**Supplementary Materials**

**Table S1.** Statistical Model Types Used and Covariates Adjusted for in Models in Included Studies of Warfarin Anticoagulation in HD Patients with AF.

| Reference          | Model Type                        | Variables                                                                                                                                                                                                 |
|--------------------|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Chan et al., 2009  | Cox regression analysis           | Covariates adjusted: CHADS2 score, gender, race, Charlson comorbidity index, entry date, access, body mass index, facility standardized mortality ratio, cardiovascular drugs, dialysis adequacy, baseline laboratory values (albumin, hemoglobin, creatinine, ferritin, and WBC count), heparin dosage (units per treatment) and heparin regimen (bolus vs continuous vs. unknown) Propensity score: CHADS2, gender, race, entry date, access, body mass index, facility standardized mortality ratio, cardiovascular drugs, dialysis adequacy, baseline laboratory values, heparin dosage, heparin regimen, stroke, myocardial infarction, hypertension, peptic ulcer disease, AIDS, peripheral vascular disease, coronary artery disease, dementia, chronic obstructive pulmonary disease, hemiplegia, diabetes, cancer, liver disease, arterial clot, deep vein thrombosis, mechanical heart valve, pulmonary embolism, and hypercoagulable state |
| Winkelmayer et al., 2011 | Cox proportional hazards regression, and propensity score matched | Age on index date, gender, and race (Caucasian versus non-Caucasian), dialysis vintage, comorbid conditions: coronary heart disease, congestive heart failure, peripheral artery vascular disease, cerebrovascular disease, hypertension, diabetes, chronic obstructive lung disease, malignancy, gastrointestinal bleed, recent vascular access surgery or revision, length of stay (index hospitalization), number of hospital days in prior year, number of different medications used in prior year, prior H2 blocker or proton pump inhibitor use, prior nursing home stay, inability to ambulate, inability to transfer, most recent hematocrit value, total erythropoietin dose in prior month |
| Wakasugi et al., 2014 | Cox regression analysis using propensity score | Age, gender, dialysis vintage, height, cause of end-stage renal disease, dialysis facilities, type of vascular access, history of hemorrhagic stroke, ESA use, CHADS2 score, single-pooled Kt/V, mode of transport to dialysis facilities and use of antplatelet agents |
| Genovesi et al., 2015 | Cox regression model               | Age and dialytic age, gender, antiplatelet therapy and hypertension status at recruitment, permanent AF and bleedings/haemorrhagic strokes as time-dependent covariates (i.e. updated during follow-up), antplatelet therapy administration at recruitment, diabetes mellitus, ischaemic stroke, ischaemic heart disease and heart failure (the last three as time-dependent covariates), TTR and log (sqrt-VGR) |
| Yodogawa et al., 2016 | Multivariate Cox proportional hazards regression model analysis | CHADS2 score* |
| Garg et al., 2016   | Log-rank test Kaplan-Meier survival analysis | Stroke risk adjusted by CHA2DS2-VAS score and bleeding risk by HAS-BLED score |
| Shen et al., 2015   | Cox regression analysis           | Age, gender, race, Hispanic ethnicity, dialysis vintage, geographic location, reported comorbid conditions (alcohol dependence, arrhythmia, cancer, cerebrovascular disease, coronary artery disease, diabetes mellitus, gastrointestinal bleeding, heart failure, hypertension, inability to ambulate, inability to transfer, liver disease, peptic ulcer disease, peripheral artery disease, pulmonary disease, tobacco use, valcular disease, CHADS2 score, HAS-BLED score), baseline medication use (anticoagulant, antiplatelet agent, beta-blocker, calcium channel blocker, calcium acetate, central acting agonist, diuretic, lipid-lowering agent, nonstatin, nitrate, NSAID, PPI or H2-blocker, sevelamer, statin), year atrial fibrillation diagnosed, diagnosed as outpatient, discharged home after hospitalization, length of stay, indicators of health services use |

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*only one variable available
### Table S2. Included Studies of Warfarin Anticoagulation in HD Patients with AF: All Cause Mortality Outcomes.

| Reference                  | Hazard Ratio for All Cause Mortality by warfarin treatment (95% CI) |
|----------------------------|---------------------------------------------------------------------|
| Chan et al., 2009          | 1.10 (0.94-1.3)\textsuperscript{a}                                  |
| Winkelmayer et al., 2011   | 1.06 (0.9-1.24)\textsuperscript{b}                                  |
| Wakasugi et al., 2014      | 1.0 (0.4-2.52)                                                     |
| Genovesi et al., 2015      | 0.96 (0.59-1.56)\textsuperscript{a}                                 |
| Yodogawa et al., 2016      | \(p = 0.68\)                                                       |
| Garg et al., 2016          | 1.03 (0.91-1.15)                                                   |
| Shen et al., 2015          | 0.84 (0.73-0.97)                                                   |

\textsuperscript{a}Covariate adjusted  
\textsuperscript{b}Propensity score adjusted  
\textsuperscript{c}As-treated analysis (patients censored 60 days after drug supply ran out), stratified Cox by year of AF diagnosis  
\textsuperscript{*}p-value of mortality free rate with and without warfarin extracted from Kaplan-Meier primary survival curves showing no significant differences.