Reviewer's report

Title: Ordering patterns for laboratory and radiology tests by students from different undergraduate medical curricula

Version: 1 Date: 10 March 2013

Reviewer: Spiros Miyakis

Reviewer's report:

This is a very interesting study that attempts to assess the effect of the curriculum on the test-ordering behaviours of final-year medical students in two different countries. The result is important (that students whose course was vertically-integrated performed better in terms of test-ordering), but I am not able to assess the scientific validity of this conclusion and the level of support behind it. The reason is that the Methodology was largely based on tools described in other publications from the same group (refs 21 and 22) which are, however, still in their submission stage. Therefore, I can not recommend anything on this manuscript until either the content of those papers is accessible or the authors provide more of the relevant details in the present manuscript (ie description of the tools and their validation, see Methods p. 5-6).

Some details on the nature of the Institutions where the study was performed should be given: exposure in cases such as those simulated; on-site radiology and turn-around time in both countries etc. How were the participating students selected? Was there any adjustment/consideration according to their overall performance in their study years. In other words, was the possibility excluded that just the Dutch cohort was significantly better (in terms of their marks/ranking) from the German cohort, and that would have interfered with results?

In general, the weaknesses of the study should be presented in more detail (see above; but also the different structure of the request forms: although authors provide corrective measures for this, this difference is crucial for assessing test ordering according to the relevant literature; etc).

Authors say in Results (p.8 lines 4-5): "The number of total laboratory test showed a significant correlation with the achieved score in the FOC..." and further down in the same page (Discussion): "A high number of laboratory requests by participants from a VI curriculum were associated with high scores for the FOC...." Does this mean that the best performing students were the ones who ordered more tests in Holland? (one would expect vice-versa). If it is not a misswording, the authors should comment on this finding.

All 4 Tables can be easily merged into one.

Although the manuscript is well written, there are some points that need attention in regards with English language use: for instance authors tend to use long sentences containing 2-3 different messages, which be better divided. The
comprehension of some other sentences seems difficult to me: see Intro p.4, para 2, 1st line: "Alas, a study from the early 90th of the last century demonstrated..."

Importantly, also, some non-standard terminology is used: see Methods p.6, 1st para: haemoptoe (I guess hemoptysis), and sigma diverticulitis (for sigmoid presumptively).

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Needs some language corrections before being published

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

**Declaration of competing interests:**

No competing interest.