Using Computer Assisted Audit Techniques For More Effective Compliance Auditing and Monitoring In Healthcare Organizations

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Introduction

A focus group of Health Care Compliance Association (HCCA) and Association of Healthcare Internal Auditors (AHIA) members has been meeting the past six months to explore opportunities to better define and explain auditing and monitoring, clarify the roles of compliance and internal audit functions as they address issues within their healthcare organizations, and develop guidance and reference materials on key aspects of health care auditing and monitoring processes. The *Seven Component Framework developed by the AHIA-HCCA focus group* for compliance auditing and monitoring is comprised of the following activities:

- Perform a risk assessment and determine the level of risk
- Understand laws and regulations
- Obtain and/or establish policies for specific issues and areas
- Educate on the policies and procedures and communicate awareness
- Monitor compliance with laws, regulations, and policies
- Audit the highest risk areas
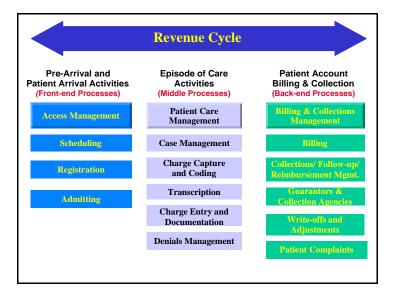- Re-educate staff on regulations and issues identified in the audit

This article describes various computer assisted auditing tools and techniques (CAATs) that can enable more effective compliance auditing and monitoring. This is the fourth in a series of articles being prepared by the HCCA/AHIA auditing & monitoring focus group.

Revenue Cycle Complexities and Challenges

One of the initial hurdles for healthcare compliance and internal audit professionals is to understand the complexities and challenges of the revenue cycle. Recognizing the premise that "you can't audit something you don't understand" is essential and suggests the importance of investing time to better comprehend the components of your organization's revenue cycle. The revenue cycle encompasses many people in a health care organization and is where patient care and financial processes intersect. The revenue cycle is also where many of the most significant compliance risks reside and therefore is the cycle that should receive proper emphasis by ongoing monitoring and auditing activities. Other important characteristics contributing to the complexities of revenue cycles include high transaction volume, multiple and often complex information system interfaces, and enhanced regulatory focus due to HIPAA Privacy and Security requirements.

The following diagrams help provide overall understanding and perspective regarding basic revenue cycle components as a foundation for designing effective compliance auditing and monitoring approaches.

A. The Revenue Cycle is Three Major Processes, all with Compliance Risks to be Audited

Pre-Arrival and Patient Arrival Activities (Front-end Processes)	Episode of Care Activities (Middle Processes)	Patient Account Billing & Collection (Back-end Processes)
Access Management	Patient Care Management	Billing & Collections Management
Scheduling	Case Management	Billing
Registration	Charge Capture and Coding	Collections/ Follow-up/ Reimbursement Mgmt.
Admitting	Transcription	Guarantors & Collection Agencies
	Charge Entry and Documentation	Write-offs and Adjustments
	Denials Management	Patient Complaints

B. Revenue Cycle's Three Major Processes are a Tangled Web of Inter-related Sub-processes, Feeder Systems, and Core Systems

Revenue Cycle is VERY COMPLEX
and requires clinical, financial, and IS knowledge to understand.
Computer assisted analytics enable more effective auditing & monitoring.

Administrative Denials	Lengths of Stay Management
Bad Debt Management	Levels of Care Assignments
Bed and Census Management	Litigation Support
Bill Edit Report Management	Medical Denial Appeals
Billing	Medical Record Documentation
Cash Management/Treasury	Net Revenue Analysis
Charge Audits	Patient Account Dispute Management
Charge Master	Patient Relations
Charge Capture and Charging	Payer Contract Compliance
Coding	Physician Support for Process/Procedure
Collecting	Posting Payments
Compliance Related Policies and Education	Pricing
Contracting	Refund Processing
Contractual Adjustments	Registering
Core Clinical System Integration w/Revenue Cycle	Revenue Cycle Process Improvements
Credit Balances Management	Scheduling
Denial Management	Third-party Lien Management
Expected vs. Actual Payments Reviews	Uncollectible Accounts Write-offs
Financial Reporting	User Hold Report Management
Information Systems Support	Utilization Review
Insurance Verification	VIP / Donor Relations

Computer Assisted Audit Techniques: An Integral Part of Audit Approach

The use of computer assisted audit techniques is integral to having a truly effective revenue cycle compliance auditing and monitoring program. CAATs provide more in-depth analysis and knowledge of billing systems; enable 100% review or testing of certain types of transactions; increase specific working knowledge of the functioning of internal controls; facilitate dual purpose auditing (simultaneous compliance and revenue improvement testing); and generally advance a compliance function's auditing capabilities.

