# Low Skill Fibreoptic Intubation through Classic LMA : Comparison of performance between senior and junior anaesthetists – A pilot study

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## Background:

Fibreoptic intubation (FOI) through a supraglottic airway device (SAD) is part of the Difficult Airway Society (DAS) unanticipated difficult intubation in adults algorithm. The premise is that the SAD acts as a guide for the fibreoptic bronchoscope (FOB) to reach the glottis and thus, a low skill level is required to perform FOI through an SAD. All anaesthetists regardless of experience, should be able to perform this in the event of an unanticipated difficult adult intubation scenario.

Hypothesis: There is no difference between senior and junior anaesthetists in FOI through Classic LMA with both indirect and direct methods

## Method

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Direct method: tracheal tube (TT) is pre-loaded onto a FOB; Indirect method: Aintree Intubation Catheter (AIC) is pre-loaded onto a FOB. In both methods, FOB is passed through SAD into trachea. Direct method: TT rail-roaded over FOB through SAD into trachea. Indirect method: FOB removed, leaving AIC in trachea, TT rail-roaded over AIC into trachea.

4 senior and 4 junior anaesthetists were recruited to participate. The order in which direct and indirect FOI was performed was randomised. It was not practical to blind participants to the method they used. 1 independent person inserted the same size 3 Classic LMA into the same manikin for all attempts to standardise intubating conditions.

Duration of experience, time to visualise carina, and time to intubate were recorded by another independent assessor. We calculated the mean time taken to visualisation of carina and intubation of both groups with both methods and used the two-tailed T test to assess for significant difference between the means at $p < 0.05$

## Results and Discussion

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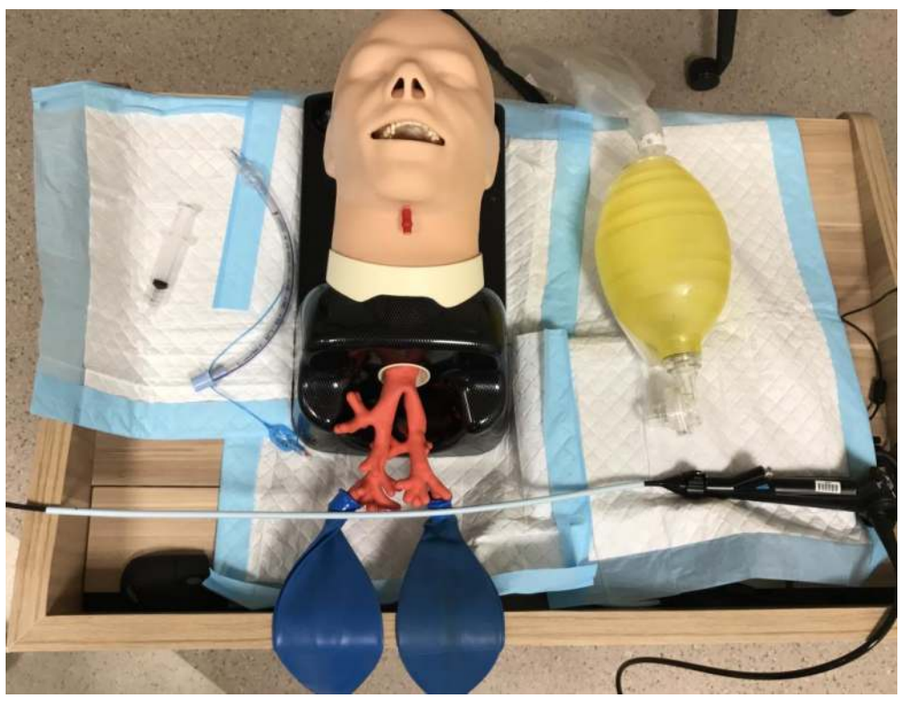
Average duration of anaesthesia experience: seniors = 14.25 yrs, juniors = 7.75 mths. Mean time to view carina (direct): seniors 39.2s juniors 38.8s with p = 0.98. Mean time to view carina (indirect): seniors 23.7s juniors 24.4s with p = 0.92. Mean time to intubate (direct): seniors 64.3s juniors 103.6s, with p = 0.28. Mean time to intubate (indirect): seniors 71.5s juniors 67.5s with p = 0.78.

There was no significant difference in mean time to visualisation of carina and intubation using either method between seniors and juniors.



## Conclusion

Our pilot study seems to suggest FOI through a size 3 Classic LMA is achievable by any anaesthesia practitioner, with no significant difference in time taken regardless of level of experience. The longest time taken to intubate was 160.1s, which is still acceptable to avoid hypoxia had the patient been adequately preoxygenated. A larger study is needed to test this hypothesis.

## Acknowledgement

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