



HOSPITAL ZERO-BASE PRICING®: A NOVEL APPROACH TO ESTABLISHING RATIONAL CHARGEMASTER PRICES

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Higher deductibles, health savings accounts, increased transparency, and government and consumer scrutiny provide the impetus to implement rational chargemaster prices.

Content Summary

- Today's environment necessitates that healthcare CFOs and financial managers can explain, document, and defend the rationale behind their CDM prices.
- Hospital financial managers who previously had optimized their chargemaster prices or inherited irrational chargemasters should consider a hospital zerobase pricing initiative.

Have you ever wondered why hospital prices appear so irrational to consumers?

Hospitals and healthcare systems have experienced years of inadequate inflationary update factors often reduced by factors such as presumed over coding under the federal inpatient and outpatient prospective payment systems. Consequently, operating margins, once attained through tight operating budget controls and across-the-board price increases to payers, have suffered for decades. Many hospitals experienced reimbursement shortfalls and some optimized their chargemaster prices to subsidize such losses and to help maintain their financial viability. Unfortunately, while these techniques were for good reason, they have caused individual chargemaster line item prices to appear irrational and indefensible.

Table 1 illustrates how hospitals traditionally have been able to subsidize reimbursement shortfalls without increasing overall gross charges or prices. Laboratory line items with a higher-than-average charge payer contribution factor, such as complete blood count (CBC) and urinalysis, were increased 20 percent, and those with lower-than-average contribution factors, such as potassium and magnesium, were decreased by 20 percent. The result? No overall increase in gross revenue, yet a favorable increase in net revenue of 8.4%.

Table 1

The charge payer contribution factor represents the ratio of net revenue for services paid on a percentage of charge basis to the total gross charges in the department for that line item. It is the result of applying plan code and service level contract information to respective usage statistics. The contribution factor represents the portion of every dollar increase or decrease that contributes to the net revenue impact.

Laboratory: Traditional Optimization					
	Original Price	Charge Pater Contribution Factor	New Price	New Revenue	
				At Old	At New
CBC	\$20	0.33	\$24	\$6.60	\$7.92
POTAS	\$20	0.15	\$16	\$3.00	\$2.40
URIN	\$20	0.28	\$24	\$5.60	\$6.72
MAGNES	\$20	0.10	\$16	\$2.00	\$1.60
Total/Avg	\$20	0.22	\$20	\$17.20	\$18.64

