

# Mastery Learning – the key to efficient and sustainable specialist skill development?

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### Introduction

Acute Medical Units (AMU) up and down the country are often highly busy places and frequently more specialised procedural skills rely on senior staff. However, with appropriate education, junior participation in these could reduce the procedural burden of more senior staff as well as providing additional opportunities for learning. Simulation based Mastery learning has been shown to improve both confidence and competence for practical procedures (NHS Health Education for Scotland n.d.).

We aimed to implement a new mastery learning package for all foundation doctors rotating through an AMU to reach the standard of being able to perform a lumbar puncture or ascitic drain insertion under direct supervision.

# Methods

A short post-session questionnaire using a 5-point Likert scale, for facilitators and learners was provided to gain an understanding of the current sessions for learning procedural skills. A new mastery learning package was developed including a key information guide, a short demonstrative video and a procedural checklist. This was introduced and sessions allocated as previously with emphasis that the session should only go ahead if the precourse work has been done. The same post-session questionnaires were used for data collection.

Average Confidence of the Learner

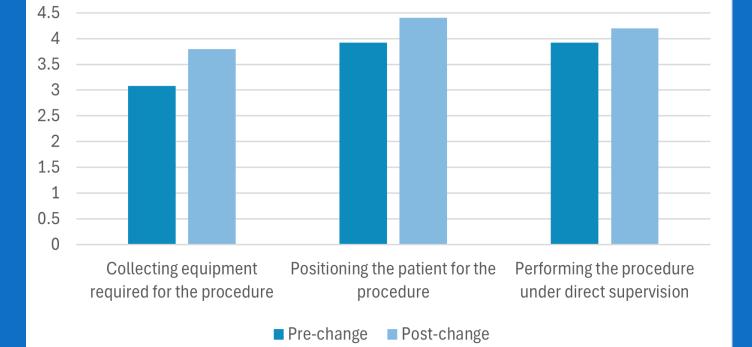
### Results

#### Facilitators:

Facilitators (5/6) reported sessions typically lasted between 60-90mins for 2-3 learners and reported improved sessions when the pre-course work had been completed. With introduction of the new Mastery package, facilitators (3/3) reported all sessions occurring within an hour with 3 learners and indeed even with the addition of a fourth learner the session was still less than 90mins.

#### Learners:

The new mastery packages reflects the premium of time with a reduction in time taken for materials from 90mins to 30mins. Our results to date show an increase in engagement with the pre-coursework (post change all 10 learners reported completing the coursework compared to 10/12 learners prior to the change) as well as an increase in the average learner confidence scores across all domains, despite the shorter pre-course materials.



# Conclusion

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It is our hope that this mastery package will provide an effective way for all foundation doctors to be able to perform their chosen practical skill under direct supervision while reducing senior procedural load.

Further procedural data collection is planned after the establishment of the new mastery sessions to ascertain if the learners from this course are performing the procedures under direct supervision.

#### References:

NHS Health Education for Scotland (n.d.) Mastery Learning TURAS. NHS Health Education for Scotland. Retrieved February 7<sup>th</sup> 2024, from: https://learn.nes.nhs.scot/3719