Reviewer's report

Title: Prognosis of patients with apparent treatment resistant hypertension - A feasibility study

Version: 0 Date: 09 Nov 2017

Reviewer: Colin Bradley

Reviewer's report:

The authors make a credible case for the merits of their proposed cohort study of patients with apparent Treatment Resistant Hypertension (aTRH) and, given the potential challenges in conducting such a study, it is also commendable that a feasibility study was carried out first. While it is clear that they have conducted such a study to a high standard, they have not reported their experience in quite as much detail as might be helpful to other researchers. Firstly, though, there is some concern as to how representative their three 'pragmatically' chosen practices are of their entire cohort of 16 practices. Although chosen to get some geographical and practice size variation it seems they may not have captured variation that might be more relevant to the proposed major study such as variation in capacity for patient follow up and/or data gathering. The fact that only 5 patients of 210 were lost to follow up, exclusively through changing practice, and that the data collection on the remaining 205 appears to have been complete does seem rather atypical and unlikely to be sustained at quite that level in a larger study. Some more frank detail on how these practices were selected and some comment on whether or not they could truly be seen as typical would be useful. Even if they may not have data, some insights into whether or not they now feel the remaining practices might perform would be desirable. The authors also state that the advantage of their scrutiny of individual records would be that it would provide insights into dosing, adherence and white coat hypertension. However, these issues, on which data ought to have been available from the feasibility study, are not reported on. They also say that the feasibility study would allow them to gain information on data collection time. Again, though, the data provided on this is limited to just total hours and average minutes per patient for data collection from records only. Some information on the total time required including time spent on practice engagement, travel etc. could be noted as well as, perhaps, some comment on time spend in training and setting up practices to make the kinds of detailed records for this kind of study should be included. Furthermore, as well as the average time per patient some indication of the range or variability of this time utilisation and some indication of whether this varied much between practices (and, if so, why) would also be useful. Similarly, they claim that they have the advantage of having ABPM measurements which allows them to distinguish between what might be called 'true' Treatment Resistant Hypertension and 'apparent' Treatment Resistant Hypertension. However, no data on the proportion of these in their sample is recorded. I also note that cause of death was could not be determined from the clinical records for one patient and had to be obtained from the public record. Why was this? While this may seem to be only a minor issue involving only one case, if this were to be replicated across the larger cohort to a more significant level it have implications for the overall study as it might reflect serious gaps in records that would seriously undermine the goals of the larger study.
Overall, therefore, this is a worthwhile study but I suspect, and would hope, that the authors have more insights into the issues likely to emerge in a larger study and more preliminary findings than they have reported here.

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