

Clinical Coding Audit Workshop

Council of Health Insurance
July 30th 2024



Agenda

Introduction & Overview

Audit Governance & CHI standards

Overview of CHI Audit Process

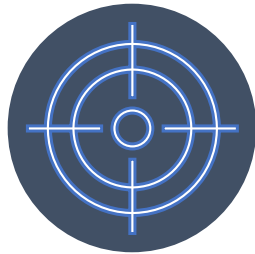
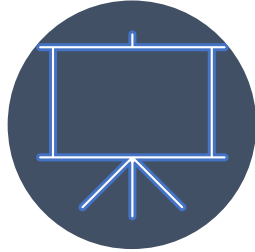
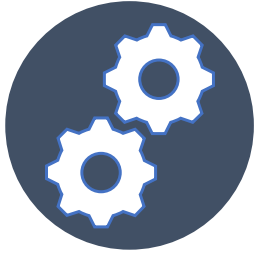
- Internal audit
- External audit

Audit Methodology Overview

Audit Feedback

Arbitration & Appeal for External Audits





Introduction & CHI Strategy

Coding Audit Methodology Project

Vision



Bring value to the Saudi market
& incentivize the management
of beneficiaries

Mission



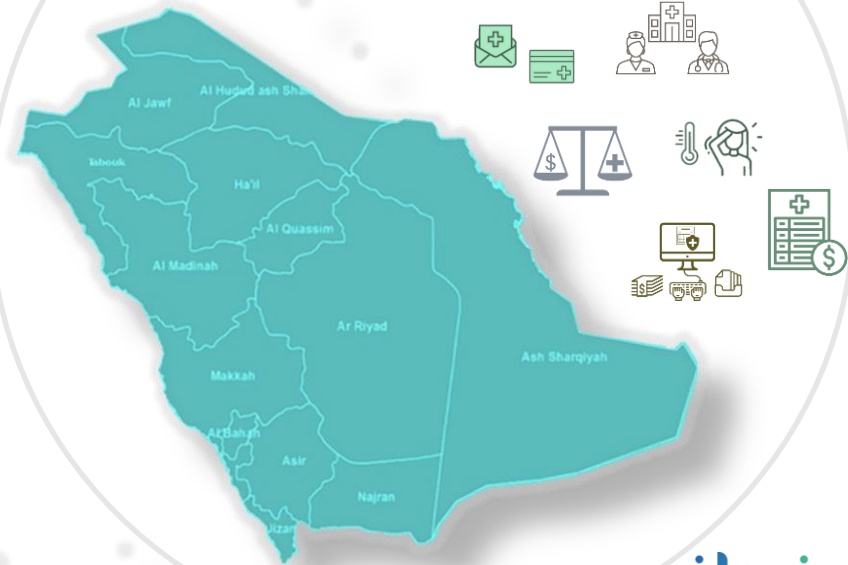
Improve transparency,
enable innovation and
promote efficiency in the
market

Objective

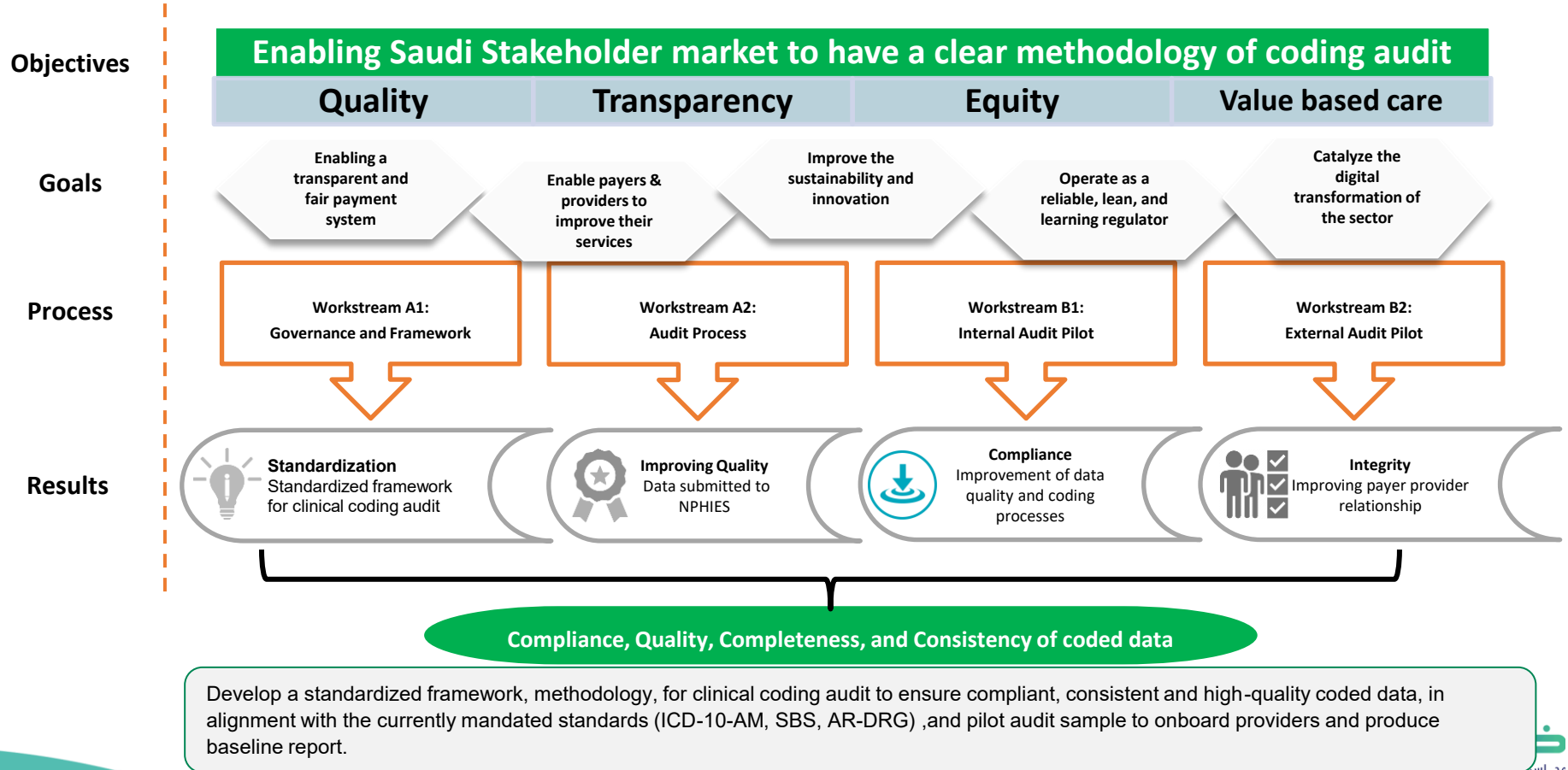


- Develop a standardized framework and guidelines for clinical coding audit.
- Assure data quality submitted to NPHIES.
- Provide recommendations for improvement of quality and processes

Value Based Health Care (VBHC) Saudi Market



Project Objectives





When u hear coding audit what comes to your mind?

① Start presenting to display the poll results on this slide.

Clinical Coding Audit

A coding audit is a validation process to review the reported clinical coded data (claim) against the clinical documentation generated by physicians and other clinical documentation within the care delivery process

- Helps in:
 - Identifying errors and discrepancies
 - Improving accuracy of clinical documentation
 - Ensuring compliance with coding standards and regulator guidelines
 - Providing education to coders
 - Improving revenue cycle management (better cash flow, fewer denials)
- Can be either internal or external audit

Coding Audit

What is Coding Audit?

