

# Technology Empowering Clinical Excellence



## Your Trusted HealthTech Partner

We're more than a technology provider—we're your partner in delivering safer, smarter care, driven by innovation, guided by deep clinical understanding, and grounded in lasting trust.



## Who we are

AcuteCare.AI is a nextgeneration healthtech company, originally founded in 2017 as CRITIS MEDICAL SYNERGY IKE spin-off of the University of Crete, focused on reimagining acute and critical care through AI-powered clinical information systems.

As the leading provider in Greece—trusted by the country's largest public university hospitals—we've proven the impact of our technology where it matters most.

In 2024, we joined forces with **Sievestone LTD** to accelerate our global vision.



## A next-generation Healthtech company

We believe AI and intelligent technologies are reshaping the future of acute care—empowering clinicians with real-time insights, smarter workflows, and more informed decisions. Our goal is bold: to drive a new standard in patient outcomes, safety, and care delivery.

At the core of our innovation is CritIS Synergy+, a proprietary software platform purpose-built for operating theatres, anesthesia and intensive care units. It delivers intelligent, integrated solutions—real-time patient monitoring, seamless data capture from medical devices and labs, advanced predictive analytics and insights, automated workflows, comprehensive medical records, medication management, and full interoperability with hospital systems.

Our multidisciplinary team of medical professionals, software engineers, Al experts, and UI/UX designers work at the intersection of critical healthcare and technology—transforming ambitious ideas into impactful solutions. We work side-by-side with healthcare providers to turn complexity into clarity, enhance clinical efficiency, and drive sustainable performance.

At AcuteCare.Al, we lead with innovation, design with simplicity, and deliver with trust—empowering healthcare teams to provide safer, smarter, and more connected care.



#### **Our vision**

Our vision is to reinvent acute care—making the experience of using advanced technology as intuitive, seamless, and empowering as possible for frontline healthcare professionals.

#### **Our mission**



To deliver smarter, faster, and more connected solutions that free up healthcare teams to do what they do best—save lives.





## CritIS Synergy+

CritIS Synergy+ Platform is an advanced, modular Clinical Information System (CIS) / Patient Data Management System (PDMS) that digitizes and modernizes the clinical experience, workflows, administrative management, and data collection in ICUs environment.

#### **Benefits**

- Collection, organization, and real-time monitoring of all patient data (such as vital signs, medication, mechanical ventilation)
- Data analysis, report generation, calculation of indicators, and support for evidencebased and timely clinical decision-making
- Enhancement of healthcare personnel efficiency as well as optimization of healthcare cost management

## CritIS Synergy+ Platform



## **CritIS ICU**

Built for Complexity. Engineered for Clarity.

## **CritIS Connect**

Interoperability and Systems Integration

## **CritIS Mobile**

Point-of-Care Intelligence on the Move

## CritIS Anesthesia

Transforming Perioperative Care with Data–Driven Precision

## **CritIS AI Assistant**

**Enhanced Clinical Decision Support** 

## **CritIS Telemedicine**

Extend Care Beyond the Hospital Walls

## Our track record





7 Hospitals















## **CritIS Synergy+ | ICU**

#### Key functionalities at a glance

- Continuous data capture from bedside devices, ventilators, infusion pumps, and more
- Time-stamped records of medical interventions, medications, lab results, disease progression, nursing notes, lines/catheters, and pressure ulcers
- Customizable flow sheets tailored to ICU-specific protocols Automatic calculation of critical scores (e.g. APACHE, SOFA, SAPS II, CPIS, MODS, RASS, SID, GFR)
- Medication ordering by active substance with predefined dosage and administration templates
- · Automated fluid balance tracking and intelligent fluid management
- Role-based access and tools tailored for physicians, nurses, and therapists
- Centralized patient information accessible through any web browser
- Fully adaptable to the needs of different ICUs and user roles
- HL7 compliant communication with LIS, HIS, RIS systems
- Fully compliant with EU and national regulations on data security and medical software





