

FEATURE STORY

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how Medicare changes will affect your cardiovascular service line

FY08 is just around the corner; do you know where your CV service line is?

AT A GLANCE

Evaluating the impact of Medicare changes on your organization's CV service line and formulating effective strategies are vital to the long-term stability of the program. Suggested methodologies include:

- > Evaluating the impact of changes to DRG weights and payment
- > Evaluating the impact of cost-based payment
- > Evaluating product offerings using a portfolio model

Since its inception in 1983, the diagnosis-related groups system has remained relatively unchanged with respect to the construct and methodologies for determining relative weights and payment. However, on Aug. 1, 2006, the Centers for Medicare and Medicaid Services issued FY07 final rules that take considerable steps toward reforming and improving the accuracy of Medicare's inpatient prospective payment system. Medicare's most recent changes to the IPPS have strategic implications for cardiovascular services particular to academic medical centers as well as teaching, specialty, and community hospitals.

Many of the recent IPPS changes were based on recommendations from the 2005 Medicare Payment Advisory Commission's March 2005 report to Congress regarding physician-owned specialty hospitals. In that report, MedPAC concluded that the current Medicare payment system created financial incentives that encouraged hospitals to focus on specific DRGs that were more profitable. The commission recommended considerable changes to the IPPS system to improve the accuracy of DRG payments; those recommendations served as the impetus and foundation for CMS's FY07 proposed rules and subsequent policy. Although the initial focus was physician-owned specialty hospitals, the CMS changes have implications for all acute care hospitals.

Overview of CMS FY07 IPPS Final Recommendations

Although the changes to Medicare's IPPS were not as far-reaching as initially proposed, they represent the first step in what promises to be sweeping reform. CMS announced that it will transition over the next three years from a charge-based method for determining DRG relative weights to a cost-based methodology. CMS believes this new method of calculating DRG weights will better align hospital payments with the actual cost of patient care and eliminate bias caused by using hospital charges.

Among several other changes, Medicare's inpatient rates for operating expenses will increase by 3.4 percent for those hospitals that report the 20 Hospital Quality Alliance-approved measures. Hospitals that do not participate will receive only a 1.4 percent increase. Many of these quality indicators are related to cardiovascular care; nonetheless, in order for

hospitals to receive the full market basket increase in FY07, all 20 quality indicators must be reported. CMS plans to continue expanding the quality criteria that hospitals must track and report to support its objective of improving quality of care for the Medicare population.

Implications for Cardiovascular Services

Modifications to the DRG payment system will have significant bearing on CV services because the payer mix is predominantly Medicare. Traditionally, the CV service line has been one of the most lucrative business lines for most hospitals, from a financial perspective as well as the significant market size it represents. With considerable changes implemented by CMS in FY06, along with the reform outlined over the next three years, many CV programs will be faced with future payment reductions, particularly in the historically profitable DRG cases.

The FY07 final rules outlined reductions in relative weights for several CV DRGs—in particular, percutaneous coronary intervention/stents, coronary artery bypass grafts, and defibrillators. However, with the 3.4 percent market basket increase, only a few will have reduced payments. Numerous CV DRG weights and payments increased—most notably heart transplant, valves, pacemakers, heart-assist devices, and medical conditions. The surgical DRG “winners” represent some of the most resource-intensive patients within the CV service line.

How will CV services be affected in the future? Two key CMS changes on the horizon that will likely have the greatest impact on CV services include:

- > *Shifting from a charge-based system to a cost-based method for determining DRG weights.* This transformation will likely result in significant declines in reimbursement as charges for CV ancillary services have historically been appreciably marked up from their actual costs, resulting in a greater bias in the overall DRG relative weight.
- > *Adopting a consolidated DRG system that accounts for severity of illness by FY08.* Although CV programs that treat a preponderance of

high-acuity patients will benefit from the new DRG system, many teaching and specialty heart hospitals that have historically treated the “bread and butter” cases will observe a reduction in their case mix and Medicare reimbursement.

