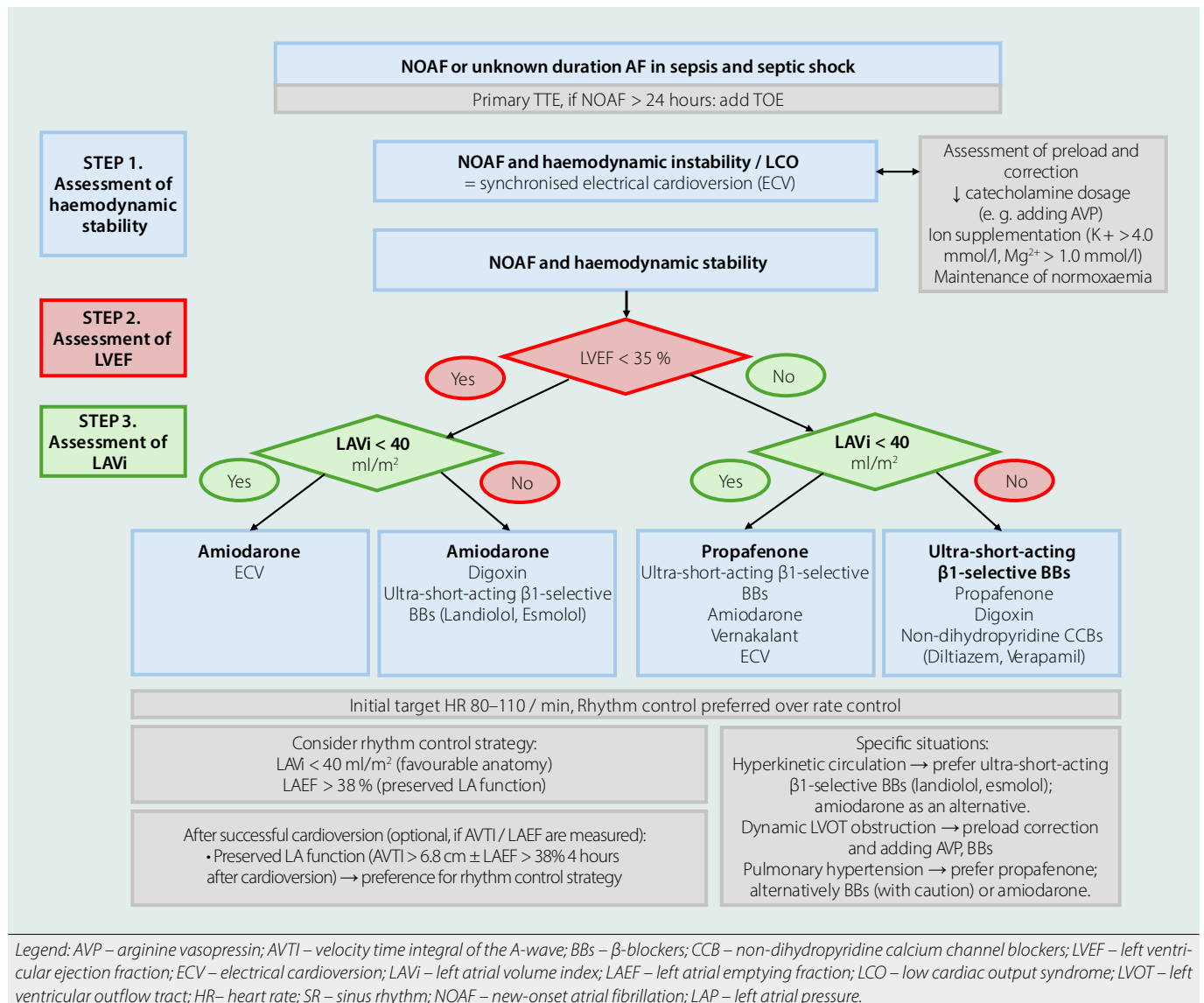


Algorithm 1. Treatment of NOAF in septic shock based on echocardiographic parameters

Based on the echocardiographic indicators described above, namely left ventricular systolic function and the morphological as well as functional parameters of the left atrium, a previously published echocardiography-guided algorithm has been adapted to the specific context of NOAF in septic shock (Algorithm 1). This algorithm summarises the suggested antiarrhythmic management of NOAF and helps to individualise treatment in the intensive care setting [34].

Anticoagulation and risk of thromboembolism

Anticoagulation in the ICU setting

In patients hospitalised with severe sepsis and NOAF, the risk of ischaemic stroke is reported to be approximately 2.6% [2, 38]. Data are lacking for therapeutic parenteral anticoagulation for NOAF during sepsis and septic shock. In the largest available retrospective study by Walkey et al., in the subgroup of patients with NOAF during sepsis, therapeutic parenteral anticoagulation was not associated with a reduced risk of in-hospital ischaemic stroke (RR 0.85; 95% CI 0.57–1.27) nor with

a significant increase of bleeding (RR 0.97; 95% CI 0.83–1.14). [37]. The CHA₂DS₂-VASc score (C – congestive heart failure, H – hypertension, age ≥ 75 years, D – diabetes mellitus, S – prior stroke, V – vascular disease, A – age 65–74 years, Sc – sex category) has limited discriminatory ability in critically ill patients, and its use in this context should be supplemented by clinical judgement [37]. In haemodynamically stable patients, when AF duration is unknown or ≥ 24 hours and adequate therapeutic anticoagulation for ≥ 3 weeks has not been ensured, transoesophageal echocardiography (TOE) is used to rule out left atrial appendage thrombus prior to elective cardioversion [7]. If thrombus is detected, cardioversion should be deferred; therapeutic anticoagulation should be initiated. Repeat TOE should be considered to confirm thrombus resolution before attempting cardioversion [7].

Anticoagulation after ICU discharge

Following discharge from the intensive care, the risk of ischaemic stroke remains elevated, at approximately 2.1% at 1 year and 5.3% at 5 years (HR 1.22) compared to patients without NOAF during sepsis [10]. However, long-term anticoagulation therapy is not automatically