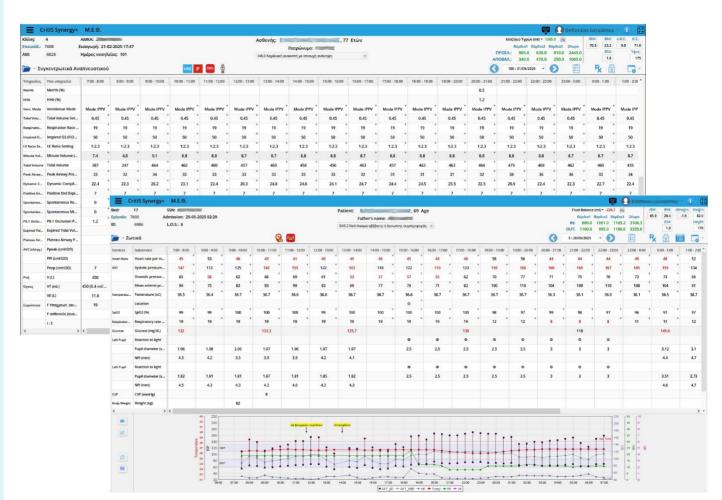




#### Flow sheets

- Live updates of vital signs and key clinical parameters
- Automatic or manual documentation from 1 minute to 24 hours
- Visual indication of out-of-range measurements
- Customizable flow sheets tailored to ICU-specific protocols
- Automatic calculation of critical scores
- · Automated fluid balance tracking
- User-friendly navigation and integration of various display views



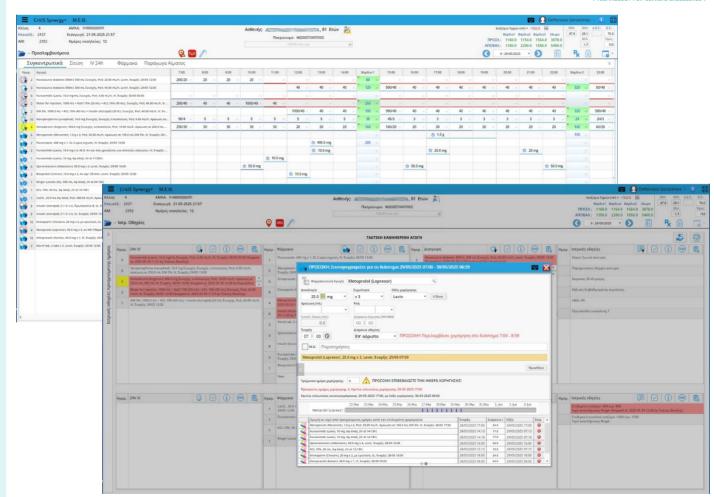




# Instructions and drug therapy management

- Orders for IV infusions, medications, nutrition, and general instructions to medical and nursing staff
- Prescription based on active substance and dosage specification
- · Copying of previous orders
- Automated visualization of administration time and duration
- Detailed documentation of additional information and comments
- Automatic display of new orders in the corresponding flowchart
- Barcode functionality for administration confirmation







## Laboratory Data and Medical Equipment

- Data collection from monitoring systems, ventilators, infusion pumps, etc.
- · Continuous updating of vital signs
- Integration with Laboratory
   Information System (LIS)
- Automatic, real-time updating and recording of results
- Smart charts for clinical condition monitoring (e.g. infections, glucose, kidney function) with time-stamped data



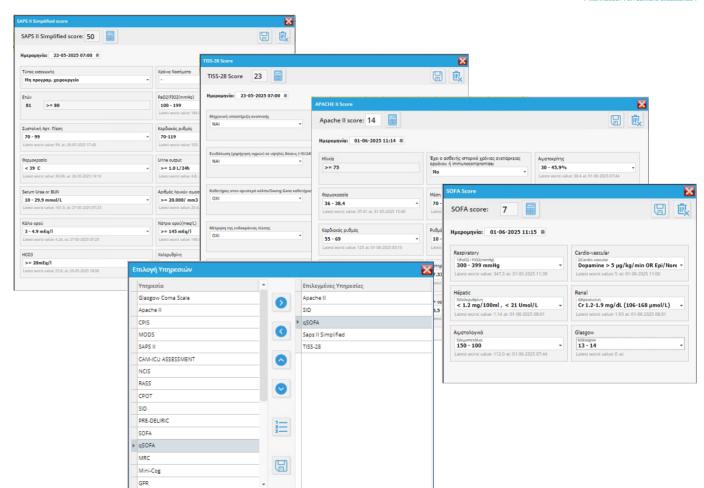




## Calculation of clinical indicators

- Calculation of multiple clinical scores and indicators: GCS, APACHE II, CPIS, MODS, SAPS II, CAM-ICU, NCIS, RASS, CPOT, SID, SOFA, MRC, PRE-DELIRIC, SAPS II Simplified, GFR, etc.
- Retrospective calculation of clinical scores
- · Ability to define indicator groups
- Color-coded alerts for pending data entries



