

# 2024 ACR-RBMA Practice Leadership Forum

Show Me the Money: The Latest in  
Revenue Cycle Performance Analytics and  
E&M Charge Capture

Sunday, January 21 | Phoenix

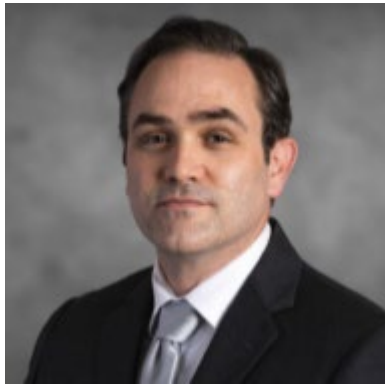


American College  
of Radiology™  
Radiology Leadership Institute



Radiology Business  
Management Association

# Faculty



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Dave Walker

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# Disclosures

- No Disclosures

# Objectives

- Measuring Revenue Cycle Performance Against Industry
- Charge Capture
- Rethinking Self Pay
- Data Utilization Done Right
- E&M Documentation and Charge Capture Program

# Measuring Against Industry Drivers

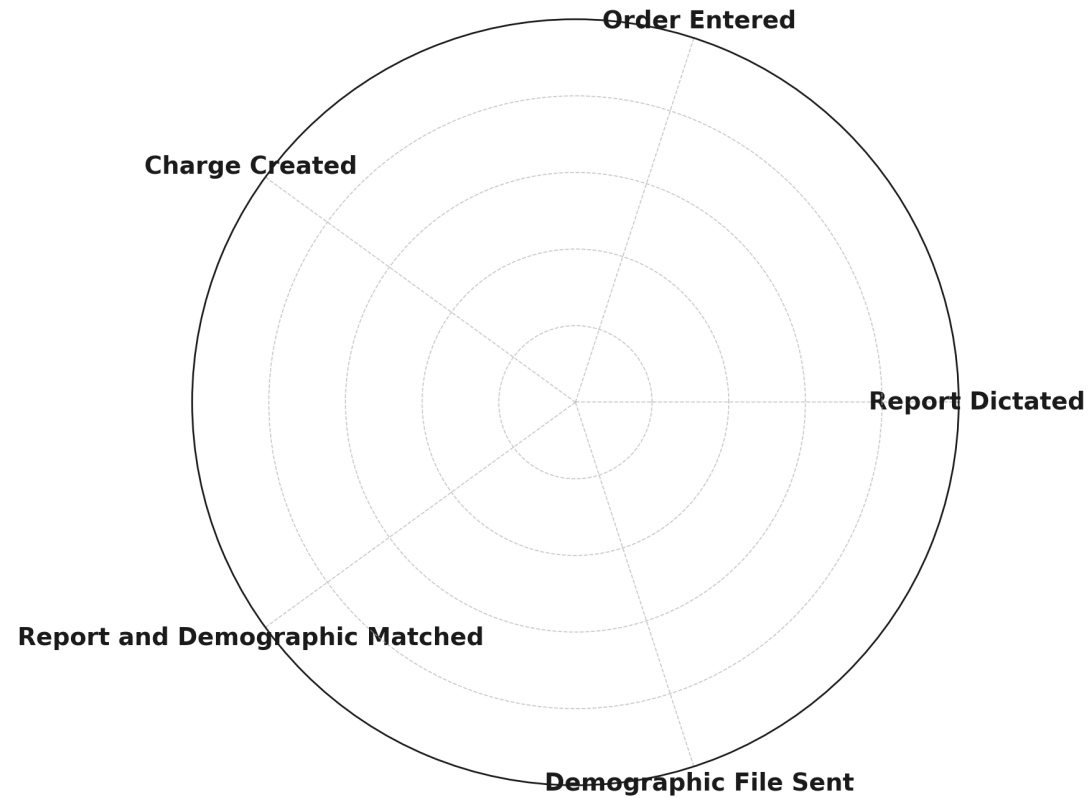
- Change Factors
    - CMS Conversion Factor
    - Payer Mix Change
    - Other Govt Impacts – i.e. Sequestration
    - New Business Impact
    - Patient Liability Changes
    - Contract Changes
- \* CMS changes should include all business tied to CY Medicare.

