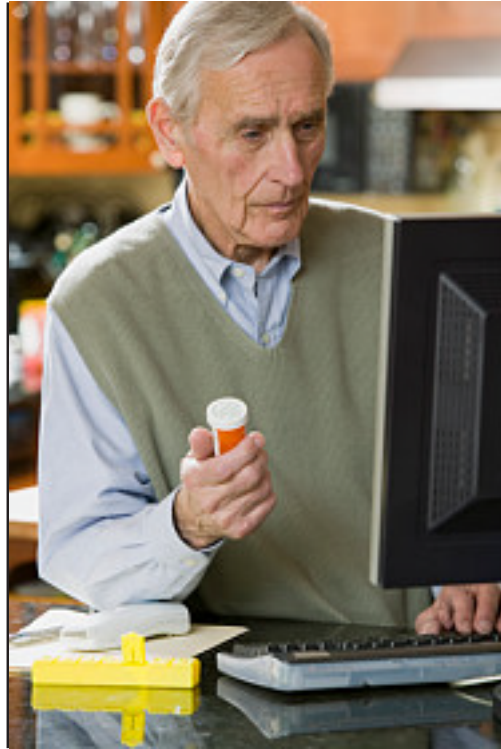


Essentials of the U.S. Hospital IT Market

Sixth Edition



The Next-Generation Revenue Cycle Management Index

The Next-Generation Revenue Cycle Management Index

HIMSS Analytics™ has developed an index for next-generation revenue cycle management (NGRCM) functions. The NGRCM index is intended to reflect the adoption of revenue cycle management (RCM) solutions that improve patient satisfaction and convenience, while improving the overall efficiency of the RCM process.

This index is designed for hospitals and solution providers to compare their capabilities against the emerging market for RCM functions. Hospital requirements for adoption will be based on business needs, strategies and their competitive environments.

The NGRCM index is based on five NGRCM components that improve both upstream and downstream processes in the RCM environment. Those components are:

- **Consumer focus.** An NGRCM environment provides the ability to extend business-to-consumer (B2C) web services to patients to facilitate online pre-registration, self-scheduling and bill payment to enhance patient service efficiency and convenience.
- **Eligibility verification.** An NGRCM environment supports real-time insurance eligibility verification transactions to mitigate the risk of providing services that are not covered by the patient's insurance.
- **Rules capability for billing and payment processing.** An NGRCM environment includes rules engines that facilitate medical necessity checking during patient scheduling and registration functions; determine self-pay patient liability prior to or at the point of registration; and compare submitted, allowed and paid claims against contractual terms to identify and facilitate claims resubmissions. It also allows business office personnel to edit bills online prior to submission, if needed, to improve billing accuracy and compliance with contractual terms, and to provide the necessary updates to all billing and accounts receivable (AR) files related to those edits. NGRCM tools can also accommodate the auto-encoding of clinical information from the electronic medical record (EMR) system, determine claims attachment requirements and automatically create required attachments prior to claim submission (when such supporting data exists in digital form—such as in the EMR). This helps avoid denied or pended claims and improves the efficiency and accuracy of the billing process.

The NGRCM index helps hospitals and vendors to compare their capabilities against the emerging RCM market.

- **Claims processing.** An NGRCM environment provides the ability to submit claims directly to payers, eliminates the need to use third-party clearinghouse intermediaries, accepts direct electronic claims remittance transactions from payers and directly posts third-party payments against patient-specific receivables from bundled remittance transactions.
- **Treasury functions.** An NGRCM environment provides electronic funds transfers (EFT) from third-party payers directly to the provider organization's bank accounts to improve cash flow and facilitate the organization's financial reconciliation processes.