Coding Audit is a comprehensive review of the clinical coding to determine the accuracy, compliance and quality of coding provided by health care providers to achieve industry standards. The Audit results are communicated with providers to help improve clinical documentation and coding.

Who performs a Coding Audit?

- Internally within the facility by senior coders
or
- Externally by a regulator or a 3rd party auditor (professional medical coding audit companies)

Coding Audit

Why?

- Detect common coding issues including but not limited to (under coding or up-coding, lack of documentation, invalid codes, ...)
- Improve coding accuracy
- Providing coder education
- Ensure compliance with proper coding policies and procedures
- Reduce fraud
- Develop quality benchmarks
- Clinical documentation improvement

Audit Governance & Methodology

- Rules governing the audit process in all its different aspects including planning , accreditation , appeal, arbitration, compliance, communication, etc.
- Details of the governance rules, methodology of the audit , its process and steps will be covered in more details as part of the CHI “Coding Audit Methodology Framework” which will be published

Internal Audit vs External Audit

Conducted by healthcare providers with their own senior coders

Different types:

- **Annual:** mandated yearly and submitted to CHI
- **Routine:** done by the providers any time intervals (monthly, quarterly, etc.) and different purposes and includes:
 - **Random Audit:** 5% of charts for audited period
 - **Focus Audit:** 5% of charts for audited period based on: Casemix, diagnosis, procedure, coder, specialty, payer, etc.)

Conducted by Council of Health Insurance (CHI) or third-party auditor organization authorized by CHI

Three domains:

- Coding Accuracy
- Code Completeness
- Review of clinical coding policies and processes



Audit governance & CHI standards

Governance

Purpose: Governance by a committee of stakeholders comprised of primary and secondary roles which conduct reviews of internal and external audits.

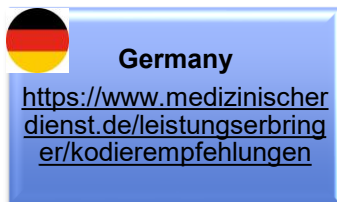
The function of a formed governance committee is to assess the methodologies used to complete the audits.



Governance Overview

The following medical coding and audit frameworks in use in the following regions:

- These regions have been selected as they have well-established coding and auditing governance frameworks.
- Given the complexity of each of the regions' approach to medical coding and auditing frameworks, we have described the rules and regulations framework with the governance alignment of Australia, Germany, UAE - Abu Dhabi and the United States.



Audit Planning

Applicable to internal and external audits, the audit work plan is influenced by the budgetary restrictions and imposed upon by the findings from the review process. The review process should be monitored for changes and if the desired results are being obtained. The planning process should enable the reviewer to resolve a significant number of audit issues related to documentation and medical coding and directly impact the appeals process by providing better provider understanding of the issues and requirements.

- Audit priority considerations may enter the decision to audit by scope and coverage for each type.
- Coding audit reports may require an audit even though other considerations are not satisfied.
- Audit matrix arrays these considerations for each type of provider when circumstances occur the intermediary shall decide the need to audit and the extent to which audit coverage is necessary.
- Define coding audit methodology, clinical service line selection, scoring and the development of performance and performance indicators for quality reporting.
- Mandatory feedback to CHI.
- Providers cannot decline an external audit without the written consent of CHI.



Accreditation

Form an audit committee, with accreditation of external firms in these areas:

Certification of medical coding staff

Certification of medical auditing staff

Experienced firms with ability to work in-country

Data privacy certification

ISO 27001 Certification

Clinical medical board

Background checks required

After formation of committee, ensure the following

maintain board and board audit committee scrutiny of data integrity practices

complete implementation of system security improvements, including implementation of unique user identity and password controls, and routinely review system transaction logs

implement recommendations from audits conducted and their health services

provide a data quality attestation in the health service's annual report



Overview

CHI audit process

Internal Audit

Internal Audit Benefits

Ensure compliance
to coding
standards



Identify
opportunities for
corrections before
an external
regulator audit



Improve clinical
documentation



Improve clinical
coders skills





Do you have a coding audit team?

① Start presenting to display the poll results on this slide.

Clinical Coding Auditor Competencies

- Internal audits must be conducted by senior coders:
 - An Advanced, intermediate or CCC certificate from HIMAA, or other local entities such as SHC or SCFHCS with at least 3 years of experience.
 - or equivalent;
 - Other classification certification Ex: AHIMA/AAPC Certified Clinical Coder with 5 years of experience, and with evidence of formal ICD-10-AM training program.*
- Have expertise and advanced knowledge in the application of the rules and conventions of ICD-10-AM, SBS, ACHI, AR DRG and a thorough understanding of Australian Coding Standards (ACS) and SBS coding standards (SBSCS).
- Coding experience across major specialties including medicine, surgery, trauma and orthopedics, cardiology, and obstetrics is required.
- Demonstrate evidence of continuous professional development

Audit Types

Annual Audit

- Mandated Annually
- Follows external audit methodology
- Results submitted to CHI

Routine Audit

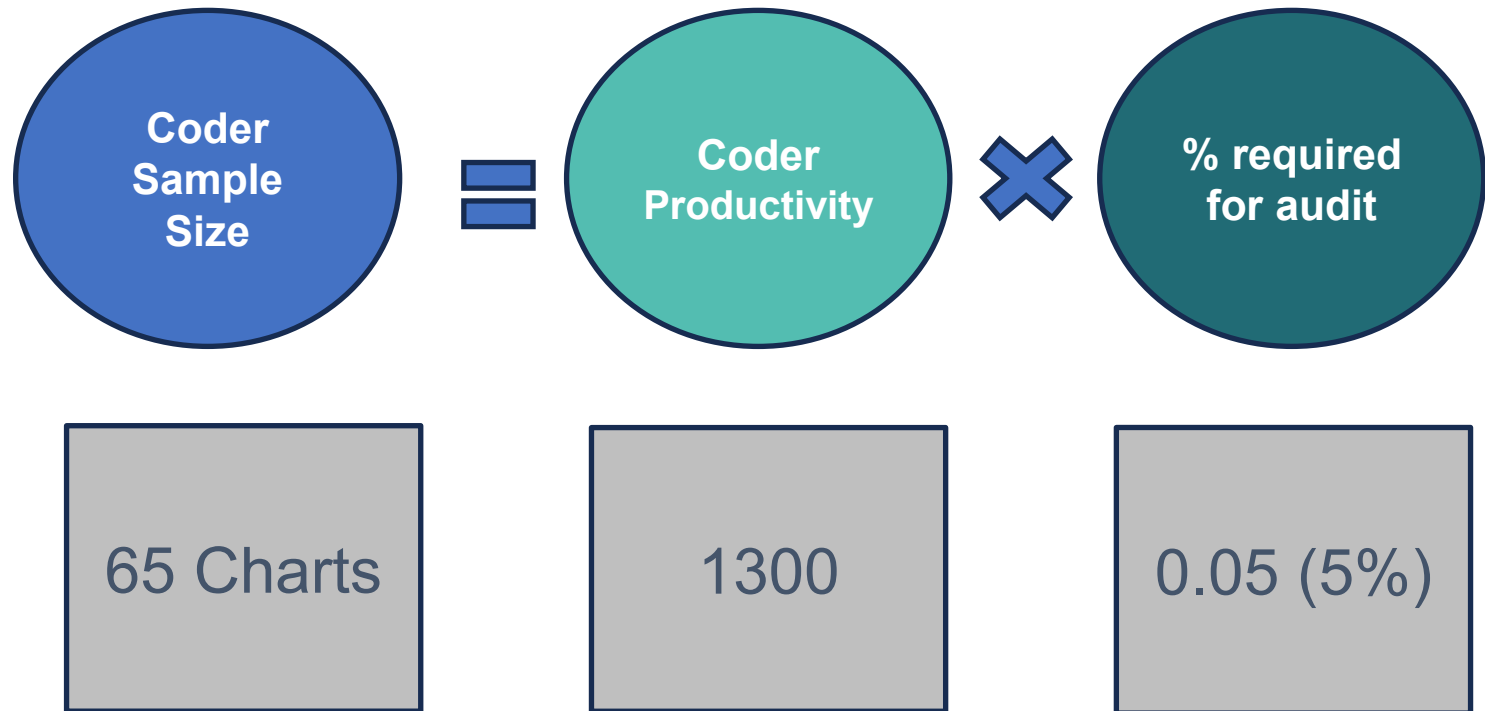
- Conducted by the healthcare providers at any time intervals (monthly, quarterly, etc.)
- Follows CHI audit standard methodology
- Has different purposes including:
 - Random Audit
 - Focused Audit

