Reviewer’s report

Title: Prostate Specific Antigen testing policy world wide varies greatly and seems not to be in accordance with guidelines: a systematic review

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Reviewer: Frances Drummond

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Prostate Specific Antigen testing policy world-wide varies greatly and seems not to be in accordance with guidelines: a systematic review

1. Is the question posed by the authors well defined?
Two questions were posed by the authors;
 a. What is the policy of GPs and non-urologic hospitalists after an abnormal PSA test result and can a cut-of value be determined for this policy?
 b. What are the reasons for repeating a PSA test after an initial normal result, what is the cut-off value used for a normal test result and what is the time frame for repeating the test?

While both of these questions contained multiple parts, the authors attempted to address all the issues raised in these two questions.

2. Are the methods appropriate and well described?
The methods used to collate this information was acceptable and appears to be rigorous.

3. Are the data sound.
While no actual analysis of the data could be carried out, the authors provide a nice descriptive account of the various practices that are on-going in relation to the management of normal and abnormal PSA and the lack of consistency reported. However, I have a few minor issues to raise;
 i) on pg 8, line 5-6, the authors say ‘GPs mentioned referring more often compared to primary care practitioners (PCPs)’. It is my understanding (and indeed my practice) to use these terms i.e. GPs and PCPs, interchangeably to describe the same thing depending on which audience and which country the manuscript is published in.
 ii) Paragraph 2; line 5 and 6, the authors describe that referral rates in the USA and UK ‘decreased’ over various time periods. Given that the database and survey studies provided are not longitudinal studies carried out on the same population, I don’t think that their statement is entirely accurate, since the later group may have had a lower referral rate in the first instance.
 iii) Table 3: While the authors made a good job of summarising the available data, what the authors are trying to say about Ref 16 referral patterns (pg 23) is
not clear – could you please revise.

iv) Since the results of Table 4 are reported before Table 3 in the text, the numbers of these tables should be swapped.

4. Does the manuscript adhere to the relevant standards for reporting and data deposition?
   Yes, to my knowledge.

5. Are the discussion and conclusions well balanced and adequately supported by the data?
   i) I think what is missing from the discussion is a comprehensive discussion of the state of guidelines on the management of PSA, both normal and abnormal, in all the countries from which the studies were conducted and also any discussion on the knowledge that the GPs and other physician groups have of these guidelines for eg, Melia J, Coulson P, Coleman D, Moss S. Br J Cancer. 2008 Apr 8;98(7):1176-81. This is important since their conclusion is that on-going practice is not in accordance with practice guidelines.
   ii) There are more possible explanations for the ‘decrease’? in referrals of normal PSA values than discussed here (pg 10, last paragraph).
   iii) Line 2 and 3 pg 11; again I think that you have to be careful that you are actually talking about two distinct groups i.e. GPs and PCPs. In my view these are the same.
   iv) While I agree with what the authors are trying to say, I think the sentence (lines 19-21; pg 11; ‘if patients did not receive ......) needs to be reorganised

6. Are limitations of the work clearly stated?
   Yes

7. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished?
   Yes

8. Do the title and abstract accurately convey what has been found?
   Yes.

9. Is the writing acceptable
   Yes, but some typos were identified;

i) Pg 2, Abstract: Conclusions, ‘asses’ should read ‘assess’
ii) Pg 5, last sentence should read ‘Titles and abstracts of the identified studies were checked and the full text of these publications were read to find.......’
iii) Pg 6, line 8, should read ‘These criteria were a ...’
iv) Pg 8, last paragraph ‘French study reported that 72.5% of physicians....’
v) Pg 9, first paragraph should read ‘while 86% were referred’

Recommendation: Minor essential revisions.
**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

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

**Declaration of competing interests:**

'I declare that I have no competing interests'