9	0%
Low Charge Quartile (Q2)	\$9,609	40%	\$5,351	19%	44.0	28%	8.8	-1%
High Charge Quartile (Q3)	\$12,391	81%	\$5,761	28%	53.0	54%	9.1	2%
Highest- Charge Quartile (Q4)	\$18,198	165%	\$6,082	35%	65.1	90%	10.4	17%

Figure 4. 2002 Pricing Variation

4. Negotiate more equitable payment arrangements

A very common experience in our pricing work is to find that our client does not have excessive levels of profitability and its costs are reasonable vis-à-vis its market, but its prices are above those of comparative hospitals. The causes for this scenario can always be broken-down into one of two areas. First, it may have a terrible payer mix with high percentages of Medicaid and self-pay patients. While we appreciate the public uproar over working families being forced into bankruptcy because of medical bills that are two or three times the rates managed-care firms would pay, the reality of actual payment does not fit with the few situations reported in the press. Most hospitals struggle to collect 10% of billed charges on self-pay patients. This does not include deductibles or coinsurance that insured patients may pay on their own. Second, the payer mix may not be bad, but the payment terms are awful. Too many large managed-care plans negotiate hospital payment down to levels that do not reimburse hospitals for the reasonable costs of treatment.

Why hospitals accept payment below cost from major payers is sometimes a mystery. Oftentimes, they believe loss of the contract would create larger losses. In short, they believe payment exceeds their marginal cost, and the proposed payment is as good as they can get. In other cases, hospital management may not know what costs really are or they believe they will make money on parts of the contract, such as stop loss and cardiology.

We believe the solution is clear. Payers must provide reimbursement that covers reasonable cost, including charity care and capital replacement. Without that level of reasonable payment, hospitals will be forced to price services to those patients and their payers who pay billed charges or discounted billed charges in a manner that will ensure their financial viability. There is simply no other solution. The problem is not pricing, but rather inadequate payment.

Summary

Our primary conclusions are fivefold.

First, we do not believe that hospital pricing should be a major public concern at the present time. For the most part, hospital prices are not unreasonable and are a direct result of the hospital's payer mix and payer contractual terms.

Second, while prices for services to the medically uninsured are significantly higher than average payment received from most third-party payers, very few medically uninsured patients actually pay at a level approaching average payment levels of most third-party payers because the vast majority of the bill is written-off as either charity care or bad-debt expense.

Third, any policy change that either restricted hospital pricing or limited charges to medically uninsured patients would have an adverse impact on already thin hospital profits. Forcing hospitals to limit pricing in any way would require comparable increases in payments from other third-party payers such as Medicare, Medicaid, and other commercial carriers. Given the current economic environment, this does not appear to be a likely outcome.

Fourth, hospitals that fail to set prices to recover their true financial requirements, including a profit factor to permit replacement of capital assets and to finance working capital, will erode their financial position and shift the financial burden to the next generation of patients. This strategy does not appear to be economically sound or equitable.

Fifth, we believe all payers should reimburse hospitals for the reasonable costs of patient services. A percentage-of-billed-charges arrangement with limitations makes the most sense because it would be both equitable and easier to administer.

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References

1. *Wall Street Journal*, May 20, 2004, "Calpers Pares Its Hospital Network," Rhonda L. Rundle.
2. William O. Cleverley, "Hospital Cost Index™: A New Way to Assess Hospital Efficiency," *Healthcare Financial Management*, July 2002.