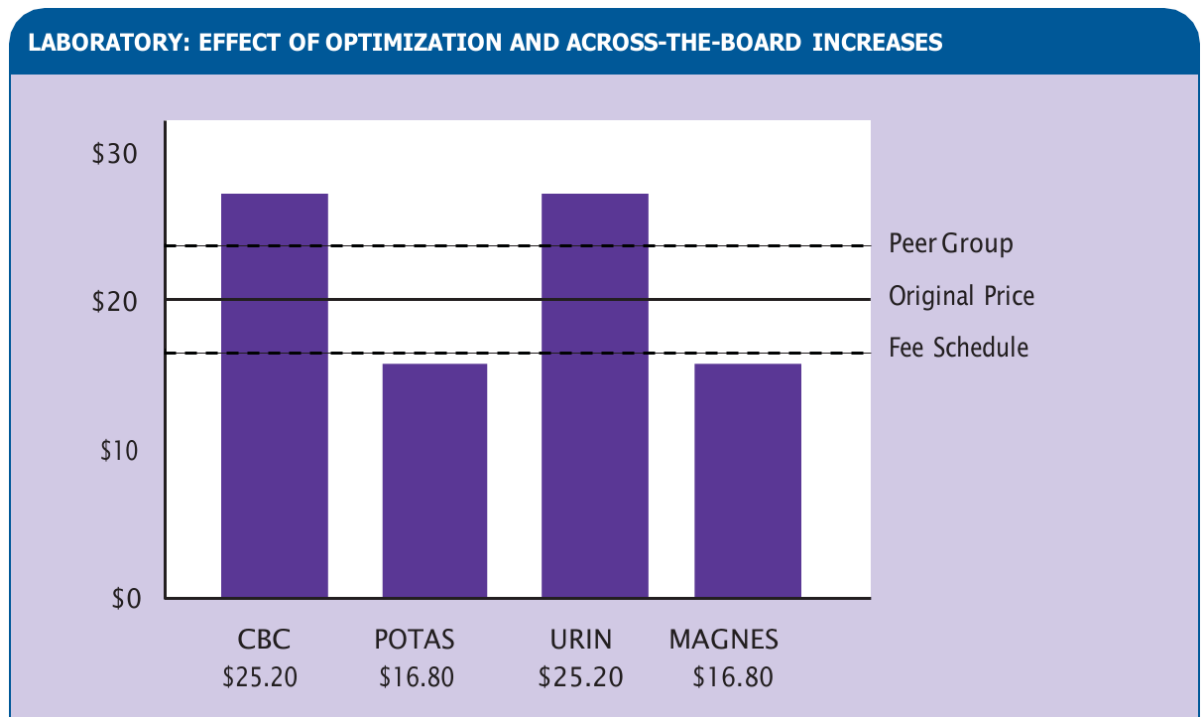
Overall Price Change = 0%

Overall Net Revenue Change = 8.4%

Figure 1 illustrates that, for hospitals using these optimization techniques, prices that were once reasonable based on cost or market data could easily have risen above market norms. Furthermore, to the extent that some prices were decreased dramatically, prices could have fallen below allowable fee schedule (or ambulatory payment classification [APC]) rates or unfavorably impact reimbursement for stop-loss cases paid a percentage of charges. With so many hospitals in recent years implementing rational pricing strategies it is imperative that hospital financial managers assess their charges against market and other benchmarks.

Figure 1

For hospitals that historically used chargemaster optimization techniques, prices that were once reasonable based on cost could easily have risen above market norms and below contractually agreed fee schedule amounts.



Can You Document And Defend Your Prices? Market Alignment Is Not Enough.

In this era, it is imperative that healthcare financial managers and CFOs be able to document, defend, and explain the rationale behind their chargemaster prices. It is important that each price be reasonable and have been developed based on sound financial and statistical principles.

To do so it is important to first assess and then restructure the chargemaster prices, as necessary, to become more rational. But what is rational? To determine the rationality of prices within your chargemaster, ask yourself if you can explain to a consumer how an individual price was derived. And can you demonstrate to that same consumer how that price makes sense in relation to other items in the chargemaster, or to market competitors, or based on cost or other benchmarks? Furthermore, health systems should equalize any material differences in prices for comparable line items across entities unless they can be explained by geographic wage, socio-economics, or other real cost differences. If you don't have an explanation, then it is likely that restructuring your chargemaster pricing should be a priority.

So how should a healthcare organization restructure its prices to become more rational? With so many hospitals having deployed price optimization techniques in the past, wide variations may still exist in prices among competing hospitals for similar chargemaster items. Therefore, simply realigning prices within market norms may help you defend prices based on your competitors' average price but leave you with line item prices that don't make sense in relation to other charges reflected on consumers' bills, to the prices at competitor hospitals, or simply to their perception of value or what a reasonable cost for the procedure might be.

Presented with a proposed chargemaster restructuring that was based on market prices for nearby and similar hospitals, Jim Nolan, former CFO at, AtlantiCare Health System, Atlantic City, N.J., years ago noticed a significant amount of deviation at the chargemaster line item level among AtlantiCare's market area hospitals—perhaps the result of years of price cross-subsidization.

Nolan asked his support team, “Does it really make sense to realign our prices solely with competitor prices that clearly appear irrational?”

The Solution? Hospital Zero-Base Pricing

Like zero-base budgeting, hospital zero-base pricing does not use the current or prior year's chargemaster prices to establish the new gross revenue and net revenue budget. Therefore, hospital financial managers cannot simply apply an across-the-board increase to current prices for inclusion in the upcoming gross revenue budgets.

Rather, the hospital zero-base pricing method—conceived and developed by Panacea Healthcare Solutions, Inc. may begin with the identification of missing or outdated chargemaster line items and the respective HCPCS and revenue code assignments, but ultimately it focuses on re-establishing chargemaster line item unit prices.