Random Audit

- Following CHI accreditation standard HI.4 (CHI Provider's Accreditation and Classification program), the senior coders/auditor will review 5% of the medical records for the designated audit period
- Records are divided equally among the available encounter types: Inpatient, Day case, Outpatient, and Emergency following the claims distribution
- The reviewers should make sure that a representative sample is considered per clinical coder.

Coder Sample Size Calculation

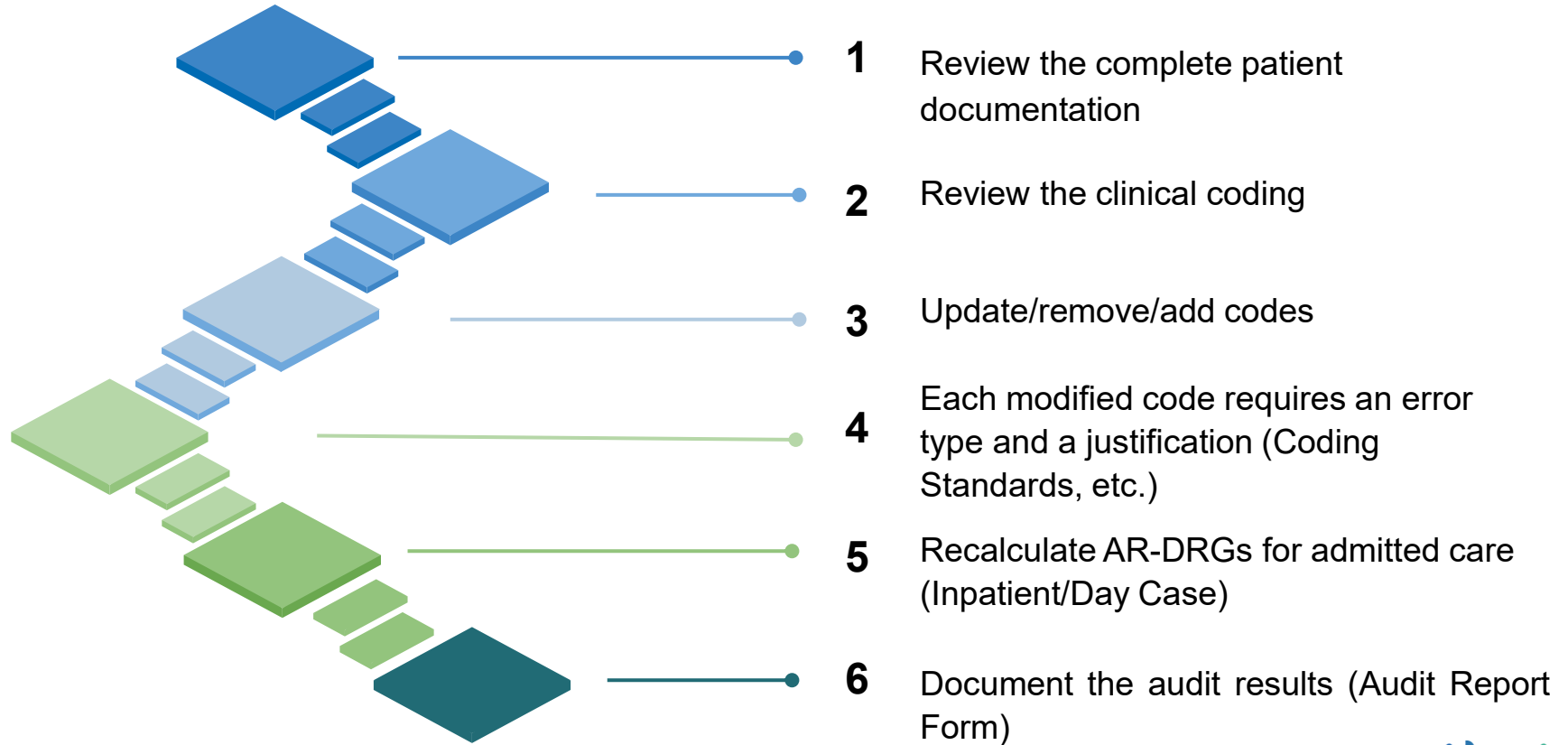
Coder contribution into the sample:



Focused Audit

- 5% of the medical records for a specific audit period based on:
 - **Case mix:** top 10 AR-DRGs, top 10 procedures.
 - **Diagnoses and/or procedures:** Targeting specific diagnoses or procedures
 - **Coder:** Evaluate/monitor beginner coders
 - **Specialty:** Specific department or medical specialty
 - **Payer:** Target payer, such as a specific health insurance company or government-funded patients
 - **Specific encounter:** Where previous deficiencies were found

Audit Process



Error Tables

Table 5: Error Reasons

Wrong principal diagnosis
ICD-10-AM Coding convention not followed
ACS or NCA not applied
SBS Coding Standards not followed
Omission
Query

Table 6: DRG Change Reasons

Principal Diagnosis without added documentation
Medical Clinical Complication without added documentation
Surgical Clinical Complication without added documentation
Procedure without added documentation
Principal Diagnosis with existing documentation
Medical Clinical Complication with existing documentation
Surgical Clinical Complication with existing documentation
Procedure with existing documentation
Combination of obtaining additional documentation & documentation exists

Scoring Method

Coder score calculation: +1 point for every correct code in a correct position

Coder accuracy formula:

$$\text{Coder Accuracy} = \frac{\text{Coder score}}{\text{Auditor Total \# codes}} \times 100$$



Example

	Original	Revised	Error Type	Score
<u>PDx</u>	N83.2 Other and unspecified ovarian Cysts	N83.2 Other and unspecified ovarian Cysts		1
<u>ADx 1</u>	-	N99.4 Postprocedural Pelvic peritoneal adhesions	ACS or NCA not applied	0
<u>ADx 2</u>	-	Y83.6 Removal of <u>other</u> Organ (partial)(total)	Omission	0
<u>ADx 3</u>	-	Y92.24 Place of occurrence, health service area, this facility	Omission	0
Proc 1	35638-04-00 Laparoscopic ovarian cystectomy, unilateral	35638-04-00 Laparoscopic ovarian cystectomy, unilateral		1
Proc 2	-	30393-00-00 Laparoscopic division of abdominal adhesions	Omission	0
Total				2

$$\text{Coder Accuracy} = \frac{2}{6} \times 100$$

$$= 0.33 \times 100 = 33\%$$

Coder Threshold

- Each coder will be assessed based on their training and/or experience level and will be assigned an accepted accuracy threshold.
- A plan should be put in place to help clinical coders gradually reach the desired accuracy threshold.
- The healthcare provider should aim to maintain an accuracy threshold of 95% as per CHI accreditation standard HI.4(CHI Provider's Accreditation and Classification program).