Preparing for the Changes

How can your organization prepare for these changes? The first step is to analyze your CV program’s current strategic capabilities along with the impact Medicare changes will have on the service line (both FY07 and anticipated future modifications). The analysis should include evaluation of the following:

- > The impact of FY07 changes to DRG weights and reimbursement based on the CV program’s current Medicare volumes
- > The long-term impact of CMS moving to a cost-based method for determining case mix and reimbursement
- > The impact of a severity-adjusted DRG system on the case mix and reimbursement
- > Documentation and coding practices and opportunities for enhancement
- > Strategic implications and proactive strategies to ensure future stability (using a portfolio model)

The CV service line’s strategic capabilities should also be evaluated in relation to the marketplace. Barriers to market growth and financial performance should be identified through a situational analysis that considers both internal as well as external factors such as current volumes and market share, breadth of service offerings, strength of assets, competencies, technology, brand strength, distribution channels, cost management, and operational and governance structures.

Evaluation Methodologies

Evaluating the impact of Medicare changes on the CV service line and formulating effective strategies are vital to the long-term stability of the program. Suggested methodologies include the following.

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Evaluating the impact of changes to DRG weights and payments. The following steps can be taken to estimate the effect on your CV program:

1. Identify the CV program’s Medicare volumes by DRG for FY06.

2. To calculate the FY06 reimbursement per DRG, multiply each DRG’s relative weight by the hospital’s standardized amount. Then multiply the FY06 volumes by the reimbursement per DRG. This calculation will provide the expected overall reimbursement for each DRG.

EVALUATING THE IMPACT OF FY07 DRG WEIGHTS AND PAYMENTS ON YOUR CARDIOVASCULAR PROGRAM				
Impact Analysis		FY06		
Example CV DRGs (not inclusive)	Medicare Volume	Relative Weight	Reimbursement per DRG* (RW x Standardized Amt)	Total Reimbursement (Volume x DRG Reimb)
Heart Transplant & VAD—Total	30			\$2,501,209
DRG 103	20	18.5617	\$95,623	\$1,912,468
DRG 525	10	11.4282	\$58,874	\$588,741
Valves—Total	395			\$13,609,073
DRG 104	120	8.2201	\$42,347	\$5,081,649
DRG 105	275	6.0192	\$31,009	\$8,527,423
CABG—Total	645			\$16,937,621
DRG 106	25	7.0346	\$36,240	\$905,995
DRG 547	170	6.1948	\$31,913	\$5,425,285
DRG 548	230	4.7198	\$24,315	\$5,592,394
DRG 549	120	5.098	\$26,263	\$3,151,573
DRG 550	100	3.6151	\$18,624	\$1,862,373
PCI—Total	1,620			\$18,919,914
DRG 518	370	1.6544	\$8,523	\$3,153,469
DRG 555	350	2.4315	\$12,526	\$4,384,183
DRG 556	150	1.9132	\$9,856	\$1,478,421
DRG 557	400	2.8717	\$14,794	\$5,917,597
DRG 558	350	2.2108	\$11,389	\$3,986,244
Pacemakers—Total	166			\$1,812,557
DRG 117	35	1.3223	\$6,812	\$238,421
DRG 118	38	1.6380	\$8,438	\$320,659
DRG 551	48	3.1007	\$15,974	\$766,739
DRG 552	45	2.0996	\$10,816	\$486,738
Defibrillators—Total	218			\$7,165,545
DRG 515	120	5.5205	\$28,440	\$3,412,762
DRG 535	48	7.9738	\$41,078	\$1,971,755
DRG 536	50	6.9144	\$35,621	\$1,781,028
Medical DRGs—Total	850			\$4,382,844
DRG 127 (Heart Failure)	650	1.0345	\$5,329	\$3,464,098
DRG 135 (Cardiac Congenital)	200	0.8917	\$4,594	\$918,745
Total volume	3,728		Total for FY06	\$65,328,761
<i>Sum of all CV DRGs</i>				
<p>Note: National standardized rate used for examples. *FY06 standardized rate (\$5,151.65). †FY07 standardized rate (\$5,301.52 includes full 3.4% market basket).</p>				

3. To calculate FY07 DRG reimbursement per DRG, multiply each DRG's relative weight by the hospital's standardized amount. Then multiply the FY06 volumes by the FY07 DRG payment; this will determine the hospital's expected overall reimbursement for each DRG.

