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### AN ULTRA-RAPID REVIEW APPROACH: AN INNOVATIVE SOLUTION TO MAKE EVIDENCE MORE RELEVANT FOR TIME-SENSITIVE POLICY-MAKING AND PROVIDING GUIDANCE FOR HEALTH SYSTEMS?

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**Objectives** To make evidence relevant to the time-sensitive needs of decision-makers in policy and health care systems, rapid reviews have become a practical alternative to systematic reviews because of their fast provision of results. By streamlining methodological steps, the results of rapid reviews are available within a few weeks or months. Ultra-rapid reviews employ multiple methodological shortcuts, are conducted in a very short timeframe (a few days), and therefore provide evidence at the time needed. We tested the accuracy of an ultra-rapid review approach that substantially reduced the effort for literature searches and study selection. Our approach combined an abbreviated literature search with single-reviewer literature screening. The aim of this methods project was to evaluate the sensitivity of an ultra-rapid review approach based on three case studies and to ascertain if it leads to different overall conclusions about beneficial and harmful treatment effects compared with a systematic review approach.

**Method** The ultra-rapid review approach consisted of strongly abbreviated literature searches and single screening of abstracts and full texts. As reference standards, we selected three ongoing Cochrane reviews that had not been published at the time of the methods study. Two Cochrane reviews addressed oncological topics (OT), one a public health topic (PHT). A search specialist conducted abbreviated literature searches consisting of a simple-structured Boolean search in combination with the similar articles function in PubMed. Authors of the three Cochrane reviews provided highly relevant, published studies as starter sets for the similar articles function in PubMed. Three reviewers screened records independently and in parallel. If they missed studies compared with the reference standard, we recalculated effect estimates and created new Summary of Findings tables. We surveyed the Cochrane review authors to solicit whether the detected bodies of evidence from the ultra-rapid reviews would change the conclusions of the Cochrane review.

**Results** The proportion of abstracts screened by ultra-rapid reviewers compared to the Cochrane reviewers ranged from 15% to 1%. The ultra-rapid review approach identified 11% to 22% of the relevant publications (OT: 11%-15%; PHT: 13%-22%) and 38%-100% of the relevant studies (OT: 40%-100%; PHT: 38%-48%). For case study one (OT), the ultra-rapid review approach led to the same conclusions as the Cochrane review. For case study two (OT), the authors would have drawn the same conclusion for all three ultra-rapid reviews, but with less certainty. For case study three (PHT), the authors would have drawn the same conclusion for one ultra-rapid review, but with less certainty. For the other two ultra-rapid reviews, the authors assessed that a conclusion could not be drawn.

**Conclusions** For oncological topics, the conclusions of the ultra-rapid review approach changed less often compared to the public health topic. Based on these three case studies, an ultra-rapid review approach seems to be viable for narrow questions that can be answered with RCTs. However, to assess

whether an ultra-rapid review approach could be an expedited solution for evidence-based decisions for policy or health care professionals further research with a larger sample size is necessary to confirm our findings.

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### ASSESSING MEDICAL STUDENTS' COMPETENCY IN EVIDENCE-BASED MEDICINE USING THE ACE TOOL- A CROSS SECTIONAL STUDY OF MEDICAL STUDENTS ACROSS DIFFERENT STAGES OF THE CURRICULUM

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**Objectives** The importance of teaching the skills and practice of Evidence-Based Medicine (EBM) for medical students has steadily grown in recent years. Alongside this growth is a need to evaluate the effectiveness of EBM curriculum as assessed by competency in the five 'A's': Asking, Acquiring, Appraising, Applying and Assessing (impact). A longitudinal, competency based, clinically integrated EBM theme, with assessments has been designed and implemented in the University of Buckingham Medical School (UBMS). The EBM curriculum is progressive with students taught to ask, acquire and appraise evidence in years one and two. In years three, students are asked to apply EBM in clinical practice and reflect on their experience. The aim of this study was to carry out a cross sectional study examining the feasibility of administering the 15-item Assessing Competency in EBM (ACE) tool and compare student performance in the ACE tool across different years of EBM training.

**Method** While initially testing the feasibility of administering the tool, we used paper-based assessment administered during the EBM teaching session. After successfully completing the feasibility phase, we administered the test through our virtual learning environment. Data was collected on student performances in the paper-based assessment for one cohort (third year students) and from the assessment in our online portal for first and second year students. Performance data in ACE was gathered from a cross-sectional sample of 212 medical students representing, first year, second year and third year cohorts. Total ACE scores, item discrimination and internal reliability were analysed.

**Results** Performance data from 212 students (83 first years, 83 second years and 46 third years) was compared via one-way ANOVA. No significant difference in means scores was observed across the years (mean scores 10.4, 10.22, 10.28). Individual item discrimination was good except for one item (item discrimination index ranging from 0.27-0.93), overall test reliability was 0.60, with internal reliability consistent across most items (item total correlations were all positive ranging from 0.14-0.60).

Despite the ease of administering and scoring, the ACE tool may have a lower potential to discriminate between different levels of students' EBM competencies. The lack of correlation between test scores and levels of training maybe explained by the small sample size for third year students, and administration via paper-based test versus the online based test. The ACE uses dichotomous questions type, where even novice students could randomly guess answers and still score high.

**Conclusions** The ACE test was very easy to administer and score, compared to other validated EBM assessment tools, such