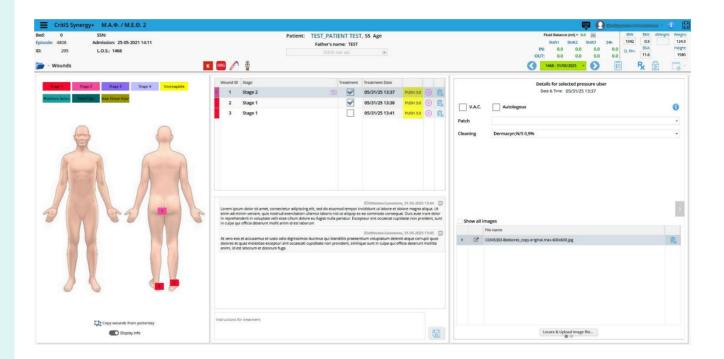




#### Pressure ulcers care

- Documentation and monitoring of pressure ulcers
- Recording of treatment methods
- Replicating of pressure ulcer records from the previous day
- Ability to store and display photographs



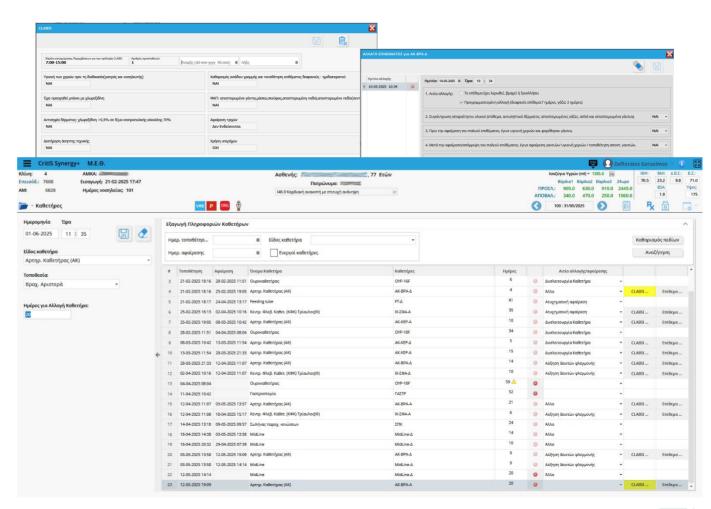




#### Catheter Care

- Recording of catheter insertion, replacement, and removal
- Ability to document additional details: insertion site and catheter size
- · CLABSI score monitoring
- Management of catheter dressings
- Automated reminders for catheter changes – with audio and visual alerts



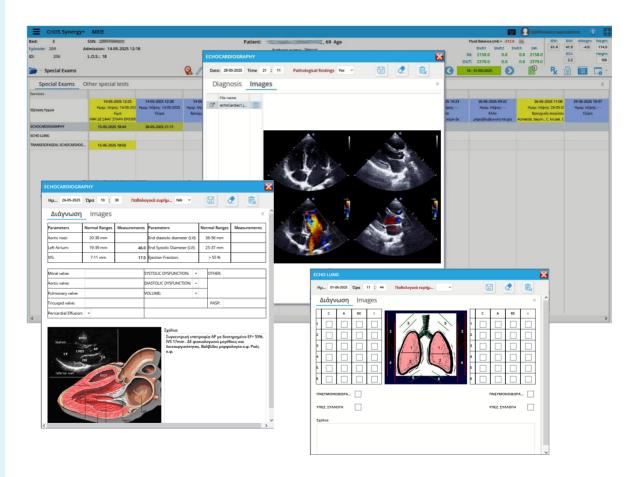




# Special Tests management

- Recording of results and diagnoses from specialized examinations
- Visual indication of abnormal findings