4. To estimate the payment differences, subtract FY06 payments from FY07.

5. To evaluate the overall impact, total the projected reimbursement for FY07 and subtract from the total for FY06. This will provide an overall estimated financial impact that the CMS changes

This sample template can be used to evaluate the effect of FY07 DRG weights and payments on your organization's cardiovascular service line.

FY07				Difference
Relative Weight	Reimbursement per DRG [†] (RW x Standardized Amt)	Payment Change from FY06 (%)	Total Reimbursement (FY06 Volume x FY07 DRG Reimb)	FY07-FY06
			\$2,648,502	\$147,293
18.8653	\$100,015	4.6%	\$2,000,295	\$87,828
12.2268	\$64,821	10.1%	\$648,206	\$59,465
			\$14,104,315	\$495,242
8.2903	\$43,951	3.8%	\$5,274,143	\$192,494
6.0567	\$32,110	3.6%	\$8,830,172	\$302,749
			\$17,188,585	\$250,965
6.7383	\$35,723	-1.4%	\$893,081	\$(12,914)
6.1390	\$32,546	2.0%	\$5,532,825	\$107,540
4.6440	\$24,620	1.3%	\$5,662,660	\$70,265
5.0246	\$26,638	1.4%	\$3,196,562	\$44,989
3.5904	\$19,035	2.2%	\$1,903,458	\$41,085
			\$18,624,245	\$(295,669)
1.6388	\$8,688	1.9%	\$3,214,608	\$61,139
2.3066	\$12,228	-2.4%	\$4,279,970	\$(104,213)
1.7747	\$9,409	-4.5%	\$1,411,291	\$(67,129)
2.7616	\$14,641	-1.0%	\$5,856,271	\$(61,326)
2.0814	\$11,035	-3.1%	\$3,862,104	\$(124,139)
			\$1,860,957	\$48,400
1.3713	\$7,270	6.7%	\$254,449	\$16,028
1.6687	\$8,847	4.8%	\$336,173	\$15,513
3.0364	\$16,098	0.8%	\$772,682	\$5,943
2.0860	\$11,059	2.2%	\$497,654	\$10,915
	\$-		\$6,953,939	\$(211,606)
5.2293	\$27,723	-2.5%	\$3,326,789	\$(85,973)
7.3741	\$39,094	-4.8%	\$1,876,509	\$(95,246)
6.6043	\$35,013	-1.7%	\$1,750,641	\$(30,387)
			\$4,612,057	\$229,214
1.0490	\$5,561	4.4%	\$3,614,841	\$150,743
0.9405	\$4,986	8.5%	\$997,216	\$78,471
Total for FY07			\$65,992,600	\$663,839
<i>Sum of all CV DRGs</i>				Impact

Source: Triad Consulting Group, Inc., Houston, Texas 1996-2007.