In 2010, medical necessity alert at scheduling had the highest adoption rate (34 percent), followed by claims denial rules (26 percent) and claims attachment rules (25 percent). In 2009, web bill pay had the highest adoption rates, followed by medical necessity checking at registration. All other NGRCM adoption rates are shown below (see Table NGRCM1):

Next-Generation Revenue Cycle Management—2010	
Consumer Focus	
Web Bill Pay	26.17%
Web Pre-registration	15.22%
Web Scheduling	6.32%
Eligibility Verification	
Medical Necessity Alert at Registration	34.05%
Medical Necessity Alert at Scheduling	20.58%
Rules and Billing Capabilities	
Claims Attachment Rules	25.45%
Claims Denial Rules	25.90%
Biller's Dashboard	21.66%
EMR Documentation for Claims	3.65%
Claims Processing	
Claims Remittance Updates AR	14.50%
Direct Payer Claims	11.59%
EFT Transaction	22.51%
Treasury Funds	
Eligibility Transaction with Payer	14.79%
N = 5,281	

Table NGRCM1

An evaluation of this market in 2010 by hospital type shows the following trends:

Under the Consumer Focus category

- Web bill pay had the highest adoption rates in academic medical center segments followed closely by multi-hospital systems and general medical/surgical hospitals (see Table NGRCM2). Non-critical access and urban hospitals had the next-highest adoption rates.
- Web pre-registration had the highest adoption rate in multi-hospital systems, followed by general medical/surgical hospitals. Non-critical access, urban and academic hospitals had the next-highest adoption rates (see Table NGRCM3).
- Web scheduling had its highest adoption rate in academic/teaching facilities. This is followed by multi-hospital organizations, non-critical hospitals and general medical/surgical facilities (see Table NGRCM4). Academic/teaching hospitals have approximately twice the adoption of this function compared to all other segments (except multi-hospital systems).

Web Bill Pay—2010			
Academic	Segment Count	Percentage	Total Count
Academic/Teaching	76	34.08%	223
Not Academic	1,306	25.82%	5,058
Med/Surg	Segment Count	Percentage	Total Count
General Med/Surg	1,032	32.64%	3,162
Other	350	16.52%	2,119
Urban	Segment Count	Percentage	Total Count
Rural	189	16.17%	1,169
Urban	1,193	29.01%	4,112
Critical Access	Segment Count	Percentage	Total Count
Critical Access	207	15.90%	1,302
Non-critical Access	1,175	29.53%	3,979
Single/Multi-hospital	Segment Count	Percentage	Total Count
Multi-hospital System	1,072	33.14%	3,235
Single-hospital System	310	15.15%	2,046
All	Segment Count	Percentage	Total Count
All	1,382	26.17%	5,281

Table NGRCM2

Web Pre-registration—2010			
Academic	Segment Count	Percentage	Total Count
Academic/Teaching	38	17.04%	223
Not Academic	766	15.14%	5,058
Med/Surg	Segment Count	Percentage	Total Count
General Med/Surg	628	19.86%	3,162
Other	176	8.31%	2,119
Urban	Segment Count	Percentage	Total Count
Rural	85	7.27%	1,169
Urban	719	17.49%	4,112
Critical Access	Segment Count	Percentage	Total Count
Critical Access	98	7.53%	1,302
Non-critical Access	706	17.74%	3,979
Single/Multi-hospital	Segment Count	Percentage	Total Count
Multi-hospital System	675	20.87%	3,235
Single-hospital System	129	6.30%	2,046
	Segment Count	Percentage	Total Count
All	804	15.22%	5,281

Table NGRCM3

Web Scheduling—2010			
Academic	Segment Count	Percentage	Total Count
Academic/Teaching	45	20.18%	223
Not Academic	289	5.71%	5,058
Med/Surg	Segment Count	Percentage	Total Count
General Med/Surg	236	7.46%	3,162
Other	98	4.62%	2,119
Urban	Segment Count	Percentage	Total Count
Rural	23	1.97%	1,169
Urban	311	7.56%	4,112
Critical Access	Segment Count	Percentage	Total Count
Critical Access	29	2.23%	1,302
Non-critical Access	305	7.67%	3,979
Single/Multi-hospital	Segment Count	Percentage	Total Count
Multi-hospital System	285	8.81%	3,235
Single-hospital System	49	2.39%	2,046
	Segment Count	Percentage	Total Count
All	334	6.32%	5,281

Table NGRCM4

Under the Eligibility Verification category

- Medical necessity alerts at registration had the highest adoption rates in multi-hospital systems, followed closely by general medical/surgical hospitals. Non-critical access and urban hospitals had the next-highest adoption rates (see Table NGRCM5).
- Medical necessity alerts at scheduling had the highest adoption rates in general medical/surgical hospitals, followed by multi-hospital systems, hospitals located in urban areas and non-critical access hospitals (see Table NGRCM6).

