

PROBLEM SOLVING AND DECISION MAKING IN THE MEDICAL SECTOR



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Introduction

Clinical and administrative decisions rarely come with complete information. A treatment protocol underperforms, waiting times rise without an obvious cause, a medication error repeats, and staff disagree on what went wrong. This Problem Solving and Decision Making in the Medical Sector Training Course builds the structured reasoning those situations demand. Learners study root cause analysis, clinical risk assessment, and evidence-based decision methods adapted to healthcare. Furthermore, the course covers patient safety investigation, resource allocation, and multidisciplinary decision making. As a result, participants solve problems their units face repeatedly and justify decisions that affect both cost and care.

Problem Solving and Decision Making in the Medical Sector Course Objectives

- Define clinical and administrative problems precisely using the MECE principle.
- Apply root cause analysis with the 5 Whys and fishbone diagrams to incidents.
- Conduct structured patient safety investigations using the London Protocol.
- Apply the Swiss Cheese Model to analyse system failures.
- Use Failure Mode and Effects Analysis (FMEA) for clinical risk prioritisation.
- Apply clinical audit and PlanDoStudyAct (PDSA) cycles for improvement.
- Evaluate options with weighted decision matrices and cost-effectiveness analysis.
- Apply evidence-based medicine principles to appraise clinical evidence.
- Use the GRADE approach to assess quality of evidence and strength of recommendations.
- Document and present findings to clinical and executive audiences.



Course Methodology

This course combines short lectures with healthcare case work. Participants investigate patient safety incidents, run root cause clinics, and defend improvement proposals before a review panel. Trainers use clinical case studies, audit data, and structured peer critique. Group debriefs examine what made the difference in each analysis. In addition, participants build a personal problem-solving and decision toolkit for their unit.

Who Should Take This Course

- Hospital administrators and department managers
- Clinical department heads and medical directors
- Nursing managers and senior nursing staff
- Patient safety and clinical governance officers
- Quality and accreditation specialists in healthcare
- Infection control and risk management staff
- Public health officials and health service planners
- Clinical audit and improvement teams

Problem Solving and Decision Making in the Medical Sector Course Outlines

Day 1: Defining Problems in Healthcare

- Why clinical problems are often misdiagnosed
- Problem definition with the MECE principle and issue trees
- Separating symptoms from system causes

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- Framing the problem statement and success measures
- Data gathering: clinical, operational, and financial
- The 5W2H method for scoping a healthcare problem
- Problem definition clinic using real unit issues

Day 2: Root Cause and Patient Safety Investigation

- The 5 Whys technique and its limits in clinical settings
- Fishbone (Ishikawa) diagrams for cause classification
- The London Protocol for incident investigation
- The Swiss Cheese Model of system failure
- FMEA: severity, occurrence, and detection in clinical risk
- RPN calculation and risk prioritisation
- Incident investigation workshop

Day 3: Evidence and Analytical Problem Solving

- Clinical audit: standards, data, and re-audit cycles
- PlanDoStudyAct (PDSA) for improvement projects
- Basic statistics for clinical and operational decisions
- Variation, control charts, and run charts
- Evidence-based medicine: appraising study design and bias
- The GRADE approach to evidence quality
- Data analysis lab with real audit data

Day 4: Decision Making Under Constraints

- Structuring decisions: criteria, weights, and scoring



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- Weighted decision matrices and option appraisal
- Cost-effectiveness analysis and quality-adjusted life years
- Risk assessment with probability impact matrices
- Ethical constraints: patient interest, equity, and consent
- Premortem analysis and sensitivity testing
- Decision simulation with clinical trade-offs

Day 5: Implementing, Communicating, and Sustaining

- Turning analysis into an action plan with owners and dates
- Piloting changes and verifying improvements
- Morbidity and mortality review principles
- Writing clinical recommendations and business cases
- Presenting to clinical, executive, and board audiences
- Building a personal problem-solving toolkit
- Final case presentation and action plan

Conclusion

By successfully completing Problem Solving and Decision Making in the Medical Sector, participants will gain a practical understanding of how to define healthcare problems accurately, trace them to system causes, and choose solutions on evidence rather than assumption. They will be able to investigate patient safety incidents rigorously, appraise clinical evidence, and present recommendations that clinical and executive audiences accept. In addition, they will know how to verify that an improvement actually holds. Gentex Training Center designed this course so that learners return to work able to raise safety and quality in their units.





FAQs

Q1 What is the "Problem Solving and Decision Making in the Medical Sector" course about?

It teaches structured problem solving and evidence-based decisions in clinical and administrative settings. Participants cover problem definition, incident investigation, clinical audit, evidence appraisal, and option evaluation using healthcare case work and real audit data.

Q2 What are the key benefits of the "Problem Solving and Decision Making in the Medical Sector" course?

Participants trace incidents to real system causes rather than individuals, reduce repeat safety events, and produce improvement plans that withstand review. They also appraise evidence more confidently and present recommendations that clinical and executive audiences accept.

Q3 What skills will I gain from the "Problem Solving and Decision Making in the Medical Sector" course?

You will gain healthcare problem definition and analysis, patient safety and incident investigation, evidence appraisal and clinical audit, and decision structuring and recommendation reporting. These four skills combine to strengthen both quality of care and resource decisions.



Q4 What tools, methods, or standards are covered in the "Problem Solving and Decision Making in the Medical Sector" course?

The course covers the MECE principle, issue trees, the 5W2H method, the 5 Whys, fishbone diagrams, the London Protocol, the Swiss Cheese Model, FMEA with RPN prioritisation, clinical audit cycles, PlanDoStudyAct, control and run charts, cost-effectiveness analysis, quality-adjusted life years, and the GRADE approach.

Q5 How is the "Problem Solving and Decision Making in the Medical Sector" course applied in real-world practice?

Professionals apply it to patient safety incidents, medication errors, waiting time problems, infection control gaps, service redesign, and equipment or staffing investment cases. The methods transfer to any healthcare situation where the cause is unclear and the decision affects both cost and patient outcomes.