EVALUATING THE IMPACT OF COST-BASED DRG WEIGHTS AND PAYMENTS ON YOUR CARDIOVASCULAR PROGRAM

Impact Analysis		DRG Relative Weight			Payment per DRG		
Example CV DRGs	Medicare Volumes FY06	FY06	FY07	FY09 (Full Cost-Based)	FY06*	FY07†	FY09† (Full Cost-Based)
Heart Transplant & VAD—Total	30						
DRG 103	20	18.5617	18.8653	18.4971	\$95,623	\$100,015	\$98,063
DRG 525	10	11.4282	12.2268	11.9179	\$58,874	\$64,821	\$63,183
Valves—Total	395						
DRG 104	120	8.2201	8.2903	8.1185	\$42,347	\$43,951	\$43,040
DRG 105	275	6.0192	6.0567	5.9639	\$31,009	\$32,110	\$31,618
CABG—Total	645						
DRG 106	25	7.0346	6.7383	6.3863	\$36,240	\$35,723	\$33,857
DRG 547	170	6.1948	6.1390	5.9081	\$31,913	\$32,546	\$31,322
DRG 548	230	4.7198	4.6440	4.4471	\$24,315	\$24,620	\$23,576
DRG 549	120	5.098	5.0246	4.9162	\$26,263	\$26,638	\$26,063
DRG 550	100	3.6151	3.5904	3.4981	\$18,624	\$19,035	\$18,545
PCI—Total	1,620						
DRG 518	370	1.6544	1.6388	1.4695	\$8,523	\$8,688	\$7,791
DRG 555	350	2.4315	2.3066	2.1443	\$12,526	\$12,228	\$11,368
DRG 556	150	1.9132	1.7747	1.5716	\$9,856	\$9,409	\$8,332
DRG 557	400	2.8717	2.7616	2.5631	\$14,794	\$14,641	\$13,588
DRG 558	350	2.2108	2.0814	1.8807	\$11,389	\$11,035	\$9,971
Pacemakers—Total	166						
DRG 117	35	1.3223	1.3713	1.3809	\$6,812	\$7,270	\$7,321
DRG 118	38	1.6380	1.6687	1.7028	\$8,438	\$8,847	\$9,027
DRG 551	48	3.1007	3.0364	3.0615	\$15,974	\$16,098	\$16,231
DRG 552	45	2.0996	2.0860	2.1002	\$10,816	\$11,059	\$11,134
Defibrillators—Total	218						
DRG 515	120	5.5205	5.2293	5.2402	\$28,440	\$27,723	\$27,781
DRG 535	48	7.9738	7.3741	7.3035	\$41,078	\$39,094	\$38,720
DRG 536	50	6.9144	6.6043	6.5110	\$35,621	\$35,013	\$34,518
Medical DRGs—Total	850						
DRG 127 (Heart Failure)	650	1.0345	1.049	1.0744	\$5,329	\$5,561	\$5,696
DRG 135 (Cardiac Congenital)	200	0.8917	0.9405	0.9664	\$4,594	\$4,986	\$5,123
Total volume	3,924						

Note: National standardized rate used for examples.
 *FY06 standardized rate (\$5,151.65).
 †FY07 standardized rate (\$5,301.52 includes full 3.4% market basket).

This sample template can be used to evaluate the effect that cost-based relative weights will have on CV payments for your organization's cardiovascular service line.

Estimated Impact: Cost-Based Payment per DRG (FY06 - 09)		Total Impact: Cost-Based Reimbursement		Volume Required to Offset Net Revenue
Difference (FY07 - 09)	Difference (FY06 - 09)	Difference (FY07 - 09)	Difference (FY06 - 09)	Annual Discharges (FY07 - 09)
		\$(55,417)	\$91,876	0.64
\$(1,952)	\$2,439	\$(39,040)	\$48,787	0.39
\$(1,638)	\$4,309	\$(16,376)	\$43,089	0.25
		\$(244,591)	\$250,651	6.65
\$(911)	\$693	\$(109,296)	\$83,197	2.47
\$(492)	\$609	\$(135,295)	\$167,454	4.18
\$-	\$-	\$(612,739)	\$(361,774)	22.60
\$(1,866)	\$(2,383)	\$(46,653)	\$(59,567)	1.30
\$(1,224)	\$(592)	\$(208,101)	\$(100,560)	6.39
\$(1,044)	\$(738)	\$(240,090)	\$(169,825)	9.75
\$(575)	\$(200)	\$(68,962)	\$(23,973)	2.58
\$(489)	\$(78)	\$(48,933)	\$(7,848)	2.58
		\$(1,588,102)	\$(1,883,771)	142.46
\$(898)	\$(732)	\$(332,093)	\$(270,953)	38.23
\$(860)	\$(1,158)	\$(301,153)	\$(405,366)	24.63
\$(1,077)	\$(1,524)	\$(161,511)	\$(228,640)	17.17
\$(1,052)	\$(1,206)	\$(420,941)	\$(482,267)	28.71
\$(1,064)	\$(1,419)	\$(372,405)	\$(496,545)	33.72
		\$18,426	\$66,826	(1.74)
\$51	\$509	\$1,781	\$17,809	(0.25)
\$181	\$589	\$6,870	\$22,383	(0.78)
\$133	\$257	\$6,387	\$12,330	(0.40)
\$75	\$318	\$3,388	\$14,303	(0.31)
		\$(35,763)	\$(247,369)	0.59
\$58	\$(659)	\$6,934	\$(79,039)	(0.18)
\$(374)	\$(2,359)	\$(17,966)	\$(113,212)	0.24
\$(495)	\$(1,102)	\$(24,732)	\$(55,119)	0.53
		\$114,990	\$344,204	(21.19)
\$135	\$367	\$87,528	\$238,271	(15.68)
\$137	\$530	\$27,462	\$105,933	(5.51)
		\$(2,403,196)	\$(1,739,357)	
		Impact	Impact	

Source: Triad Consulting Group, Inc., Houston, Texas 1996-2007.

