



Integrating Tools into Medical Workflow



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01

What this module is
about





This OER supports healthcare educators in understanding, implementing, and optimizing the integration of medical digital tools into healthcare education, based on the proven model developed at "Grigore T. Popa" University, thereby improving students' digital health competencies, clinical reasoning, and preparedness for modern healthcare environments.



Why we are doing this

- Digital tools are transforming healthcare by improving the quality, speed, and safety of medical services.
- Electronic health records, artificial intelligence, telemedicine, and clinical decision support systems help healthcare professionals make faster and more accurate decisions.
- These technologies reduce errors, streamline clinical workflows, and enhance communication between patients and medical teams



What this means for you



Reflect on the safe, ethical, and effective integration of medical digital tools into healthcare workflows.

02

Who this is for and
what they need



Audience & Needs

- Medical educators,
- Clinical trainers,
- Curriculum developers,
- Healthcare specialists in medical universities and teaching hospitals.

A doctor uses digital tools to quickly access patient records and clinical data. This reduces paperwork and supports faster, more accurate decisions. Patients receive safer and more personalized care. The result is a more efficient healthcare workflow and better clinical outcomes.



03

What you will be able to do



What you will be able to do

01

Integrate appropriate medical digital tools into a clinical or healthcare workflow to support a specific task or process.

02

Select appropriate medical digital tools (e.g., Electronic Health Records, Clinical Decision Support Systems, AI-assisted applications, telemedicine platforms) based on a given clinical or operational objective.

03

Interpret workflow and performance data (e.g., efficiency indicators, documentation accuracy, task completion time, or clinical outcomes) to justify the integration of medical digital tools.

04

Reflect on what worked and adjust the approach for future sessions

Why this approach works (the evidence)

Integrating Tools into Medical Workflow

Research on the effective use of digital tools in education shows that experiential learning enables students to act as problem-solvers in real-world tasks, building confidence.

<i>Reference</i>	<i>Focus</i>
Deep Medicine – Eric Topol 2019.	Artificial Intelligence in healthcare and clinical practice
Health Informatics: Practical Guide (8th ed., 2022). Lulu Press.	Electronic Health Records, CDSS, interoperability
World Health Organization. <i>Global Strategy on Digital Health 2020–2025</i> .	Digital health implementation and policy
European Commission (EHDS).	European digital health and health data interoperability
Healthcare Information and Management Systems Society. <i>Digital Health Transformation Resources</i> .	EHR adoption, workflow optimization, digital maturity
Agency for Healthcare Research and Quality. <i>Clinical Decision Support</i> .	Evidence for CDSS improving quality and safety
Telemedicine: Technologies and Applications (2011). Wiley.	Telemedicine implementation and healthcare workflows

Why this approach works (the evidence)

Integrating Tools into Medical Workflow

What the literature and case studies show

Research on the effective use of digital tools in education shows that experiential learning enables students to act as problem-solvers in real-world tasks, building confidence.

When digital tools are combined with collaboration and interdisciplinary projects, these approaches support the development of technical proficiency, ethical awareness, and clinical readiness.

04

How the session runs



How the session runs: Explain → Do → Reflect

Integrating Tools into Medical Workflow

Use authentic clinical workflows, digital health scenarios, and hands-on activities, followed by guided reflection

Explain:

- What are medical digital tools and their role in healthcare workflows? (e.g., Electronic Health Records (EHRs), Clinical Decision Support Systems (CDSS), AI-assisted applications, telemedicine platforms, medical imaging software, wearable and IoT devices)
- Evidence base: examples of improved workflow efficiency, enhanced clinical decision-making, reduced documentation errors, and better student digital competencies following the integration of digital tools.

How the session runs: Explain → Do → Reflect

Integrating Tools into Medical Workflow

Do:

- Analyze a clinical workflow and identify where digital tools can provide support.
- Select and use an appropriate medical digital tool to complete a defined clinical or operational task.
- Evaluate the impact of the selected tool on workflow efficiency, decision-making, and patient care.

How the session runs: Explain → Do → Reflect

Integrating Tools into Medical Workflow

Reflect:

- How does integrating medical digital tools improve clinical workflows and support healthcare decision-making?
- What barriers or challenges might arise when implementing digital tools in healthcare settings (e.g., interoperability, usability, user acceptance, data privacy, workflow disruption)?
- What strategies could facilitate successful integration into routine clinical practice?

Guide:

Some students struggle with Integrating Digital Tools?

- → Provide step-by-step guidance and repeat key steps