

## DEVICE THERAPY

## ADVANCEs in ICD programming

Findings from a new multicentre, randomized, controlled trial—known as ADVANCE III—indicate that programming implantable cardioverter-defibrillators (ICDs) with a long detection time (30 of 40 intervals) might be beneficial for ICD recipients.

The ADVANCE III investigators explain that their long-detection programme, which results in delays in ICD recognition of arrhythmia, “was applied to allow nonsustained events to self-terminate, thus avoiding unnecessary therapies”. The long-detection programme was compared with a standard-detection programme (18 of 24 intervals) in 1,902 patients with primary or secondary indications for an ICD. Median follow-up was 12 months.

Long detection was associated with a significantly lower incidence of ICD therapies (antitachycardia pacing or shock) compared with standard-interval detection (incidence rate ratio [IRR] 0.63, 95% CI 0.51–0.78,  $P < 0.001$ ). Although the incidence of appropriate shocks was

similar between the two groups, the incidence of inappropriate shocks was significantly lower with long detection (IRR 0.55, 95% CI 0.36–0.85,  $P = 0.008$ ).

Quality of life did not differ between the long-detection and standard-detection groups, but long detection was associated with a lower rate of hospitalization (IRR 0.81, 95% CI 0.68–0.98,  $P = 0.03$ ). Rates of arrhythmic syncope and death did not significantly differ between the two groups.

“Our results confirmed and reinforced, in a larger population, the main results recently presented by the MADIT-RIT trial”, say the ADVANCE III investigators.

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**Original article** Gasparini, M. et al. Effect of long-detection interval vs standard-detection interval for implantable cardioverter-defibrillators on antitachycardia pacing and shock delivery: the ADVANCE III randomized clinical trial. *JAMA* **309**, 1903–1911 (2013)