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will have on the CV service line for FY07. (This impact analysis does not consider changes in market share, payer mix, or payments resulting from outliers.)

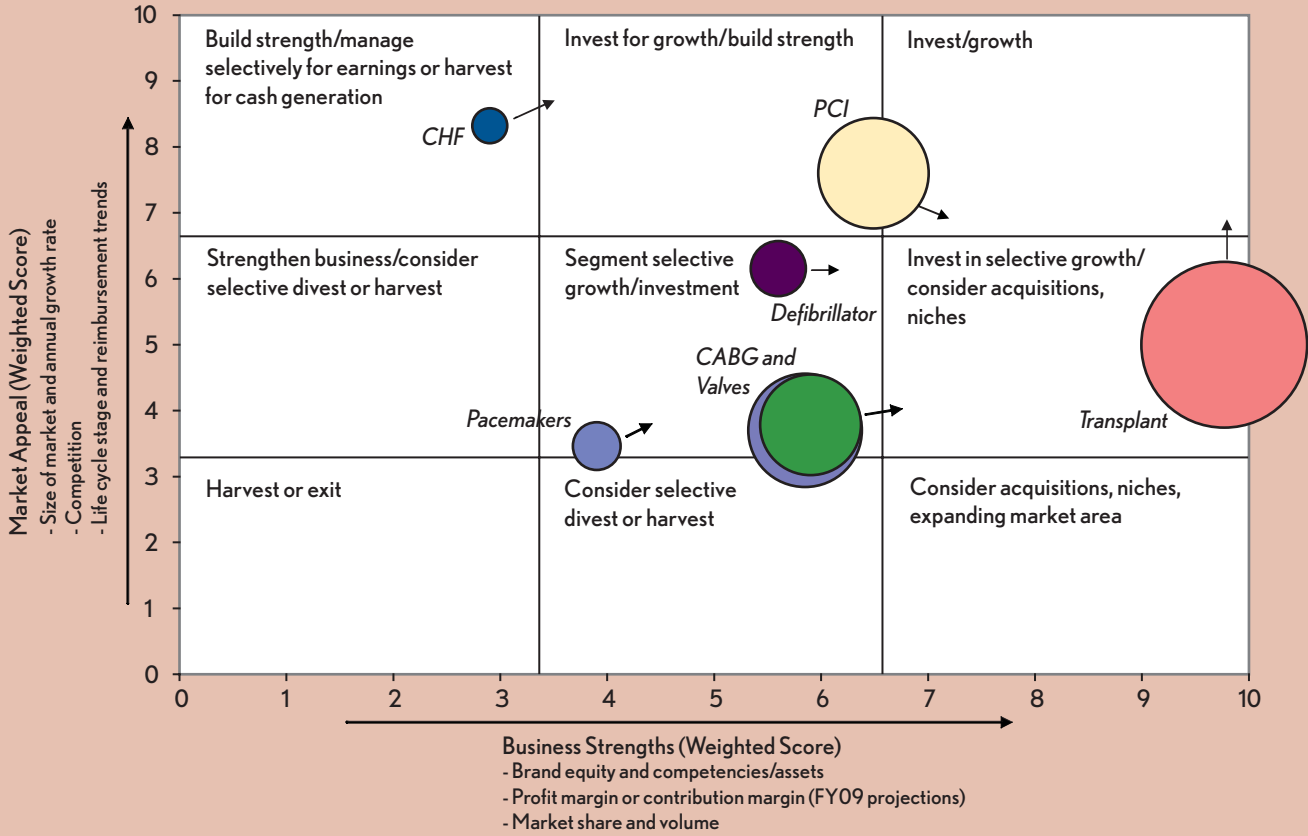
Each hospital's Medicare volumes and patient mix by DRG will influence the overall financial impact on the CV service line. The net impact for most hospitals will be relatively limited in FY07 as a result of the 3.4 percent market basket increase. In fact, many hospitals will realize an overall net increase in their payments. This could

result in organizations being lulled into a false sense of security, particularly if they fail to evaluate the long-term impact of these changes and prepare for the future. The most significant changes affecting the CV service line will occur in the future as the new cost-based reimbursement is fully implemented.

