

## PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (<http://bmjopen.bmj.com/site/about/resources/checklist.pdf>) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

### ARTICLE DETAILS

<b>TITLE (PROVISIONAL)</b>	Detailed assessment of benefits and risks of retrievable inferior vena cava filters on patients with complicated injuries: the da Vinci multicentre randomised controlled trial study protocol
<b>AUTHORS</b>	Ho, Kwok M.; Rao, Sudhakar; Honeybul, Stephen; Zellweger, René; Wibrow, Bradley; Lipman, Jeffrey; Holley, Anthony; Kop, Alan; Geelhoed, Elizabeth; Corcoran, Tomas

### VERSION 1 - REVIEW

<b>REVIEWER</b>	Neil Parry London Health Sciences Centre, Canada
<b>REVIEW RETURNED</b>	29-Mar-2017

<b>GENERAL COMMENTS</b>	<p>Very well written proposal on a question that has yet to be addressed well in the literature. As such, this has the potential to contribute significantly to the body of literature on VTE/PE prophylaxis in trauma patients.</p> <p>I have a few minor questions:</p> <ol style="list-style-type: none"><li>1. What is the current retrieval rate of retrievable IVC filters in Western Australia?</li><li>2. Is there a standard method to calculate costs apart from accessing the finance department at respective hospitals? Are all costs calculated in standard fashion among institutions? Is there much variance in costs among the institutions (ie. is one hospital cheaper than another)?</li><li>3. Are patients that cross over into other group analyzed with intention to treat?</li><li>4. Do your institutions currently employ a proactive approach to detect DVT or will that be employed only in this trial?</li></ol> <p>Again, I think this is an important, practical study that may set the record straight on the use of IVC filters in major trauma patients.</p>
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<b>REVIEWER</b>	Shayna Sarosiek Boston Medical Center, USA
<b>REVIEW RETURNED</b>	30-Mar-2017

<b>GENERAL COMMENTS</b>	<p>This clinical trial protocol is addressing a very important question in the care of trauma patients. IVC filters are commonly used prophylactically in these patients without good quality data to support this decision, as indicated in the manuscript. I believe this is a very detailed protocol that is addressing many of the concerns about IVC filter placement which will hopefully give very important</p>
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	data when the clinical trial is completed, but obviously the most important and critical data is that which is obtained upon patient enrollment in the trial. I think that the authors of this paper will be better served by completing the clinical trial and then publishing this manuscript with the results from the trial included. The benefit to publishing only the protocol is unclear.
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<b>REVIEWER</b>	Ahmed Naiem Sultan Qaboos University Sultanate of Oman
<b>REVIEW RETURNED</b>	06-Apr-2017

<b>GENERAL COMMENTS</b>	A much needed step up of IVCF literature. I am looking forward to looking at initial data.
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<b>REVIEWER</b>	Sanjeeva Kalva University of Texas Southwestern Medical Center, Dallas, TX
<b>REVIEW RETURNED</b>	07-May-2017

<b>GENERAL COMMENTS</b>	Well written, excellent protocol for assessing the role of IVC Filter in major trauma patients. This will be of great service to the physicians to better understand the cost effectiveness of IVC Filters in this population. This is well needed.  It would be helpful if authors could provide a schema of the protocol with all the variables in a tabular form.
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### VERSION 1 – AUTHOR RESPONSE

Response to Reviewer 1.

1. The current retrieval rate for IVC filters in WA is >87% (as described in one of our recent publication: reference 42). This information has been added to the study protocol manuscript page 6.
2. There are standard ways how costs are calculated in every hospital in Australia although the cost base for the same item could be different for different hospitals outside Western Australia. To make things easier to compare, we will add on costs funded for each patient according to the Activity Based Funding (ABF) model in Australia which will standardise the costs across different centres although this would result in a slightly lower total cost for most patients as most hospitals are running a deficit in not having the real expenditure fully covered by the ABF funding.
3. Yes, definitely will be analysed by intention to treat and this is made more explicit in the revised manuscript on page 12.
4. No, no centres in Australia uses routine surveillance USS for their trauma patients at the moment because of cost effectiveness issue and when and how often we need to do the surveillance USS are also uncertain. We have made this point explicit in our study protocol (page 8) and two references have been added related to this important issue.

Response to Reviewer 2.

We can assure our reviewer that we are on track to complete this important study. The trial has reached >80% enrolment as in May 2017 and we are hoping the trial will complete its enrolment by the end of 2017 and we should have the results by 2018. It is important to publish the study protocol before the completion of the trial as required by most journals and recommended by most trialists.

Response to Reviewer 3.

Many thanks for the comments and we should be able to publish the results in early 2018.

Response to Reviewer 4.

Yes, a new table to detail the data collected has been added (Table 1).