

# Effective treatment for infective endocarditis using a rigorous hospital management-based approach

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A clinical study carried out at Hospital de la Timone in Marseille, France, has demonstrated that a standardized management protocol for patients with infective endocarditis can dramatically reduce mortality rates.

In 2002, a simple, rigorous and standardized protocol for therapeutic management were introduced by the team led by Didier Raoult from the Unité de Recherche sur les Maladies Infectieuses et Tropicales Emergentes (Université Aix Marseille 2/CNRS). The results were eloquent: [mortality rates](#) were divided by three during the hospitalization of patients. This study was the subject of a publication in the *Archive of Internal Medicine*.

Infective endocarditis is a serious condition that affects nearly 2000 people each year in France, a quarter of whom will die. This infection is usually of bacterial origin, and affects the heart tissues or implanted medical devices such as prostheses, pacemakers or defibrillators. In around 50% of cases, treatment for this condition includes a surgical procedure. Despite advances in the therapeutic resources available, mortality rates associated with this disease have not diminished for many years.

Because international therapeutic guidelines differ from one continent to another, and because of the large number of medical specialties

involved, the management of patients can vary considerably. For this reason, in 2002, Didier Raoult from URMITE (Université Aix Marseille 2/CNRS) set up a multidisciplinary medical team comprising cardiologists, specialists in infectious diseases and heart surgeons at the Hôpital de la Timone. They drew up a consensus protocol for the specific management of infective endocarditis. Rigorous, precise and simple, this protocol was designed to standardize diagnostic and therapeutic methods and practices that could be applied at a very broad scale. For example, prescriptions were restricted to only four types of antibiotic, and surgical indications - as well as their degree of urgency - were very clearly defined.

During this clinical study, the vital prognosis of 333 patients, treated using this protocol or not, was monitored. Thanks to this new, standardized management, the mortality rates observed during hospitalization fell from 12.7% to 4.4%, and mortality at 1 year from 18.5% to 8.2%. These mortality rates, the lowest ever published, reinforce the conviction that the multidisciplinary but standardized management of a disease as severe as infective endocarditis is crucial to therapeutic success.

More information: Dramatic Reduction in Infective Endocarditis-Related Mortality With a Management-Based Approach. Elisabeth Botelho-Nevers, MD; Franck Thuny, MD; Jean Paul Casalta, MD; Hervé Richet, MD, PhD; Frédérique Gouriet, MD, PhD; Frédéric Collart, MD; Alberto Riberi, MD; Gilbert Habib, MD; Didier Raoult, MD, PhD. *Arch Intern Med.* 2009;169(14):1290-1298.

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