The Pricing Strategies Available to a Healthcare Manager

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Introduction

Healthcare managers make pricing decisions in an environment where the “price” of one service can mean several different things. A hospital may have a gross charge on its chargemaster, a discounted cash price, a payer-specific negotiated rate, a Medicare or Medicaid payment, and an estimated amount that a particular patient will owe. None of these is necessarily the same as the economic cost of delivering care. Managers therefore need to understand costing methods before setting prices or negotiating contracts, but costing and pricing should not be treated as identical activities.

The original paper discussed the cost-to-charge ratio, relative value units, activity-based costing, and time-driven activity-based costing. These are primarily methods for allocating or estimating costs, not four interchangeable market-pricing strategies. This expanded analysis explains what each method can and cannot tell a healthcare manager, then applies the distinction to the transplant-contract case. It also considers negotiated rates, outlier protection, price transparency, quality, access, and ethical constraints.

Cost, Charge, Payment, and Price

Cost is the value of resources consumed to provide care, including labor, supplies, equipment, facilities, and support functions. Charge is an amount listed by the provider before discounts or contractual adjustments. Payment is the amount the hospital actually receives from a payer or patient. Price may refer to a negotiated rate, cash price, bundled amount, or another amount offered for a service.

This distinction matters because a high charge does not prove that a service is highly profitable, and a low negotiated rate does not prove that the hospital is losing money. The manager must know which resources vary with each additional patient, which costs remain fixed within the relevant capacity range, and which new costs appear when volume exceeds existing capacity.

Pricing also takes place within contracts and regulation. Medicare frequently pays through prospective systems rather than accepting a hospital’s chosen charge. Commercial insurers negotiate rates and may use case rates, fee schedules, per diem payments, bundled payments, or percentage-of-charge arrangements. A sound decision therefore combines cost information with payer rules, market position, expected volume, quality requirements, and financial risk.

Cost-to-Charge Ratio Method

A cost-to-charge ratio (CCR) estimates cost by multiplying a department's or hospital's charge by a ratio of reported cost to reported charges. For example, if a department reports costs equal to 30 percent of charges, a service with a $10,000 charge may be assigned an estimated cost of $3,000. The method is relatively simple and can be applied to large administrative datasets when detailed resource data are unavailable.

Its weakness is that charges are accounting prices, not direct measurements of resources. Markups may vary across departments and services. Two procedures with similar resource use can have very different charges, while changing a charge can alter the estimated cost even when clinical work remains unchanged. Shwartz, Young, and Siegrist (1995) found limitations in using ratios of costs to charges to estimate service-level costs. A CCR can support broad analysis, but it should not automatically be treated as a gold standard for an individual contract.

Relative Value Unit Method

Relative value units (RVUs) are commonly used to compare the relative resources associated with professional services. In the Medicare Physician Fee Schedule, work RVUs reflect time, technical skill, mental effort, judgment, and stress; practice-expense and malpractice components are also included. Organizations may use RVUs internally to allocate physician compensation or overhead.

An RVU method is helpful when services differ in complexity and standardized resource weights are available. However, an RVU is not the same as a complete hospital cost. It may not capture the actual local salary, unused capacity, device cost, nursing intensity, or facility requirement of a particular patient. Productivity incentives tied narrowly to RVUs can also encourage volume and undervalue cognitive, coordination, or non-billable work. Katz and Melmed (2016), for example, discussed how RVU structures can undervalue complex cognitive visits.

The original statement that RVUs simply reward fast physicians is incomplete. Speed affects capacity, but work RVUs usually incorporate standard time and intensity rather than paying a physician directly for each minute saved. The managerial risk arises from how the organization designs compensation and performance expectations around the units.

Activity-Based Costing

Activity-based costing (ABC) identifies activities used to deliver a service, creates cost pools, and assigns those costs through drivers that reflect consumption. A transplant episode might involve evaluation, laboratory testing, operating-room preparation, surgery, intensive care, pharmacy, inpatient nursing, discharge planning, and follow-up. Rather than spreading overhead evenly, ABC

attempts to connect support costs with the activities that create them.

ABC can reveal high-cost steps and cross-subsidization that broad departmental averages conceal. It is particularly useful when services consume support resources differently. Its disadvantages are the time, data, interviews, and maintenance required. If the organization creates hundreds of activity pools and drivers, the model can become too complex to update. Precision also can be false: a detailed model remains wrong when its assumptions or data are poor.

Time-Driven Activity-Based Costing

Time-driven activity-based costing (TDABC) simplifies parts of ABC by estimating the cost of supplying resource capacity per unit of time and the time required for each process step. Kaplan and Porter proposed its use for measuring costs across a patient's full cycle of care. A process map identifies who performs each step, how long it takes, and which equipment or space is used. Cost is then estimated through capacity cost rates and time equations.

TDABC can expose waiting, rework, duplication, and unused capacity. It can compare alternative care pathways and support bundled-payment design. It is not automatically "more accurate" in every setting. Time estimates may be difficult to collect, clinical variation may be substantial, and capacity assumptions can change. The method is most valuable when managers use it to improve processes rather than merely produce a more elaborate number.

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Cost-Based and Target-Margin Pricing

A provider can estimate full or incremental cost and add a target margin. This approach protects financial sustainability when the cost model is reliable. It does not guarantee that a payer or patient will accept the amount, and a percentage markup can preserve inefficiency if the underlying process is wasteful.

Market- and Contract-Based Pricing

Managers may compare negotiated rates, competitors, referral patterns, network needs, and the payer's alternatives. A hospital with a scarce transplant program may have bargaining power, but the manager must consider patient access, regulatory scrutiny, and reputation. Market information should inform negotiation without replacing cost analysis.

