

Germany's Chest Pain Unit Network - A Success Story



The creation of a chest pain unit (CPU) network in Germany has improved the quality of diagnosis and treatment of patients with chest pain in the country, resulting in a better prognosis for patients with acute coronary syndrome compared with patients in the emergency department (ED), according to an article published by Journal of the American College of Cardiology.

The fundamental goal of a CPU is to streamline the differential diagnosis of acute or newly symptomatic chest pain of unclear origin. Previous studies have shown that the establishment of CPUs can reduce hospitalisations and costs through better utilisation of diagnostic and therapeutic procedures.

To establish an efficient CPU network, the German Cardiac Society founded a task force in 2007, which developed in parallel a set of standard requirements and a nationwide certification programme. The recommendations for standard requirements were published in 2008, and in 2014, the criteria for the certification of CPUs were revised.

It's essential that a CPU operates as part of a cardiology department or clinic that can provide invasive coronary therapy, and a cardiologist is responsible for its management. Also, a CPU should have an emergency laboratory with quantitative biomarker analysis onsite and results available within 45 to 60 minutes.

CPUs are certified after an onsite audit. As of January 2017, 254 CPUs have been certified, and 182 of them have been recertified after three years. The number of CPUs in Germany already exceeds by far that in the rest of Europe.

"The objective of the German Cardiac Society's initiative remains to achieve nationwide coverage through a network of certified CPUs. To meet this goal, it will ultimately be necessary to certify as many as 300 CPUs, whereas to date there are still significant regional differences in cardiology care," note article authors Thomas Münzel, MD (Center for Cardiology, University Medical Center Mainz) and Gerd Heusch, MD (Institute for Pathophysiology, West German Heart and Vascular Center).

In 2009, the German CPU registry was established to study the quality of care in CPUs and to further improve the prognosis of patients with chest pain and a potential acute coronary syndrome (ACS). To date, almost 40,000 patients have been enrolled in this registry, and a number of papers have been derived and published from it. A major research finding indicates that as many as 76.6 percent of the patients admitted to a CPU received an ECG within 10 minutes, independently of their symptoms and final diagnosis.

Another analysis, derived from the CPU registry's data, showed that patients without and with ACS who presented to a CPU with elevated troponin levels and who did not undergo a revascularisation procedure were more seriously ill and had a worse short-term outcome than patients undergoing immediate revascularisation.

The German Cardiac Society aims to extend the CPU concept to a European level, and it has already certified CPUs in Switzerland (Zürich and Lucerne) and Austria (Vienna). Encouraged by the implementation of the CPU network in Germany, the European Acute Cardiovascular Care Association recently presented a paper addressing the organisation of CPUs for its eventual implementation throughout Europe, the article said.

Source: [Journal of the American College of Cardiology](#)

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