Challenges and Opportunities in Hospital Pricing Strategies

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Presenter: Seth Avery

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He is a frequent speaker at Healthcare Financial Management Association conferences and presents webinars providing education on various healthcare finance topics.

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Factors Driving Pricing Transparency

- Independent Testing Facilities (ITF) putting great pressure on hospitals in service lines that had been very lucrative.

- ASC taking away premium outpatient surgeries

- Increased price sensitivity on "public relation" prices; emergency department, etc.

- Government and interest groups pressuring pricing decisions

- Pressure to maintain/improve bottom line

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Developing a Pricing Strategy to meet all the demands

- How does your organization start?

- Overall % increase?

- Selective prices/decreases?
  - Hold room rates?
  - Increase Emergency Department levels?

- Net Revenue objective?

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Developing a Pricing Strategy to meet all the demands

What do you need to project the financial impact of a strategy?

- Quantities of services
  - Patient type
  - Services codes
  - Plan codes (or what payment terms do they belong to)

- Managed care term that relate to price change
  - What payers are price sensitive
  - Carve outs
    - Devices, drugs
  - Terms such as stop loss, lessor of, caps, etc.

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Goals of Pricing Solutions

- Net revenue neutral at worst, maybe an improvement

- Minimum price increase
  - Can we have a price cut?

- Pay close attention to prices that are market sensitive.
  - High consumer interest
  - Market competition with other hospitals or ITFs

- Relational pricing
  - This is the one that gets forgotten sometimes.
  - Two view vs. one view
    - If you use ratios of APC, you will get a lot of compression.

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Poll Question One

How do you change your prices today?
a) Annual across the board increases
b) Selective price increases
c) Price increases and decreases
d) I do not know

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Common Pricing Techniques

- Fee schedule mark up
  - Which one do you choose?
  - Do you have lessor of language?

- APC mark up
  - 10022 Fine needle aspiration w/image
  - $487.34 APC payment
  - If you mark-up 2.5 X = $1,218
  - What else is on the claim?
    - Imaging
    - Drugs
    - Room

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Common Pricing Techniques

APC mark up
- 23410 Repair rotator cuff acute
- $3,763 APC payment
- If you mark-up 2.5 X = $9,407
- What else is on the claim?

Do the charges on your claim end up being five to six times the APC payment?

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Model Building

The first step is price sensitivity. We can raise or lower all of the prices equally, but wouldn't we rather know what the financial impact of those decisions will be?

Taking the elements of the services with the attributes of the payment terms, you can calculate:

- Relative price sensitivity of each charge code by the patient type

- Example: Emergency Department Level III (99283) price sensitivity score of 0.036. Each dollar of price increase for that service will yield $0.036 per encounter.

- Using historical payer mix and usage data, we have found this approach to be very accurate.

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Model Building II

Now that you have calculated the price sensitivity, what are you doing with that information?

If you lined up all of the prices in order of their price sensitivity, you could raise the first one to $1M and you are done!

Instead you probably want to be able to raise prices where it matters and lower them where it does not.

We are generally working within an overall gross charge limit or goal – a "constraint."

Model Building III

Within your constraint you can raise and lower prices.
  If you have an overall constraint of Zero (0%) for gross charge increase, then to raise prices on sensitive items you need to lower other prices.

Item 1	Price	Qty	GR	Sensitvity	Price increase	GR Δ	ΔNR due to price Δ
ED LVIII	$600.00	1,000	$600,000	0.036	5%	30,000	$1,080.00
LAB VII	$12.00	10,000	$120,000	0.012	-25%	-30,000	-$360.00
						0	$720.00

But wait there is more…

Model Building IV

Now that you are accounting for price sensitivity there is more to consider.

What is the market price?
    Market data is available, but how is it used?

What about how a price relates to the price of another service?
- Do you have irrational prices today?
- A two view x-ray is priced less than one view.
- One with contrast is priced less than one without.

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Technology Solutions

Providers cannot accurately calculate the price sensitivity of individual services.

Providers struggle to create pricing solutions that combine:
- Net and gross and revenue goals
- Develop a market based strategy
- Keep in mind relational pricing
- Add more complex rules such as:
  - Limiting increase/decrease in identified services, e.g. MRI
  - Payer specific limits
  - Monitoring the results of the solution

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Poll Question Two

Do you bundle services into a single price?

a) Yes
b) No
c) I do not know

Hospital Pricing Study

AppRev conducted a comprehensive analysis of a Florida health system's current pricing. The analysis, based on Medicare data, compares the hospital's prices to market for both inpatient and outpatient services.

AppRev has developed a market index for both inpatient and outpatient services. Along with the index are specific examples of outpatient services and inpatient discharges.

OP Pricing Index

The Outpatient Price Index (OPI) allows a hospital to understand how its pricing strategy stacks up to the market as a whole.

Rather than taking the traditional approach of comparing prices line by line, OPI compares all of the services by reducing them to a per Relative Value Unit (RVU) rate for each hospital and for the identified market.