# Sample Trend Analysis

	YR 1	YR 2	YR 3	YR 4	YR 5	YR 6	YR 7
tRVU's per Year							
Pmts Per Year							
PMTS Per tRVU	40.19	38.03	37.92	38.22	37.87	38.10	37.23
Medicare Conversion Factor	\$ 0.08	\$ 0.11	\$ 0.04	\$ 0.05	\$ (1.20)	\$ (0.29)	
Payer Mix Change	\$ 0.20	\$ (0.27)	\$ (0.01)	\$ 0.11	\$ 0.14	\$ (0.13)	
Other Govt			\$ 0.40	\$ 0.40	\$ 0.39	\$ (0.39)	
New Business Impact	\$ (1.00)	\$ -	\$ -	\$ (0.46)	\$ (0.27)	\$ (0.12)	
Patient Liability	\$ (0.37)	\$ 0.55	\$ (0.06)	\$ 0.11	\$ (0.37)	\$ (0.06)	
Contract Changes				\$ 0.44		\$ 0.11	
<b>New RVU Baseline</b>		<b>39.11</b>	<b>38.42</b>	<b>38.29</b>	<b>38.42</b>	<b>36.57</b>	<b>37.10</b>
Actual Per RVU Pmt	\$ 38.03	\$ 37.92	\$ 38.22	\$ 37.87	\$ 38.10	\$ 37.23	
Variance	\$ (1.08)	\$ (0.50)	\$ (0.07)	\$ (0.55)	\$ 1.53	\$ 0.13	
	\$ (2,813,219)	\$ (1,437,993)	\$ (221,693)	\$ (1,754,835)	\$ 4,910,750	\$ 592,430	
<b>Same Store Charge Capture</b>			2.50%	0.30%	0.20%	0.20%	0.20%
			\$ 2,642,356.30	\$ 2,814,782.25	\$ 3,815,442.00	\$ 4,409,549.70	

# Charge Capture

Charge Capture Process Flow





# Control Point

- Dictated Report
  - Came from our system and represents actual work created.
  - Compare Powerscribe report data against billing data to determine if every report has a created charge

# Sample File

## Charge Audit (Missing Reports)

\*Note: Do not use the subtotals to drill down for details. Instead, highlight multiple sites to drill down.

