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COURSE BROCHURE

AI Clinical Decision Support and Prescribing Safety Training Course

30 August – 3 September 2027
Geneva

AI Clinical Decision Support and Prescribing Safety Training Course

Ref: 818_31089 **Date:** 30 August – 3 September 2027 **Location:** Geneva **Fees:** 7500 GBP

AI Clinical Decision Support and Prescribing Safety is a 1-week training course for physicians, clinical informatics leads and pharmacists who must judge machine-generated diagnostic and medication advice, and each participant builds a Prescribing Safety Evaluation Dossier. Recommendation engines now sit inside order entry and triage screens, so their errors travel at the speed of a click. Jupiter Prime Training offers AI Clinical Decision Support and Prescribing Safety.

Why AI Clinical Decision Support and Prescribing Safety Matters Now

Three forces meet at the prescriber's screen. Vendors embed models in health records faster than hospitals can test them; pharmacists and doctors already override most medication warnings, which hides the few that matter; and boards expect accountability when software shapes a dose. An organisation that validates and tunes these tools reduces harm, while one that switches them on blindly adds noise and liability. The course draws on ISO/IEC 42001, the AI management system standard, and the NIST AI Risk Management Framework NIST AI RMF.

Who Gains Most from AI Clinical Decision Support and Prescribing Safety

- Clinicians who sign off on diagnostic and treatment suggestions
- Pharmacists who verify orders and decide which interaction warnings fire
- Clinical informatics specialists who configure order sets and rule logic in the record system
- Patient safety officers who investigate medication incidents and near misses
- Drug and therapeutics committee members who approve new decision tools

A medication safety group that sends a prescriber, a pharmacist and an informatics specialist together gains most.

AI Clinical Decision Support and Prescribing Safety Capabilities

Participants leave able to interrogate a model's evidence and shape how its advice reaches a prescriber.

- Assess local validation results, calibration and subgroup performance — the go-live decision for a recommendation model
- Calculate override rates and alert burden per order — the pharmacy and therapeutics committee
- Design tiered interruptive and passive advice — prescribers working under time pressure
- Specify explanation displays — clinicians weighing whether to accept it
- Test for automation bias and drift after launch — the clinical safety officer
- Communicate residual risk in a structured dossier — the clinical safety committee

Key AI Clinical Decision Support and Prescribing Safety Terms

- Clinical Decision Support — software that presents patient-specific advice, warnings or recommendations to clinicians at the moment a care decision is made.
- Calibration — the agreement between a model's predicted probabilities and observed outcomes.
- Alert Fatigue — the desensitisation that follows frequent low-value warnings.
- Override Rate — the share of fired alerts that prescribers dismiss, used to judge whether a rule earns its interruption.
- Silent Mode — running a model in the background without showing output, to compare predictions with outcomes first.
- Automation Bias — the tendency to accept a machine recommendation without enough independent checking.

AI Clinical Decision Support and Prescribing Safety Day by Day

Day 1: Clinical Reasoning Meets Machine Recommendations

- Diagnostic Versus Treatment Recommendation Models — Scope of Clinical Reliance
- Five Rights of Decision Support — Where Advice Enters the Encounter
- Medication Error Taxonomy — Which Prescribing Failures AI Should Target
- Intended Use Statements — Boundaries for Clinician Override
- Stakeholder Map of Prescribers, Pharmacists and Nurses — Ownership of Advice

Day 2: Validating Models Before They Reach the Bedside

- Retrospective Validation on Local Cohorts — Go or No-Go for Deployment
- Sensitivity, Specificity and Calibration Curves — Acceptable Threshold Selection
- Subgroup Performance Testing — Equity Across Age, Sex and Comorbidity
- Silent-Mode Shadow Deployment — Evidence Before Clinicians See Output
- Dataset Shift and Drift Detection — Triggers for Recalibration

Day 3: Prescribing Safety Rules and Smarter Alerts

- Drug Interaction and Dose-Range Checking — Tiering Alerts by Severity
- Renal and Hepatic Dose Adjustment Logic — Pharmacist Verification Priorities
- Override Rate and Alert Burden Metrics — Retiring Low-Value Interruptions
- Interruptive Versus Passive Advice Design — Matching Urgency to Format
- Allergy and Duplicate Therapy Screening — Reducing False Positive Warnings

Day 4: Explainability and Oversight at the Point of Care

- Feature Attribution and Example-Based Explanations — Clinician Trust Calibration
- Automation Bias and Deskilling Risks — Safeguards for Independent Judgement
- ISO/IEC 42001 AI Management System — Clinical Accountability Structure
- NIST AI RMF Map, Measure, Manage — Risk Register for Recommendation Tools
- Incident Reporting for Algorithm-Related Harm — Learning Loop Ownership

Day 5: Practising the Prescribing Safety Evaluation Dossier

- Local Validation Plan for a Sepsis or Deterioration Model — Applying Validation Methods
- Alert Rationalisation Exercise on a Medication Order Set — Applying Burden Metrics
- Explanation Display Mock-Up for a Prescriber Screen — Applying Explainability Choices
- Monitoring Dashboard of Drift and Override Signals — Post-Go-Live Surveillance
- Prescribing Safety Evaluation Dossier — Recommendation to the Clinical Safety Committee

Applying AI Clinical Decision Support and Prescribing Safety After the Course

- Lead an override rate audit of the twenty most frequent medication alerts and propose which to retire
- Run a silent-mode comparison of one vendor deterioration or sepsis model against local outcomes

AI Clinical Decision Support and Prescribing Safety Questions FAQ

What is AI Clinical Decision Support and Prescribing Safety and why does it matter now?

AI Clinical Decision Support and Prescribing Safety is the discipline of testing and tuning AI advice before it shapes diagnoses and doses. It matters now because recommendation models are entering record systems quickly, and untested tools add alert noise and patient risk.

Which roles gain most from AI Clinical Decision Support and Prescribing Safety?

Prescribing physicians, pharmacists and clinical informatics specialists gain most from AI Clinical Decision Support and Prescribing Safety. Safety officers and therapeutics committees also benefit.

How does AI Clinical Decision Support and Prescribing Safety differ from a general healthcare AI course?

AI Clinical Decision Support and Prescribing Safety focuses on the prescribing and diagnostic moment rather than hospital operations or imaging strategy. It goes deep into validation statistics, alert design and override behaviour.

What do you bring back from AI Clinical Decision Support and Prescribing Safety?

You bring back a dossier that evaluates one recommendation tool. It holds a validation plan, a rationalised alert set and a monitoring dashboard.

AI Clinical Decision Support and Prescribing Safety: The Way Forward

The Prescribing Safety Evaluation Dossier first informs whether a recommendation model goes live, stays silent or is retuned. Clinical safety committees, pharmacy leads and informatics specialists use it to set thresholds and decide which alerts interrupt and which stay passive. After its first use, the perspective worth revisiting is how clinicians respond to the advice.