MERCURY

Digital Tools for Medical Procurement and Inventory Management

8 – 19 March 2027
Amsterdam (Netherlands)



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Ref: 16208_1083951 **Date:** 8 – 19 March 2027 **Location:** Amsterdam (Netherlands) **Fees:** 9500 Euro

Introduction:

Effective procurement and inventory management are fundamental to ensuring the uninterrupted supply of essential medical products and services. This Digital Tools for Medical Procurement and Inventory Management training course introduces participants to modern digital tools that optimize supply chain processes in healthcare settings.

From automating procurement workflows to leveraging data analytics in inventory forecasting, the Digital Tools for Medical Procurement and Inventory Management course delivers hands-on strategies to enhance operational efficiency. Participants will gain exposure to best-in-class technologies used globally in medical procurement systems. They will explore compliance, traceability, and risk reduction using smart digital platforms.

The Digital Tools for Medical Procurement and Inventory Management program is grounded in practical applications, emphasizing integration across public health programs and private healthcare facilities. By its conclusion, learners will be equipped with advanced knowledge to deploy digital tools that transform procurement and inventory operations.

Targeted Groups:

This Digital Tools for Medical Procurement and Inventory Management training targets professionals seeking specialized knowledge and skills:

- Medical procurement officers in hospitals and health organizations.
- Inventory and warehouse supervisors in health supply chains.
- Health facility administrators oversee logistics and procurement.
- Pharmacists and pharmaceutical procurement staff.
- Healthcare IT professionals are involved in ERP and SCM systems.
- Public health logistics and supply chain planners.
- Emergency response teams are in charge of medical stockpiles.
- International NGO supply chain personnel.
- Health project managers in procurement-heavy environments.
- Ministry of Health and donor-funded program logisticians.

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Course Objectives:

Participants will achieve the following objectives by the Digital Tools for Medical Procurement and Inventory Management course:

- Understand the fundamentals of digital procurement and health supply chains.
- Identify critical components of digital inventory systems in healthcare.
- Analyze procurement workflows for digital optimization.
- Use digital dashboards for real-time inventory tracking.
- Evaluate supply chain performance through key digital metrics.
- Apply inventory forecasting tools to minimize stockouts.
- Integrate procurement systems with e-health and EMR platforms.
- Interpret automated alerts for replenishment and expiration management.
- Deploy digital auditing tools for procurement compliance.
- Develop digital procurement strategies tailored to medical environments.
- Simulate the digital tendering process using cloud-based tools.
- Enhance accountability through traceable digital transaction logs.
- Implement AI-driven decision-support systems in procurement.
- Assess vendor management through digital procurement platforms.
- Improve sustainability and cost-effectiveness in medical purchasing through technology.

Targeted Competencies:

Participants will gain the following competencies during the Digital Tools for Medical Procurement and Inventory Management program:

- Ability to map digital procurement workflows in healthcare.
- Competence in managing medical inventory using cloud tools.
- Proficiency in digital forecasting and stock-level planning.
- The capacity to select appropriate digital tools for procurement needs.
- Skills in analyzing procurement and inventory KPIs.
- Competency in integrating procurement systems with health databases.
- Ability to ensure procurement compliance using digital auditing.
- Readiness to lead digital transformation initiatives in medical logistics.

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Course Content:

Unit 1: Foundations of Medical Procurement in the Digital Age:

- Define procurement and inventory roles in healthcare logistics.
- Explore the evolution of procurement technologies.
- Understand procurement compliance and regulation requirements.
- Identify the difference between manual and digital procurement workflows.
- Examine case studies of health systems using digital procurement.
- Explore the importance of transparency in digital systems.
- Review ethical considerations in procurement digitization.

Unit 2: Digital Procurement Platforms and Tools:

- Introduce cloud-based procurement management systems.
- Compare leading e-procurement platforms for healthcare.
- Navigate electronic bidding and vendor registration processes.
- Understand purchase request, approval, and order automation.
- Explore e-catalog integration with hospital supply chains.
- Learn about multi-tiered access control for procurement roles.
- Examine contract management using digital tools.
- Review security standards for digital procurement systems.

