Antithrombotic Therapy in Chronic Heart Failure

Table 1. Summary of Evidence

STUDY	METHODS	RESULTS/CONCLUSIONS
SOLVD[2]: 6,513 patients with left ventricular dysfunction from the Studies of Left Ventricular Dysfunction trial who had LVEF≤35% and NYHA class I-IV	▪ Compared baseline warfarin users to warfarin nonusers, leading to significant differences in baseline characteristics, specifically a diagnosis of atrial fibrillation ▪ Primary endpoints were occurrence of death and length of survival ▪ Secondary endpoints were hospitalization for unstable angina and nonfatal MI	▪ In warfarin users, no reduction in deaths due to stroke, pulmonary embolism or other vascular causes when comparing to the warfarin nonusers ▪ Significant decrease in overall death in patients taking warfarin at baseline but diagnosis of atrial fibrillation clouds this conclusion
WASH[3]: 279 CHF patients with left ventricular systolic dysfunction and LVEF ≤35%	▪ Patients received warfarin (target INR 2.5), aspirin (300mg/day) or placebo ▪ Primary endpoints were death, nonfatal stroke and nonfatal MI ▪ Secondary endpoints were death, hospitalizations and worsening heart failure	▪ No significant difference in primary endpoints among treatment groups ▪ Patients taking aspirin more likely to be hospitalized for cardiovascular reasons than those in other treatment groups
HELAS[4]: 194 heart failure patients with NYHA class II-IV and LVEF <35%	▪ Patients received warfarin (target INR 2-3), aspirin (325mg/day), or placebo ▪ Primary endpoints were occurrence of non-fatal stroke, VTE, MI, re-hospitalization, exacerbation of heart failure or death from any cause	▪ Anticoagulant or antiplatelet treatment does not have an effect on incidence of thromboembolic events
WATCH[5]: 1,587 heart failure patients in sinus rhythm, NYHA class II-IV and LVEF ≤35%	▪ Patients received warfarin (target INR 2.5-3), aspirin (162mg/day) or clopidogrel (75mg/day) ▪ Primary endpoints were composite of all-cause mortality, nonfatal stroke, and nonfatal MI ▪ Secondary endpoints were all-cause mortality, nonfatal stroke, nonfatal MI, and hospitalizations for heart failure	▪ No significant difference in primary endpoints among treatment groups ▪ Patients taking aspirin were more likely to be hospitalized for worsening heart failure than those receiving warfarin
WARCEF[6]: 2,305 patients with left ventricular EF ≤35% who did not have atrial fibrillation or mechanical prosthetic heart valves	▪ Patients received warfarin (INR 2.5–3.0, target 2.75) or aspirin (325mg/day) ▪ Primary outcomes were time to first occurrence in a composite endpoint of death, ischemic stroke or intracerebral hemorrhage ▪ Secondary endpoints were first event in a composite of the primary outcome, myocardial infarction, or hospitalization for heart failure	▪ No significant difference seen in the primary or secondary outcomes ▪ Significant reduction in ischemic stroke among those on warfarin vs. aspirin, offset by risk of major hemorrhage being significantly higher with warfarin