



# SEAMLESS CARE FROM PREHOSPITAL TO HOSPITAL

**DEDALUS AMBULANCE: AMPHI** 



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#### CONTEXT

# INEFFECTIVE SYSTEMS IN A WORLD OF UNLIMITED DATA AND LIMITED RESOURCES

Emergency care is affected by the overall resource constraint in the healthcare sector. Healthcare organizations are under **immense strain** to enhance all facets of performance due ongoing staffing constraints and rising emergency call volumes.

At the same time, today's technology allows for **hyperconnectivity** and the collection of massive volumes of data, offering an unparalleled opportunity to provide paramedics and caregivers with valuable, holistic insights.

Of the few healthcare organizations that use prehospitalspecific electronic patient care records (ePCR), many see these frequently fail to perform as planned, limiting the effectiveness and responsiveness of emergency teams.





# STREAMLINED PREHOSPITAL CARE FOR BETTER OUTCOMES

Healthcare systems urgently need to **reduce overhead in prehospital care**. Although maximizing available resources is critical, it should not come at the expense of quality care. As a result, systems must be efficient, with minimal delays and errors while **supporting the best possible patient outcomes**.

**Robust and scalable** systems that swiftly adapt to new challenges and **leverage data** are crucial for maintaining high levels of care in a resource-constrained setting.

The future of high-performing prehospital care depends on making **well-informed, fast decisions on the spot**, rather than waiting until arrival at the emergency room.



#### SOLUTION



# MODULAR EXCELLENCE IN PREHOSPITAL CARE: THE AMPHI ECOSYSTEM

amPHI offers a modular, cutting-edge solution for the **entire prehospital workflow**.

With fast and accurate documentation of prehospital events and real-time data-sharing, it delivers the foundation for **seamless coordination** between field units and hospitals as well as improved awareness of clinical decisions.

Moreover, instant access to standardized data empowers providers to quickly adjust operations based on **actionable insights**, enabling more efficient resource allocation and supporting timely decisions.

Robust fallback procedures for network outages further enhance system **reliability**.

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#### VALUE



# OPTIMIZING RESOURCES FOR SUPERIOR EMERGENCY OUTCOMES

#### Data Quality and Accuracy

Ensures real-time, accurate documentation for better decision making.

Provides consistent and structured data for actionable insights.

# Real-Time Collaboration and Communication

Facilitates seamless collaboration between prehospital units and hospitals, leading to coordinated and timely care.

Ensures all stakeholders have upto-date, shared understanding for improved patient outcomes.

#### Operational Efficiency and Resource Optimization

Provides insights that optimize the use of resources.

Reduces operational overhead without compromising the quality of patient care.

#### Patient Care and Management

Improves continuity of care through real-time access to patient data.

Enhances preparation and prioritization for incoming patients, improving response to critical cases.

#### **Technological Integration**

Enables smooth integration across systems, allowing for standardized, actionable data.

Supports organization-wide improvements through the adoption of new guidelines and protocols.



#### FEATURES

# **COMPREHENSIVE PREHOSPITAL COORDINATION PLATFORM**

#### **Real-Time** Documentation

Advanced ePCR system ensures accurate, up-to-theminute patient information and automatic EMR integration.

#### **Actionable Insights**



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Access daily operational data through standardized, reliable dashboards for informed decision-making.

#### **Incoming Patient** Overview



Stay prepared with live-updated Lists of incoming patients, their severity, and arrival time.

#### Cloud Compatible

Cloud ready through AWS Managed Services for scalability and high system availability.

#### Streamlined **Patient Care**

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#### **PRODUCT USE CASES**

# STROKE EMERGENCIES: DENMARK'S LIFE-SAVING AMBULANCE PROTOCOL



# 66

With a joint national tool for screening of stroke, we can ensure fast and correct visitation and treatment. This will save the life and mobility of many patients.

**?**?

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Per Sabro Nielsen - Ph.D, MPM, Medical Director, Emergency Medical Services, Central Denmark Region

#### Issue

The Danish healthcare system identified the need for rapid and systematic stroke screening in ambulances to ensure that stroke patients receive immediate, qualified care.

Quickly detecting the location of a blood clot and assessing the severity of the patient's condition is a race against time, critical for survival and future mobility.

#### Solution

The five Danish Regions, in collaboration with the Health Authority and experts, developed a national stroke screening model for ambulances, implemented through the amPHI system to ensure consistent, nationwide application.

Paramedics use advanced tools to detect stroke symptoms early, transferring patients to local hospitals or specialized departments based on severity.

#### Effect

The approach had a positive impact both on the patients' outcome and the utilization of healthcare resources.

This national effort allows stroke patients to receive timely, appropriate care, improving survival rates and preserving mobility. For minor strokes, patients are treated locally, while major stroke cases are sent immediately to specialized centers for advanced treatment.

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#### **PRODUCT USE CASES**

# LIFE-SAVING DIAGNOSES: HEART CARE BEGINS IN THE AMBULANCE



# 66

With the combination of blood tests and ECG, we detect far more instances of increased ACS risk in the ambulance. This means that patients are diagnosed faster, and treatment such as percutaneous coronary intervention can be performed at an early stage.

On average, ACS patients diagnosed in the ambulance are discharged two days earlier from the hospital.

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#### Issue

Heart patients experiencing chest pains often face delays in diagnosis, which can lead to critical consequences.

Traditional methods, like electrocardiograms (ECGs), may not always detect minor coronary infarctions, leaving patients at risk if not accurately assessed.

#### Solution

Denmark has pioneered the use of advanced diagnostic devices capable of measuring cardiac biomarkers directly from a blood sample in the ambulance.

When a patient complains of chest pains, ambulance staff conduct an ECG and perform a blood test to identify potential acute coronary syndrome (ACS). If elevated cardiac biomarkers indicate a high risk of ACS, the patient is promptly transported to a specialized heart center.

#### Effect

This innovative 'Point of Care Test' approach, ensures that patients receive appropriate treatment at the earliest possible stage. The successful outcomes from clinical trials have led to plans for widespread implementation across all Danish regions, improving patient outcomes and potentially saving lives by facilitating faster and more accurate diagnoses.

Christian Juhl Terkelsen - MD, DmSc, Ph-D, Associate Professor, Aarhus University Hospital, Department of Cardiology,



#### ABOUT DEDALUS

Dedalus is the leading healthcare and diagnostic software provider in Europe and one of the largest in the world. With its innovative framework of comprehensive and process-oriented solutions, Dedalus enables a revolutionary digital transformation of country-wide Healthcare Systems fully supporting the patient digital journey. Dedalus serves more than 6,100 private and public hospitals across 40 countries, through more than 6,500 highly specialised resources, of which 2,000 are dedicated to R&D activities. We aim to help caregivers and healthcare professionals deliver better care to the communities they serve and for this reason we are very proud of doing a special job, working with healthcare organisations to improve healthcare outcomes for patients.

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