Use of Internet (and Other External Resources) During Secure Testing
Summary Report

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Background

The rapid adoption of technology enables physicians to easily access information during patient care. Looking up information while providing clinical care has become increasingly more common and raises issues concerning the delivery of secure examinations. The testing industry is taking into consideration the access to web resources during the exam so that it can better reflect what is happening in clinical practice. Before doing so, it is important to consider the relevance and effectiveness of open-book examinations (OBEs) relative to closed-book examinations (CBE). A systematic review of the literature comparing open and closed book exams will be released over the next few months to help our understanding of its advantages and disadvantages.[1]

Key Points from Presentation

Mr. Stephen Williams presented on having access to the full web during testing. He felt OBEs allowed for questions that were more realistic, allowed testing of higher cognitive skills, and encouraged development of richer content. However, he acknowledged that security remains a concern. Test takers have access to email, Facebook, etc. where they can receive help or share examination content as soon as full web access is available. Other technical issues noted included potential connectivity and latency (speed of Internet connection), updating of reference materials, exam navigation, language support, and ADA accommodations.

Dr. Rebecca Lipner, Senior Vice President of Evaluation, Research, and Development at the American Board of Internal Medicine (ABIM), as part of an earlier panel discussion—*Innovations in Testing from Other Member Boards*—shared results from a feasibility study that used a *single* web resource during an MOC Part 3 examination delivered at Pearson VUE testing centers. The resource chosen for the study was Isabel Healthcare, a decision support system as well as a knowledge resource. Study participants were still able to access the Internet (e.g., Facebook, email, Twitter). Other considerations include the choice of resources, amount of time needed for testing, appropriateness for different item formats, and the possible need for ADA accommodations. ABIM plans to conduct a second research study to answer some of these questions.

Other philosophical and measurement issues related to testing must also be considered. Since fundamental knowledge is needed to guide any search, too much reliance on web searches could be detrimental. Ensuring that the appropriate construct is tested is also critical. Is the purpose of the assessment to evaluate the examinee's ability to find, understand, evaluate, and use external resources? Or is it to assess clinical knowledge regardless of how an examinee uses external resources?

Key Points from Breakout Sessions

While the group acknowledged the utilization of resources in the care of patients, there was not universal agreement that resources should be introduced during testing. The biggest advantage of including resources is that it would emulate practice more closely. Another advantage is that it could make it possible to assess higher order thinking and clinical reasoning during the exam. A disadvantage is the potential to develop an over-reliance on the Internet. The group also felt that the potential security and exam integrity risks were significant, but they were open to the idea that Internet technology is rapidly evolving. Additionally, there may be a perceived conflict of interest if examinees were limited to specific resources (e.g., UpToDate).

There were conflicting opinions regarding the impact of OBE on public perception of certification. But there was consensus that the public at large does not understand the process or the importance of certification and that more education would be beneficial.

Conclusions

Not having access to external resources in the secure exam, particularly for MOC Part 3, is a common complaint among diplomates of many ABMS boards. The group felt that adding external resources to the MOC exam would be worthwhile, but perhaps not for the entire exam. However, questions would need to be developed or rewritten to ensure appropriateness. The public would likely believe this to be a reasonable approach, assuming we were not assessing fundamental knowledge. To be fair, it was agreed that the resources selected should be accessible to all physicians, even those who do not have a subscription. It was understood that this could have cost implications. The implementation issues noted earlier would still need to be resolved. It was thought that allowing unrestricted access to the Internet would pose a security risk for high-stakes examinations.

Overall, for initial certification, approximately half the participants thought it would be worthwhile to pursue. However, a clear majority of the participants thought it would be worthwhile to pursue for MOC. It was also agreed that the use of resources should be considered alongside the various proctoring options, as some are more suitable for OBEs. Ultimately, much of the decision comes down to the purpose of the examination.

Reference:

Durning SJ, Dong T, Ratcliffe T, Schuwirth L, Artino AR, Boulet JR, Eva K. *Comparing Open- and Closed-Book Examinations: A Systematic Review*. Academic Med