Medical Necessity Alert at Registration—2010			
Academic	Segment Count	Percentage	Total Count
Academic/Teaching	78	34.98%	223
Not Academic	1,720	34.01%	5,058
Med/Surg	Segment Count	Percentage	Total Count
General Med/Surg	1,175	37.16%	3,162
Other	623	29.40%	2,119
Urban	Segment Count	Percentage	Total Count
Rural	311	26.60%	1,169
Urban	1,487	36.16%	4,112
Critical Access	Segment Count	Percentage	Total Count
Critical Access	343	26.34%	1,302
Non-critical Access	1,455	36.57%	3,979
Single/Multi-hospital	Segment Count	Percentage	Total Count
Multi-hospital System	1,237	38.24%	3,235
Single-hospital System	561	27.42%	2,046
	Segment Count	Percentage	Total Count
All	1,798	34.05%	5,281

Table NGRCM5

Medical Necessity Alert at Scheduling—2010			
Academic	Segment Count	Percentage	Total Count
Academic/Teaching	45	20.18%	223
Not Academic	1,042	20.60%	5,058
Med/Surg	Segment Count	Percentage	Total Count
General Med/Surg	794	25.11%	3,162
Other	293	13.83%	2,119
Urban	Segment Count	Percentage	Total Count
Rural	161	13.77%	1,169
Urban	926	22.52%	4,112
Critical Access	Segment Count	Percentage	Total Count
Critical Access	200	15.36%	1,302
Non-critical Access	887	22.29%	3,979
Single/Multi-hospital	Segment Count	Percentage	Total Count
Multi-hospital System	737	22.78%	3,235
Single-hospital System	350	17.11%	2,046
	Segment Count	Percentage	Total Count
All	1,087	20.58%	5,281

Table NGRCM6

Under the Rules and Billing Capabilities category

- Biller's dashboard had its highest adoption rate in academic/teaching hospitals, followed by non-critical access and single-hospital systems (see Table NGRCM7).
- Claims attachment rules had the highest adoption rates in academic/teaching, urban hospitals and non-critical access organizations (see Table NGRCM8). Adoption of this function will increase significantly over the next five years as recovery audit contractor (RAC) functions continue to ramp up.
- Claims denials rules had the highest adoption rates with academic/teaching hospitals, followed by non-critical access and urban hospitals (see Table NGRCM9). This function will increase significantly in adoption rates over the next five years as RAC functions continue to ramp up.
- EMR documentation for claims (which accommodates the auto-encoding of clinical information from the EMR system) had the highest adoption rate in academic/teaching hospitals (see Table NGRCM10). We believe adoption will increase significantly over the next five years as RAC functions continue to ramp up.

Billers' Dashboard—2010			
Academic	Segment Count	Percentage	Total Count
Academic/Teaching	64	28.70%	223
Not Academic	1,080	21.35%	5,058
Med/Surg	Segment Count	Percentage	Total Count
General Med/Surg	679	21.47%	3,162
Other	465	21.94%	2,119
Urban	Segment Count	Percentage	Total Count
Rural	224	19.16%	1,169
Urban	920	22.37%	4,112
Critical Access	Segment Count	Percentage	Total Count
Critical Access	223	17.13%	1,302
Non-critical Access	921	23.15%	3,979
Single/Multi-hospital	Segment Count	Percentage	Total Count
Multi-hospital System	671	20.74%	3,235
Single-hospital System	473	23.12%	2,046
	Segment Count	Percentage	Total Count
All	1,144	21.66%	5,281

Table NGRCM7

Claims Attachment Rules—2010			
Academic	Segment Count	Percentage	Total Count
Academic/Teaching	66	29.60%	223
Not Academic	1,278	25.27%	5,058
Med/Surg	Segment Count	Percentage	Total Count
General Med/Surg	864	27.32%	3,162
Other	480	22.65%	2,119
Urban	Segment Count	Percentage	Total Count
Rural	193	16.51%	1,169
Urban	1,151	27.99%	4,112
Critical Access	Segment Count	Percentage	Total Count
Critical Access	213	16.36%	1,302
Non-critical Access	1,131	28.42%	3,979
Single/Multi-hospital	Segment Count	Percentage	Total Count
Multi-hospital System	844	26.09%	3,235
Single-hospital System	500	24.44%	2,046
	Segment Count	Percentage	Total Count
All	1,344	25.45%	5,281

