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First Study on the Prevalence of Severe Sepsis and Septic Shock in ICUs in Germany

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Summary

A new study, the results of which are shortly to be presented at the ESICM Congress, has researched the prevalence of severe sepsis and septic shock in German ICUs. This study is the first of its kind providing representative information on the prevalence and mortality of sepsis in a single country.

Acknowledgement

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- SepNet Office (Jena) and Data Center (Leipzig)
- SepNet Regional Centers
- Prevalence Hospitals

Geographical Overview of SepNet Coverage

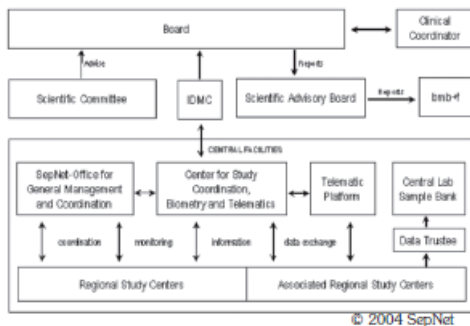
SepNet is the world's largest independent research network devoted to sepsis, representing 17 regional centres in Germany and 8 affiliated hospitals, where 30,000 critically ill patients are treated each year. SepNet aims to reduce the currently high mortality rate, by creating efficient structures for advanced clinical trials in sepsis research, launching and conducting innovative, internationally competitive studies under professional management, and introducing the concept of evidence-based knowledge into clinical practice in Germany.

Studies performed in the USA in 1995 have shown that about 215,000 patients die each year as a result of sepsis (mortality: 28.6%). In France, 14.6% of ICU patients die of severe sepsis (mortality: 35%). Until today, in Germany there has been a total lack of valid epidemiological data in this area. Clearly, these data are of high importance in order to estimate the impact on the health economy and to create a platform for clinical studies which focus on the improvement of the diagnosis and therapy of sepsis.

The Competence Network Sepsis (SepNet; Speaker: Prof. Dr. K. Reinhart, Friedrich Schiller University Jena) supported by the Federal Ministry of Education and Research has therefore conducted a nationwide, prospective, cross-sectional, multi-centre study and has investigated the prevalence of severe sepsis and septic shock in German ICUs.

In this study, 454 ICUs in 310 hospitals were visited and data on prevalence and on current medical care structures, diagnostic and therapeutic procedures and their costs were collected. The representative sample was randomized out of 1380 hospitals with about 490,000 beds and 2075 ICUs with about 19,000 beds, respectively. The data were collected over a period of one year to avoid seasonal deviations of the prevalence estimation. Intensive Care physicians in 17 German regional centres were trained. They visited the hospitals nearest to them on a randomized fixed day and collected the necessary institution- and patientrelated information by interviewing the local medical staff. In the course of this year, the SepNet intensive care physicians travelled over 24,000 kilometres.

The study is currently being evaluated. The results will be presented for the first time at the 17th Annual Congress of the European Society of Intensive Care Medicine, which will take place from October 10th to 13th in Berlin. Due to the complex design chosen for this study, it will be the first of its kind worldwide to guarantee representative information on the prevalence and mortality of sepsis in a single country. Based on this epidemiological data, deficits in treatment can be identified and improvements can be initiated, comparable to the process being implemented in the areas of cardiology and oncology.



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