Few would disagree that the most defensible prices for a given hospital would be those rooted in the actual unit cost to perform the service. Higher-cost hospitals, due to teaching or inner city status, might still have to defend challenges to their prices, but defending prices from the standpoint of the organization's operating expenses is easier than trying to defend prices that bear no resemblance to reasonable cost and reflect legal but questionable optimization tactics.

Those with cost accounting systems can develop a price rooted in unit costs with consideration for overhead, uncompensated care, and reasonable profit margin. But rushing to implement such newly established prices based solely on these factors could be financially detrimental.

Newly or preliminarily established cost-based prices require consideration of the following:

- [The net revenue impact](#)
- [Public relations ramifications related to traditional loss leaders such as clinic and ambulance charges or popular tests or procedures such as mammograms and complete blood count.](#)
- [The relative standing of the prices compared with fee schedule floors, freestanding facility prices, and competitor hospital prices for highvolume line items such as chest X-rays and mammograms](#)

- The net revenue impact that price reductions or price changes might have on stop-loss reimbursement rates and under lesser-of-charge contract terms

Secure Access

PANACEA's integrated, web-based system uses Microsoft SQL and .net technology and operates in a secure SSAE-16 certified data center in a HIPAA compliant environment.

Additionally, the system allows for different levels of user privileges, and health systems may see results for individual practitioners or a specific specialty or across multiple practitioners or specialties.



As Rosemary Nuzzo, director of finance at AtlantiCare Regional Medical Center, said at a previous year HFMA Annual National Institute, “We probably ran over 85 models and simulations before we achieved a rational pricing structure.”

Those without cost accounting systems can easily leverage the knowledge and experience of their department heads to develop direct unit cost estimates for each line item within their area of responsibility. PANACEA's Unit Cost Estimator system provides a relatively inexpensive software and service designed for this purpose.

Once the department head has chosen the best range for each line item and each major position or expense item, the midpoint for each range selected can be multiplied by the usage statistics or frequency for the respective chargemaster line items to derive a weighted basis for allocating the expense associated with that position or expense item. When the expenses for all positions and non-salary expense items have been allocated to all chargemaster line items, the individual line item amounts can be grossed up to account for nominal positions or expense items ignored in the earlier 80/20 steps. Finally, the grossed-up amounts for each chargemaster line item can be divided by the frequency statistics to derive the estimated direct unit costs for each chargemaster line item.

To account for overhead, financial managers can choose to gross up these direct unit cost amounts, whether derived from this approach or a cost accounting system, using a uniform markup factor or department-specific markup factor based on a Medicare cost report step-down or similar methodology. In this step, it may be useful to establish an overhead markup factor that, after its application to the direct unit costs and multiplied by the usage statistics, reconciles with the operating expenses for the period.

Preliminary prices for initial modeling purposes can be based on the fully allocated expenses at the unit cost level marked up for uncompensated care costs, other allowances, and a necessary operating margin provision, as shown in Table 2. In this exhibit, the zero-base price is considered preliminary because there is still more to do before these cost-based prices can be safely implemented.

Table 2

Estimating Unit Cost Without a Cost Accounting System

Preliminary prices for initial modeling purposes can be based on the fully allocated expenses at the unit cost level marked up for uncompensated care costs, other allowances, and a necessary operating margin provision.

	Mid Point Estimate ¹	Estimated Annual 12 Mos. Frequency ²	Preliminary Time Spent in Minutes ³	Allocated Lab Tech Salaries ⁴	Lab Tech Cost/Unit ⁵	Mark-Up Factor ⁶	Zero-Base Price ⁷
CBC	2	20,000	40,000	\$200,000	\$10.00	2.0	\$20.00
POTAS	2	15,000	30,000	\$150,000	\$10.00	2.0	\$20.00
URIN	2	22,000	44,000	\$220,000	\$10.00	2.0	\$20.00
MAGNES	2	13,000	26,000	\$130,000	\$10.00	2.0	\$20.00
12 - Month Total		70,000	140,000	\$700,000			

