Reviewer's report

Title: Dutch randomized trial comparing standard catheter-directed thrombolysis versus Ultrasound-accelerated Thrombolysis for thromboembolic infrainguinal disease (Duet): design and rationale [ISRCTN72676102]

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Reviewer: Allan Donner

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Statistical Review of “Dutch randomized trial comparing standard catheter-directed thrombolysis versus ultrasound-accelerated Thrombolysis for thromboembolic infrainguinal disease (Duet): design and rationale [ISRCTN72676102]

The design and analysis plan for this trial is basically sound. I have a few comments on statistical issues related to the design and analysis of this trial:

1. It should be kept in mind that the primary outcome (duration in hours) is likely to be positively skewed, implying that a log transformation may be advisable for the purposes of analysis.

2. It is stated that the hypothesis of interest will be evaluated using a t-test. Since this a relatively small trial, substantive imbalances on important prognostic characteristics (predictors of outcome) may well arise. To the extent possible, all such potential covariates should be specified in advance. The multivariable method (eg multiple linear regression) that will be used for adjustment purposes should also be specified.

3. Aside from stratification by whether a native artery or bypass graft is used, stratification by centre will also presumably be employed.