Feedback and Corrective Measures

- A **comprehensive report** with findings needs to be prepared outlining specific errors, variations etc. and categorizes the findings based on severity and frequency.
- **Review findings** with clinical coders, clinical documentation improvement specialists and RCM staff.
- Conduct a **root cause analysis** to identify underlying reasons for the coding errors.
- Provide **target training** and **education** for clinical coders based on identified deficiencies.
- Reinforce **adherence to coding standards** through regular reminders and updates.
- Provide **feedback to clinicians** on areas where documentation could be more specific and detailed.
- Work with healthcare providers to **improve clinical documentation**, ensuring that it supports accurate and complete coding.
- Evaluate if there are any **technology-related issues** contributing to coding errors.
- Consider implementing or enhancing **coding software tools** that can assist in accuracy and compliance.

Audit Report

The final audit report should include the below sections:

- **Executive Summary:** Summarizing key findings, recommendations, and actions.
- **Introduction:** Overview of the purpose, scope, and objectives.
- **Methodology:** Describe sample size, selection criteria, audit team and data sources.
- **Key Findings:** Main findings of the clinical coding audit, including any discrepancies or areas of concern.
- **Recommendations:** Recommendations for improvement based on audit findings.
- **Actions Taken:** corrective actions or interventions implemented or planned based on the audit findings.
- **Follow-Up:** Plan to monitor the effectiveness of the recommended actions.
- **Conclusion:** Summarize the overall audit and the expected improvements in clinical coding.
- **Appendices:** supporting documents, charts, or additional information relevant to the audit.

Samples

Audit Form Template

Audi Type: Random <input type="checkbox"/>		From: __/__/__	To: __/__/__
Focus <input type="checkbox"/>			
Purpose (for focus only) _____			
Auditor • _____ • _____			
Encounter number	Coder	Score	Accuracy %
SA.12679595	XXXXXX	2	33%
SA.00029595	XXXXXX	5	60%
SA.10000012	XXXXXX	6	100%
SA.12211000	XXXXXX	4	100%
# of encounters = 4		Total score = 17	AVG accuracy = 73.25%

Samples

Coder Accuracy Report Template

FROM: __/__/__	TO: __/__/__	Coder: _____
Encounter number	Score	Accuracy %
SA.12679595	2	33%
SA.00029595	5	60%
SA.10000012	6	100%
SA.12211000	4	100%
# of encounters = 4	Total score = 17	AVG accuracy = 73.25%
Recommendation: _____		



**1- As per CHI
standard, the
required coder
threshold is:**

① Start presenting to display the poll results on this slide.



**2- As per CHI
standard, the
required sample size
for audit is:**

① Start presenting to display the poll results on this slide.



3- Which of the following audit is mandatory

① Start presenting to display the poll results on this slide.



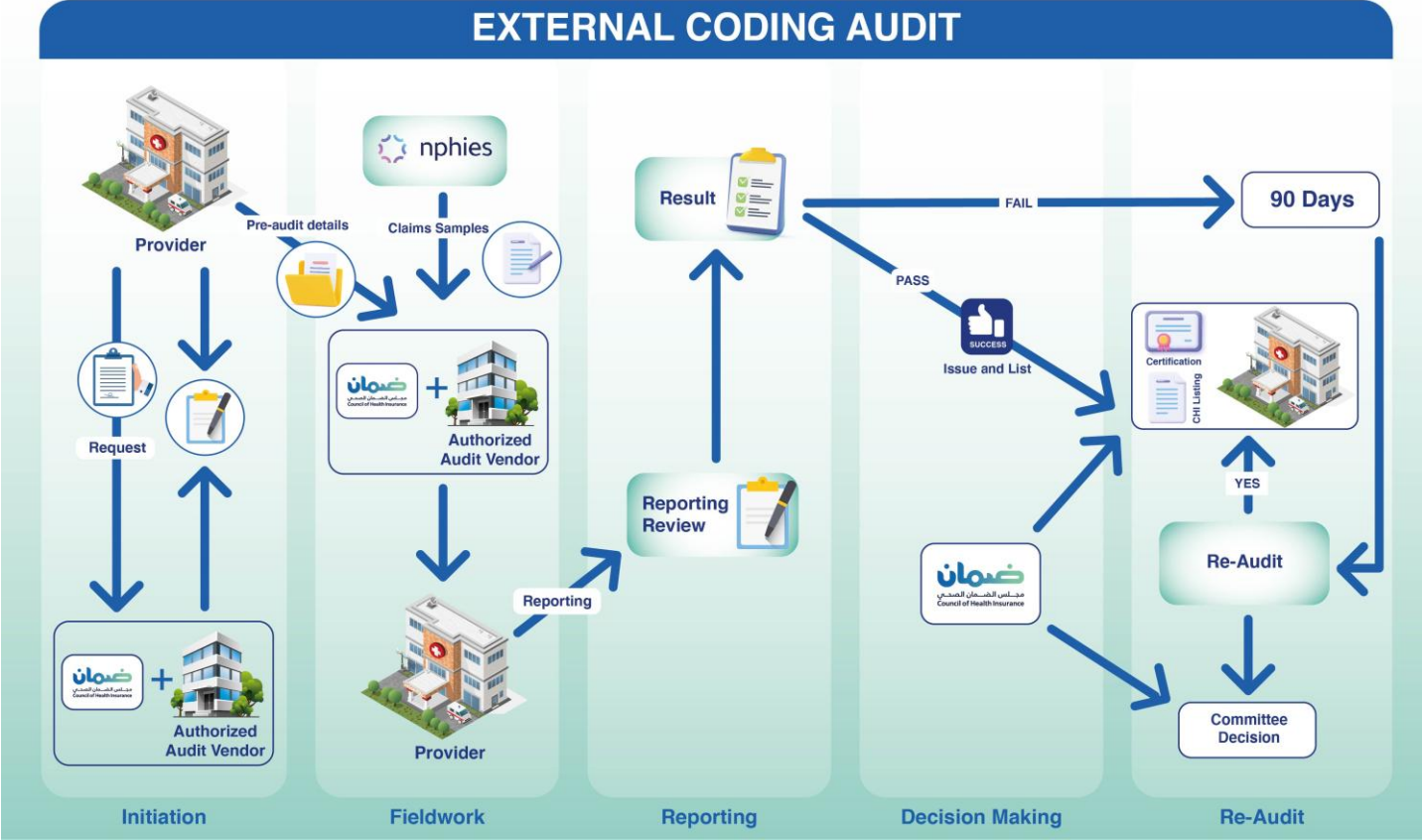
4- Which of the audits below is routine

① Start presenting to display the poll results on this slide.



Overview of CHI audit process External Audit

External Audit Process



Auditor Competencies

- **Coding certification:**

An Advanced HIMAA or CCC from HIMAA and at least 5 years of experience coding post-accreditation.

Or equivalent;

*AHIMA/AAPC Clinical Coder with 5-7 years of experience, with evidence of formal ICD-10-AM training program

- Expertise and advanced knowledge in the application of the rules and conventions **of ICD-10 -AM, SBS, and ACHI** and a thorough understanding of CHI coding standards for these classifications.
- Coding experience across **major specialties** including general medicine, surgery, trauma and orthopedics, cardiology, and obstetrics is required.
- Demonstrate commitment to continuous professional **development**.
- Excellent **communication** skills to enable effective communication with multi-professional teams including hospital managers, physicians, and coders.

Auditor Competencies –cont.

- Basic **analytical** skills with good report writing/presentation skills.
- Demonstrate evidence of previous reports written, draw **findings** from them and recommend effective corrective actions.
- Knowledge of the **Data Security Standards** of CHI and Saudi National Patient Confidentiality Protection Laws
- Thorough understanding of the **CHI Audit Methodology**, error criteria, scoring methodology, and report requirements.