Table NGRCM8

Claims Denial Rules—2010			
Academic	Segment Count	Percentage	Total Count
Academic/Teaching	78	34.98%	223
Not Academic	1,290	25.50%	5,058
Med/Surg	Segment Count	Percentage	Total Count
General Med/Surg	867	27.42%	3,162
Other	501	23.64%	2,119
Urban	Segment Count	Percentage	Total Count
Rural	212	18.14%	1,169
Urban	1,156	28.11%	4,112
Critical Access	Segment Count	Percentage	Total Count
Critical Access	231	17.74%	1,302
Non-critical Access	1,137	28.58%	3,979
Single/Multi-hospital	Segment Count	Percentage	Total Count
Multi-hospital System	835	25.81%	3,235
Single-hospital System	533	26.05%	2,046
	Segment Count	Percentage	Total Count
All	1,368	25.90%	5,281

Table NGRCM9

EMR Documentation for Claims—2010			
Academic	Segment Count	Percentage	Total Count
Academic/Teaching	19	8.52%	223
Not Academic	174	3.44%	5,058
Med/Surg	Segment Count	Percentage	Total Count
General Med/Surg	140	4.43%	3,162
Other	53	2.50%	2,119
Urban	Segment Count	Percentage	Total Count
Rural	25	2.14%	1,169
Urban	168	4.09%	4,112
Critical Access	Segment Count	Percentage	Total Count
Critical Access	25	1.92%	1,302
Non-critical Access	168	4.22%	3,979
Single/Multi-hospital	Segment Count	Percentage	Total Count
Multi-hospital System	96	2.97%	3,235
Single-hospital System	97	4.74%	2,046
	Segment Count	Percentage	Total Count
All	193	3.65%	5,281

Table NGRCM10

Under the Claims Processing category

- Claims remittance with accounts receivable update has its highest adoption rate in academic/teaching hospitals. This is followed by “other” non-medical/surgical hospitals, non-critical access and urban hospitals (see Table NGRCM11).
- Direct payer claims (no clearinghouse) had its highest adoption rate in academic/teaching hospitals. The next-highest segments of single-hospital systems, general medical/surgical, non-critical access and urban hospitals have adoption rates that fall between 12 percent and 13 percent (see Table NGRCM12).
- Electronic funds transfer transactions (direct to the organization’s bank) had their highest adoption rate in academic/teaching hospitals. With the exception of critical access and rural hospitals, all other segments indicated adoption rates between 21 percent and 24 percent (see Table NGRCM13).

Claims Remittance Updates with Accounts Receivable—2010			
Academic	Segment Count	Percentage	Total Count
Academic/Teaching	51	22.87%	223
Not Academic	715	14.14%	5,058
Med/Surg	Segment Count	Percentage	Total Count
General Med/Surg	426	13.47%	3,162
Other	340	16.05%	2,119
Urban	Segment Count	Percentage	Total Count
Rural	117	10.01%	1,169
Urban	649	15.78%	4,112
Critical Access	Segment Count	Percentage	Total Count
Critical Access	134	10.29%	1,302
Non-critical Access	632	15.88%	3,979
Single/Multi-hospital	Segment Count	Percentage	Total Count
Multi-hospital System	454	14.03%	3,235
Single-hospital System	312	15.25%	2,046
	Segment Count	Percentage	Total Count
All	766	14.50%	5,281

Table NGRCM11

Direct Payer Claims—2010			
Academic	Segment Count	Percentage	Total Count
Academic/Teaching	42	18.83%	223
Not Academic	570	11.27%	5,058
Med/Surg	Segment Count	Percentage	Total Count
General Med/Surg	394	12.46%	3,162
Other	218	10.29%	2,119
Urban	Segment Count	Percentage	Total Count
Rural	118	10.09%	1,169
Urban	494	12.01%	4,112
Critical Access	Segment Count	Percentage	Total Count
Critical Access	133	10.22%	1,302
Non-critical Access	479	12.04%	3,979
Single/Multi-hospital	Segment Count	Percentage	Total Count
Multi-hospital System	338	10.45%	3,235
Single-hospital System	274	13.39%	2,046
	Segment Count	Percentage	Total Count
All	612	11.59%	5,281