1. Per Dept. Head Selection. Represents minutes. In real setting, amounts would likely vary by line item.
2. 6 months minimum recommended.
3. Col 1 X Col 2.
4. Salaries for same period as Col 2 allocated based on Col 4 Total/Col 3 Total X each line item in Col 3.
5. Col 4/Col 2. In real setting, this calculation or methodology would be used for all material positions and expense items, the sum of which would represent the direct unit cost.
6. Represents gross-up factor for overhead, uncompensated care, profit margin, and other allowances
7. Col 5 X Col 6. In real setting, amounts would likely vary by line item. Amounts are preliminary until net revenue modeling and other critical steps are performed.

Critical Steps to Consider For Your Hospital Zero-Base Pricing Initiative

1. Identify clear objectives and priorities—for example, develop rational prices with a complete audit trail for each line item while maintaining net revenue budget neutrality and overall gross revenue levels at current or lower levels.
2. Develop a project team and leader.
3. Develop a timeline for implementation.
4. Conduct an initial department head meeting to discuss pricing objectives, the department heads' role, and time frames.
5. Absent a cost accounting system, develop unit cost estimates.
6. Mark up the unit costs taken from the cost accounting system or the estimation methodology to account for overhead, uncompensated care costs, allowances, and operating margin provisions. This will represent the preliminary or initial hospital zero-base price and should be net revenue neutral.
7. Perform a gross revenue impact analysis by multiplying the current price and the preliminary zero-base price by the frequency for each line item at the service level (e.g., inpatient, private outpatient, clinic, emergency department, same-day surgery) and plan code level. To determine the net revenue impact, calculate a charge pay or contribution factor for those services still being paid on a percentage-of-charge basis. The changes in price for a line item and a specific plan code and service are multiplied by the charge payer contribution factor to determine the net revenue impact.
8. Adjust markup factors and resulting prices accordingly based on initial net revenue modeling to conform to net revenue objectives identified in step 1. Rerun the gross and net revenue model.
9. Individual prices should be assessed and adjusted upward or downward for any of the following reasons:
 - To ensure prices are not below agreed-upon fee schedules or APC rates or other case-rates. Claims level analysis may be required to assess impact of new prices under stop-loss reimbursement and lesser-of-charge and case rates contract clauses.
 - To ensure that high-volume items are not priced outside a reasonable corridor of the market group average.
 - To equalize small differences in prices for the similar items found in multiple departments.
 - To lower prices for items identified as loss leaders or community sensitive procedures.
 - To lower prices for items specifically designated to be competitive with nearby freestanding facilities.
10. Rerun the gross and net revenue impact model by department to assess against gross and net revenue objectives.
11. Make final adjustments to markup factors or specific line item prices and rerun gross and net revenue model.
12. Distribute new proposed hospital zero-base prices to department heads for feedback or approval.
13. Adjust if needed.
14. Submit final, proposed hospital zero-base prices to administration or finance committee, if necessary, for approval along with gross and net revenue impact models.
15. Create an upload file of chargemaster service codes and prices for submission to IT department.
16. During the fiscal year, periodically maintain, monitor, and adjust prices for changes and cost, contract terms, fee schedules, APC rates, market prices, and more.
17. Update each year as unit costs, market data, fee schedules, contract terms, volume, case-mix and strategic objectives change.

Excellent Outcomes

As illustrated in Figure 2, the final hospital zero-base pricing model shows an excellent alignment of prices based on cost (as adjusted for overhead, uncompensated care, and profit margin consideration) but with consideration given to market prices, the need to cover shortfalls in reimbursement from Medicaid, Medicare and other under reimbursed services (e.g. teaching costs), gross and net revenue objectives, and more.