The market itself would have an OPI rate of 1.0 and then each member of the market would be expected to fall either below or above the market.
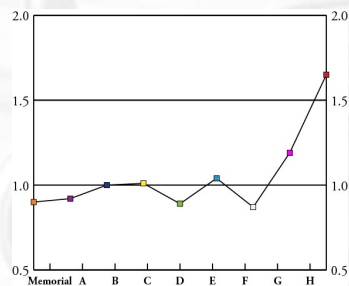
Memorial	A	B	C	D	E	F	G	H
0.90	0.92	1.00	1.01	0.89	1.04	0.87	1.19	1.65

Total OP Charges Table

This approach allows hospitals, at the highest level, to see how they compare on an objective standard, the Medicare Relative Value Unit.

	Total Outpatient Charges	Total RVU	Charges / RVU
MEMORIAL	$187,117,094	173,915	$1,076
A	85,858,370	78,016	1,101
B	62,115,197	52,081	1,193
C	40,675,939	33,639	1,209
D	165,238,130	154,807	1,067
E	145,846,571	117,902	1,237
F	58,708,214	56,445	1,040
G	71,741,648	50,562	1,419
H	48,175,857	24,517	1,965
Benchmark Pool 1 Total	$678,359,926	567,969	$1,194.36

Rev Code Data Table

Hospitals can be ranked on this comprehensive approach and sub-categories can also be ranked. As shown in the sample data, the price per RVU is 90% of the market's price.

The table is a sample of the distribution of outpatient charges by revenue codes. There are a total of nine hospitals in this analysis.

Although as a whole the system's outpatient charges are only 90% of market on an RVU basis, **Cardiology Catheterization services are ranked second** in the market and **Respiratory Therapy ranks ninth.**

Revenue Code Category	count	rank	min	max	avg
Cardiology Catheterization	9	2	$355	1,047	656
Radiology	9	4	523	1,349	829
CT Scan	9	4	619	2,749	1,249
Operating and Recovery Room	9	5	326	1,519	701
Cardiology Non-Catheterization	9	5	674	1,539	1,173
Emergency Room	9	6	593	3,633	1,644
Occupational Therapy	9	6	140	817	424
Physical Therapy	9	6	176	1,225	530
MRI	9	7	486	1,336	814
Lab, EEG	9	8	525	5,333	2,174
Other	9	9	692	5,887	1,713
Respiratory Therapy	9	9	335	543	405
Speech Therapy	8	2	122	835	492
Blood Administration	8	5	1,366	3,259	2,438

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Charge per RVU Table

	Memorial	A	B	C	D	E	F	G	H
Cardiology Catheterization	$1,037	563	789	1,047	746	358	624	355	771
Radiology	895	765	560	1,066	732	703	523	935	1,349
CT Scan	1,091	1,186	762	619	940	999	789	1,951	2,749
Operating and Recovery Room	573	555	477	1,160	624	326	328	620	1,519
Cardiology Non-Catheterization	1,169	1,539	1,252	1,361	1,103	829	674	1,116	1,513
Emergency Room	1,282	1,272	1,549	1,592	1,791	593	1,130	1,592	3,633
Occupational Therapy	306	248	343	369	506	282	140	684	817
Physical Therapy	368	318	386	454	573	365	176	1,225	743
MRI	641	917	486	649	783	1,012	512	814	1,336
Lab, EEG	1,123	1,450	3,149	525	1,298	1,945	1,843	5,333	1,852
Other	574	776	5,887	1,023	692	2,413	1,042	974	894
Respiratory Therapy	304	466	343	356	543	353	335	497	350
Speech Therapy	691	537		478	675	173	122	835	624
Blood Administration	2,377	3,259	3,138	2,406	2,014		1,366	2,685	2,195

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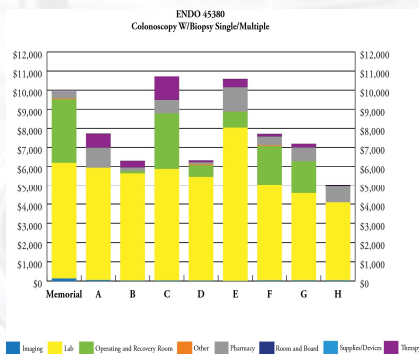
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OP Procedure Analysis

AppRev selected a number of typical outpatient procedures for pricing comparison. Using this approach, a hospital can compare itself to the market for the entire service.

Since patients have the entire service, the charge for the entire service is much more relevant than just the individual components.

The charges for the selected services were grouped by revenue code and rolled up into categories. They can be compared in total or by category, such as imaging or drug charges.
In the example shown here, the endoscopy procedure is comparing the total average charge for this service and the major components.

