

AI EMERGENCY TRIAGE SYSTEM

ERTRIAGE®

AI-Powered Emergency Triage
& Clinical Decision Support

The world's first device-based AI triage system — clinically validated across real-world emergency departments, supporting over 219,000 patient encounters annually. ERTRIAGE® combines certified medical hardware with integrated machine learning to deliver faster, safer, and more consistent emergency care decisions.

97%

TRIAGE ACCURACY

<180_s

FULL ASSESSMENT

40%

FASTER TRIAGE

50₊CLINICAL DATA
POINTS

WHAT IS ERTRIAGE®

The World's First Device-Based AI Triage System

ERTRIAGE® is an AI-supported emergency triage and clinical decision support system designed to integrate seamlessly into emergency department workflows — analyzing over 50 clinical data points in under 180 seconds with 97% accuracy.

ERTRIAGE® is not simply software. It is a complete device-based AI platform built on native Android technology with integrated machine learning models, capable of operating both locally (on-premise) and in the cloud. It is the world's first triage system of its kind — combining certified hardware, AI inference, and structured clinical protocols into a single, deployable solution for emergency medicine.

THE CHALLENGE

Emergency Triage is Broken

Emergency departments globally face a compounding crisis. Rising patient volumes, staff shortages, and the inherent variability of human clinical judgment under pressure create dangerous inefficiencies that directly impact patient outcomes.

⚠ Inter-clinician Variability

Triage classification is subject to cognitive bias, fatigue, and inconsistent protocol application — particularly during high-volume, high-pressure shifts.

⚠ Dangerous Diagnostic Delays

High-acuity patients — including stroke, STEMI, and sepsis cases — may experience critical delays when triage is performed without validated AI decision support.

⚠ Resource Misallocation

Misclassification of low-acuity patients as urgent consumes limited emergency resources, driving overcrowding and increased morbidity across the entire department.

⚠ Systemic ED Strain

Extended waiting times, operational inefficiency, and staff burnout compound as volume exceeds manual triage capacity — a problem no traditional system adequately addresses.

"Medical teams utilizing ERTRIAGE® outperform both unaided staff and standalone automated systems — producing measurable improvements in accuracy, efficiency, and patient outcomes."

— ERTRIAGE® CLINICAL EVALUATION PROGRAM

TWO-STAGE AI CLINICAL WORKFLOW

How ERTRIAGE® Works

ERTRIAGE® operates in two coordinated clinical stages that mirror and augment the natural emergency department workflow — from frontline nurse triage to physician-led intervention — without disrupting established processes.

◆ STAGE 1 — Frontline Nurse Triage

- 1 Patient Arrival & Registration**

The nurse initiates a structured, adaptive clinical assessment on the ERTRIAGE® DH-600 device. Patient demographic and medical history data is captured or retrieved from the integrated health record.
- 2 Vital Signs & Symptom Capture**

The clinician records vital signs and symptom data directly through the touchscreen interface. Over 50 clinical decision points are captured, including presenting complaints, vital parameters, and relevant history.
- 3 AI Risk Assessment — Under 180 Seconds**

All inputs are processed by the local or cloud-based AI engine. Within approximately 180 seconds (or 60 seconds for a "Hello Nurse" rapid assessment), ERTRIAGE® generates a risk stratification recommendation with transparent clinical rationale. The final assignment remains under clinician discretion.

◆ STAGE 2 — Physician-Led Intervention

- 4 Consolidated Clinical Dashboard**

The ERTRIAGE® clinical stand consolidates patient data, triage insights, and real-time vital signs into a single, intuitive interface — eliminating the need to navigate multiple systems.
- 5 Priority Validation & Diagnosis**

Physicians instantly validate AI-generated priorities, refine diagnoses, and initiate the right intervention — supported by structured clinical evidence and AI decision support without additional data entry.