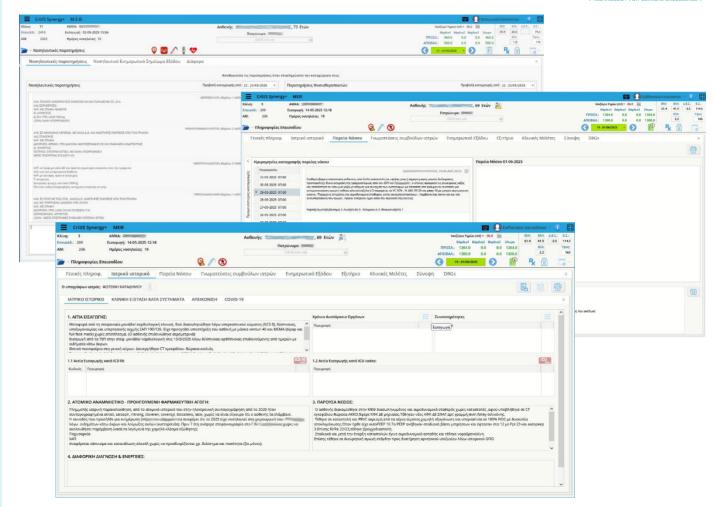




# Medical & Nursing record management

- · Detailed patient medical history
- Use of international coding systems
- Daily documentation of disease progression
- Recording of consultant physicians' recommendations
- · Discharge summary
- Patient discharge
- Nursing and physiotherapy shift notes



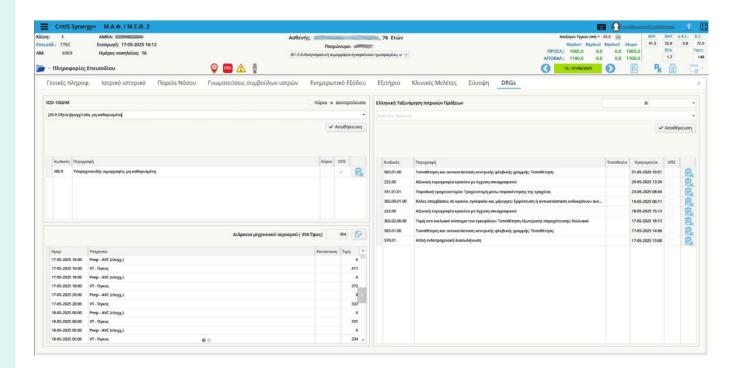




## DRG management

- Management of diagnoses (ICD-10 GrM)
- Management of medical procedures
- Automatic calculation of Mechanical
   Ventilation Duration
- Automatic calculation of intensive care scoring for complex ICU care



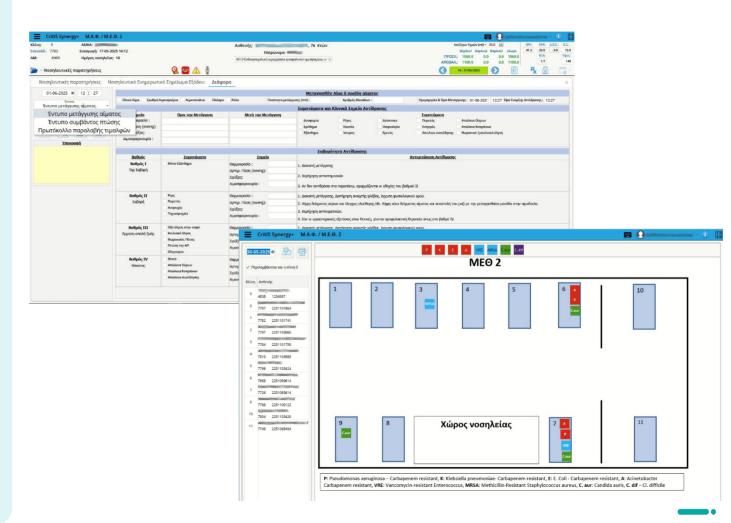


## CritIS ICU

Management of nursing forms (Greek National Organization for the Provision of Health Services – ODIPY)