Site Parent	Site Name	Month of Visit DOS Computed											
		October 2022	November 2022	December 2022	January 2023	February 2023	March 2023	April 2023	May 2023	June 2023	July 2023	August 2023	September 2023
	Total (Do not use for Drilldown)	0.1% ( 42 / 32,405)	0.1% ( 43 / 32,014)	0.1% ( 41 / 33,689)	0.1% ( 42 / 33,209)	0.2% ( 47 / 30,039)	0.1% ( 39 / 34,761)	0.1% ( 33 / 33,878)	0.1% ( 42 / 34,641)	0.1% ( 41 / 33,837)	0.1% ( 37 / 33,679)	0.1% ( 30 / 34,529)	0.1% ( 36 / 33,274)
		0.0% ( 12 / 25,229)	0.1% ( 22 / 23,701)	0.1% ( 17 / 23,621)	0.1% ( 25 / 24,605)	0.1% ( 15 / 22,637)	0.1% ( 20 / 25,993)	0.0% ( 12 / 24,358)	0.1% ( 13 / 25,367)	0.0% ( 12 / 25,767)	0.0% ( 6 / 26,049)	0.0% ( 4 / 26,871)	0.0% ( 8 / 25,443)
		0.0% ( 0 / 3)	0.0% ( 0 / 2)	0.0% ( 0 / 1)	0.0% ( 0 / 1)	0.0% ( 0 / 1)	0.0% ( 0 / 1)	0.0% ( 0 / 2)				0.0% ( 0 / 1)	
		0.0% ( 0 / 137)	0.0% ( 0 / 129)	0.0% ( 0 / 120)	0.0% ( 0 / 124)	0.0% ( 0 / 120)	0.0% ( 0 / 139)	0.0% ( 0 / 116)	0.0% ( 0 / 142)	0.0% ( 0 / 129)	0.0% ( 0 / 122)	0.0% ( 0 / 140)	0.0% ( 0 / 121)
		0.0% ( 0 / 1)			0.0% ( 0 / 1)	0.0% ( 0 / 3)							
		0.0% ( 0 / 225)	0.0% ( 0 / 185)	0.0% ( 0 / 169)	0.0% ( 0 / 162)	0.0% ( 0 / 185)	0.0% ( 0 / 217)	0.0% ( 0 / 235)	0.0% ( 0 / 223)	0.0% ( 0 / 232)	0.0% ( 0 / 208)	0.0% ( 0 / 243)	0.0% ( 0 / 170)
		0.0% ( 0 / 518)	0.0% ( 0 / 546)	0.0% ( 0 / 483)	0.0% ( 0 / 476)	0.0% ( 0 / 467)	0.0% ( 0 / 526)	0.0% ( 0 / 474)	0.0% ( 0 / 572)	0.0% ( 0 / 521)	0.0% ( 0 / 528)	0.0% ( 0 / 542)	0.0% ( 0 / 653)
		0.0% ( 0 / 336)	0.0% ( 0 / 315)	0.0% ( 0 / 265)	0.0% ( 0 / 334)	0.0% ( 0 / 293)	0.0% ( 0 / 329)	0.0% ( 0 / 364)	0.0% ( 0 / 307)	0.0% ( 0 / 379)	0.0% ( 0 / 308)	0.0% ( 0 / 390)	0.0% ( 0 / 348)
		0.0% ( 0 / 220)	0.0% ( 0 / 208)	0.0% ( 0 / 205)	0.0% ( 0 / 194)	0.0% ( 0 / 176)	0.0% ( 0 / 206)	0.0% ( 0 / 223)	0.0% ( 0 / 246)	0.0% ( 0 / 240)	0.0% ( 0 / 212)	0.0% ( 0 / 241)	0.0% ( 0 / 208)
			0.0% ( 0 / 1)										
		0.0% ( 12 / 26,367)	0.1% ( 22 / 24,814)	0.1% ( 17 / 24,625)	0.1% ( 25 / 25,661)	0.1% ( 15 / 23,636)	0.1% ( 20 / 27,142)	0.0% ( 12 / 25,496)	0.0% ( 13 / 26,546)	0.0% ( 12 / 26,956)	0.0% ( 6 / 27,154)	0.0% ( 4 / 28,032)	0.0% ( 8 / 26,599)
		0.2% ( 3 / 1,247)	0.2% ( 2 / 1,151)	0.3% ( 3 / 1,200)	0.4% ( 4 / 1,035)	0.6% ( 6 / 1,041)	0.4% ( 5 / 1,373)	0.2% ( 2 / 1,180)	0.5% ( 7 / 1,382)	0.4% ( 6 / 1,414)	0.2% ( 2 / 1,233)	0.5% ( 7 / 1,386)	0.2% ( 3 / 1,268)
		0.4% ( 4 / 1,027)	0.0% ( 0 / 1,039)	0.2% ( 2 / 1,155)	0.6% ( 5 / 897)	0.4% ( 4 / 920)	0.1% ( 1 / 1,105)	0.6% ( 5 / 905)	0.4% ( 4 / 1,066)	0.0% ( 0 / 1,009)	0.3% ( 3 / 874)	0.1% ( 1 / 1,140)	0.3% ( 3 / 1,066)
		0.6% ( 7 / 1,081)	0.1% ( 1 / 1,294)	0.1% ( 2 / 1,541)	0.1% ( 1 / 1,498)	0.2% ( 3 / 1,582)	0.3% ( 7 / 2,076)	0.2% ( 4 / 1,760)	0.2% ( 4 / 2,001)	0.2% ( 4 / 1,967)	0.1% ( 2 / 1,830)	0.1% ( 2 / 2,018)	0.2% ( 4 / 1,790)
		0.1% ( 1 / 1,229)	0.0% ( 0 / 669)										
							0.0% ( 0 / 548)	0.2% ( 2 / 897)	0.2% ( 2 / 1,042)	0.5% ( 5 / 982)	0.5% ( 5 / 966)	0.3% ( 4 / 1,154)	0.0% ( 0 / 985)
		0.3% ( 10 / 3,634)	0.5% ( 18 / 3,409)	0.6% ( 21 / 3,495)	0.6% ( 18 / 3,118)	0.4% ( 11 / 3,110)	0.2% ( 9 / 3,798)	0.3% ( 11 / 3,548)	0.5% ( 19 / 3,752)	0.6% ( 24 / 3,858)	0.5% ( 18 / 3,595)	0.4% ( 16 / 3,906)	0.4% ( 14 / 3,688)
		0.0% ( 4 / 11,475)	0.0% ( 4 / 11,486)	0.1% ( 7 / 11,757)	0.0% ( 5 / 11,667)	0.1% ( 6 / 10,843)	0.0% ( 2 / 12,586)	0.1% ( 12 / 11,706)	0.0% ( 2 / 12,198)	0.1% ( 10 / 12,452)	0.0% ( 4 / 12,174)	0.0% ( 4 / 12,613)	0.1% ( 9 / 12,019)
		0.2% ( 28 / 14,153)	0.0% ( 3 / 13,941)	0.0% ( 5 / 14,141)	0.1% ( 11 / 14,047)	0.1% ( 8 / 13,079)	0.1% ( 14 / 14,939)	0.1% ( 14 / 14,412)	0.1% ( 16 / 15,099)	0.1% ( 15 / 14,409)	0.1% ( 21 / 14,491)	0.2% ( 34 / 15,638)	0.1% ( 19 / 14,447)
		0.0% ( 0 / 73)	0.0% ( 0 / 108)	0.0% ( 0 / 64)	0.0% ( 0 / 90)	0.9% ( 1 / 110)	0.7% ( 1 / 140)	1.0% ( 1 / 101)	0.0% ( 0 / 127)	0.0% ( 0 / 130)	0.0% ( 0 / 103)	0.0% ( 0 / 99)	0.0% ( 0 / 59)
		1.7% ( 7 / 402)	0.0% ( 0 / 409)	0.5% ( 2 / 373)	0.0% ( 0 / 319)	0.0% ( 0 / 327)	0.3% ( 1 / 371)	0.0% ( 0 / 473)	0.0% ( 0 / 437)	0.2% ( 1 / 496)	0.2% ( 1 / 460)	0.0% ( 0 / 506)	0.2% ( 1 / 517)
		0.0% ( 2 / 10,177)	0.1% ( 9 / 10,029)	0.1% ( 11 / 10,393)	0.1% ( 12 / 10,291)	0.1% ( 9 / 9,449)	0.2% ( 16 / 10,156)	0.1% ( 5 / 9,636)	0.1% ( 8 / 10,022)	0.2% ( 16 / 10,105)	0.1% ( 9 / 10,455)	0.1% ( 8 / 11,005)	0.3% ( 31 / 9,886)
		0.0% ( 0 / 538)	0.2% ( 1 / 557)	0.4% ( 2 / 516)	0.0% ( 0 / 461)	0.0% ( 0 / 414)	0.4% ( 2 / 528)	0.0% ( 0 / 441)	0.2% ( 1 / 540)	0.0% ( 0 / 628)	0.2% ( 1 / 451)	0.5% ( 3 / 568)	0.2% ( 1 / 554)
		0.0% ( 0 / 2,594)	0.0% ( 1 / 2,672)	0.0% ( 0 / 2,820)	0.0% ( 1 / 2,916)	0.0% ( 0 / 2,720)	0.0% ( 1 / 2,801)	0.0% ( 1 / 2,684)	0.1% ( 3 / 2,974)	0.1% ( 2 / 3,058)	0.1% ( 2 / 2,818)	0.1% ( 4 / 3,040)	0.0% ( 0 / 2,933)
		0.0% ( 0 / 3)	0.0% ( 0 / 6)	0.0% ( 0 / 8)	0.0% ( 0 / 10)	8.3% ( 2 / 24)	0.0% ( 0 / 14)	0.0% ( 0 / 7)	0.0% ( 0 / 8)	16.7% ( 2 / 12)	0.0% ( 0 / 9)	0.0% ( 0 / 6)	0.0% ( 0 / 11)
		0.0% ( 0 / 147)	0.0% ( 0 / 93)	0.0% ( 0 / 87)	0.0% ( 0 / 128)	0.0% ( 0 / 76)	0.0% ( 0 / 122)	13.4% ( 13 / 97)	0.0% ( 0 / 76)	32.7% ( 16 / 49)	0.0% ( 0 / 3)		
		0.0% ( 0 / 349)	0.0% ( 0 / 279)	0.0% ( 0 / 332)	0.0% ( 0 / 417)	0.3% ( 1 / 330)	0.0% ( 0 / 366)	0.0% ( 0 / 446)	0.4% ( 2 / 448)	0.0% ( 0 / 450)	0.2% ( 1 / 470)	0.8% ( 4 / 487)	0.0% ( 0 / 482)
		0.0% ( 0 / 65)	0.0% ( 0 / 86)	0.0% ( 0 / 80)	0.0% ( 0 / 82)	0.0% ( 0 / 56)	0.0% ( 0 / 100)	0.0% ( 0 / 93)	0.0% ( 0 / 79)	0.0% ( 0 / 41)	0.0% ( 0 / 71)	0.0% ( 0 / 91)	0.9% ( 1 / 109)
		0.0% ( 0 / 137)	0.0% ( 0 / 107)	0.0% ( 0 / 111)	0.0% ( 0 / 121)	0.0% ( 0 / 104)	0.0% ( 0 / 157)	0.0% ( 0 / 129)	0.0% ( 0 / 146)	0.0% ( 0 / 125)	0.0% ( 0 / 130)	0.0% ( 0 / 142)	0.0% ( 0 / 163)
	Total (Do not use for Drilldown)	0.1% ( 66 / 48,265)	0.1% ( 39 / 47,288)	0.1% ( 55 / 48,027)	0.1% ( 57 / 47,011)	0.1% ( 51 / 44,141)	0.1% ( 59 / 51,114)	0.1% ( 70 / 48,452)	0.1% ( 68 / 51,332)	0.2% ( 101 / 51,139)	0.1% ( 69 / 50,075)	0.2% ( 87 / 53,740)	0.2% ( 86 / 49,931)

