



## First Carmat Artificial Heart Transplant Patient Dies



The hospital, which performed the transplant in December, has announced that the first patient fitted with an artificial heart made by the French company Carmat has died.

75 days following the surgery at the Georges Pompidou European Hospital in Paris, the patient, a 76-year-old man, has passed away. The cause of his death is currently unconfirmed.

With only a few weeks, or even days, to live at the point of surgery, the man was suffering from terminal heart failure, a condition that affects the sick heart's ability to pump enough blood to sustain the body.

The innovative bioprosthetic device manufactured by Carmat is designed to replace the real heart for a duration of up to five years. By imitating the human heart via biological materials and sensors, it is supposed to reduce the side-effects associated with transplants and assist the thousands of patients who die each year while awaiting a suitable donor.

A spokeswoman for Carmat expressed the company's wish to pay tribute to the courage and the pioneering role of this patient and his family, while also praising the medical team's dedication. She added that it was too soon to draw any conclusions on Carmat's artificial heart at this point in time.

In a French clinical trial three more terminal heart failure patients are to undergo a such a device transplant, should they survive with the implant for at least one month, the trial will be considered successful.

In the event of this occurring, Carmat has announced it would fit the artificial heart device into about 20 patients suffering from less severe heart failure.

The hospital stated that those doctors directly involved in the post-surgical care wished to highlight the value of the lessons learned from this first clinical trial. This was in regards to the patient selection process, his surveillance as well as the prevention and treatment of difficulties encountered, and in order to determine the cause of the 76-year-old man's death, it was necessary to conduct an in-depth analysis of the medical and technical data gathered since the patient's operation.

In their estimation, Carmat sees around 100,000 patients in the United States and Europe that could benefit from its artificial heart, making this a market worth more than 16 billion euros (\$22 billion).

Also in the business of providing artificial heart implants are the privately-held US companies SynCardia Systems and Abiomed. SynCardia's artificial heart is the only one to have received US and EU approval, and it

has been implanted in more than 1,200 patients to keep them waiting for a heart from a matching donor. The longest a patient has lived with the device is just under four years prior to a transplant.

Carmat's heart differs in that it is designed to serve as a permanent implant opposed to a bridge to transplant, extending life for terminally ill patients who are not in a position to hope for a real organ due to their advanced age and the lack of suitable donors.

Source: [Reuters](#)

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