Value-Based and Bundled Pricing

A bundled price covers a defined episode, such as evaluation, transplant admission, and specified follow-up. It can reward coordination and efficiency, but the contract must define exclusions, quality measures, risk adjustment, readmissions, and unusually expensive cases. Value-based payment should link financial incentives to outcomes important to patients rather than only reducing service use.

Discounted Cash and Transparent Consumer Prices

For shoppable services, hospitals may offer discounted cash prices or estimates. U.S. hospital price-transparency rules require public machine-readable charge information and a consumer-friendly presentation of shoppable services or a price-estimator tool. Beginning in 2026, CMS added requirements intended to improve the comparability of certain negotiated-rate data. Compliance creates a disclosure obligation; it does not tell a manager what the ethically or financially correct price should be.

Case Study: Incremental Transplant Volume

The original case states that the variable or marginal cost of one additional transplant is $71,468 and assumes that the hospital can perform 30 additional cases without adding fixed capacity. Under those assumptions:

Total incremental variable cost = $71,468 × 30 = $2,144,040.

The earlier figure of $2,144,034 is an arithmetic error of $6. More importantly, $71,468 should not automatically become the contract price. It is an estimate of marginal cost. A price at that level would provide no contribution toward existing fixed costs, capital replacement, teaching, research, uncompensated care, or financial risk.

Marginal-cost pricing may be defensible for a limited number of cases when the hospital has unused capacity and the contract produces other benefits. It becomes unsafe when volume fills capacity or creates new staffing, bed, operating-room, or equipment requirements. The relevant cost curve changes at the capacity threshold.

Capacity Expansion and Scenario Analysis

The case gives current fixed costs of $5,800,440 and states that additional fixed cost may equal 15, 20, or 25 percent of that amount when volume exceeds 30 patients. Those increments are:

15 percent: $870,066; 20 percent: $1,160,088; and 25 percent: $1,450,110.

If the total incremental cost for a volume level is divided by the added cases, the fixed-cost burden per transplant falls as volume rises. This explains the pattern in the original scenario table: prices are higher near the point at which new capacity is added and lower when more patients share that capacity.

Marginal Contract Volume	15% Fixed-Cost Scenario	20% Fixed-Cost Scenario	25% Fixed-Cost Scenario
31	$99,534	$108,890	$118,264
60	$85,969	$90,803	$95,636

The table should be interpreted as a scenario model, not a universal fee schedule. It depends on assumptions about which fixed costs are triggered, whether “31” represents total incremental patients or the first patient beyond a 30-case threshold, and whether the quoted amounts include margin. Before recommending $108,890, the manager should document the formula, reconcile every input with the general ledger and capacity plan, and test lower and higher volumes.

The original paper also presents an equation involving $119,805, $90,000, and $80,562 and concludes that fixed cost is 37 percent. Because the source and meaning of those numbers are not fully defined, the calculation should not be used as evidence until the units are clarified. Good financial analysis labels every amount: average cost, variable cost, fixed-cost allocation, payer rate, or desired margin.

Outlier Protection

Transplant cases can have highly variable costs because of complications, length of stay, organ acquisition, intensive care, readmission, and expensive medicines. A flat case rate without protection can expose the hospital to losses from a small number of exceptionally costly patients. Outlier provisions can share this risk.

A contract may set a cost threshold and reimburse a percentage of costs above it. If the case proposes an outlier threshold of $118,246 and reimbursement at 80 percent above that threshold, the contract must state which costs count, how they are audited, whether organ-acquisition costs are carved out, and whether the percentage applies to the excess amount or the full case cost. The manager should model historical cases rather than selecting an outlier rule only because it looks protective.

Evaluating the $108,890 Recommendation

A rate of $108,890 for 31 cases under the 20 percent scenario may be a reasonable negotiating point if the assumptions are correct. It exceeds the stated marginal cost by $37,422 per case, creating contribution toward new fixed cost and risk. Yet the recommendation remains incomplete without several tests:

The hospital should confirm that 31 cases can be staffed safely; compare the rate with payer-specific requirements and credible benchmarks; include quality and access obligations; estimate denial and collection risk; model the distribution of costly outliers; and determine whether the contract affects other payer relationships. A seemingly profitable rate can fail when the hospital lacks beds, transplant coordinators, pharmacy support, or post-discharge capacity.

Ethical and Operational Considerations

Healthcare pricing is not only a technical exercise. Prices influence whether patients can obtain care and whether the organization can retain staff, maintain equipment, and provide emergency or uncompensated services. Managers should avoid both extremes: setting unsustainable rates below the true resource requirement and using opacity or market power to impose unjustifiable prices.

Quality belongs in the analysis. Reducing length of stay by discharging patients prematurely is not efficient if readmissions rise. TDABC and other costing methods should be paired with outcomes such as survival, complications, patient experience, and functional recovery. The goal is to remove waste while preserving necessary care.

Transparency also requires usable communication. Posting a large data file can satisfy one part of a rule without helping an insured patient understand personal liability. Estimates should explain that deductibles, network status, physician bills, complications, and services outside the bundle may change the final amount.

Conclusion

The cost-to-charge ratio, RVU, ABC, and TDABC methods give healthcare managers different views of resource consumption. They are not substitutes for a pricing strategy. Pricing requires managers to combine reliable cost information with capacity, payer contracts, market conditions, quality, risk, access, and regulation.

In the transplant case, the correct variable-cost calculation for 30 cases is $2,144,040, and the $108,890 recommendation is defensible only as a documented scenario. New fixed costs and outlier exposure must be tested carefully. The strongest decision is not the amount produced by one

formula; it is a transparent rate supported by accurate data, clear contractual definitions, safe capacity, and sustainable patient care.

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