PEER REVIEW HISTORY

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ARTICLE DETAILS

TITLE (PROVISIONAL)	Primary Care Atrial Fibrillation Service: Outcomes from Consultant-led anticoagulation assessment clinics in the Primary Care setting in the United Kingdom
AUTHORS	Das, Moloy; Panter, Lee; Wynn, Gareth; Taylor, Rob; Connor, Neil; Mills, Joseph; Kirchhof, Paulus; Gupta, Dhiraj

VERSION 1 - REVIEW

REVIEWER	Juhani Airaksinen University of Turku, Finland
REVIEW RETURNED	16-Jul-2015

GENERAL COMMENTS	The report concerns organization model of health care and shows that better co-operation of primary and secondary care provides better treatment for AF patients in general practice - as expected. Better education of GPs and patients can be provided with multiple channels and my only concern is the needed extra work load from specialists which is out from other normal daily work. I suppose, however, that all kind of education and dissemination of information is very cost-effective and the prevention of stroke is one of the best goals for this work. This project was supported by grants from 3 pharmaceutical companies (total sum of support???) and I suppose that the extensive program is otherwise difficult to arrange. If the authors could provide the amount of extra cost (work load) need for the identification, evaluation and treating the AF patients, it would be of additional value.

REVIEWER	Helena DOMINGUEZ Cardiology department Y, Bispebjerg-Frederiksberg Hospital (Frederiksberg site), DENMARK
REVIEW RETURNED	13-Aug-2015

GENERAL COMMENTS	Das et al. present the results of a Consultant-led model to optimize the use of anti-coagulation in high risk patients with atrial fibrillation (AFIB). A minor draw-back of this study is the lack of a control group. The results presented seem to point that the PCAF method is a valuable method to improve the qualiy of management of patients with AFIB in the primary settings. Nevertheless, the description of the methods is extremely confusing (at least for a physician without knowledge of British Health systems), what makes impossible to evaluate the paper adequately. I would really appreciate that the authors explained the methods clearly, to allowing a proper revision of the paper.

	Furthermore, I add some minor points that can help the authors to improve it. MAJOR COMMENTS METHODS Page 5, line 35: It is very unclear how the authors identified the patients to include in the study. The authors should explain how “The PRIMIS+ AF Query Case Finder Set” works. Furthermore, the authors should rephrase “excluding those who were on the AF register”. Actually, the authors should rephrase the entire paragraph. The authors should describe the background qualifying the “members of the PCAF team” that were not Consultants, to identify patients to include in the cohort, and, equivalently, who the “PCAF professionals” were (page 6). Page 6, lines 23-43: The authors should explain precisely which patients were “not eligible for a PCAF review”. It is seems that the authors considered so in patients with AFIB secondary to other conditions, as they write “This was applicable to patients in whom AF had resolved (for example, a single episode following a surgical procedure)”. BUT it is not acceptable to write that exclusion was applicable to patients in whom “anticoagulation was contra-indicated (defined as previous major bleeding or severe risk of bleeding) or there was no evidence of AF in their past medical history”. Does the last case mean that the patients did not have AFIB? Phase 2 is also very unclear. As the authors write these paragraphs, it may invalidate the entire study, but I believe that the authors can explain this better. MINOR COMMENTS Page 2, line 50, Abstract : ”Audit of eight practices after 195 [185-606] days”. If 185-606 is range, should be specified in the text. Page 3, lines 19-25: The study does not allow to conclude “The outcomes of this study of an innovative cross-boundary model are therefore not just relevant to anticoagulation, but also to preventative preventive management in other spheres of medicine.” It is relevant to speculate on the applicability of this model as a discussion point, not as a conclusion. The authors should remove this point from the conclusions. Page 4, lines 25-27: “42% of patients that should be anticoagulated are not,[13] and similar observations have been made in other countries” The authors should provide adequate references that support the last notion. Page , line 1: It is not obvious for the reader not practicing in Britain what the GRASP-tool i. The authors should add a reference.

REVIEWER	Ashish Arora St Vincent Medical Center, Bridgeport, CT, USA
REVIEW RETURNED	20-Aug-2015

GENERAL COMMENTS	I appeciate the hard work done by the authors for this common illness with substantial morbidity and mortality. I would have greatly

	appreciated if they would have a control group to assess the outcomes. Also, they did show improvement in compliance to treatment after the implementation of the novel therapy, however, the causes of 1063 pt s not on AC were not explained also the causes of sub therapeutic INR were not visited like patient versus clinician causes which could be another potential for intervention

VERSION 1 – AUTHOR RESPONSE

Reviewer 1's Comments:
For an average practice of 6000-7000 patients, it took approximately 12 hours for a PCAF professional to utilise the search tools and perform a review of patient case notes, around 3 hours for administrative staff to send invitation letters and contact patients by phone, and approximately 4 hours for a physician (supported by a PCAF professional) to deliver the anticoagulation assessment clinic. This has been added to the Results section (Page 8).