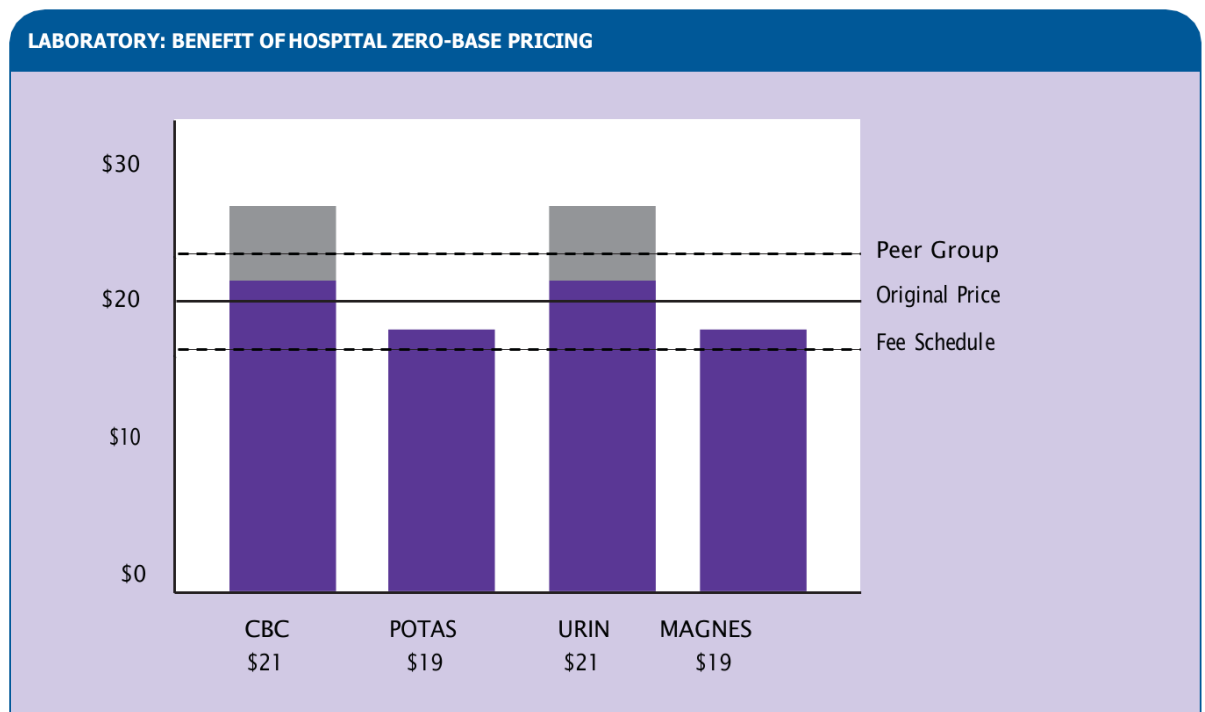
This is in sharp contrast to the situation depicted in Figure 1, in which prices bear no resemblance to the cost of providing the service, make no sense in relation to each other or their

competitors, and are in some instances unfavorably below contractually agreed-upon amounts from payers. For many financial managers and administrators, the most favorable benefit of hospital zero-base pricing is that it permits them to understand, explain, defend, and document how each chargemaster line item price was derived and why it makes sense in this era of increased scrutiny.

Author Note: Some hospitals, anxious to develop rational prices and not having unit cost available, may elect to align prices based on market data, fee schedules, contract terms, strategic objectives, etc. in the first year while during that year unit cost estimates are developed for subsequent refinement.

Figure 1

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About the Author

Frederick Stodolak, Chief Executive Officer



Fred Stodolak, one of the nation's leading experts on hospital pricing, has over 30 years of experience in the healthcare industry. He has been actively involved in the establishment of six successful companies, including Panacea Healthcare Solutions, which he founded in 2007, RACmonitor in 2008, and Innovative Health Solutions in 2002. He is a published author, popular speaker at industry conventions, and has served as a board member and consultant for several companies. Fred holds a degree in accounting from Stockton State College.



About Panacea

Designed for healthcare professionals responsible for financial performance or compliance, Panacea delivers innovative auditing, compliance, chargemaster, strategic pricing, and revenue integrity consulting and software solutions as a single-vendor solution to help clients proactively identify risks and opportunities and overcome today's challenges, providing the clear answers needed to swiftly and cost-effectively achieve quality results.

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