
Health Data Platforms with AI: Interoperability, Record Quality and Predictive Reporting Course

28 June – 2 July 2027
Trabzon





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Ref: 659_32897 **Date:** 28 June – 2 July 2027 **Location:** Trabzon **Fees:** 4800 GBP

Programme Summary

Health data platforms with AI is the subject of this one-week training course for health informatics leaders, information managers and clinical data owners, ending in a platform readiness pack for one data domain. Health organisations hold records in many systems that do not exchange data cleanly, so reports are rebuilt by hand and predictive models are fed records of uneven quality. The programme moves from a map of the platform to interoperability, record quality, predictive reporting and oversight, applied to a data domain the participant selects. Mars Training Centre UK delivers this programme on health data platforms with AI to mixed-organisation cohorts.

The Business Case

Hospitals, health authorities and insurers depend on records that arrive from clinics, laboratories, pharmacies and devices. When those records cannot be linked or trusted, planning reports arrive late, duplicate entries inflate counts and predictive tools reproduce the gaps in the data. Leaders who set exchange standards, measure record quality and place human review around predictive output can act on forecasts sooner and explain how a figure was produced.

- Report Preparation Time: Falls as records are exchanged in agreed structures instead of being re-keyed.
- Duplicate and Incomplete Records: Fall as quality rules are measured and owned at the point of entry.
- Unreviewed Model Output: Falls as predictive reports pass through documented oversight steps.

Principles and Evidence Base

- HL7 FHIR: Sources describe it as an open standard for exchanging health data, and it structures the interoperability work in Sessions 2 and 5.
- Data Readiness for AI: Commentary from HL7 stresses that data must be structured, consistent and trustworthy before it is ready for AI use, which frames the record quality work in Session 3.
- WHO Guidance on the Ethics and Governance of AI for Health: Its emphasis on oversight, transparency and accountability shapes the AI governance steps in Session 4.



Intended Participants

- Health informatics leaders who own the design and operation of record and reporting platforms.
- Information managers who decide which systems exchange data and under what rules.
- Clinical data owners who answer for the accuracy of records in a service line.
- Planning and performance leads who rely on reports built from platform data.
- Digital programme managers who buy or commission analytics for health services.

Typical settings include public hospitals, private health groups, health insurers and diagnostic networks.

Learning Outcomes

1. Participants will be able to construct a platform map that shows record sources, flows and owners for one data domain.
2. Participants will be able to evaluate exchange interfaces against open interoperability standards.
3. Participants will be able to diagnose record quality faults and rank them by effect on reporting.
4. Participants will be able to prioritise predictive reporting uses by value, data readiness and risk.
5. Participants will be able to justify an oversight and AI governance plan for predictive output to a data board.
6. Participants will be able to prepare a readiness pack that a platform team can adopt.

Programme Structure

Day 1: Health Data Platforms with AI: Platform Map

Where do records originate, how do they move and who owns each step?

- Record Source Inventory
- Data Flow Diagram
- Data Ownership Table
- Use Case Screening Grid
- Platform Risk Register

Day 2: Interoperability and Data Exchange

How do systems exchange records so that meaning is preserved?

- FHIR Resource Mapping
- Interface Specification Review
- Terminology Alignment Sheet
- Patient Matching Rules
- Exchange Failure Log



Day 3: Record Quality and Data Readiness

How is record quality measured, and which faults matter for reporting?

- Quality Dimension Scorecard
- Duplicate Detection Method
- Completeness Profile
- Fault Impact Ranking
- Correction Workflow Chart

Day 4: Predictive Reporting and Oversight

How are predictions produced from records and kept under review?

- Reporting Use Case Brief
- Baseline Forecast Method
- Bias and Gap Check
- Model Validation Checklist
- Output Review Protocol

Day 5: Platform Readiness Pack for One Data Domain

Do the platform map, exchange rules, quality controls and oversight steps work together for one domain?

- Applying the Session 1 Data Ownership Table
- Testing the Session 2 Interface Specification Review
- Checking the Session 3 Fault Impact Ranking
- Reviewing the Session 4 Output Review Protocol
- Completing the Platform Readiness Pack

Methodology

The programme uses a data workshop method built on a shared case of a health group whose clinic, laboratory and pharmacy systems report different counts for the same patients. Participants build each artefact on the case, then on a data domain from their own organisation, with written facilitator feedback in every session.

- Suggested activity: Mapping one patient journey across three systems and marking where records diverge.
- Suggested activity: Scoring a sample extract for completeness and duplicates, then ranking the faults.
- Suggested activity: Presenting an oversight plan for a predictive report to a mock data board.



Capstone Output

Each participant completes a platform readiness pack for one data domain. It holds a platform map with owners, an exchange mapping, a record quality scorecard with a correction workflow, a predictive reporting use case and an oversight plan. The pack is used at work to brief a data board, agree interface priorities with suppliers and set review dates for quality and model checks.

Frequently Asked Questions

Is health data platforms with AI training suitable for leaders without a data science background?

Yes. Health data platforms with AI training uses cases and templates, assuming experience in health informatics, information management or clinical data ownership, but no earlier work building models.

Which standard does health data platforms with AI training rest on?

Health data platforms with AI training draws on HL7 FHIR for exchanging health data, together with data readiness principles and the WHO guidance on the ethics and governance of AI for health.

How is the pack from health data platforms with AI training used at work?

You use the readiness pack to brief a data board, agree interface priorities with suppliers and set review dates for record quality and model checks.

How does health data platforms with AI training differ from general data analytics training?

Health data platforms with AI training centres on record exchange, record quality and oversight of predictive reports in health services, while general data analytics training centres on techniques for any dataset.