Evaluating the impact of cost-based reimbursement.

The following steps can be taken to assess the impact that cost-based relative weights will have on CV payments:

PORTFOLIO ANALYSIS: EVALUATE PRODUCT MIX AND IDENTIFY PRIORITIES



Note: Size of bubble represents contribution margin.

Source: Triad Consulting Group, Inc., Houston, Texas 1996-2007.

In this portfolio model, each criterion is assigned a weight indicating its relative importance, with the total value equal to 1.0 for market appeal and 1.0 for business strength. Each product or service line is then rated on each criterion using a score from 0 to 10 (0-3 weak; 4-6 average; 7-10 high). The score is multiplied by the weight factor to determine overall ranking; these scores are then totaled for both market appeal and business strength. Scores are plotted on a nine-cell matrix with business strengths on the horizontal axis and market appeal on the vertical axis. The market size or contribution margin can be represented by the size of the circle along with an arrow indicating the future forecast. Each cell in the matrix provides guidelines for strategic direction and resource allocation (e.g., grow/invest, segment and selective investment, build business strength, exit or divest).

1. Identify your CV program's current Medicare volumes by DRG (FY06).
2. Using the analysis outlined previously, compare the FY06 and FY07 DRG relative weights with those proposed for FY09 (full cost-based). Determine the payment rates using your hospital's standardized amount. To determine the overall reimbursement for each specific DRG, multiply the FY06 volume by the reimbursement per DRG for each of the three years.
3. To evaluate the total impact that cost-based payment will have on each DRG, subtract the FY09 payment from FY06 and FY07 payments, respectively.
4. To evaluate the overall impact that cost-based payment will have on the CV service line, total the projected reimbursement for FY09 and subtract from the total expected reimbursement for FY06 and FY07, respectively.
5. To determine the volume required to offset the net revenue declines, divide the difference in DRG payments (FY07 and FY09) from FY07 expected payment and then multiply that figure by FY06 volumes.

The payment difference from FY07 to FY09 is projected to be considerable, particularly for CABG, PCI, and defibrillator cases, while small positive gains will occur in the CV medical DRGs.

Evaluating product mix using a portfolio model. What are the strategic implications for the CV service line with regard to investments, growth, and portfolio mix transitions? A portfolio model can provide a framework for guiding strategic decisions by identifying and capitalizing on products that offer the greatest economic potential and market size coupled with business strengths of the service line. Today, more than ever, effective prioritizations around investment decisions are critical to the organization's long-term viability.

Many healthcare organizations use a portfolio model to determine service line priorities; the same model can be used to evaluate products within a service line. Examples of factors considered in a portfolio model include:

- > Contribution margin or profit margins per discharge
- > Size of market
- > Market share or volume
- > Annual growth rate
- > Impact of growing market
- > Reimbursement trends
- > Ease of creating market shift

The sample portfolio model shown in the exhibit has been adapted to health care from early models; it uses a weighted score whereby external market factors (market appeal) are considered against internal business criteria (business strengths). Increasingly, healthcare organizations are faced with challenges concerning capital constraints, declining reimbursement, and competitive pressures; portfolio models are useful tools that can provide leaders with information to guide their decision making and ensure effective prioritization around resource allocation.

