

T Health



AI@ICU

SOVEREIGN AI FOR HEALTHCARE

For hospitals and intensive care units

IDENTIFY CRITICAL RISKS EARLIER. SUPPORT DECISION-MAKING IN A TARGETED WAY. OPTIMIZE RESOURCE UTILIZATION.

Intensive care units (ICUs) operate under constant time pressure. Patient conditions can deteriorate rapidly, while a large number of clinical parameters must be continuously assessed.

Heterogeneous data sources, complex disease patterns and limited resources make comprehensive risk assessment difficult. Delayed interventions can directly impact patient safety, length of stay and resource utilization.

With AI@ICU, Telekom supports the early identification of clinical risks in hospitals in Catalonia – data-driven, transparent and operated in a sovereign environment.

YOUR CHALLENGES



Complex real-time risk assessment

ICU teams must continuously interpret large volumes of data from monitoring systems, laboratory results, medication and documentation.



Limited transparency of existing scores

Traditional ICU scores provide snapshots but do not continuously incorporate all available data sources.



Alarm fatigue and misprioritization

Too many non-specific alerts can reduce clinical attention and impact decision-making.



Strict regulatory requirements

Patient data requires secure processing, access control and full traceability.

THE SOLUTION: AI@ICU

AI@ICU is an AI-powered clinical decision support solution for ICUs in hospitals in Catalonia, analyzing heterogeneous patient data in real time and providing risk-based insights.



Continuous, multidimensional data analysis

A scalable data platform integrates ICU data sources in real time and enables a holistic risk assessment beyond individual scores.



Predictive risk models with clinical validation

Machine learning algorithms identify potential deterioration early. Models are continuously monitored, versioned and validated using clinical data.



Targeted early warning mechanisms

Risk alerts are prioritized to avoid unnecessary alert fatigue and ensure clinical relevance.



Decision support for clinical teams

AI@ICU provides structured risk indicators as decision support. Final clinical responsibility always remains with medical staff.



Sovereign security architecture

The solution runs in a secure infrastructure with role-based access, audit logging and full data sovereignty. Patient data is not used for external model training and remains protected.

→ Overall result:

Early, validated risk detection and structured decision support – improving patient safety and ICU management.

YOUR BENEFITS



Earlier identification of critical events

Risks such as shock, delirium, acute kidney injury or cardiorespiratory events can be detected earlier through data-driven analysis.



Reduced misprioritization

Prioritized risk indicators enable targeted interventions and reduce unnecessary alerts.



Optimized resource utilization

Predictions of length of stay, ventilator weaning or discharge probability support bed and staff planning.



Economic relief

More efficient interventions and optimized management can shorten length of stay and improve resource allocation.



Your next step

T-Systems supports you from use case definition to productive rollout.

Start your AI transformation now – sovereign, secure, and measurably effective.

Experience AI@ICU in a demo or book an AI workshop to get started.

www.t-systems.com/health

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