Table NGRCM12

Electronic Funds Transfer Transactions—2010			
Academic	Segment Count	Percentage	Total Count
Academic/Teaching	66	29.60%	223
Not Academic	1,123	22.20%	5,058
Med/Surg	Segment Count	Percentage	Total Count
General Med/Surg	709	22.42%	3,162
Other	480	22.65%	2,119
Urban	Segment Count	Percentage	Total Count
Rural	223	19.08%	1,169
Urban	966	23.49%	4,112
Critical Access	Segment Count	Percentage	Total Count
Critical Access	246	18.89%	1,302
Non-critical Access	943	23.70%	3,979
Single/Multi-hospital	Segment Count	Percentage	Total Count
Multi-hospital System	691	21.36%	3,235
Single-hospital System	498	24.34%	2,046
	Segment Count	Percentage	Total Count
All	1,189	22.51%	5,281

Table NGRCM13

Under Treasury the Funds category

- Eligibility transaction with payer (no clearinghouse) has its highest adoption rate in academic hospitals, followed by other non-medical/surgical hospitals (see Table NGRCM14).

Eligibility Transaction With Payer—2010			
Academic	Segment Count	Percentage	Total Count
Academic/Teaching	39	17.49%	223
Not Academic	742	14.67%	5,058
Med/Surg	Segment Count	Percentage	Total Count
General Med/Surg	437	13.82%	3,162
Other	344	16.23%	2,119
Urban	Segment Count	Percentage	Total Count
Rural	126	10.78%	1,169
Urban	655	15.93%	4,112
Critical Access	Segment Count	Percentage	Total Count
Critical Access	152	11.67%	1,302
Non-critical Access	629	15.81%	3,979
Single/Multi-hospital	Segment Count	Percentage	Total Count
Multi-hospital System	462	14.28%	3,235
Single-hospital System	319	15.59%	2,046
	Segment Count	Percentage	Total Count
All	781	14.79%	5,281

Table NGRCM14

An NGRCM adoption evaluation by hospital bed size segments, for functions with at least 10 percent installation, provides the following insights:

- Under 100 beds: Most of the NGRCM functions have reached 10 percent except web pre-registration, web scheduling and EMR documentation for claims (see Table NGRCM15).
- 100–199 beds: Most of the NGRCM functions have reached 10 percent adoption, with the exceptions of web scheduling and EMR documentation for claims (see Table NGRCM16).

- 200–299 beds: All NGRMC functions except EMR documentation for claims have reached the 10 percent adoption threshold (see Table NGRCM17).
- 300–399 beds: All NGRCM functions except EMR documentation for claims have reached 10 percent adoption rates (see Table NGRCM18).
- 400–499 beds: All NGRCM functions except web scheduling and EMR documentation for claims have reached the 10 percent threshold (see Table NGRCM19).
- 500-plus beds: All NGRCM functions except EMR documentation for claims have reached the 10 percent threshold (see Table NGRCM20).

Under 100 Beds	2010	
	<i>% of 2,678 hospitals</i>	
Necessity Alert at Registration	810	30.25%
Claims Denial Rules	609	22.74%
Claims Attachment Rules	594	22.18%
EFT Transaction	581	21.70%
Biller's Dashboard	566	21.14%
Web Bill Pay	486	18.15%
Necessity Alert at Scheduling	409	15.27%
Eligibility Transaction with Payer	405	15.12%
Claims Remittance Updates with Accounts Receivable	377	14.08%
Direct Payer Claims	268	10.01%
Web Pre-registration	241	9.00%
Web Schedule	76	2.84%
EMR Documentation for Claims	56	2.09%

Table NGRCM15

100–199 Beds	2010	
	<i>% of 1,009 hospitals</i>	
Necessity Alert at Registration	380	37.66%
Web Bill Pay	348	34.49%
Claims Denial Rules	274	27.16%
Claims Attachment Rules	267	26.46%
Necessity Alert at Scheduling	256	25.37%
EFT Transaction	213	21.11%
Web Pre-registration	206	20.42%
Biller's Dashboard	185	18.33%
Claims Remittance Updates with Accounts Receivable	121	11.99%
Eligibility Transaction with Payer	120	11.89%
Direct Payer Claims	101	10.01%
Web Schedule	75	7.43%
EMR Documentation for Claims	40	3.96%