Proactive Strategies Paramount to Future Financial Stability

CMS estimates that the refined DRG system will shift payments to those hospitals treating a higher acuity of patients. Undoubtedly, financial performance will depend on sufficient documentation and accurate coding. Consider the following strategies for all CV service lines:

- > Focus efforts on revenue cycle initiatives; this will become increasingly vital to maintaining the CV service line's financial performance (particularly documentation and coding).
- > Employ rigor and structure to cost management strategies, including case management, supply chain initiatives, and staffing models. The effective management of valve, defibrillator, pacemaker, and stent costs will be essential to maintaining a profitable CV service line.
- > Validate investment opportunities and identify those services that may not warrant continued growth efforts or further capital investments.
- > Calculate growth requirements necessary to offset future declines in reimbursement.
- > Ensure that the CV service line has a current strategic business and marketing plan that addresses targeted segments and explicit

growth strategies (product design and development, distribution channels, pricing, and promotional strategies).

Specific Implications for CV Programs in Academic Medical Centers

Academic medical centers typically treat higher-acuity patients, and, therefore, theoretically stand to benefit from the DRG payment reform. However, three barriers could prevent AMCs from realizing these gains: low volumes in surgery and interventional procedures, high costs

associated with AMCs, and inadequate documentation and coding.

Specific strategies AMCs may want to consider include:

- > Increasing market share and volumes, particularly PCI/stents and CABG to offset the reimbursement declines and cover direct costs

- > Shifting portfolio mix and focusing on growth strategies, particularly the complex DRGs such as valves, pacemakers, heart transplant, heart-assist devices, cardiac congenital disorders, and congestive heart failure (based on portfolio analysis). (In some cases, this will require expanding the

market area to capture additional volume.)

- > Aggressively managing costs through case management, supply chain initiatives, and staffing models
- > Capitalizing on opportunities to improve documentation and coding to demonstrate the actual case mix of the population treated

CV programs that treat a preponderance of high-acuity patients will benefit from the new DRG system, but other hospitals that have historically treated the “bread and butter” cases will experience a reduction in their case mix and Medicare reimbursement.

Specific Implications for CV Programs in Teaching and Specialty Hospitals

Teaching and specialty hospitals will most likely be adversely affected by the DRG payment reform, as their service mix characteristically comprises high volumes in the very DRGs targeted for payment reductions. These hospitals have historically demonstrated leadership in establishing clinical guidelines and efficiently managing their high-volume, high-cost DRGs. However, for teaching and specialty hospitals to maintain their margins, they must continue their emphasis on cost management and market share growth. Specific strategies that teaching and specialty hospitals may want to consider include:

- > Developing growth strategies to offset declines in reimbursement, particularly interventional procedures and surgery
- > Shifting the portfolio mix to medical DRGs (based on portfolio analysis and competitor landscape)
- > Continuing cost management and supply chain initiatives
- > Capitalizing on opportunities to improve documentation and coding to substantiate a higher case mix index and payment

Specific Implications for CV Programs in Community Hospitals

Community hospitals that have had a predominantly medically focused CV program will realize small gains in revenue. Those community hospitals that have initiated or are in the process of considering an interventional and/or open-heart surgery program should re-evaluate this strategy in terms of breakeven analysis. Additional volumes and market share will be required in the future to substantiate a viable program. Specific strategies that community hospitals may want to consider include:

- > Focusing growth strategies on the medical DRGs and invasive diagnostic procedures (based on findings from portfolio analysis)
- > Focusing on case management within medical DRGs
- > Capitalizing on opportunities to improve documentation and coding to substantiate a higher case mix index and payment

- > Re-evaluating volumes and market share requirements to ensure a feasible service (if considering initiating an interventional and/or open-heart surgery program)

Proactive Strategies Today Can Mean Future Strength

Most acute care hospitals depend financially on CV services, which typically represent a significant percentage of their net income. With sweeping Medicare changes on the horizon, the paradigm may be shifting. An organization's ability to effectively execute growth strategies to offset declines in reimbursement will be critical to long-term financial performance of the CV service line. Those hospitals unable to realize growth may need to consider shifting their portfolio mix to a predominantly medically based service line or, in some cases, more complex surgical DRGs.

In the future, all programs will be required to place a greater emphasis on growth strategies, improving operational efficiencies, cost management strategies, and revenue cycle initiatives to maintain their profit margins. By employing proactive strategies today, the program's future financial stability and organization value can be maintained and even strengthened. With FY08 around the corner, the time to act is now in preparing for tomorrow's changes. The stability of your CV service line depends on it. ●

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