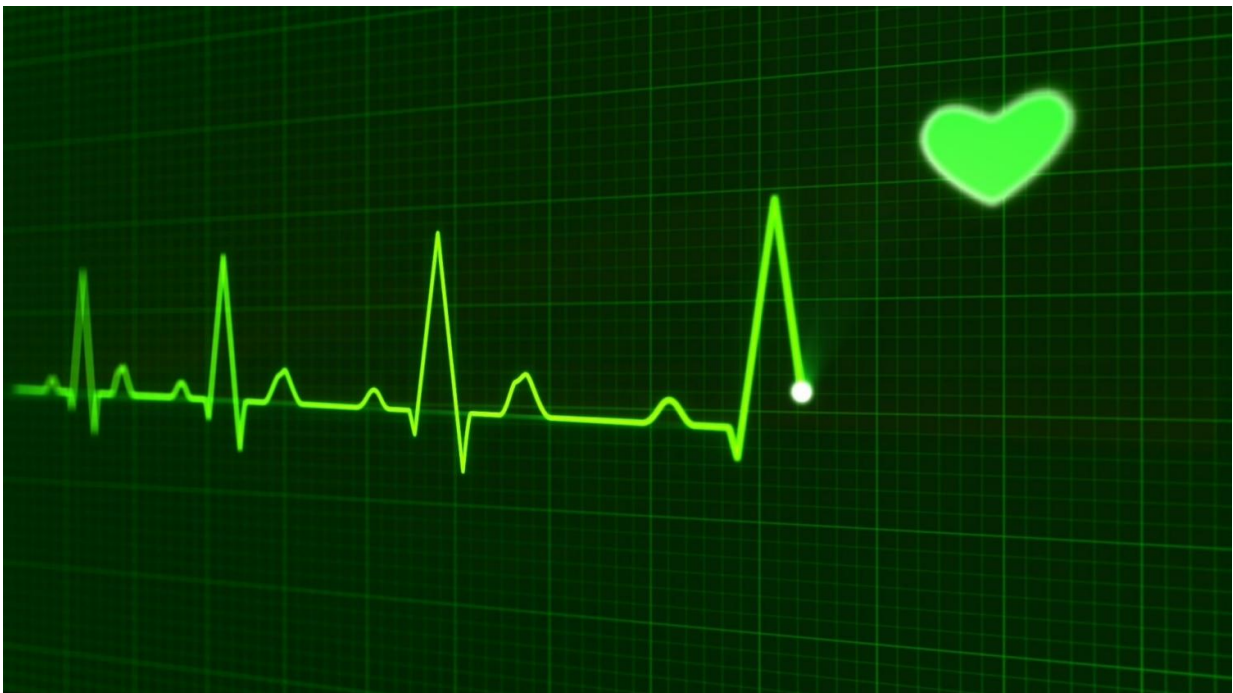


# World's largest study confirms treatment success in minimally invasive mitral valve surgery

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Scientists at the Center for Cardiology of the Mainz University Medical Center have examined the success of more than 13,575 minimally invasive procedures on the mitral valve in the largest study of its kind to date. Key findings: Although average patient age rose during the period

from 2011 to 2015 and the number of procedures increased from year to year, mortality and complication rates remained consistently low.

Mitral valve insufficiency is the most common heart valve disease in Europe and the U.S.. About 10 percent of people over the age of 75 are affected. Patients suffer from a weak closure and thus a leaky mitral valve. Until a few years ago, there was often only the possibility of drug therapy, because most patients were too old for an open operation, had too many comorbidities, or the function of the left ventricle was too bad.

There is now a minimally invasive option to treat leaky heart valves with a Mitraclip implantation. "Several studies with small groups of patients have already been published for the evaluation of the procedure with regard to the frequency of inserting the clip or the safety of the procedure. However, there have been no large data collections so far," explained the first and last authors of the study, Dr. Ralph Stephan von Bardeleben, Dr. Lukas Hobohm, and Dr. Karsten Keller. "That's why it was a good idea to examine the implantation numbers and the complication rates in Germany on a larger scale."

The results show that the annual implantation numbers in Germany increased more than fivefold from 815 in 2011 to 4,432 in 2015. In total, the study included 13,575 patients who had been treated with Mitraclip. Earlier studies referred to a maximum of 1,064 procedures. The patients were usually between 70 and 89 years old, and on average, the ages rose. Another important result is that the complication rate and mortality did not change significantly during the period studied. Important prognostic factors related to hospital death were cardiac insufficiency, blood transfusion due to bleeding complications, stroke, pulmonary embolism, or pericardial effusion.

The authors concluded from their findings that despite the dramatic fivefold increase in the implantation rate of the clip, the procedure has

very low early-stage complication rates during hospitalization. "Catheter-assisted valvular heart valve therapy has evolved from a niche treatment of inoperable patients into a relevant and safe treatment option in only 10 years, as our new study emphasizes once again," underlined von Bardeleben.

**More information:** Incidence and in-hospital Safety Outcomes of Patients undergoing Percutaneous Mitral Valve Edge-to-Edge Repair Using MitraClip - 5 year German national patient sample including 13,575 implants, *EuroIntervention*, [DOI: 10.4244/EIJ-D-18-00961](https://doi.org/10.4244/EIJ-D-18-00961)

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