Leveraging the use of technology for compliance auditing and monitoring does not require compliance and audit functions to hire programmers or buy specialized audit software, but it does require gaining a more in-depth understanding of (1) key information systems, (2) specific data elements within those systems, and (3) key data repositories and their record retention. With this additional information, much insight can be gained by simply requesting your information system or decision support department to extract data in a format importable into desktop spreadsheet or database software to provide you with a population of transactions with the significant audit and monitoring data elements you need. The ability to know how many transactions exist that met specified selection criteria and the opportunity to analyze, sort, and aggregate data in a variety of ways will improve the effectiveness of your compliance auditing and monitoring activities. Becoming aware of the standard reports and ad-hoc reporting capabilities of the significant revenue cycle information systems for your organization is another easy way to leverage technology. Keep in mind to always ask for the standard or ad-hoc report to be provided in a format, such as Excel, so that you can perform additional analysis, as required.

Many organizations have determined it advantageous to advance their use of CAATs beyond downloaded spreadsheets, database files and ad-hoc reports and have invested in one of several commercially available desktop computer audit software tools. These software tools have the advantage of built-in audit functions such as aging routines, duplicates testing, frequency distributions, random selection, matching routines, data integrity checks, joining data elements from two different files, etc. Both the compliance program and audit functions can be greatly enhanced by the opportunities provided by these commercially available tools, which are typically economically priced (a single workstation license can usually be obtained for under $2,000).

Other benefits of using CAATs besides more effective audits include enhancing the credibility of the compliance function, freeing up time from manual, routine tasks to allow critical thinking and judgment, allowing for the review and testing of more transactions, and having staff feel more empowered in their day to day activities.

Three Illustrative Examples of Compliance Auditing and Monitoring Using CAATs

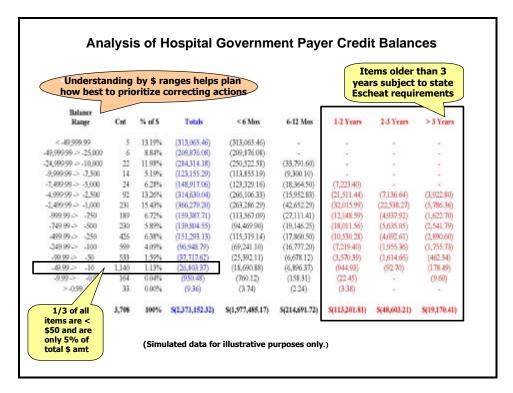## 1. 1. OIG Exclusion List Monitoring After Initial Screenings

Compliance Risk: Most healthcare organizations have now implemented appropriate internal or third-party upfront verification exclusion checks before hiring a new employee, adding a new vendor, or credentialing a physician. There remains a compliance risk that an employee, physician, or vendor may be added to an exclusion list after their initial screening. This is a revenue cycle risk in that Medicare regulations at 42 C.F.R. sec 1001.1901 provide that "no payment will be made by Medicare, Medicaid or any of the other Federal health care programs for any item or service furnished, on or after the effective date specified in the notice period, by an excluded individual or entity."

CAAT Monitoring Approach: On a monthly basis, the entire employee master file, vendor file, and credentialed physicians file can be matched against downloaded OIG/GSA exclusion databases to identify possible excluded parties. Hyphenated last names should be checked in the hyphenated form as well as if they were two individuals to ensure thorough testing.

2. Government Payer Credit Balances Analysis

Compliance Risk: There is an obligation to resolve credit balance accounts and to refund any identified overpayments by a government payer on a timely basis.

CAAT Monitoring Approach: Periodically run an aging frequency distribution to monitor the effectiveness of the billing office's process for reviewing and clearing government payer credit balances.

