Author's response to reviews

Title: Differences in level of confidence in Diabetes Care between different groups of trainees: the TOPDOC Diabetes Study

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Author's response to reviews: see over
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Dear Editorial Board,

We are extremely grateful to all three reviewers for taking time to review our paper. We attempted in this paper to take a more detailed look at data that has been previously published and the positive comments of the reviewers have been much appreciated, allowing the manuscript to be revised in a way that the findings and discussion are clearer to the reader.

Yours sincerely

Gerard McKay (on behalf of the authors)

Reviewer 1 – Dr Peter Winocour

When was the survey carried out? - could things have changed re training in interim. Will need clarification and comment in discussion if based on data over 4 yrs old - what about impact of Future Shape of Training - risks and opportunities for education re DM care?

The data was collected from 2009 through 2010 with main paper published in 2011. In 2012 there was a revision of the Foundation Programme Curriculum. This included greater emphasis on long-term condition management such as the following F2 outcomes;

“manages long-term conditions during episodes of acute care”

“ensures adequate nutrition”

“evaluates and encourages patient to self-care.”

Therefore this could have some impact on current trainees’ confidence levels. However there is no specific mention of managing patients with diabetes. The 2009 CMT curriculum underwent minor revisions in August 2012, but no specific changes were made in relation to diabetes presentations and management.

In principle the “Future Shape of Training”, with a move from specialty to generally trained doctors could increase confidence across all trainees, however only if it is emphasised as an important condition in the stated curriculum competencies and assessment of these competencies embedded within training. Therefore we believe the results presented are still valid and highlight potential risks and opportunities for education re: diabetes care.

2149 validated complete responses - how many were sent? Evidence is needed to show this is representative esp given that data then broken down further into small subspec training groups. How valid are stats in small subsamples? - Authors will need to justify or accept limitations in the study which makes conclusions less robust
We had anticipated in the protocol design that “As recruitment is multimodal and with various recruitment strategies likely to overlap, it would be unfeasible to calculate response rate for each method adopted. However, on a national level, a response rate of at least 1 in 50 will achieve our recruitment target.”

Statistical calculations indicated that 248 respondents were needed to give 90% power, at 5% significance, between consecutive answers in the six-point rating scale used in the study. We targeted responses from 1000 UK trainee doctors across all specialties other than diabetes and endocrinology. This would represent around 2% of the total potential study population.

The study included a representative spread of trainees with varied specialty career intentions currently based in the UK, capturing >4% of approximately 50,145 doctors in postgraduate training at the time. Therefore this study is one of the largest of its kind although we do accept that in a post hoc analysis the numbers in certain groups of trainees may limit any conclusions drawn.

**Discussions re table 5 – expand suggestions for training in primary care, comment on current and future CMT curriculum.**

The TOPDOC study was designed to asked hospital-based junior doctors questions about inpatient care. Nevertheless, as the reviewer suggests, informed inferences can be made about broader aspects of training and we have made reference to this in our revised concluding paragraph. In particular, there is a non-significant higher % of primary care trainees willing to advise on lifestyle but unfortunately not as willing to change oral therapy. This is disappointing as greater emphasis on primary care to deal with oral therapies in patient with Type 2 diabetes. We have attempted to make reference to this in the revised manuscript.

For CMT curriculum comment see response above.

**Minor**

We have breakdown data for the stage of training for the 2149, but felt that this was beyond the scope of this paper. The median number of years of post graduate training in the cohort was two with numbers tailing off beyond ST3 stage.

Results – “contact specialist” should be “specialists” – this has been corrected

**Reviewer 2 – Dr Alan Jaap**

“struck by level of confidence re changing oral hypoglycaemics” particularly trainees for primary care, ?further discussion –

Note comments above and changes made to manuscript
Trainees at early stages in training, therefore medical school training relevant. Could data be looked at in this way?

In short the answer is no to this question as we do not have a note of the respondents medical school. However, clearly medical school training is relevant to the preparation of junior doctors. With the move towards ensuring that medical graduates are fit for purpose on the day they commence their professional lives many aspects of training and assessment are now being adopted such as the Prescribing Safety Assessment which will almost certainly become mandatory by the GMC. There is a potential opportunity to raise awareness that the management of diabetes should be a key component of this assessment in addition to other endeavours to raise awareness of the management of diabetes as an important theme.

Confidence v competence? Any markers of competence?

This is a good point. Confidence does not equal competence. However, in order to have some idea as to the relevance of this as a surrogate marker we assessed confidence in managing other common conditions including angina and asthma (reported previously) and it was clear that trainees had far greater confidence in managing the latter two conditions.

Data for other specialty conditions? Is it across board or specific to diabetes?

As above, the original study reported that trainees were significantly more confident dealing with other specialty conditions like asthma and angina.

Look at subspecialties within physician group

This would have been interesting to look at but subspecialty group data was not collected.

Relevant to focus more on emergencies where physicians not in diabetes? Were they confident in emergencies when these are part of GIM?

Again we are not able to tease out from the data who were diabetes v non diabetes trainees

Minor

Results “training needs” – word missing in second last sentence – thanks the word ‘the’ added.

Change HONK to HHS – this has been done

Emergencies more important than op scenarios like diagnosing IGT

We believe that emergencies are more relevant when thinking about the trainees when they are caring for inpatients. However, lack of confidence amongst primary care trainees in particular with the less acute aspect is still concerning and we have attempted to capture this in our revised manuscript.