SUPPORTED PROTOCOLS

ERTRIAGE® supports all major validated emergency triage and clinical scoring systems:

ESI — Emergency Severity Index

HEART Score

NEWS — National Early Warning Score

ROSIER — Stroke Recognition

PLATFORM

Key Features & Capabilities

Capability	Description
Real-Time Decision Support	AI-generated triage classification with transparent clinical rationale, enhancing confidence and reducing inter-provider variability across all shifts.
Fast Assessments	Captures over 50 clinical decision points in under 180 seconds. "Hello Nurse" rapid mode completes in under 60 seconds for immediate sorting of non-critical patients.
97% Clinical Accuracy	Validated with real-world hospital data across multiple institutions, closely aligning with and outperforming unaided expert clinical judgment under operational conditions.
EHR / HIS Integration	Connects directly to existing Electronic Health Records, Hospital Information Systems, and CAREPOI® Medical POI Stations. Minimal training required. Interoperable by design.
Hybrid AI Deployment	Fully local (on-premise) or cloud-connected AI inference. Maintains real-time triage capability during connectivity outages, disasters, or high-security operational scenarios.
Multi-Protocol Support	ESI, HEART, NEWS, ROSIER — and extensible to additional validated emergency triage and clinical scoring protocols as required by the deploying institution.
Healthcare-Grade Security	GDPR, HIPAA, and ISO 27001 compliant. Encrypted communications, role-based access controls, comprehensive audit trails, and national regulatory compliance.
Scalable Architecture	Deployable at hospital bedsides, CAREPOI® Medical POI kiosks, mobile emergency units, military field stations, and remote care environments worldwide.
Transparent AI Rationale	Every AI recommendation includes a structured clinical rationale — supporting clinician confidence, audit compliance, and medicolegal documentation requirements.
DH-600 Dedicated Device	Native Android-based medical device, purpose-built for emergency triage. Robust, portable, touch-enabled, with integrated vital sign acquisition and AI inference hardware.

97%
TRIAGE ACCURACY

<3min
COMPLETE ASSESSMENT

50+
CLINICAL DATA POINTS

RESILIENT AI ARCHITECTURE

Three Deployment Modes. One Platform.

In critical environments where connectivity cannot be guaranteed and data security is non-negotiable, ERTRIAGE® delivers unmatched operational flexibility through its Hybrid AI Architecture.



Local AI Model

Fully on-premise AI inference. Real-time triage without any network dependency. Maximum data control and resilience during outages, disasters, or high-security operations.



Cloud AI Model

Centralized intelligence with continuous model updates and system-wide visibility across multiple departments. Ideal for connected multi-facility healthcare networks.



Hybrid AI Model

Local inference with cloud synchronization. Full operational continuity, enhanced cybersecurity, and regulatory compliance — no matter the conditions.

PROVEN CLINICAL IMPACT

Real Results from Real Hospitals

ERTRIAGE® is currently deployed as an integral part of emergency triage workflows across public hospitals in Greece — including Nikaia General Hospital, Larisa General Hospital, and Pyrgos General Hospital — collectively serving over **219,000 patient visits annually**.

40%

Reduction in Triage Processing Time

Measurable improvement in frontline triage throughput across all validated hospital deployments.

30–40%

Reduction in Patient Waiting Times

Direct impact on emergency department crowding through more accurate patient prioritization.

97%

Validated Triage Accuracy

Real-world clinical validation confirms alignment with and outperformance of unaided expert judgment.

219K+

Patient Encounters Annually

Active deployment supporting over 219,000 real emergency patient encounters per year across Greece.

"With ERTRIAGE®, our ED team makes faster, safer decisions while managing record-breaking patient volumes."

