

# New AI Innovation Set to Transform Heart Attack Detection, Making It Faster and More Accurate

## Major Breakthrough in Heart Health: AI Model Identifies Hidden Heart Attacks, as Revealed in European Heart Journal - Digital Health

Aalst, Belgium, 5.2.2024 – In a significant advancement in heart health, a study published in the **European Heart Journal - Digital Health** unveils a cutting-edge AI model that identifies a serious type of heart attack, often missed in traditional tests. This model, developed from over 18,000 heart readings (ECGs) from patients worldwide, marks a crucial step forward in detecting and treating heart attacks more effectively.

**We live in a world where heart attacks remain the leading killer globally**, with delayed or missed diagnoses contributing significantly to mortality rates. **Traditional diagnostic methods**, focused on the STEMI/NSTEMI criteria, **miss about 30% of acute heart attack patients**, highlighting the need for more accurate and prompt detection.

Occlusion Myocardial Infarction (OMI) is a severe type of heart attack where a heart artery gets completely blocked, cutting off oxygen supply to the heart. In many cases, OMIs don't present with the standard symptoms on the ECG, leading to delayed diagnosis and treatment. The new AI model has been developed to identify heart attacks three hours ahead of the standard care, ensuring quicker and more accurate treatment for patients.

This AI tool's ability to outperform traditional methods in accuracy, sensitivity, and specificity means **doctors can now identify heart attacks that were previously hard to detect**. This advancement is especially important for patients with OMI-NSTEMI, who are at risk of worse outcomes if their condition is not caught early.

The development of this AI model is a product of international collaboration and research, utilizing a vast and diverse array of patient data. This inclusivity ensures the model is effective for people from all walks of life, highlighting the importance of technology in creating more equitable healthcare solutions.

The development of this AI model is a product of international collaboration and research involving esteemed institutions such as **Cardiovascular Center Aalst in Belgium, Hennepin Healthcare, Atrium Health**, and the **University of Napoli Federico II**.

Since its implementation at the world-renowned **Cardiovascular Center Aalst**, the AI model has proven its efficacy and reliability in clinical practice. Physicians at the center have observed a notable increase in diagnostic accuracy, substantially improving patient outcomes. This rapid and accurate identification of heart attacks is crucial in administering prompt and effective treatment, thereby increasing the chances of recovery for patients.

**Dr. Dan Schelfaut**, Co-Director and Head of Coronary Care Unit **Cardiovascular Center Aalst**, OLV Hospital, elaborates on its impact: *"This AI innovation symbolises the fusion of technology with cardiac*

*care, paving the way for swift and accurate OMI diagnosis in diverse clinical scenarios. The AI model's superior accuracy in detecting acute OMI, as compared to the STEMI criteria, underscores its potential to revolutionize ACS triage, ensuring timely and appropriate referrals for immediate revascularisation."*

This breakthrough demonstrates the incredible potential of artificial intelligence in healthcare. AI can analyze large amounts of **medical data quickly and accurately, leading to faster and more precise diagnoses**. In heart health, where every moment counts, this technology could save lives by identifying life-threatening conditions sooner.

For a deeper understanding of this life-changing technology and its impact on heart health, the public and healthcare professionals are encouraged to read the full article available on the [European Heart Journal - Digital Health's website](#).

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