# Process Steps

- In prior years we asked the hospital to resend files when charts were missing.
- Changed process to create a new interface between us and billing company to resend reports that had no charge.
- Moved from a 2.5% missing charge rate to .02 - .03% missing charge rate.

# Rethinking Self Pay

- Fee Schedule Optimization
- Extended Payment Plans
- Propensity to Pay Modeling
- AI Dictating Next Logical Step

# Fee Schedule Optimization

- In the past fee schedules get an annual raise which means self pay patients continue to get a steeper bill.
- Using an AI generated propensity to pay model we introduced a reduced/optimized fee schedule.
- Discounts were applied immediately without the patient having to ask for them.
- Created ~ 600K lift and raised patient satisfaction.

# Extended Payment Plans

- In the past we had a 6 month payment plan parameter.
- Extended to 12-18 months with AR reps option to go further if needed.
- Billing Partner introduced a self serve area for the patient to establish the plans.
- Introduced texts and emails into the contact cycle that offered a payment plan option. Timed based on typical reduction in payments for a given period.
- Resulted in 10X in payment plans with a 76% success rate.

# Propensity to Pay Modeling

- In the past all accounts that reach 90 days with no payments became eligible for bad debt and agency referral.
- Now we use AI modeling to look at Propensity to pay.
- Accounts with a propensity to pay of 60 or greater receive additional collection efforts
- Required an additional invest on the part of the practice.
- Yielded a 5% increase in self pay payments.

# Data Utilization Done Right

- Tactically we have been moving all of our hospitals to HL7 billing processes.
- We have several sites we have implemented updates from HL7 to drive the demo's.
- Results were a reduction from ~30% initial denials to 19% and final denial from 9-10% down to 3%.



