

Cardiovascular Center Aalst Introduces Artificial Intelligence To Detect Acute Coronary Occlusion

Aalst, Belgium, 22.1.2024 – Cardiovascular Center Aalst, OLV Hospital, now uses Artificial Intelligence (AI) to enhance the detection of heart attacks. PMcardio's OMI AI MODEL, a certified medical device AI model developed in Heart Center Aalst, will assist physicians in earlier and more accurate diagnosis of acute heart attacks, especially in cases where only subtle signs are present. This integration marks a transformative step in diagnosing and treating acute Occlusion Myocardial Infarction (OMI), a critical form of heart attack caused by a complete blockage of the heart's blood and oxygen supply.

In Belgium, more than 20,000 people a year get diagnosed with an acute heart attack, a significant number of whom are misdiagnosed due to subtle signs on the electrocardiogram (ECG), resulting in a delay of life-saving treatment. Tragically, almost a quarter of these patients do not survive. (healthybelgium.be)

The OMI AI Model was developed to detect acute heart attacks using data from over 18,500 ECGs from more than 10,500 patients. The AI model accurately identified acute heart attacks in 90.9% of cases, showing better performance than currently used standard criteria for heart attack detection on the ECG. These findings are published in the [European Heart Journal - Digital Health](#).

Dr. Dan Schelfaut, Co-Director and Head of Coronary Care Unit of Cardiovascular Center Aalst, OLV Hospital, elaborates on its impact: *"This AI innovation symbolizes the fusion of technology with cardiac care, paving the way for swift and accurate diagnosis in diverse clinical scenarios. The AI model's superior accuracy in detecting acute heart attacks, as compared to the traditional methods, underscores its potential to revolutionize the way heart attacks are detected and treated."*

Since its implementation at Cardiovascular Center Aalst two months ago, the OMI Model AI model has already shown remarkable success. The **center's physicians have reported a significant improvement in the accuracy and speed of diagnosing acute heart attacks**, which has been instrumental in providing prompt and effective treatment.

Cardiovascular Center Aalst's adoption of the AI model represents a crucial step in bridging the gap between emergency physicians and cardiologists, ensuring swift and accurate diagnosis of acute heart attacks. Paramedics can now use this tool for on-the-spot diagnosis, facilitating immediate communication and prioritization for urgent care upon hospital arrival.

"From a single ECG, the tool immediately provides the pivotal clinical solution to prevent increased risk for heart failure or mortality due to delayed intervention," states **Dr. Jozef Bartunek**, Co-Director of Cardiovascular Center Aalst.

The impact of the technology is not limited to the immediate treatment of heart attacks; **it extends into the future well-being of patients.** *"Our AI models in development will focus on ECG-based screening for heart failure as early as asymptomatic patients presenting for a routine check-up to their GP and early recognition of conditions that can lead to sudden cardiac death, ensuring patients have the best chance*

for a healthier, longer life”, concludes **Dr. Robert Herman**, Cardiovascular Researcher at Cardiovascular Center Aalst, and Digital & Innovation Committee Member at the European Society of Cardiology.

About Cardiovascular Center Aalst:

The Cardiovascular Center Aalst at OLV Hospital is renowned for its excellence in cardiac care. With the integration of PMcardio's OMI AI Model, the center reaffirms its commitment to providing cutting-edge, efficient, and accurate diagnosis and treatment for cardiac patients.

<https://www.hartcentrumaalst.be/>

About PMcardio:

PMcardio, a leader in AI-powered diagnostics, focuses on combating cardiovascular diseases, the leading global cause of death. Its innovative technology enables healthcare professionals to diagnose up to 40 cardiovascular diseases with cardiologist-level precision, leveraging a smartphone application that interprets 12-lead ECGs in under 5 seconds.

<https://www.powerfulmedical.com/pmcardio-omi>

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