ENDO 45380
Colonoscopy W/Biopsy Single/Multiple

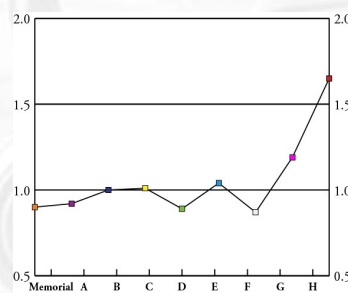|	Memorial	A	B	C	D	E	F	G	H
Imaging	$135	54	25	28	26	5	39	39	38
Lab	6,063	5,887	5,619	5,848	5434	8,035	4,947	4,535	4,052
OR & Recovery	3,322	0	121	2,904	616	830	2,086	1,709	0
Other	42	1	0	0	48	8	46	0	0
Pharmacy	330	1,051	192	705	104	1,272	455	719	840
Room and Board	17	0	0	0	0	0	0	0	36
Supplies/Devices	11	716	339	1,226	89	430	133	186	44
Therapy	0	11	0	9	2	3	0	0	0

IP Price Index

The Inpatient Price Index (IPI) allows a hospital to understand how its pricing strategy stacks up to the market as a whole.

Rather than taking the traditional approach of comparing prices line by line, IPI compares all of the services by reducing them to a per relative weight (RW) per hospital and for the identified market.

The market itself would have an IP rate of 1.0, and then each member of the market would be expected to fall either below or above the market.

Memorial	A	B	C	D	E	F	G	H
1.07	1.17	0.84	1.16	0.90	0.97	0.65	1.19	1.17

Selected MS-DRGs

drg	drgDesc	min	max	avg	rank
065	Intracranial Hemorrhage or Cerebral Infarction w/CC	$26,891	73,949	50,545	6
195	Simple Pneumonia & Pleuresy w/o CC/MCC	25,549	70,639	45,571	4
207	Respiratory System Diagnosis w/Ventilator Support 96+ Hours	34,985	61,608	46,064	1
243	Permanent Cardiac Pacemaker Implant w/CC	26,082	52,873	37,547	5
247	Perc Cardiovasc Proc w/Drug-Eluting Stent w/o MCC	36,047	70,903	48,514	2
282	Acute Myocardial Infarction, Discharged Alive w/o CC/MCC	33,435	61,982	51,322	1
310	Septicemia or Severe Sepsis w/o MV 96+ hours w/o MCC	34,613	66,833	49,036	7
470	Major Joint Replacement or Rattachment of Lower Extremity	19,332	46,794	33,885	5
872	Septicemia or Severe Sepsis w/o MV 96+ hours w/o MCC	34,875	75,696	51,677	7

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Inpatient MS-DRG Analysis

Using MS-DRG 065 as an example, you can see both the average total charge for each hospital in the market and the distribution by the major categories of service.

	Memorial	A	B	C	D	E	F	G	H
Imaging	$135	54	25	28	26	5	39	39	38
Lab	6,063	5,887	5,619	5,848	5434	8,035	4,947	4,535	4,052
OR & Recovery	3,322	0	121	2,904	616	830	2,086	1,709	0
Other	42	1	0	0	48	8	46	0	0
Pharmacy	330	1,051	192	705	104	1,272	455	719	840
Room and Board	17	0	0	0	0	0	0	0	36
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Relational Pricing

50 hospitals had more than 70 irrational prices each.

Total Providers	202
Providers with Irrational Codes	177
Total CPTs	197,308
Unique CPTs	5,996
Instances of Irrational CPTs	8,886
FL Provider Misstep Avg	50

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Case Study

- Medical Center is a four-hospital, three nursing-home health system with 540 patient beds.

- Facing competition from independent labs and imaging centers

- As the only major hospital in the area there is a tremendous scrutiny of their prices.

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Pricing Objectives

Before working with AppRev, price changes were chosen by the CFO, generally by department.

- Some were across the board for the department
- Some departments had no change
- Usually no decreases

Ongoing measurement was very important.

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New Approach:
Strategic and Transparent

The actual volume and impact for each charge code was now accountable.
- You can change charges all you want, but if there's no volume, there won't be any change in revenue or reimbursement.

Taking into account market position:
- There are some things that need to be individually handled due to marketing priorities.

Using payer terms at the charge code, patient type level:
- Not all payers are created equal …

CDM is just too big to perform this manually.
- The outcome is a more purposeful change in pricing.

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Year One Results

The projected gross revenue was actually under the projection.

The price sensitive net revenue was close, but under projection.

The Price Sensitive Net Revenue/Gross Revenue ratio was higher than expected:

- 11.35% increased to 11.61%
- 2,741 prices were increased
- 2,743 prices were decreased
- 838 were unchanged

Ongoing measurement was very important.

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Questions/Discussion

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About AppRev

AppRev is a privately held Healthcare Business Intelligence company based in Temple, Texas, providing services and technology to more than 80 hospitals throughout the United States and Bermuda. AppRev delivers results through services and technology that allow hospitals and clinics to improve revenue cycle performance.

The company's solutions are provided via web delivered Service Supported Software™ and include Charge Accuracy, Charge Review, Denials Intelligence, Pricing Analytics, CDM and DSH services. All AppRev solutions employ ongoing measurement of revenue cycle improvements and can be tailored to meet customer-specific requirements.

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