# E&M Documentation and Charge Capture

- Care Models
- Implementation
- Results

# Aspects of clinical IR service

- Outpatient clinic
- **Inpatient consults**
- Inpatient rounds
- Procedures

# IR clinical care models

	Nascent	Basic	Comprehensive	Power Player
Procedure Mix	Mostly urgent/emergent	Mostly inpatient, some outpatient	Balance of inpatient and outpatient	Robust inpatient and outpatient
Longitudinal Care	Very little to none offered	Not for all procedures, not run smoothly	Broad services offered, variation in effectiveness	All IR patients receive longitudinal care
Care Team Integration	Utilized as proceduralists	Consulted mostly as "physician of last resort"	Consulted by certain service lines, some expansion	Viewed as "go-to" specialist, integral part of care planning
Institutional Importance	Low	Low to medium	Medium to high	High, seen as a part of growth strategy

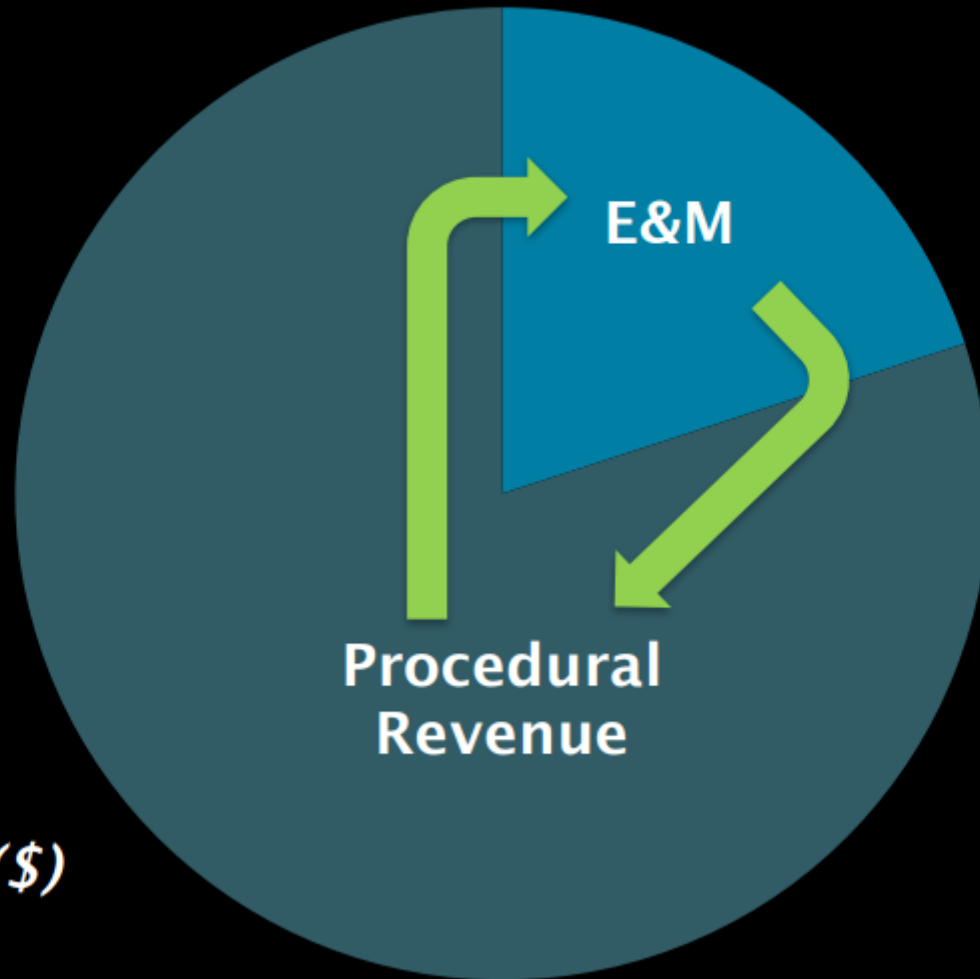
# IR consult service...why?

- Patient care
  - Patient satisfaction (reduce liability)
  - Patient outcomes
- Physician satisfaction
  - Moral injury/burnout
- Money
  - Allows physician to take care of the patient for extended period of time (i.e. career)