An interview will be conducted with the CHI Coding Committee, or any sub-committee assigned to oversee the audit process.

Audit methodology overview:

Sampling
Error types
Scoring
Grading system



Audit Sampling

Sample selected from previous 12 months claims



HCP must submit the entire claims data for the set period to CHI.



Sample size determined by CHI depending on the volume of claims submitted / discharges of each encounter type.



All patient identification details should be masked

Sampling method

- CHI will provide predetermined standardized sample size based on healthcare providers' data using any of the following sampling methods:

- Scientific method
- Published Tables
- Automated sample size calculators

Sample size calculator

Confidence Level:
95% ▼

Population Size:
50000

Margin of Error:
5% ▼

Ideal Sample Size:
382

Category	Total Discharges / Year	Sample
Category 1	700,001	221
Category 2	400,001 to 700,000	185
Category 3	200,001 to 400,000	140
Category 4	100,001 to 200,000	102
Category 5	50,001 to 100,000	70
Category 6	50,000	60

Example:
Sample size for 50,000 claims, at a confidence level of 95% and error margin of ±5% is calculated as follows

$$\text{Sample Size} = \frac{(1.96)^2 \times 0.5 \times (1-0.5)}{0.05^2} \div 1 + \frac{(1.96)^2 \times 0.5 \times (1-0.5)}{(0.05)^2 \times (50,000)}$$
$$= \frac{3.8416 \times 0.25}{0.0025} \div 1 + \frac{3.8416 \times 0.25}{0.0025 \times 50,000}$$
$$= \frac{0.9604}{0.0025} \div 1 + \frac{0.9604}{125}$$
$$= 384.116 \div 1 + 0.007683$$
$$= 384.16 \div 1.007683$$
$$= 381.231 \approx 381$$

Formula 2: Simplified Sample Size $= \frac{N}{1 + N \cdot e^2}$
N = Population Size, e = Error Margin, CL is ignored

Example:
Sample size for 50,000 claims and error margin of ±5% is calculated as follows

$$\text{Sample Size} = \frac{50,000}{1 + 50,000 \times (0.05)^2}$$
$$= \frac{50,000}{1 + 50,000 \times 0.0025}$$
$$= \frac{50,000}{126}$$
$$= 397$$

Claim distribution Ratio – Encounter type

- The audit sample will be proportional to **the distribution of the encounter types in the population** and the **contribution of every service line (specialty)** spread across different months of the period of the audit.

Sample distribution

Encounter Type	Claim %	Sample
Inpatient	20%	75
Day Case	10%	38
Outpatient	25%	94
Emergency	45%	168
	100%	375

- Example 1:
- Hospital A**
- Total claims/ discharges in a year: 150,000
- Claim distribution: 20% Inpatient, 10% Day Case,
- 25% Emergency, & 45% Outpatient
- Audit sample size determined by CHI : 375

Claim distribution Ratio – Specialty type

- within the hospital sample, once claim distribution ratio is identified per encounter type; apply the concept of **Inpatient service line distribution** to each encounter type when selecting the determined sample count from the previous step.

IP Sample distribution

- Example 2:
- For the same hospital,
- Claim distribution: 20% Inpatient
- Inpatient service line distribution: Cardiology 20%,
- OB/GYN 50%, Paediatrics 30%
- Audit Inpatient claims sample size determined **75**

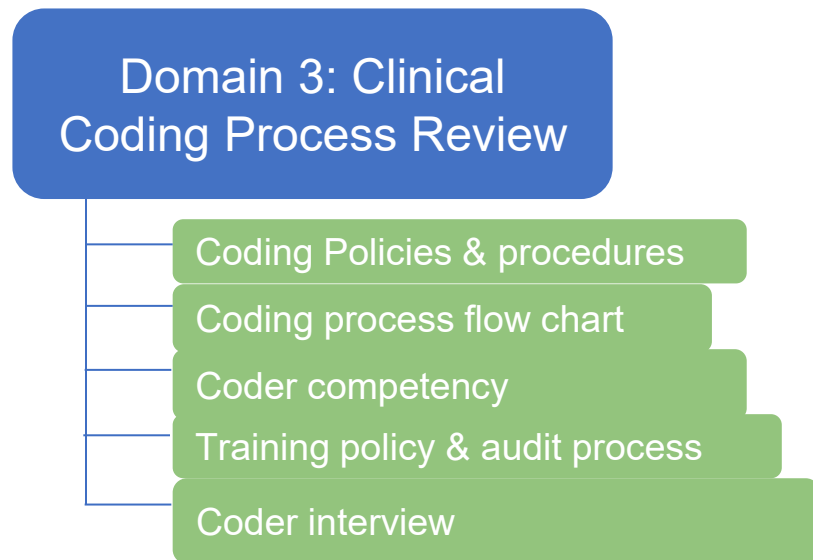
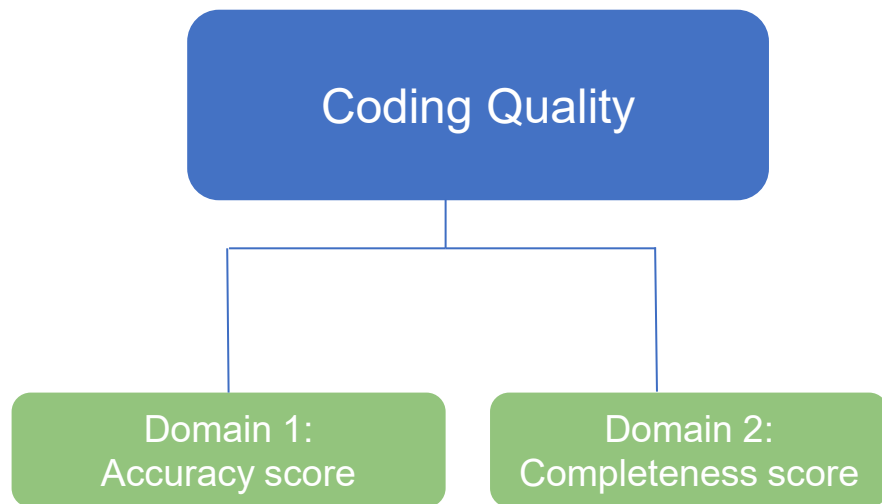
Service Line	Claim %	Sample
Cardiology	20%	15
OB/GYN	50%	38
Pediatrics	30%	22
	100%	75

Sharing the Sample

- The random sample will be shared with the HCP, on the day of the audit in case of electronic health records and three days prior to the day of the audit in case of paper health records.
- The unique episode identifier of the sample selected will be used by the HCP to identify the original claim ID and medical records to be audited.
- All medical records included in the sample should be made available at the beginning of the audit. Any delay can result in an incomplete audit and may impact the facility's scoring.

Coding Audit Process

- The audit will be conducted in three domains



Quality of clinical coding

- Quality of clinical coding scoring comprises of two facets:
- **Accuracy score.** The accuracy score will be determined by reviewing coded data to assess the correctness of diagnosis and procedure code assignments.
Coding to the highest level of specificity per code
- **Completeness score.** The completeness score reflects the diagnosis and procedures, missed by the coder, which could have provided more information on the patient's status.