- Blood transfusion form
- · Fall incident report form
- · Receipt of valuables form
- Recording of resistant microorganisms
- · Bed positioning checklist
- · Equipment inspection record



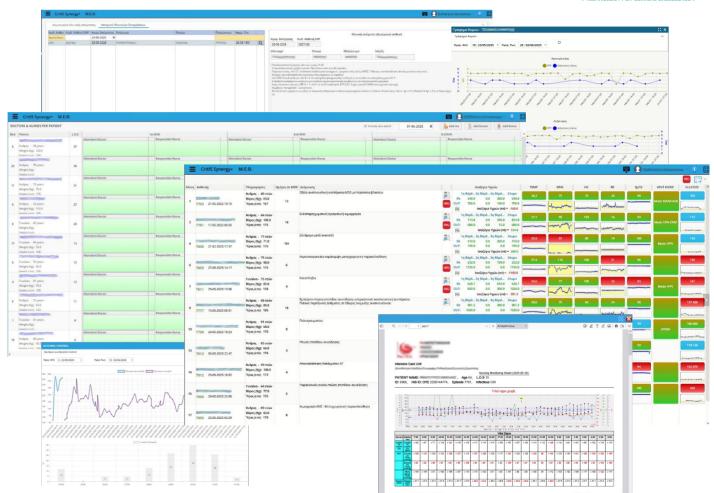




#### Other features

- Staff scheduling per shift
- · Comprehensive patient monitoring
- Management of outpatient clinical assessments
- Recording of billable medical supplies
- Data export in printed and electronic formats
- · Multilingual environment
- Complete and secure history of all system activities (audit trail)



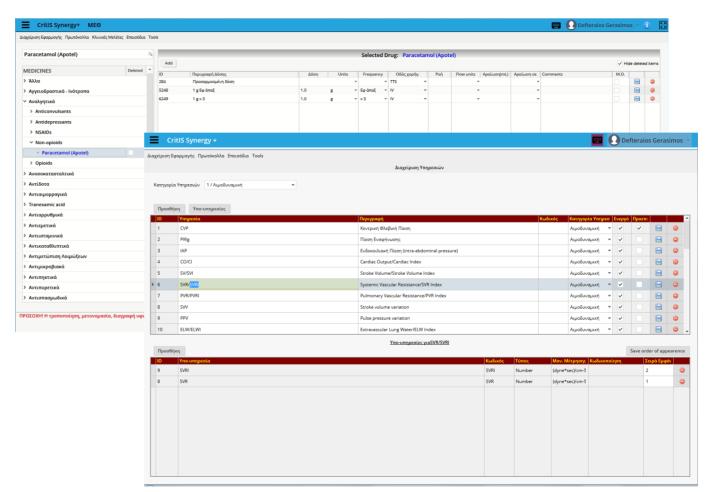




# Application configuration and management

- Configuration via graphical user interfaces
- Management of flowsheets, measurements, normal values, etc.
- Management of coding systems, medications, medical supplies, etc.
- User and permissions management
- Role-based access and documentation tools for physicians, nurses, and physiotherapists





## **CritIS ICU**

Advanced Clinical Data Information System (ICU, Pediatric ICU, and Neonatal ICU)

CritIS ICU brings accuracy, flexibility, and intelligence to the intensive care environment—ensuring that medical and nursing staff have the right data, at the right time, to deliver high-quality care.



### **Benefits**



#### Healthcare professionals

- Immediate access to patient data and medical records at the point of care
- Assists clinical decisions-making through real-time data and alerts
- Reduced errors in documentation and medication prescribing
- Improved coordination among medical and nursing staff



#### **Patients**

- Reduced risk of errors and faster diagnosis/intervention
- Data-driven decision-making, and interventions based on high-quality clinical information
- Better outcomes through standardized care and protocol adherence
- Increased safety, especially in complex multi-organ conditions



#### Nursing personnel

- Automated workflows for documentation, medication administration, and task monitoring
- Continuous recording of measurements from medical equipment
- Clear and up-to-date overview of the patient's condition
- Smoother shift changes and improved continuity of care