# Inpatient IR consult service

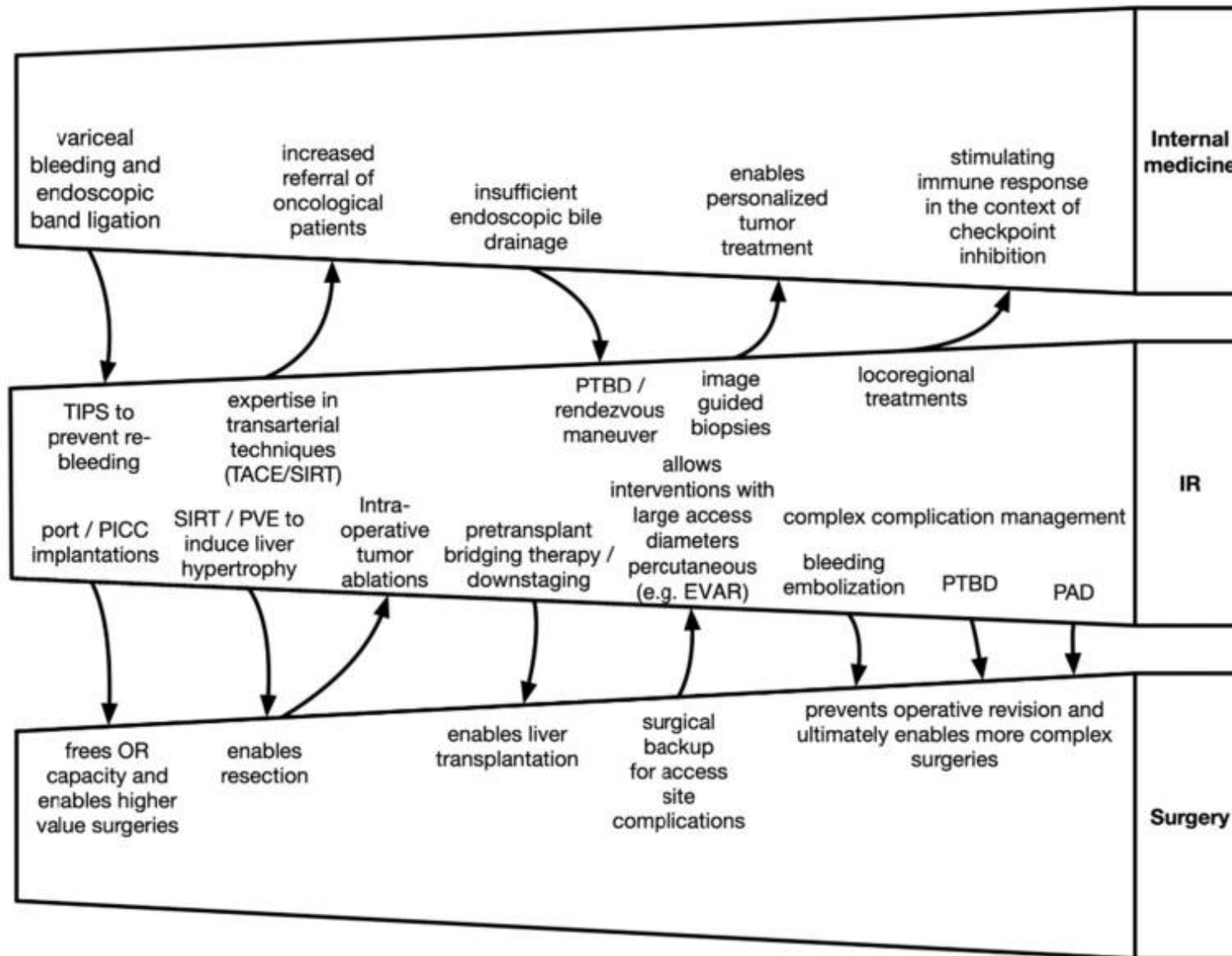
- E&M charges (direct, low hanging fruit)
- Increased visibility=>increase in consults=>increased cases
- Downstream revenue from additional appropriate imaging