Capturing all the codes

Clinical Coding Process Review

Five facets for the coding process review:

- Coding Policies & procedures
- Coding process flow chart
- Coder competency
- Training policy & audit process
- Coder interview

Final Scoring

For the final score calculation, the weightage of the domains are distributed as:

- Domain 1 Coding accuracy: 85%
- Domain 2: Coding Completeness: 10%
- Domain 3: Clinical coding process review: 5%

Error Classification

- Coding accuracy score and Coding completeness score are reached by reviewing coded data to assess the correctness and completeness of diagnosis and procedure code assignments
- The coding errors are classified as
 - Accuracy errors for Diagnosis and Procedures
 - Completeness errors for Diagnosis and Procedures
- Based on their weightage they are further categorized as
 - Major
 - Moderate
 - Minor
- Accuracy & completeness together reflect the quality of clinical coding

Error Tables: Diagnosis errors

Error Code	Error Description	Severity			Score	Explanation
		Major	Moderate	Minor		
Accuracy Errors						
DE1	Incorrect selection of Principle Diagnosis	√			-20	Correct code for PDx is listed but sequenced wrong
DE2	Diagnosis codes without documentation	√			-20	Code added does not match the patient documentation
DE3	Sign and Symptom codes as principal diagnosis	√			-20	ACS 0001 “Principal diagnosis” prohibits the use of signs, symptoms and ill-defined conditions are PDx when a more definitive diagnosis is established
DE4	Claimed code does not match documentation / Incorrect diagnosis codes	√			-20	Code assigned doesn’t match the patient documentation or it is a wrong diagnoses code like coding Acute condition while it is documented as chronic
DE5	Using a supplementary code as principal diagnosis	√			-20	Supplementary codes should be sequenced only after all other ICD-10-AM codes
DE6	Missing relevant secondary diagnosis specific to this encounter or specific to performed procedure. *(affecting ECCS)		√		-10	If a complication or a comorbidity is not coded Like a manifestation code without current etiology (underlying cause)

Error Tables: Diagnosis errors

Error Code	Error Description				Score	Explanation
		Major	Moderate	Minor		
DE7	Error of specificity in diagnosis code.		√		-10	Code assigned is within the correct code category but not matching the documentation in 4 th and 5 th digit
DE8	Procedures orders do not have corresponding diagnosis code documentation		√		-10	Procedure coded doesn't have any documentation or diagnosis in the patient chart to support it
DE9	Principal diagnosis doesn't have any relationship with the chief complaint		√		-10	For example, patient coming with chest pain, but principal diagnosis is Diabetes
DE10	Wrong Sequence of codes			√	-5	Codes are not ordered following ACS standards
Completeness Errors						
DE11	Does not code "Possible, Probable etc."	√			-15	Coder did not code possible or probably conditions are per ACS 0012 "Suspected Conditions"
DE12	Missing additional diagnosis (not affecting ECCS)		√		-10	Missing codes for other diseases that matches criteria of additional diagnosis in this encounter

Error Tables: Procedure errors

Error Code	Error Description	Severity			Score	Explanation
		Major	Moderate	Minor		
Accuracy Errors						
PE1	Surgical procedure coded without documentation	√			-15	Code added is not matching the patient documentation
PE2	Incorrect surgical procedure code	√			-15	The code added for the procedure is not matching the patient documentation like documentation saying with contrast or with biopsy, but the code doesn't include contrast, or biopsy
PE3	Missed to code surgical procedure	√			-15	Procedure not coded but performed
PE4	Incorrect non-surgical procedure code		√		-10	The code added for the procedure is not matching the patient documentation
PE5	Procedure codes without corresponding diagnosis code documentation			√	-5	Procedure coded is not treatment to corresponding to any diagnosis code
Completeness Errors						
PE6	Missing to code non-surgical procedure codes	√			-15	Procedure not coded when performed

Domain 1 & 2: Quality of Clinical Coding

- During review, each record will start with 100 points and the identification of errors will lead to the subtraction of a specified number of points.
 - There can be no more than one error scored per code or one error per error category in one claim.
 - In the accuracy and completeness scoring process, each code within a claim can have only one error assigned. Even if a code could potentially fit into multiple error categories, it will be assigned to the error with the highest score.
- * Any additional errors applicable to the code will be noted in the audit report

Example:

In a claim with codes:

PDx **R42** Dizziness and giddiness

SDx **G45.9** Transient Cerebral Ischemic Attack,

Dx/Px	Coder's codes	Auditor's codes	Error Type *	Accuracy Score	Completeness score
PDx	R42 Dizziness and giddiness	G45.9 Transient Cerebral Ischemic Attack	DE1/DE3	-20	
ADx 1	G45.9 Transient Cerebral Ischemic Attack	-			
			Total score	80	

- The code **R42** might be associated with two errors - DE1* and DE3**
- However, during scoring, points are deducted from **R42** against only one error
- In this scenario, since both error categories have the same score, either one may be assigned

* DE1: Incorrect selection of Principle Diagnosis

**DE3: Signs & Symptoms coded as PDx

Domain 1 & 2: Quality of Clinical Coding

- Each claim can only be assigned one error per error category.
- Even if multiple errors of the same error category are within a claim, it will only be counted once during scoring.
- Points will be deducted only once for the same error repeated in an encounter.

Domain 1 & 2: Example

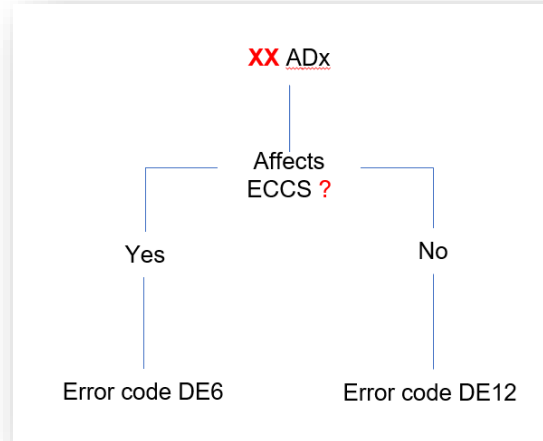
E.g., If **multiple** secondary diagnoses were missed in a claim, all of them would be identified as belonging to error category:

DE6, Missing relevant secondary diagnoses specific to this encounter or specific to the performed procedure. *(affecting ECCS).

OR

DE12, Missing additional diagnosis (not affecting ECCS)

However, deductions will be made only **once**.



Example _ Scoring method individual claim

Dx/Px	Coder's codes	Auditor's codes	Error Type *	Accuracy Score	Completeness score
PDx	N83.2 Other and unspecified ovarian Cysts	N83.2 Other and unspecified ovarian Cysts			
ADx 1	-	N99.4 Postprocedural Pelvic peritoneal adhesions	DE12		-10
ADx 2	-	Y83.6 Removal of other Organ (partial)(total)	DE12		-10
ADx 3	-	Y92.24 Place of occurrence, health service area, this facility	DE12		-10
Proc 1	35638-04-00 Laparoscopic ovarian cystectomy, unilateral	35638-04-00 Laparoscopic ovarian cystectomy, unilateral			
Proc 2	-	30393-00-00 Laparoscopic division of abdominal adhesions	PE3	-15	
			Total score	75	

Initial score: 100 points

Total errors: 4

Accuracy errors: 1 PE3 (15 points)

Completeness errors: 3 DE12 (10 points each)

Final score = $100 - 15 - 10 \times 3 = 75$ points

*DE12 is deducted only once as a claim can only be assigned one error per error category. Points will be deducted only once for the same error repeated in an encounter.

Domain 1 & 2 Quality of Clinical Coding

- The HCP coding supervisor/manager/coding lead will be allowed to review the individual errors before finalizing the audit.
- If there is a disagreement, it can be brought to the auditor's attention. All justification should be based on Australian and CHI coding standards and references.
- If the dispute is not resolved in the discussion between the auditor and HCP, it should be escalated by the HCP to the Stakeholder Governance Committee at CHI for arbitration.
- Once each record has been audited and scored, scoring weights equivalent to the **ratio of claims distribution per each setting will be applied**, and an overall claims review score will be generated. (E.g., IP, OP, Day-case & Emergency)

Scoring Example – Domain 1 & 2

Final Score Calculation								
Domain	Encounter type	Total score	Sample size as per representative sample calculation	Claim distribution Ratio (%)	Score of each setting	Weight as per claims ratio	Domain weight	Final Score
Domain 1: Accuracy	Outpatient	100	97	50	90	45		
	Inpatient	100	30	15	87	13.05		
	Day case	100	24	15	88	13.2		
	Emergency	100	24	20	93	18.6		
Accuracy score						89.85	85%	76.37
Domain 2: Completeness	Outpatient	100	97	50	60	30		
	Inpatient	100	30	15	78	11.7		
	Day case	100	24	15	88	13.2		
	Emergency	100	24	20	62	12.4		
Completeness Score						67.3	10%	6.73

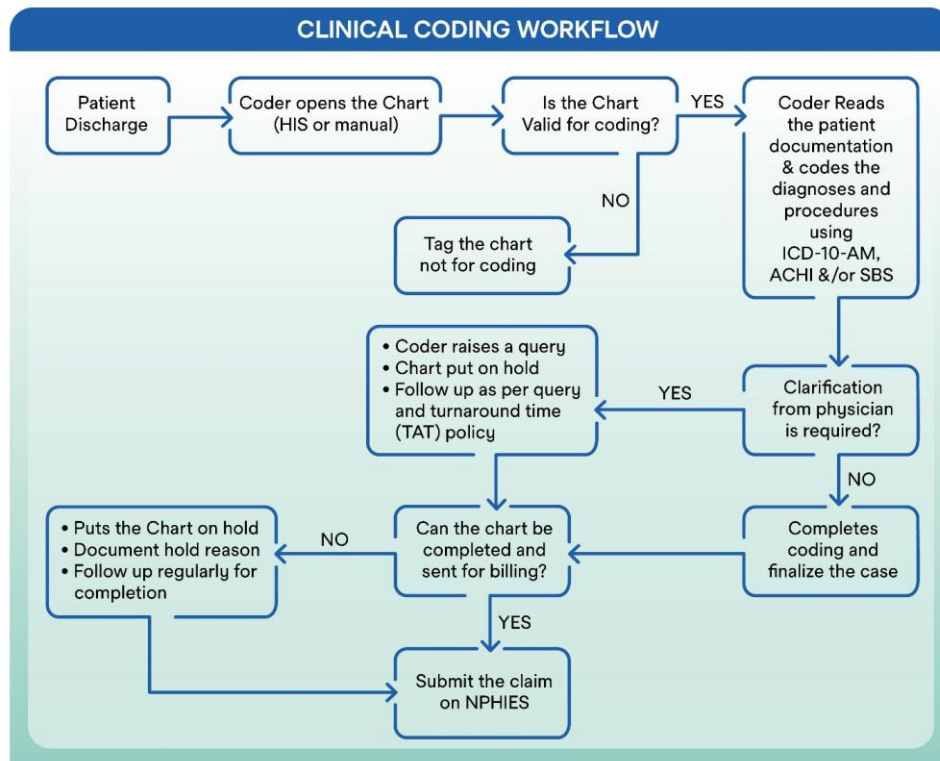
Clinical Coding Process Review

Clinical coding process review includes evaluating the implementation of policies according to the standards and regulations outlined in the CHI accreditation standards.

The HCP should ensure the following are available before the audit:

- ✓ **Clinical Coding Department Policies and Procedures:** (40 points)
An updated and authorized coding policy that explains the coding practices of the facility
- ✓ **Coding process flow chart:** (10 points)
The facility should have an established Coding flow chart that reflects all the functions and interactions. The flow chart should address the physician query loop, internal quality control measures, incomplete documentation, etc.
- ✓ **Coder competency:** (20 points)
certification in clinical coding from an institution/entity recognized in Saudi Arabia.
- ✓ **Training policy and audit process:** (20 points)
Documented evidence of orientation and coders' continuous education activities, including certifications and attendance records.
- ✓ **Candidate for Coder interview:** (10 points)
A coder nominated by the HCP will be interviewed to understand the adherence to coding policies and procedures followed in the facility.

Sample-clinical Coding Workflow



Scoring Example – Domain 3

Domain	Audit criteria	Total score	Facility's score	Domain weight	Final score
Domain 3 Clinical coding process review	Coding policies	40	35		
	Process flowchart	10	10		
	Coder credentials	20	8		
	Training and internal audit	20	15		
	Coder Interview	10	10		
Process review score			78	5%	3.9

Final scoring – Domain 1, 2 & 3

Domain	Encounter type	Total score	Sample size as per representative sample calculation	Claim distribution Ratio	Score of each setting	Weight as per claims ratio	Domain weight	Final Score
Domain 1 Accuracy	Outpatient	100	97	0.5	90	45		
	Inpatient	100	30	0.15	87	13.05		
	Day case	100	24	0.15	88	13.2		
	Emergency	100	24	0.2	93	18.6		
Accuracy score						89.85	85%	76.37
Domain 2 Completeness	Outpatient	100	97	50	60	30		
	Inpatient	100	30	15	78	11.7		
	Day case	100	24	15	88	13.2		
	Emergency	100	24	20	62	12.4		
Completeness Score						67.3	10%	6.73
Domain 3 Clinical coding process review	Coding policies	40			35			
	Process flowchart	10			10			
	Coder credentials	20			8			
	Training /internal audit	20			15			
	Coder Interview	10			10			
Process review score					78		5%	3.9
Final audit score								87%

Certification, Grading & Validity of audit

- HCPs who pass the audit will be awarded the CHI coding audit certificate. The final audit score will be graded according to the tables below.
- From the third year onwards**, the CHI coding audit certificate's validity will depend on the grade. The certificate is subject to renewal based on its validity.
- Year 1 – Audit scores

Result	Final Audit score	Validity of the audit certificate
Pass	70-100	12 months
Failed	Below 70	Re-Audit

Year 2 – Audit scores

Result	Final Audit score	Validity of the audit certificate
Pass	80-100	12 months
Failed	Below 80	Re-Audit

Year 3 onwards- Audit scores

Tier	Final Audit score	Validity of the audit certificate
1	96-100	18 months
2	90-95	12 months
3	86-89	9 months
Failed	Below 86	Re-audit

Audit Feedback

Audit report

Corrective action & recommendations

Key Performance Indicators



Audit Report

- **Executive Summary.** Summarizing the key findings, recommendations, and actions.
- **Introduction.** Overview of the purpose, scope, and objectives.
- **Methodology.** Describe the methodology used for the audit, including the sample size, selection criteria, audit team and data sources.
- **Key Findings.** Main findings of the clinical coding audit, including any discrepancies or areas of concern.
- **Final Score.** Facility scoring details, total score, and pass/fail/reaudit status.
- **Recommendations.** The recommendations for improvement based on the audit findings including, but not limited to, education, training, etc.
- **Conclusion.** Summarize the overall audit and the expected improvements in clinical coding.
- **Appendices.** All supporting documents, charts, or additional information relevant to the audit

Corrective action & recommendations

- A comprehensive report with findings needs to be prepared outlining specific errors, variations etc. and categorizes the findings based on severity and frequency.
- Review findings with clinical coders, clinical documentation improvement specialists and RCM staff.
- Conduct a root cause analysis to identify underlying reasons for the coding errors.
- Provide target training and education for clinical coders based on identified deficiencies.
- Reinforce adherence to coding standards through regular reminders and updates.
- Provide feedback to clinicians on areas where documentation could be more specific and detailed.
- Work with healthcare providers to improve clinical documentation, ensuring that it supports accurate and complete coding.
- Evaluate if there are any technology-related issues contributing to coding errors.
- Consider implementing or enhancing coding software tools that can assist in accuracy and compliance.

KPIs

Coding Accuracy Rate

Represents the percentage of accurately coded charts the aim is to have a high rate

Error Rate

Identifies the percentage of errors in the coded records
Lower error rate is the aim

DRG Accuracy Rate

Represents the percentage of correctly assigned DRG which has an impact eventually on the hospital reimbursement. The higher the percentage the best



Audit Turnaround Time

Time taken to complete an audit process from starting audit to feedback. The shorter the turn around time the more desirable

Denial Rate

Percentage of claims denied due to a clinical coding related issue with aim to reduce the denials by addressing the coding errors

Audit Matrix

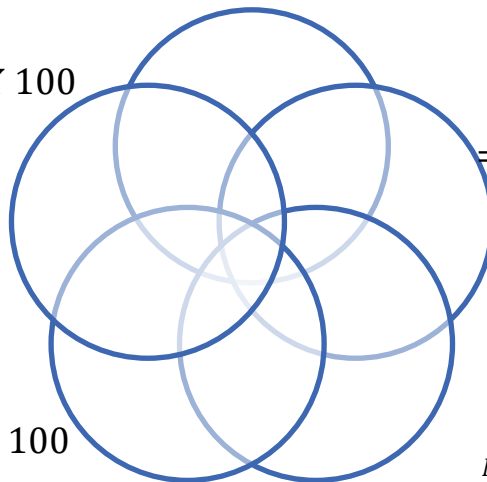
$$\text{Coding Accuracy Rate:} \\ = \frac{\text{Number of records coded accurately}}{\text{Total number of audited records}} \times 100$$

$$\text{Denial Rate:} \\ = \frac{\text{Number of denied claims due to coding error}}{\text{Total number of claims}} \times 100$$






$$\text{Error Rate:} \\ = \frac{\text{Number of coding errors}}{\text{Total number of audited records}} \times 100$$

$$\text{Audit Turnaround Time:} \\ = \frac{\text{Time taken to complete an audit process}}{\text{standard time allocated to complete the audit}} \times 100$$

$$\text{DRG Accuracy Rate:} \\ = \frac{\text{Number of correctly assigned DRG}}{\text{Total number of DRGs Audited}} \times 100$$



True or false:

1. CHI clinical coding audit accreditation must be obtained once 
2. Quality of clinical coding is determined by accuracy and completeness scores 
3. An external coding auditor must be a certified HIMAA coder 
4. The review of “coding policies and procedures” falls under Quality of clinical coding 
5. The highest weightage in external audit scoring i.e. 85% is allocated to Domain 1 coding accuracy. 



Arbitration & Appeal in External audit

Compliance

Compliance is an essential component to the governance framework:

CHALLENGES



Auditing

Allows for the ethical reporting of healthcare services.
Rapid identification of issues and reporting for formal



Audit Findings

Should be written documentation and should align with applicable laws and regulations and include the following.



Audit Defined

Abuse is a violation of agency regulations that impair auditing.
Fraud is the intentional obtainment of something of value.



SOLUTIONS

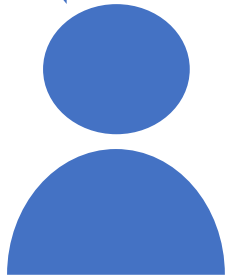


Appeals

The suggested consideration of a coding audit appeals process will ensure that health data accurately reflect health service policy intent or the creation thereof, service provision, and the care that was provided to consumers.

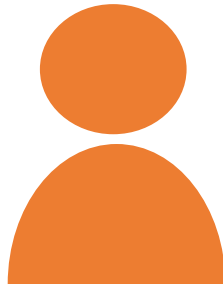
Standardize appeals process by written review and rebuttal within 30 days. Governance committee will review all appeals.

Second level coding audit appeals processes must include clinical medical review before arbitration.



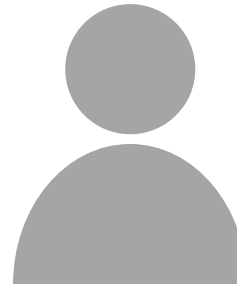
Ensure that coding audit reviews accurately reflect health service policy intent.

Streamline coding processes and improve compliance and medical necessity reviews and to identify areas of risk.

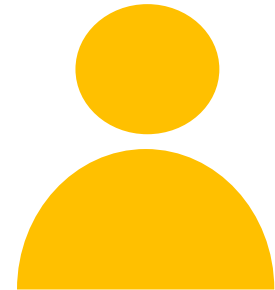


Ensure accurate reflection of health service policy intent; identify under coding and staff educational deficiencies.

Assists with clinical documentation improvement services.



Establishment of regular cadence of committee review of regulatory including annualized coding changes and clinical advancement of medicine.



Arbitration

Arbitration is a procedure in which a dispute is submitted, by agreement of the parties, to one or more arbitrators who make a binding decision on the dispute. In choosing arbitration, the parties opt for a private dispute resolution procedure instead of going to court.

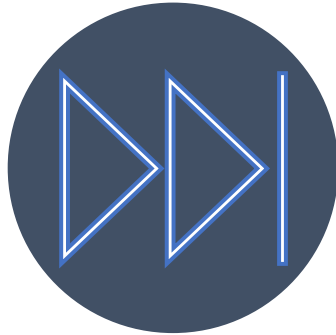
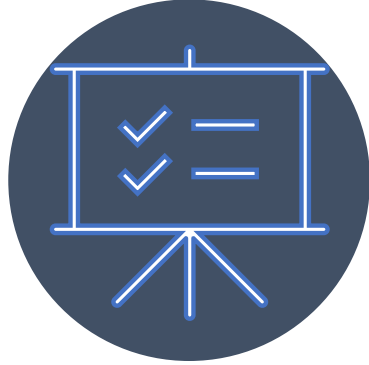
In the case of any inconsistencies or ambiguities between these guidelines, and any legislation, regulations and contractual obligations with the Kingdom, acting through the Ministry of Health, the legislative, regulatory and contractual obligations take precedence.

The Audit committee conducts reviews to ensure eligibility, informs of decision to proceed, coordinate with a review panel made up of two independent members, ensures that appropriate level of skills and credentials are present perform the review.

Organizations should refer to statute where applicable. If any organization has specific queries regarding its legal obligations, it should seek independent legal advice.

Recommendation to offer a certification for outside firms to assist in the billing dispute resolution process between providers or facilities and health plans. Provider or facility and a health plan can't agree on a coding dispute under the arbitration committee these firms will act as a mediator.

Audit committee to make reasonable effort to achieve resolution of said arbitration within 30 calendar days of receipt and notify all involved parties in writing within 15 calendar days of a decision rendered by the audit committee.



What's coming?

Up-coming workshops



Sept

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

Clinical Documentation Improvement

Clinical Coding Audit

MDS/NPHIES Compliance

Clinical Coding Audit Workshop Agenda

- Introduction and Overview
- Requirements to establish clinical coding audit program
- Audit Governance and CHI standards
- Overview of CHI audit Methodology
- Auditor competencies
- Types of audit findings
- Evidence of findings
- Audit report and Feedback
- Arbitration in external audit
- Exercises and Examples

Target Audience

- Health Information Managers
- Clinical Coders
- Clinical Coding Auditors



Coding Audit - Stakeholder Workshop

ممان
مجلس الضمان الصحي
Council of Health Insurance



chi-ardrg@chi.gov.sa

Questions?

