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IN BRIEF

HYPERTENSION

Potential 'real-world' effects of the JNC 8 guidelines

Application of the 2014 Eighth Joint National Committee (JNC 8) hypertension guidelines to the US population could result in almost 6 million fewer adults receiving antihypertensive medications than under the previous JNC 7 recommendations. In addition, the new criteria, which are less-stringent than the JNC 7 guidelines, would classify an additional ~13.5 million adults as having met blood pressure targets than previously. The reclassification would primarily affect individuals aged ≥60 years, many of whom have comorbidities. These estimates have been made on the basis of the JNC 8 recommendations being applied to data from the National Health and Nutrition Examination Survey, and extrapolated to the general population of the USA.

Original article Navar-Boggan, A. M. *et al*. Proportion of US adults potentially affected by the 2014 hypertension guideline. *JAMA* doi:10.1001/jama.2014.2531

DEVICE THERAPY

Promising results from an international registry on the use of a subcutaneous ICD

An entirely subcutaneous implantable cardioverter-defibrillator (ICD; S-ICD® system, Cameron Health, Inc., USA) performs as well, and is associated with a similar rate of clinical events, as conventional transvenous ICDs according to a new study. The EFFORTLESS-ICD registry represents the first international dataset on the use of subcutaneous ICDs in general practice. The overall conversion efficacy for spontaneous arrhythmic episodes was 96.1% (95% CI 90.8–100%), with 88% terminated effectively on first shock, and a 100% success rate after a maximum of five shocks. The annual rate of inappropriate shocks was 7%. The investigators believe that the S-ICD® could be "a new alternative to the conventional transvenous ICD system to minimize intravascular lead complications".

Original article Lambiase, P. D. *et al*. Worldwide experience with a totally subcutaneous implantable defibrillator: early results from the EFFORTLESS-ICD registry. *Eur. Heart J.* doi:10.1093/eurheartj/ehu112

DEVICE THERAPY

'First-in-man' study of a leadless cardiac pacemaker

A totally self-contained, leadless pacemaker (Nanostim®, Pacesetter, Inc./St. Jude Medical, USA) has been shown to be safe and effective in 33 patients with an indication for single (right) ventricle pacing. The nonrandomized LEADLESS trial represents the first experience of these devices in humans. The majority of patients had permanent atrial fibrillation with atrioventricular block (67%). Implantation was successful in 97% of cases. At 90 days, the rate of freedom from complications was 94%, and measures of pacing performance (including R-wave amplitude, pacing threshold, and impedance) were improved in the study participants. One patient died as a result of procedural complications. A randomized trial would be needed to compare the efficacy and safety of the leadless pacing system with that of conventional pacemakers. The investigators anticipate that, with further research, a dual-chamber leadless pacing system could be developed, expanding the indications for this therapy.

Original article Reddy, V. Y. *et al*. Permanent leadless cardiac pacing: results of the LEADLESS trial. *Circulation* doi:10.1161/CIRCULATIONAHA.113.006987