Unit 3: Medical Inventory Management Systems:

- Define types of inventory in health supply chains.
- Understand real-time inventory monitoring tools.
- Apply barcode and RFID technology in tracking medical products.
- Implement automated replenishment triggers.
- Forecast usage and demand using digital analytics.
- Track expiration dates and batch numbers digitally.
- Integrate inventory systems with procurement platforms.
- Analyze safety stock levels using system dashboards.

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Unit 4: Forecasting and Planning Tools in Medical Supply Chains:

- Identify essential forecasting methods using digital platforms.
- Learn to use demand planning software in health logistics.
- Apply machine learning to predict medical supply needs.
- Monitor trends and patterns through BI dashboards.
- Adjust procurement cycles based on historical digital data.
- Use simulation tools for emergency scenario planning.
- Validate planning accuracy with performance benchmarks.

Unit 5: Digital Vendor Management in Healthcare:

- Onboard suppliers using electronic systems.
- Evaluate vendor performance through digital scorecards.
- Track procurement cycle timelines from request to delivery.
- Enable transparent bidding and tender management.
- Automate communication and documentation with suppliers.
- Analyze supplier compliance using system-generated reports.
- Monitor pricing trends and purchase history.

Unit 6: Integration with Health Information Systems HIS, ERP, EMR:

- Understand interoperability between procurement and EMR systems.
- Learn standards for integrating ERP with hospital inventory.
- Map procurement data to financial and patient databases.
- Enable multi-platform synchronization for seamless operations.
- Explore the use of APIs in digital system integration.
- Mitigate risks of data duplication and loss.
- Implement role-based access for health system modules.
- Assess integration success through KPI alignment.

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Unit 7: Compliance, Traceability, and Digital Audit Trails:

- Establish digital compliance tracking systems.
- Create secure logs for every procurement action.
- Review the WHO and national digital procurement standards.
- Monitor regulatory violations using automated alerts.
- Trace product origin and chain of custody digitally.
- Ensure procurement aligns with donor and audit guidelines.
- Maintain secure records for all transactions.
- Prepare reports for external audits with one-click tools.

Unit 8: Mobile Applications and Remote Monitoring Tools:

- Explore mobile apps for procurement and stock management.
- Track deliveries and inventory updates remotely.
- Use GPS tracking in the supply chain movement.
- Receive real-time alerts for shortages and expirations.
- Manage requisitions from field hospitals using apps.
- Synchronize mobile data with central procurement systems.
- Monitor cold chain equipment remotely.
- Leverage mobile dashboards for executive oversight.

Unit 9: Digital Risk Management and Cybersecurity in Procurement:

- Identify digital risks in medical procurement systems.
- Mitigate procurement fraud through system controls.
- Implement secure login and authentication protocols.
- Understand data encryption and cybersecurity basics.
- Monitor system vulnerabilities using IT tools.
- Create a digital disaster recovery plan.
- Train staff on cyber hygiene and data privacy.
- Respond to breaches with contingency protocols.

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Unit 10: Future Trends: AI, Blockchain & Predictive Procurement:

- Apply artificial intelligence in procurement decision-making.
- Use blockchain to increase supply chain transparency.
- Predict stockouts and emergencies using predictive analytics.
- Enable smart contracts for vendor agreements.
- Understand the role of robotic process automation RPA.
- Prepare for the Internet of Medical Things IoMT.
- Leverage digital twins for virtual supply chain modeling.
- Evaluate the future-readiness of existing procurement systems.

Final Insights & Key Takeaways:

Digital transformation in medical procurement and inventory management is no longer optional—it's essential for resilient healthcare delivery. This course equips professionals to navigate and implement advanced digital solutions confidently. Real-time decision-making, automation, and traceability are central to optimizing procurement in the healthcare sector. By the end of this program, participants will be empowered to lead their organizations into a future of agile and data-driven supply chain management.