#### **Hospital Administration**

- Optimized ICU resource utilization and reduced length of stay
- Improved compliance; support for DRGbased reimbursement
- Strong foundation for research, auditing, and quality improvement
- Enhanced communication and continuity of care across departments and shifts
- Lower costs, minimized errors, and efficient care delivery







## CritIS Synergy+ | Anesthesia

#### Functional features at a glance

#### **Preoperative Assessment**

- Complete electronic documentation and organization of preoperative data
- Somatometric measurements, medical and surgical history, ASA & Mallampati score
- Digitally signed consent forms

#### Intraoperative management

- Safety checklists and monitoring equipment registration
- Airway management, intubation method, and type of anesthesia
- Automatic data acquisition from devices for vitals, gases, ventilation, ABGs
- Anesthesia protocols, checklists, incident/event logging, and catheter/line tracking

#### Postoperative Recovery (PACU)

- Automatic data retrieval from monitoring and ventilation devices
- Documentation of catheters/lines, medications, administered/removed fluids



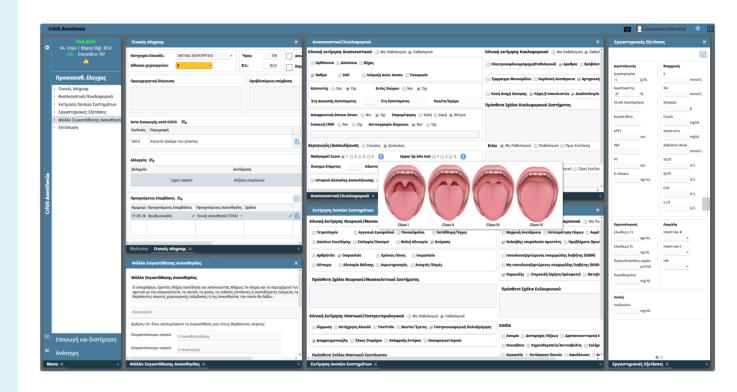




### Preoperative Assessment

- Anthropometric data
- Diagnosis and planned intervention
- Previous surgeries & anesthesias
- Allergies
- Pharmacotherapy
- Clinical assessment per system
- Mallampati score, Upper lip test
- Laboratory tests
- Anesthesia consent



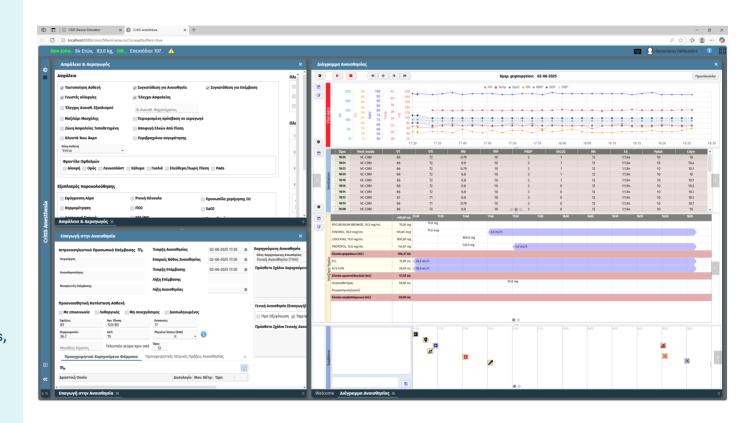




## Surgery

- · Safety checks checklist
- · Monitoring equipment recording
- Airway and intubation information
- Type of anesthesia
- Time tracking of medical and nursing staff presence
- Automatic recording of vital signs, inhaled/exhaled gases, mechanical ventilation, and blood gases
- Anesthesiology protocols, event logging, lines and catheters documentation
- Monitoring and recording of medications, intake and output fluids



