THE UNIVERSITY OF BUCKINGHAM MEDICAL SCHOOL

# Can online educational prescriptions assess medical students' competency of 'apply'ing EBM in clinical practice?

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## Background

Validated assessment tools are available to evaluate medical students' competency in evidence-based medicine (EBM).

One such tool is the Educational Prescription (EP)[1,2], which helps students identify a clinical question from patient encounters, search and appraise relevant evidence and apply it to clinical decisions.

## Aim

This study aimed to test the feasibility of administering EPs to University of Buckingham Medical School (UBMS) students during their clinical rotations, to assess their competency at applying EBM in clinical practice.

We also evaluated the impact of EBM on clinical decisions and student-reported usefulness as an indicator of 'buy-in'.

## Methodology

EP templates were created online in the virtual learning environment and used as a mandatory formative assessment.

Medical students in their third year of the MB ChB curriculum (n= 64) were asked to complete at least one submission from their clinical rotations.

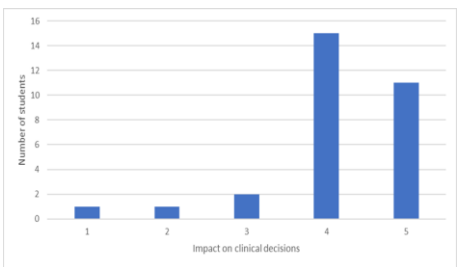
A team of five staff members graded the submissions between 0-20

## Results

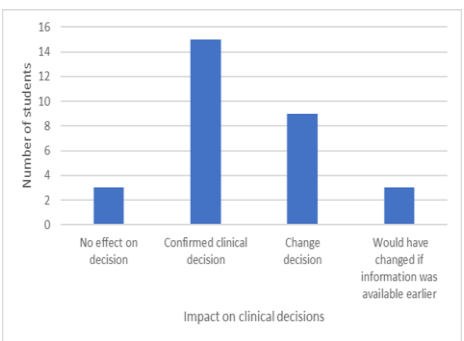
31 online submissions were made and assessed with scores ranging from 8 to 17 out of 20. Engagement in the process was good at 93% of students.

The task was applicable across all clinical settings, with the majority coming from primary care.

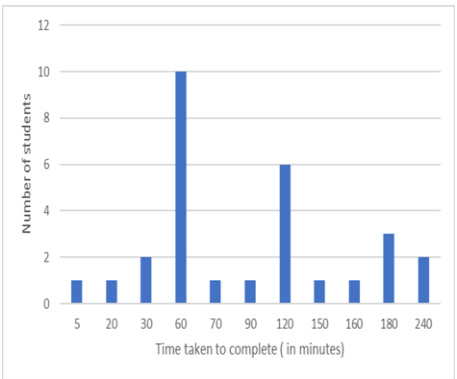
## Usefulness (Likert scale:1-5: 5 being most useful)




## Impact on clinical decisions




## Time taken to complete the assignment




## Limits

It was feasible to implement EPs and provide feedback in this small teaching hospital with a small cohort of students- whether it is applicable in larger teaching hospitals is uncertain.

It was resource intensive to identify and train graders, whether this is a sustainable model is yet to be seen.

## Conclusions

It was feasible to incorporate EPs into the clinical rotations of the UBMS curriculum.

This assignment has helped in assessing students' competency of applying EBM in clinical practice.

Further validation of the assessment is needed, by comparing students' performance in EPs with their performance in other validated assessment tools such as the Fresno, Assessing Competency in EBM (ACE) and OSCE stations.

References

1. Feldstein DA, Mead S, Manwell LB. Feasibility of an evidence-based medicine educational prescription. Med Educ. 2009 Nov;43(11):1105–6.
2. Umscheid CA, Maenner MJ, Mull N, Veesenmeyer AF, Farrar JT, Goldfarb S, et al. Using educational prescriptions to teach medical students evidence-based medicine. Med Teach. 2016 Nov;38(11):1112–7.

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