# Virtuous cycle feeds E&M, procedural revenue, and vice versa



*Dollars (\$)*

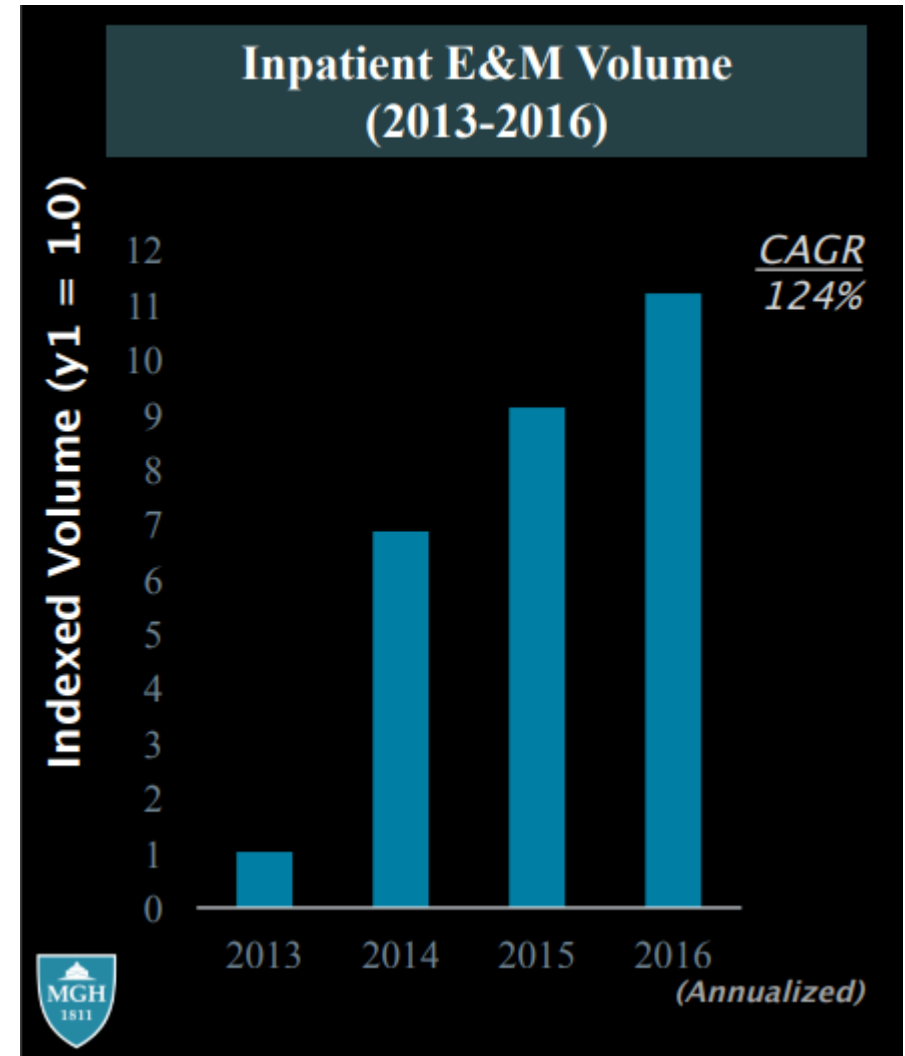
Revenue



Time

# MGH model

- 2013-2016: MGH 124% year over year growth in inpatient volumes (E&M)
- 6% case volume increase year to year
- 41% IO case increase





# MGH model, inpatient estimate

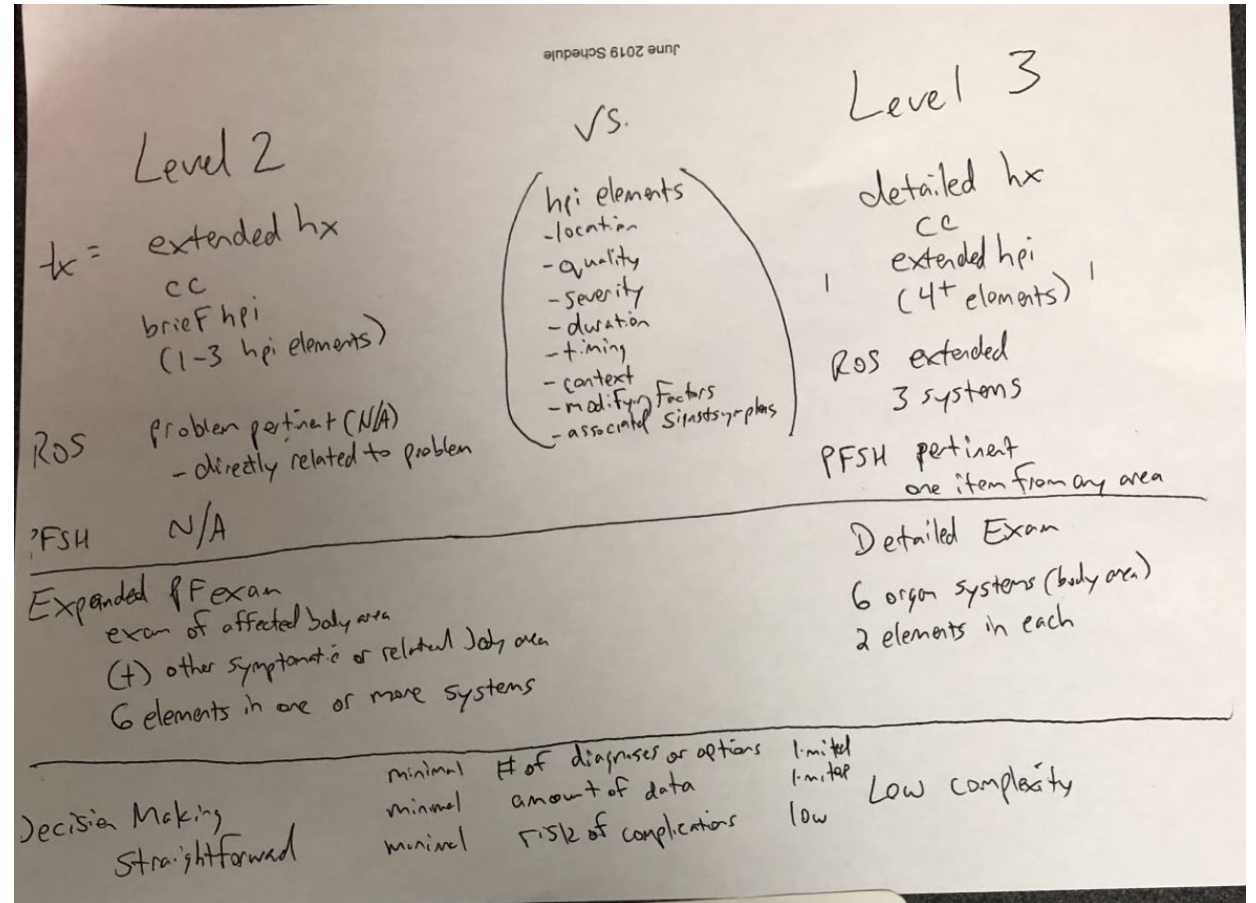
<b>Practice Type:</b>	<b>Small</b>	<b>Moderate</b>	<b>Large</b>	<b>Mega</b>
<b>Full Billing Days/Week</b>	5	5	5	5
<b>Number MDs (FTE)</b>		Variable		
<b>Number APCs (FTE)</b>	0.5	1.0	2.0	4.0
<b>New Consults/Day</b>	0.2	0.5	2	3
<b>Existing Consults/Day</b>	5	10	35	50
<b>Estimated annual charges</b>	\$319,579	\$643,761	\$2,264,672	\$3,241,822
<b>Estimated annual collected revenues</b>	\$54,766	\$110,574	\$389,612	\$558,075