Analysis of Hospital Government Payer Credit Balances

Understanding by $ ranges helps plan how best to prioritize correcting actions

Items older than 3 years subject to state Escheat requirements

Balance Range	Cnt	% of $	Totals	< 6 Mos	6-12 Mos	1-2 Years	2-3 Years	> 3 Years
< -49,999.99	5	13.19%	(313,065.46)	(313,065.46)	-	-	-	-
-49,999.99 -> -25,000	6	8.84%	(209,876.08)	(209,876.08)	-	-	-	-
-24,999.99 -> -10,000	22	11.98%	(284,314.18)	(250,522.58)	(33,791.60)	-	-	-
-9,999.99 -> -7,500	14	5.19%	(123,155.29)	(113,855.19)	(9,300.10)	-	-	-
-7,499.99 -> -5,000	24	6.28%	(148,917.06)	(123,329.16)	(18,364.50)	(7,223.40)	-	-
-4,999.99 -> -2,500	92	13.26%	(314,630.04)	(266,106.33)	(15,952.83)	(21,511.44)	(7,136.64)	(3,922.80)
-2,499.99 -> -1,000	231	15.43%	(366,279.20)	(263,286.29)	(42,652.29)	(32,015.99)	(22,538.27)	(5,786.36)
-999.99 -> -750	189	6.72%	(159,387.71)	(113,567.09)	(27,111.41)	(12,148.59)	(4,937.92)	(1,622.70)
-749.99 -> -500	230	5.89%	(139,804.55)	(94,469.90)	(19,146.25)	(18,011.56)	(5,635.05)	(2,541.79)
-499.99 -> -250	426	6.38%	(151,293.13)	(115,319.14)	(17,860.50)	(10,530.28)	(4,692.61)	(2,890.60)
-249.99 -> -100	599	4.09%	(96,948.79)	(69,241.10)	(16,777.20)	(7,219.40)	(1,955.36)	(1,755.73)
-99.99 -> -50	533	1.59%	(37,717.62)	(25,392.11)	(6,678.12)	(3,570.39)	(1,614.65)	(462.34)
-49.99 -> -10	1,140	1.13%	(26,803.37)	(18,690.88)	(6,896.37)	(944.93)	(92.70)	(178.49)
-9.99 -> -1.00	164	0.04%	(950.48)	(760.12)	(158.31)	(22.45)	-	(9.60)
> -0.99	33	0.00%	(9.36)	(3.74)	(2.24)	(3.38)	-	-
	3,708	100%	$(2,373,152.32)	$(1,977,485.17)	$(214,691.72)	$(113,201.81)	$(48,603.21)	$(19,170.41)

1/3 of all items are < $50 and are only 5% of total $ amt

(Simulated data for illustrative purposes only.)

3. Monitoring for Possible Up-coding of Physician Office Visit Charges

Compliance Risk: There is risk that higher level CPT codes (e.g., 99214 or 99215) charged for office visits are not properly supported by medical record documentation.

CAAT Monitoring Approach: Run a utilization summary report by physician and review with the Department Chair to see if the outliers make sense given the practice and then investigate further if warranted.

Utilization of Physician Office Visit Charges by CPT Code

	99211	99212	99213	99214	99215
Physician A	100	300	500	200	0
Physician B	80	350	478	289	0
Physician C	90	200	300	160	0
Physician D	76	400	600	100	90
Physician E	88	200	350	200	100
Physician F	**5**	**50**	**50**	**100**	**600**
Physician G	78	390	559	0	0
Physician H	87	280	400	34	56
Physician I	98	234	459	234	100
Physician J	**56**	**432**	**580**	**432**	**600**
Physician K	67	234	578	243	65
Physician L	78	445	678	200	77
Dept. Totals	**903**	**3,715**	**5,532**	**2,192**	**1,688**

High # of 99215 codes should be reviewed

Need to review why physician has such high # of total charges

Other Areas to Consider Using CAATs for Compliance Auditing and Monitoring

- Charge Master reviews of change control and timeliness of updates
- Charges utilization summarization and review for overcharges, missing charges, and duplicate charges
- Conflicts of interest reviews by comparing addresses and SSN on employee master file to vendor master file
- Contractual adjustments analysis
- Denials stratification by payer, type and department
- Hospital to physician billed services comparison
- Information security review of aging of date of last password change
- Privacy review of medical records with greatest number of accesses
- Refunded and pended accounts analysis and matching

About the HCCA / AHIA Auditing and Monitoring Focus Group

The HCCA/AHIA auditing and monitoring focus group will be developing a series of additional articles regarding the seven components to expand on the roles of compliance and internal audit functions, provide detailed "how to steps", and discuss the essential coordination links between compliance, internal audit, legal, and management that are necessary for each component.

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The next priority for the focus group will be to publish articles and guidance materials on (1) the compliance audit process, (2) compliance related policies that should be in place and (3) compliance education / awareness tools and techniques.