Reviewer's report

Title: Rate of deep-vein thrombosis and pulmonary embolism during the care continuum in patients with acute ischemic stroke in the United States

Version: 1 Date: 29 October 2012

Reviewer: Andrew Wong

Reviewer's report:

Thanks for submitting this work, which highlights the importance of adequate venous thrombo-embolism prophylaxis in ischemic stroke patients.

- Major Compulsory Revisions

1. The only major issue is the inappropriate strength of the Authors’ conclusions. The data include a comparison with historical data about the duration and frequency of thromboprophylaxis. The comparison is that a duration of 3.1 days is less than 10.5 days (Discussion para 4) and that a frequency of 46.1% (Table 2) is too low (though no optimal or target percentage is offered) and the conclusion is that 3.1 days is ‘a short duration’ and 46.1% indicates underusage (Conclusions).

The issue here is that although the authors have acknowledged a couple of limitations in this study these significance of these issues is quite possibly large enough to make this conclusion invalid.

The first is that the patients reported are not the same as those previously reported. The age difference is reported in the discussion but the authors also reported an average length of stay of 3.0 days (Results para 3) which is much lower than “on average 5.2 days” (Background para 3). It is therefore possible that the previous conclusions about the appropriate frequency and duration of thromboprophylaxis are not generalizable to the current population studied.

The second is that there authors did not have data about whether the study subjects satisfied the quoted indication for requiring thromboprophylaxis i.e. “patients with reduced mobility” (Discussion para 3). It is therefore possible that the reportedly low frequency of thromboprophylaxis usage is because a lower proportion of study subjects had “reduced mobility”. It is also possible that the reportedly short duration of thromboprophylaxis usage is because the study subjects recovered their mobility quickly enough to not require this. A related issue is that the apparent target duration (“10.5 days”) of thromboprophylaxis was guided by a study which did not actually investigate the minimum amount of time required to generate the observed benefits (Discussion para 4).

The reported data are therefore consistent with a number of different interpretations besides suboptimal thromboprophylaxis usage and the Authors’ conclusions should be rephrased to accommodate these.
**Level of interest:** An article of limited interest

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I have received support for travel, accommodation, meals and conference registration from Boehringer Ingelheim, sanofi and Bayer-Schering.