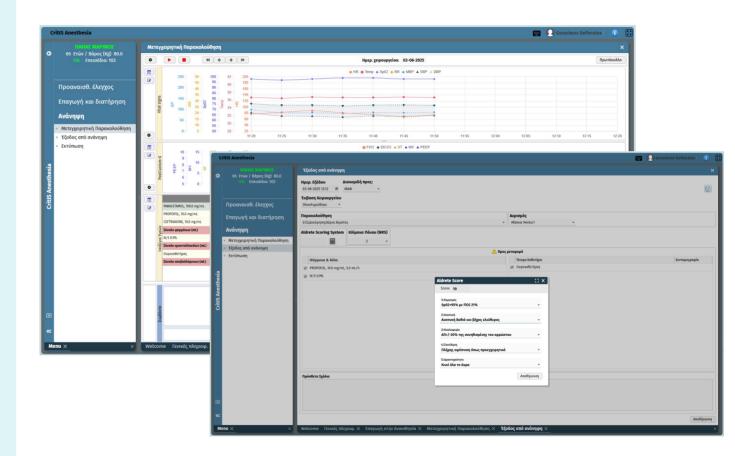




## Postoperative Recovery (PACU)

- Charts of vital signs, respiratory data, medication therapy, etc.
- Automatic fluid balance calculation
- Management of lines and catheters
- Automatic or manual documentation
- Customizable measurements and charts
- Management of medications, catheters, and drains for patient transfer





## **CritIS Anesthesia**

## Advanced Clinical Data Information System for Anesthesia

Designed to assist anesthesiologists in easily, comprehensively, and accurately documenting the patient's status and progress throughout a surgical procedure, covering the preoperative, intraoperative, and postoperative phases.





#### **Benefits**



#### Healthcare professionals

- Immediate and comprehensive recording of all parameters and interventions in real time
- Fewer errors thanks to automated data collection
- Focus on the patient, eliminating handwritten documentation
- Easier evaluation of previous surgeries/anesthesias



#### **Patients**

- Enhanced safety through accurate documentation and monitoring
- Minimization of errors in medications, dosages, and administrations
- Improved treatment of complications
- Maintenance of a complete anesthesia history



#### Nursing personnel

- Automated workflows for documentation, medication administration, and task monitoring
- Improved coordination between anesthesiologists, surgical, and nursing teams
- Clear and up-to-date overview of the patient's condition
- Reduced paperwork and increased clinical time



#### **Hospital Administration**

- Compliance with regulatory standards and legal requirements
- Enhancement of care quality
- Capability to analyze data for optimizing practices and quality audits
- Time and resource savings through automation and integration with HIS





## **CritIS Synergy+ | Connect**

- Based on Mirth Connect, a leading open-source integration platform for healthcare systems
- Multiple communication channels for seamless integration with HIS, LIS, RIS, PACS, as well as with medical equipment
- Wide protocol support, compatible with HL7 (2.x 3.0), NCPDP, X12, DICOM, ASTM, and XML
- Multiple access methods (MLLP/LLP, TCP/IP, HTTP/HTTPS, S/FTP, databases, email, JMS & web services)
- Management of hundreds of messages per second, encrypted storage for security and prevention of data loss, and advanced error notifications
- Capability to connect with local or national systems (e.g. HΔIKA, e-prescription, e-health cloud)

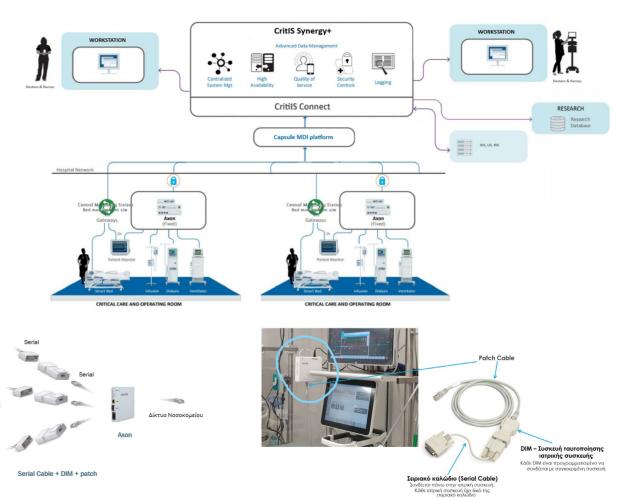


## CritIS Connect

# Medical device integration

- Drivers available for over 1,000 devices (via the Philips Capsule system)
- Real-time data transfer
- Fully compliant with all
   European and national
   regulations, including specific
   provisions for software and
   data cybersecurity



