ESC Guidelines on acute and chronic heart failure launched today

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European Society of Cardiology (ESC) Guidelines for the diagnosis and treatment of acute and chronic heart failure are published today in *European Heart Journal* and the *European Journal of Heart Failure*, and presented at Heart Failure 2016 and the 3rd World Congress on Acute Heart Failure.

Around 1-2% of adults in developed countries have heart failure. At 55 years of age, the lifetime risk is 33% for men and 28% for women. During one year, 17% of hospitalised and 7% of stable/ambulatory heart failure patients will die, primarily from sudden death and worsening heart failure.

The 2016 guidelines include LCZ696 for this first time. This drug is the first in the class of angiotensin receptor neprilysin inhibitors (ARNIs) and was shown in the PARADIGM-HF trial to be superior to the angiotensin-converting enzyme inhibitor (ACEI) enalapril for reducing the risk of death and hospitalisation in patients with heart failure with reduced ejection fraction (HFrEF) who met strict inclusion and exclusion criteria.

Professor Piotr Ponikowski, Chairperson of the guidelines Task Force, said: "The issue of how to include LCZ696 in the treatment algorithm generated a lot of discussion. We recommend that the drug should replace ACEIs in patients who fit the PARADIGM-HF criteria. The Task Force agreed that more data is needed before it can be recommended in a broader group of patients."
Professor Adriaan A. Voors, Task Force Co-Chairperson, said: "Used in the right patients, LCZ696 will have a positive effect on prognosis. Adoption of LCZ696 may however be a challenge because patients and doctors are usually reluctant to change a drug they have used for decades. The cost of the swap will be relatively small compared to the new cancer drugs that extend life for just a few months."

A new category of heart failure with mid-range ejection fraction (HFmrEF) has been added for patients with a left ventricular ejection fraction (LVEF) ranging from 40 to 49%. It sits between HFrEF, defined as LVEF less than 40%, and heart failure with preserved ejection fraction (HFpEF), defined as LVEF above 50%. Professor Ponikowski said: "There are no evidence based treatments for patients with LVEF 40% or above. Many patients fall into the mid-range category and this should stimulate research into novel therapies."

Cardiac resynchronisation therapy (CRT) is now contraindicated in patients with a QRS duration less than 130 msec after the EchoCRT study found it may increase mortality in this group. This is a change from the 120 msec cut-off in the 2012 guidelines. The indications for CRT vary according to the presence or absence of left bundle branch block and QRS duration.

The concept of 'time is muscle' in acute heart failure, adopted from acute coronary syndrome, is included in the guidelines for the first time and demands urgent diagnosis and treatment. "Acute heart failure is a life-threatening condition and earlier appropriate treatment may prevent organ damage," said Professor Voors.

A new algorithm is introduced for the diagnosis of heart failure in the non-acute setting and is based on the evaluation of heart failure probability. "This algorithm will be more useful in clinical practice for general practitioners and other non-cardiologists faced with patients who
may have heart failure," said Professor Ponikowski. "It clearly defines when heart failure can be ruled out and when further tests are needed."

Adaptive servo-ventilation (ASV) is not recommended in patients with HFrEF and central sleep apnoea after mortality increased in the SERVE-HF trial. Professor Ponikowski said: "We took for granted that ASV benefitted these patients. The trial was a big surprise and ASV is now contraindicated in this situation."

Novel recommendations to prevent or delay the onset of heart failure and prolong life include: treatment of hypertension, statins for patients with or at high risk of coronary artery disease, and empagliflozin (a sodium-glucose cotransporter 2, or SGLT2, inhibitor) for patients with type 2 diabetes.

Professor Voors said: "We have better ways to treat comorbidities that increase the risk of heart failure. Several drugs for diabetes were associated with a higher risk of deterioration of heart failure but now we have an SGLT2 inhibitor that reduces the risk of heart failure hospitalisations in high risk patients, although studies with SGLT2 inhibitors in patients with established heart failure are still lacking."

Professor Ponikowski concluded: "Heart failure is becoming a preventable and treatable disease. Implementing the guidelines published today will give patients the best chance of a positive outcome."


Alexandre Mebazaa et al. Recommendations on pre-hospital and early hospital management of acute heart failure: a consensus paper from the Heart Failure Association of the European Society of Cardiology, the

Provided by European Society of Cardiology


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