— EMERGENCY DEPARTMENT CLINICAL LEADERSHIP, ERTRIAGE® HOSPITAL NETWORK







PRODUCT VERSIONS

The Right Configuration for Every Environment

<p>ERTRIAGE® HYBRID-AI Flagship Version</p> <ul style="list-style-type: none"> Local + Cloud AI inference Full ESI / HEART / NEWS / ROSIER support EHR / HIS integration Multi-department deployment Continuous model updates Maximum resilience & compliance 	<p>ERTRIAGE® FLOW High-Volume EDs</p> <ul style="list-style-type: none"> Optimized for rapid throughput Streamlined triage interface Parallel patient processing Operational efficiency focus Minimal clinical training required Scalable to any volume 	<p>ERTRIAGE® TRAINING TOOL Education & Simulation</p> <ul style="list-style-type: none"> Real-world case simulation AI-guided clinical feedback Triage proficiency development Performance assessment tracking Suitable for nursing & medical schools Regulatory training compliance support
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DEPLOYMENT CONTEXTS

Where ERTRIAGE® is Deployed

 <p>Emergency Departments</p> <p>Full triage workflow integration from patient arrival through physician assessment. The primary and proven deployment context, with validated results across multiple public hospitals.</p>	 <p>Mobile Units & EMS</p> <p>Pre-hospital triage with AI decision support during patient transport. Offline-capable local AI ensures consistent performance regardless of field connectivity.</p>
 <p>Military & Humanitarian</p> <p>Battlefield and field-hospital medical triage with fully offline AI capability. Designed to operate in the most challenging environments where traditional infrastructure is unavailable.</p>	 <p>Disaster Response</p> <p>Mass casualty triage at scale with rapid patient sorting. AI-assisted prioritization enables consistent classification even when normal emergency services are overwhelmed.</p>
 <p>Corporate & Occupational Health</p> <p>AI-supported health assessment and emergency triage for large corporate campuses, industrial facilities, and occupational health programs.</p>	 <p>Life & Travel Insurance</p> <p>Clinical risk assessment integration for insurance policy management, remote care authorization, and evidence-based medical assistance program support.</p>

COMPLIANCE & CERTIFICATION

Healthcare-Grade Standards, Built In from Day One

ERTRIAGE® is developed and maintained in full compliance with international healthcare technology regulations and data security standards. Every aspect of the platform — from AI model development to data handling and device certification — reflects these standards.

<p>ISO 27001 Information Security</p>	<p>ISO 13485 Medical Device QMS</p>	<p>HIPAA US Health Privacy</p>	<p>GDPR EU Data Protection</p>	<p>1348/2004 EU Medical Devices</p>
<p>EUTM 019145 EU Trademark</p>				

THE CAREPOI® ECOSYSTEM

ERTRIAGE® Within the Connected Care Platform

ERTRIAGE® is one of three flagship platforms within the CAREPOI® AI healthcare ecosystem — a fully integrated, cloud-native healthcare intelligence infrastructure connecting patients, clinicians, devices, and data across the entire care continuum.

<p>ERTRIAGE®</p> <p>AI-powered emergency triage and clinical decision support. Deployed at the frontline of emergency medicine — from hospital EDs to field operations.</p>	<p>TELECARE®</p> <p>AI telemedicine and remote patient monitoring platform. Extends healthcare beyond clinical settings through distributed care, diagnostics, and connected monitoring.</p>	<p>MEDPOI®</p> <p>Medical Points of Intelligence — a network of AI-enabled diagnostic stations integrating certified medical devices for distributed clinical assessment anywhere.</p>
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RESEARCH & SCIENCE

Evidence-Based AI Development

ERTRIAGE® is built on a foundation of clinical research, real-world validation, and continuous scientific oversight. The CAREPOI® Scientific Committee — comprising emergency medicine specialists, AI researchers, and healthcare technology experts — guides the ongoing development, validation, and improvement of the ERTRIAGE® platform. Clinical performance data, published research, and white papers support every capability claim made in this document.

- Scientific Committee
- ERTRIAGE® Academy
- Clinical Validation Program
- Performance Reports

ERTRIAGE®

AI Emergency Triage System

ERTRIAGE® is more than a product. It is a platform, a tool, and a partner to the clinicians who serve on the frontlines of care. By combining AI, modern clinical UX, secure engineering, and decades of emergency medicine expertise, we have created a system that helps emergency teams focus on what matters most: *the patient.*

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EU TRADEMARK

EUTM No. 019145462

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