Table NGRCM16

200–299 Beds	2010	
	% of 626 hospitals	
Necessity Alert at Registration	230	36.74%
Web Bill Pay	197	31.47%
Claims Attachment Rules	172	27.48%
Claims Denial Rules	171	27.32%
Necessity Alert at Scheduling	164	26.20%
EFT Transaction	144	23.00%
Biller's Dashboard	142	22.68%
Web Pre-registration	125	19.97%
Eligibility Transaction with Payer	97	15.50%
Claims Remittance Updates with Accounts Receivable	95	15.18%
Direct Payer Claims	79	12.62%
Web Schedule	76	12.14%
EMR Documentation for Claims	33	5.27%

Table NGRCM17

300–399 Beds	2010	
	% of 411 hospitals	
Necessity Alert at Registration	168	40.88%
Web Bill Pay	152	36.98%
Claims Attachment Rules	130	31.63%
Claims Denial Rules	129	31.39%
Necessity Alert at Scheduling	117	28.47%
Web Pre-registration	101	24.57%
EFT Transaction	100	24.33%
Biller's Dashboard	96	23.36%
Claims Remittance Updates with Accounts Receivable	64	15.57%
Direct Payer Claims	61	14.84%
Eligibility Transaction With Payer	60	14.60%
Web Schedule	42	10.22%
EMR Documentation for Claims	21	5.11%

Table NGRCM18

400–499 Beds	2010	
	% of 220 hospitals	
Necessity Alert at Registration	93	42.27%
Claims Attachment Rules	74	33.64%
Web Bill Pay	73	33.18%
Claims Denial Rules	71	32.27%
EFT Transaction	67	30.45%
Biller's Dashboard	64	29.09%
Necessity Alert at Scheduling	55	25.00%
Web Pre-registration	51	23.18%
Claims Remittance Updates with Accounts Receivable	49	22.27%
Direct Payer Claims	46	20.91%
Eligibility Transaction with Payer	43	19.55%
Web Schedule	18	8.18%
EMR Documentation for Claims	16	7.27%

Table NGRCM19

500+ Beds	2010	
	% of 337 hospitals	
Web Bill Pay	126	37.39%
Necessity Alert at Registration	117	34.72%
Claims Denial Rules	114	33.83%
Claims Attachment Rules	107	31.75%
Biller's Dashboard	91	27.00%
Necessity Alert at Scheduling	86	25.52%
EFT Transaction	84	24.93%
Web Pre-registration	80	23.74%
Claims Remittance Updates with Accounts Receivable	60	17.80%
Direct Payer Claims	57	16.91%
Eligibility Transaction with Payer	56	16.62%
Web Schedule	47	13.95%
EMR Documentation for Claims	27	8.01%

Table NGRCM20

Market adoption of next-generation revenue cycle management functions is just emerging, but these applications will become critical solutions for all hospitals within the next five years. RAC audits, the movement to more managed care contracts, and a higher focus on consumer interactions will drive ever higher adoption rates of these functions. Hospital systems that intend to compete as accountable care organizations (ACOs) will be implementing software with embedded claims denial rules and medical necessity checking capabilities. In some markets, hospitals are already adopting these applications due to competitive pressures.

Market adoption of next-generation revenue cycle management functions is just emerging, but they will become critical.

The adoption rate for the next-generation revenue cycle management applications has been slowed by the recession. They may be slowed even further by hospitals' need to address the unfunded mandates for Health Insurance Portability and Accountability Act (HIPAA) version 5010 claims formats (deadline: January 1, 2012) and International Classification of Diseases, 10th Revision, Clinical Modification (ICD-10-CM) coding upgrades (deadline: October 1, 2013).



© 2011 HIMSS Analytics
Requests for permission to reproduce or photocopy
any part of this report should be sent to:
info@himssanalytics.org
33 West Monroe | Suite 1700 | Chicago, IL 60603
877-364-2500 | <http://www.himssanalytics.org>