# Inpatient IR consult service

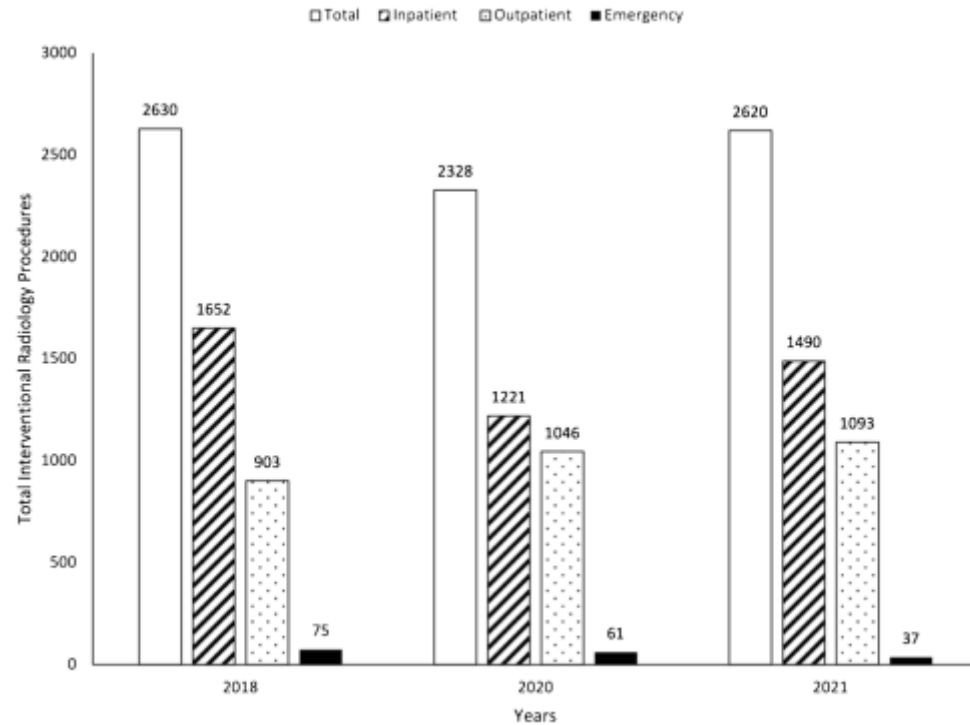
- Arkansas Children's Hospital experience starting a consult service
- Started end of 2019...

# Implementation

- EMR Build
  - Billing/charge capture
  - Note templates
  - Consult order
- MD training
  - 2 fresh attendings
  - 1 not so fresh
- Referrer training
  - Hospitalist service
  - Surgeons
  - Medical Specialists
  - ED



# Results



**Table 3** Annualized payments from interventional radiology consults and subsequent hospital care

Year	Total payments (SUSD)	Volume of billed codes receiving payment	Percent of billed codes receiving payment
<b>Annualized payments: inpatient consult-specific CPT codes</b>			
2019	11,225.32	130	96.3%
2020	46,721.87	466	95.3%
2021	86,029.35	823	94.0%
Total	143,976.54	1419	94.6%
<b>Annualized payments: subsequent hospital care CPT codes*</b>			
2019	7018.78	146	91.8%
2020	32,160.18	546	86.4%
2021	16,155.28	350	88.4%
Total	55,334.24	1042	87.8%

\*2nd IR consult/same hospital stay plus post-procedure IR rounding notes

CPT code used for billing*	Charge (\$USD)	Payment (\$USD)	RVU	Volume of consults billed for with CPT code
99251	\$208	\$53.00	1.00	80
99252	\$208	\$72.60	1.50	842
99253	\$208	\$98.56	2.27	93
99221	\$208	\$128.67	1.92	80
99222	\$264	\$158.73	2.61	374
99223	\$388	\$208.58	3.86	23

\*99251–99253: codes entered in Epic at children’s hospital; 99221–99223: radiology department billing office adjusted codes

*CPT*, current procedural terminology; *RVU*, relative value units

# IR consult service...why?

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  - Patient satisfaction (reduce liability)
  - Patient outcomes
- Physician satisfaction
  - Moral injury/burnout
- Money
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# Thank You!

**NASBA Code: 396**

## Brief Session Evaluation

Please scan the QR code below to complete a 4-question evaluation for this session:

