CONCEPT

Diagnostic Error Reduction: Cognitive Bias, Result Follow-Up and Diagnostic Safety

28 March – 1 April 2027
Jeddah - Corniche four-star



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Introduction:

Diagnostic error reduction rarely features in hospital safety programmes: missed, delayed and wrong diagnoses stay hidden because standard quality indicators do not capture diagnostic accuracy, abnormal results and referrals fall through handoffs, and reasoning shortcuts such as anchoring go unchallenged. This Core Concept course gives patient safety leads, clinicians and quality managers a working method to classify diagnostic failures, spot cognitive and system contributors, close the loop on results and referrals, involve patients and measure diagnostic performance. Participants produce a Diagnostic Safety Improvement Plan for a case department.

Course Objectives:

- Classify missed, delayed and wrong diagnoses using an agreed diagnostic error taxonomy and map where the diagnostic process broke down
- Identify cognitive contributors such as anchoring, premature closure and availability, and apply structured debiasing techniques in clinical reasoning
- Design closed-loop tracking for abnormal test results and specialist referrals with named owners and escalation rules
- Introduce diagnostic time-outs, second-opinion routes and patient engagement practices into a clinical service
- Measure diagnostic safety with Safer Dx record review, electronic triggers and Measure Dx, and feed findings back to clinicians
- Build a Diagnostic Safety Improvement Plan with priority interventions, measures and a learning loop for a department

Target Audience:

- Patient safety leads who oversee harm reviews and want diagnostic failures made visible in their programme
- Physicians and advanced practitioners who lead diagnostic decisions in emergency, outpatient or inpatient services
- Quality managers who own safety measurement and department improvement portfolios
- Laboratory and imaging service leads who communicate critical and abnormal findings to requesting teams
- Nurse leaders and clinical educators who coach teams on escalation, handover and clinical reasoning

Course Outline:

Day 1: Diagnostic Error Concepts, Taxonomy and Current-State Review

- Diagnostic Error Definitions: Missed, Delayed and Wrong Diagnosis
- Diagnostic Process Map: Information Gathering, Integration, Working Diagnosis and Communication
- Diagnostic Failure Taxonomy: Patient, Provider, Test and Referral Breakdown Points
- Harm Burden Evidence from Primary Care and Hospital Settings in International Safety Literature
- Department Diagnostic Safety Self-Assessment Checklist

Day 2: Clinical Reasoning Models, Cognitive Bias and Debiasing

- Dual-Process Reasoning: Intuitive System 1 and Analytical System 2 Thinking
- Heuristic Failure Catalogue: Anchoring, Premature Closure, Availability, Framing and Overconfidence
- Metacognition and Diagnostic Pause Prompts for Reflective Practice
- Differential Diagnosis Checklists and Cannot-Miss Condition Lists
- Clinician Calibration and Outcome Feedback with Calibrate Dx

Day 3: System Safeguards: Results, Referrals, Time-Outs and Patient Partnership

- Closed-Loop Test Result Tracking: Critical Values, Pending-at-Discharge Results and Acknowledgement Logs
- Referral Loop Closure Tracker: Order, Scheduling, Consultation and Report Return
- Diagnostic Time-Out Protocol and Structured Second-Opinion Pathway
- Toolkit for Engaging Patients To Improve Diagnostic Safety: Visit Preparation and Closing-the-Loop Conversations
- Interprofessional Diagnostic Teamwork: Nurse, Pharmacist, Laboratory and Radiology Contributions

Day 4: Measuring Diagnostic Safety and Building a Learning System

- Safer Dx Instrument for Structured Record Review of Diagnostic Episodes
- Electronic Trigger Queries: Unplanned Return Visits and Delayed Follow-Up of Red-Flag Findings
- Measure Dx Organisational Measurement Strategies and Maturity Levels
- Diagnostic Case Conference Format: Blame-Free Discussion and Contributing-Factor Coding
- Diagnostic Learning Loop: Feedback to Clinicians, Education Updates and Safety Committee Reporting

Day 5: Case Study: Diagnostic Safety Improvement Plan for a Case Department

- Emergency Department Case File: Delayed Recognition of an Atypical Presentation
- Case Record Review Using the Safer Dx Instrument and Bias Identification
- Intervention Selection Matrix: Cognitive Aids, Loop-Closure Controls and Patient Engagement Measures
- Diagnostic Safety Improvement Plan Drafting with Measures and Owners
- Plan Defence Before a Peer Diagnostic Safety Panel

Skills You Will Gain:

- Diagnostic Error Classification
- Cognitive Bias Recognition
- Clinical Reasoning Reflection
- Test Result Loop Closure
- Referral Tracking Design
- Diagnostic Record Review
- Electronic Trigger Use
- Diagnostic Case Conference Facilitation

Why Attend This Course:

- Leave with a Diagnostic Safety Improvement Plan for a case department, tested by peers
- Make missed and delayed diagnoses visible in a safety programme that currently tracks only procedural and medication harm
- Give clinicians practical debiasing prompts and feedback on their own diagnostic accuracy
- Compare diagnostic safety practice with clinicians and safety leads from emergency, primary care, laboratory and imaging services

Conclusion:

Safer diagnosis depends on sound reasoning supported by reliable systems. The course moves from diagnostic error definitions and taxonomy, through dual-process reasoning, cognitive bias and debiasing, to closed-loop tracking of results and referrals, diagnostic time-outs, second opinions and patient partnership, and then to Safer Dx record review, electronic triggers, Measure Dx and case conferences. The final day applies these methods to an emergency department case and produces a Diagnostic Safety Improvement Plan ready for review.