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MAKING SENSE OF URINALYSIS: USING KOLB'S REFLECTIVE MODEL TO IMPROVE THE KNOWLEDGE, ATTITUDES AND PRACTICE SURROUNDING URINE ANALYSIS AMONGST JUNIOR DOCTORS

*Ogunjimi OB*1, McPartland WJ*2, Walker N3*

1. ST5 Acute medicine Royal Bolton Hospital
2. FY1 Manchester Royal Infirmary
3. Consultant Acute and Stroke Medicine Royal Bolton Hospital

Introduction

Urinalysis and urine dipstick testing is a simple, effective and informative test in the management of many acute and chronic conditions. Studies show that it is sub optimally used, especially by junior doctors who form the bulk of frontline clinicians (Stewart J., et al. 2009). This may be associated with financial implications. The project aim was to improve knowledge, attitude and behaviour surrounding urine analysis by using educational intervention which incorporates Kolb's reflective model (Kolb's 1984).

Method

We assessed current practice with a pilot questionnaire designed to stimulate reflection on practice followed by delivery of power point presentation to help participant re-interpret their experience in the light of the existing urinalysis guideline before retesting their knowledge and behaviour. Our educational interventional design follows Kolb's reflective cycle of experiential learning (Kolb, 1984) (see figure 2). We used the results of our initial responses to improve our teaching material. Participants included are junior doctors at 3 hospitals in the North West region.

Results

Pre-intervention, our results showed that knowledge surrounding infection was good; however, knowledge and behaviour surrounding management of proteinuria and haematuria was poor. Post-intervention results showed improvement in all areas tested and demonstrated that the educational intervention used was an effective means of improving knowledge, attitudes and behaviour surrounding urinalysis (see table 1 and figure1). Our study also identified that documentation of results and knowledge of urinalysis guidelines is poor amongst junior doctors. We designed a result-sticker and a guideline-flow chart with intent to improve documentation and management of abnormal results respectively. This will be launched into clinical practice shortly.

Conclusion

This study has demonstrated the effectiveness of educational intervention in improving clinical knowledge, attitudes and behaviour surrounding urine analysis amongst junior doctors. The study could be extended to nursing staff. It has also highlighted areas for further improvement and offers potential future projects, in particular how this intervention might lead to an improvement in clinical practice. We hope to gather this data soon.