Reviewer 2's Comments:
Major Comments:
1) (PRIMIS+ AF Query Case Finder Set) This paragraph has been rephrased and expanded to provide more detailed information on this tool.
2) (Members of the PCAF team/PCAF professionals) We have added a paragraph to the beginning of the Methods section (Page 5) detailing the staff involved in delivering the PCAF service.
3) (Patients not eligible for a PCAF review) We have rephrased, expanded and clarified this paragraph (Page 6-7) to better explain the GRASP-AF tool and which patients were not invited to attend PCAF anticoagulation clinics.
Minor Comments:
1) (195 [185-606] days) As stated in the Statistical analysis section of the Methods, these data are presented as median [interquartile range]. “IQR” has been added to the text for clarity as follows: "195[IQR 185-606] days" (Page 11).
2) (applicability of this model) This statement was included in the Article Summary rather than the Conclusion, but has now been removed (Page 3).
3) (similar observations have been made in other countries) Two references have been added to support this statement.
4) (GRASP-AF tool) A reference to study demonstrating the utility of the GRASP-AF tool has been added, along with more detail on how it is used (Page 6).

Reviewer 3's Comments:
Unfortunately it was not possible to accurately identify why these 1063 patients were not taking an anticoagulant and we therefore did not seek to record this information. In particular, while in some cases the reason may have been relatively clear (patient not identified by GP, or patient offered anticoagulation but refused), in many other cases it would have been difficult to discern the exact reason (for example, anticoagulation discussed by GP with patient but decision not to proceed - was this GP reluctance or patient refusal or both?). Similarly, it was unfortunately not possible to obtain accurate data regarding causes of sub-therapeutic INRs.

VERSION 2 – REVIEW

REVIEWER	Helena Domínguez Cardiology department Y, Frederiksberg Hospital and Department of Biomedicine, University of Copenhagen DENMARK
REVIEW RETURNED	22-Oct-2015

GENERAL COMMENTS	The manuscript from Moloy Das et al. describes outcomes in patients with atrial fibrillation diagnosis, where an innovative service, PCAF, supports GPs to use adequate anti-coagulation management, in England and Wales. In the previous version there were some that were unclear. The authors have addressed the comments to the previous version, and the result is excellent. The manuscript is easy to read, and the pathway followed in the PCAF service is clear. The limitations of the study are adequately described, and the Discussion is apropriate. Even though the study is not randomized, and that there is no control group, the methods used to assess the results are adequate. The results indicate that PCAF is a valuable service to increase quality of management in atrial fibrillation. Hence, it encourages the clinical community to test in other countries beyond England and Wales, in a local adapted version. I have no major concerns. MINOR CONCERNS Page 7, line 25: The authors should rephrase “An office administrator sent out a letter of invitation with a pre-booked appointment to all eligible patients two weeks in advance of the PCAF clinic”. FURTHER COMMENTS Page 7, line 28: One could imagine that “Literature detailing the reason for the clinic review and the risks and benefits of anticoagulation was also included with the invitation letter.” Can be overwhelming information for the patient. It is interesting that 14% of the patients eligible for review of their anticoagulation therapy failed to attend the PCAF anticoagulation clinic. I assume that it includes patients who declined the invitation. It could be interesting to add to the results the amount of number of patients who agreed to attend clinic but did not show up. The pathway in PCAF, especially the call-recall method described in Phase 3 seems a great method to minimize “no-show” in specialized clinics. At first glance, it appears heavy resource demanding, but is could be cost-benefit positive. Such an analysis is, of course, is highly dependent on a particular clinic economy base, but still interesting. This is, nevertheless, beyond the scope of the present manuscript. The educational support provided in Phase 4 appears to be an interesting benefit per se. Nevertheless, it would be interesting to know whether the authors of the study provided additional incentives to optimize attendance to educational sessions.

VERSION 2 – AUTHOR RESPONSE

Page 7, line 25: We have re-phrased this sentence as follows, and hope it is clearer:
"Two weeks before the scheduled PCAF clinic, an office administrator sent a letter to patients eligible for clinic review inviting them to attend a PCAF appointment."

Page 7, line 28: Relatively few patients openly declined the invitation, with the majority of non-attenders failing to show up. We have added the following to the Results (Page 9):
"Only 221 (14%) patients did not attend for review, with 13 (1%) declining the invitation and 208 (13%) failing to attend."

Educational support: There were no additional incentives provided to GPs or other practice staff to attend the education programme beyond having access to a specialist who was available to provide 'free' education so that they could sustain best practice. Practice staff were able to claim Continuing Professional Development points for attending the programme to put towards their CPD/CME targets for their annual appraisal. We have added the following to Page 8:
"Additionally, staff members from enrolled practices had access to a Consultant-led education programme. Practice staff attending this programme could count this towards their Continuing Professional Development/Continuing Medical Education targets for their annual appraisal but no other incentives for attendance were offered."