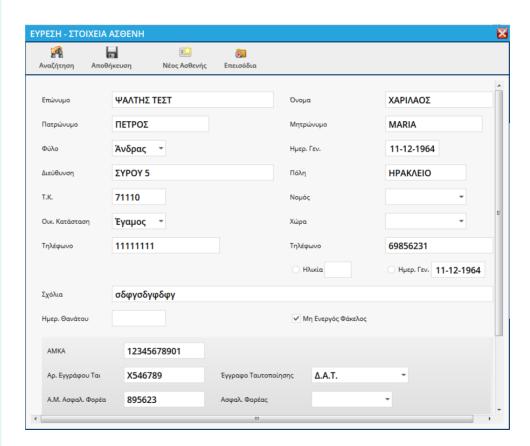


## **CritIS Connect**

# Management of patient data from multiple systems

- Designed to operate independently or interconnected with the hospital information system via a bidirectional HL7 ADT interface.
- Seamless integration of all functional areas and applications of the CritIS Synergy+ platform, for example, transferring a patient case from CritIS Anesthesia to CritIS ICU.







## **CritIS Connect**

Seamless interoperability and full integration of devices and information systems

CritIS Connect is designed to operate independently or interconnected with medical devices, the hospital's local information system, and national systems through a bidirectional HL7 ADT interface.





#### **Benefits**



#### Faster Integration & Lower Cost

- Significantly reduces the time and cost of implementing interfaces between systems and medical devices
- Built on open-source architecture and standardized protocols
- Easily scalable across multiple departments and facilities



## True Interoperability & System Integration

- Connects different systems (HIS, LIS, RIS, PACS, medical devices) into a unified environment
- Supports integrated workflows and real-time data exchange
- Eliminates vendor or proprietary API lock-in



## Integration with National & Local Health Systems

- Connects with platforms such as HDIKA, electronic prescription, and the e-health cloud
- Designed to comply with evolving government standards
- Ensures secure and standardized communication at all levels (clinical & administrative)



#### Advanced Security & Monitoring

- Secure encryption of messages and protection of sensitive data
- · Error detection and notifications
- Message recovery in case of interruptions





## CritIS Synergy+ | Mobile

#### Features at a glance

- Customized screens for smartphones and tablets
- Live display of vital signs and parameters in real time
- Instant access to the patient record from anywhere (on-call, off-site)
- View of lab history, medication regimen, and charts
- Ability to add notes, instructions, or actions from a mobile device

#### **Benefits**

- Immediate and flexible access to patient information
- Participation in decision-making remotely
- Faster response to emergency cases
- Enhanced communication and collaboration between teams
- Time savings from reduced movement to workstations









## CritIS Synergy+ | tele-ICU

#### Features at a glance

- Remote real-time monitoring of vital signs and clinical parameters
- Continuous access to the complete electronic patient record
- Live communication via video/audio calls with medical and nursing staff
- Secure exchange of comments, instructions, and alerts between onsite and offsite teams
- Logging of all tele-actions for legal and scientific documentation
- Compliance with HL7/FHIR standards for integration with national and local networks

#### **Benefits**

- Extension beyond the physical boundaries of the ICU
- Reduction of travel and physical presence for on-call support
- Support for training and mentoring of staff in regional hospitals
- Enhancement of healthcare system efficiency with fewer resources



Under development





## CritIS Synergy+ | Al assistant

#### Features at a Glance

- Al assistant (chatbot) that can help users navigate and utilize the functionality of CritIS ICU, Anesthesia, and Mobile
- Instant access to structured and unstructured data, creation of custom reports, and information retrieval (analytics and insights) by the user through natural language (text-to-SQL)
- Recommendations for interventions
- Pattern analysis, anomaly detection, and predictive models.

#### **Benefits**

- Immediate and intuitive generation of complex reports, extraction of summaries and visualizations
- Dynamic report visualization and interactive dashboards
- · Supports faster, data-driven decision-making at the point of care



Under development

## Installations





- University General Hospital of Heraklion ICU, HDU & PICU
- Naval Hospital of Athens (NNA) ICU & Cardio ICU
- General Hospital of Larissa ICU & HDU

- 251 Air Force General Hospital ICU
- Nat. Chest Diseases Hospital "Sotiria" ICU
- Papageorgiou General Hospital ICU
- Kozani General Hospital ICU





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