

Using long-detection interval for ICDs associated with reduction in hospitalizations

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Use of implantable cardioverter-defibrillators (ICDs) programmed with long-detection intervals for ventricular arrhythmias was associated with an increase in the time to first hospitalization and reductions in hospitalization rate, length of stay and costs, compared with standard interval programming, according to a study in the August 6 issue of *JAMA*.

An ICD programming strategy that allows delayed detection of arrhythmias has been shown to reduce unnecessary and inappropriate therapies. Alessandro Proclemer, M.D., of the Azienda Ospedaliera Universitaria S. Maria della Misericordia, Udine, Italy, and colleagues assessed the association of programming a long-detection interval on hospitalizations, length of stay (LOS) in the hospital and costs. The researchers analyzed data from the ADVANCE III study, a trial conducted at 94 international centers between 2008 and 2010 in which 1,902 patients receiving their first ICD were randomized to a long-detection interval group (n = 948; the number of intervals to detect arrhythmias was programmed at 30 of 40) or a standard interval group (n = 954; 18 of 24 intervals).

During 12 months of follow-up, 546 patients reported 865 overall hospitalizations (473 hospitalizations in 302 patients in the standard interval group and 392 hospitalizations in 244 patients in the long-detection interval group). The long-detection interval group was associated with a longer time to the first overall hospitalization and cardiovascular hospitalization compared with the standard interval

group, and reductions in overall [hospitalization rate](#) and LOS, without difference in the rate of death.

Similar results were found for cardiovascular hospitalization rates and LOS. The long-detection interval group was also associated with an average reduction of \$299 per patient-year for overall hospitalizations and \$329 per patient-year for cardiovascular hospitalizations, compared with the standard interval group.

"These favorable results for resource use complement the demonstrated clinical effectiveness of the long-detection interval strategy and come without additional costs for the hospitals or [patients](#)," the authors write.

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