

Are we checking epidural catheter placement effectively?

S. Aziz, J. Howard

Introduction

- Epidurals are commonly used in labour
- Anaesthetists need to be confident epidural catheters are correctly placed to avoid potential harm from intravascular or intrathecal injection
- Methods to check position include:
 - Pharmacological tests e.g. test dose
 - Non-pharmacological e.g. meniscus test and catheter aspiration
- Recommended method to perform non-pharmacological tests:
 - Aspiration:
 - Pull back syringe plunger 2-3ml
 - Meniscus test:
 - Step 1 – raise catheter tip 30cm above insertion point and look for dropping meniscus
 - Step 2 – lower catheter tip 30cm below insertion point and look for meniscus moving and catheter filling with clear fluid, not blood

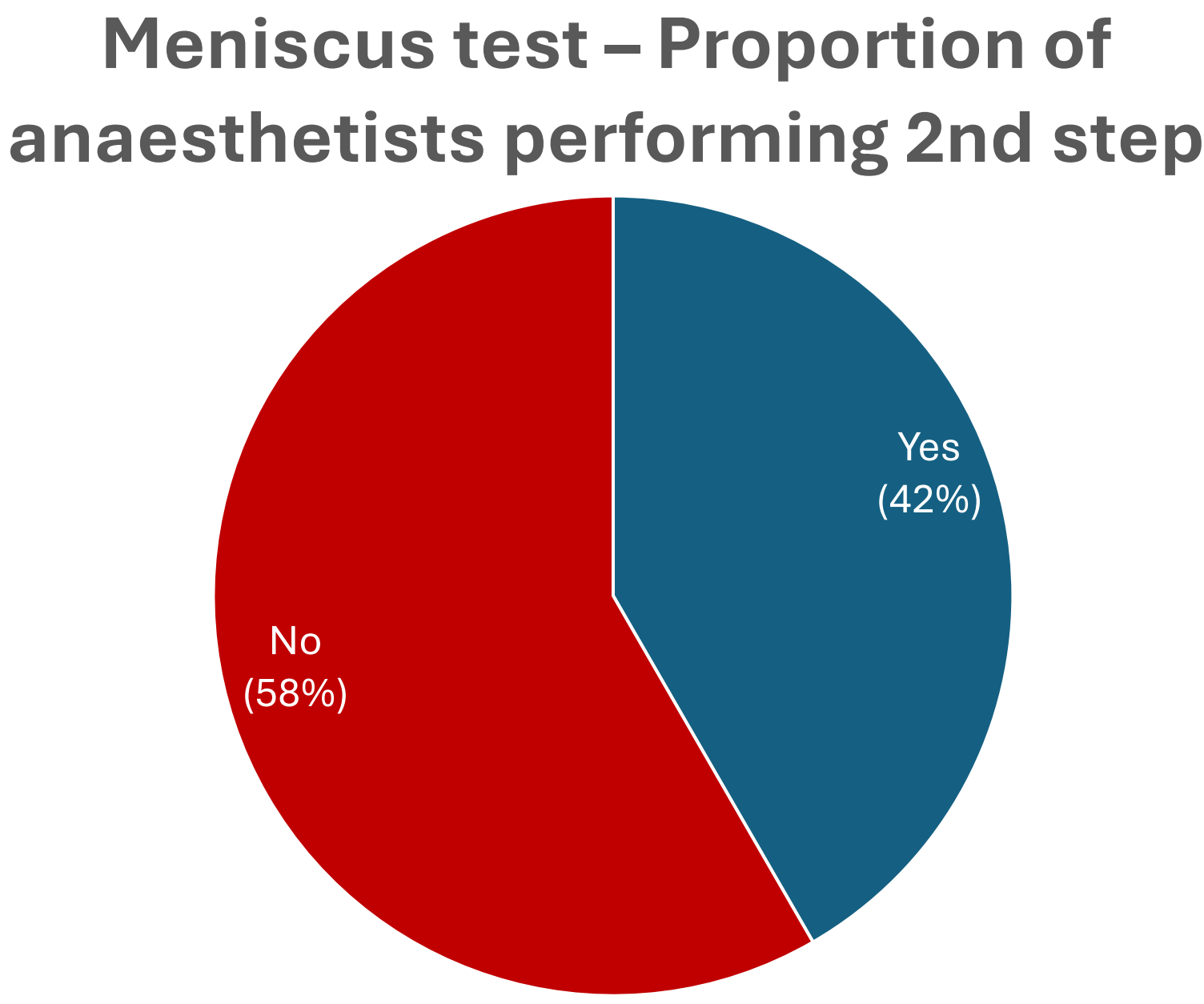
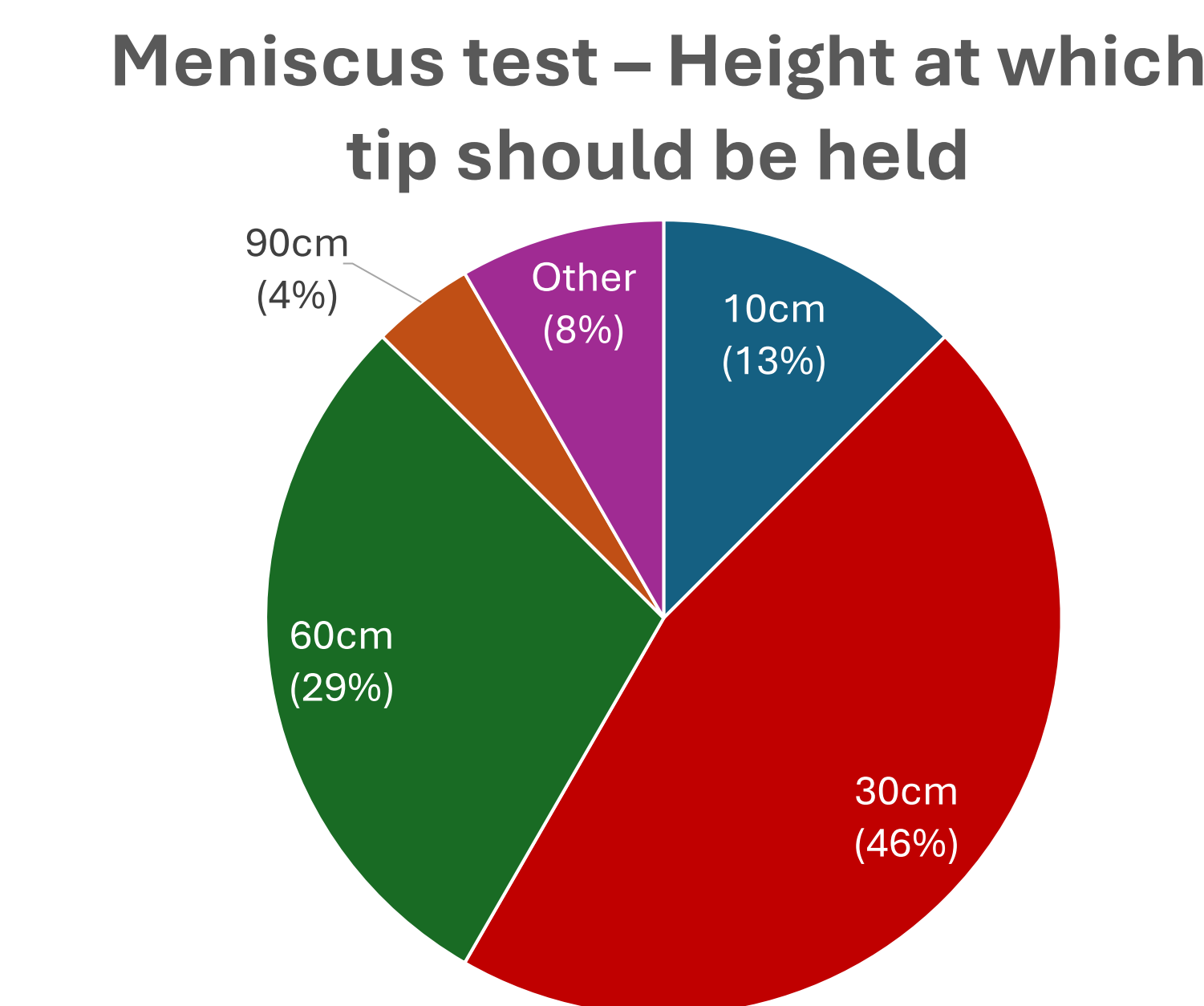
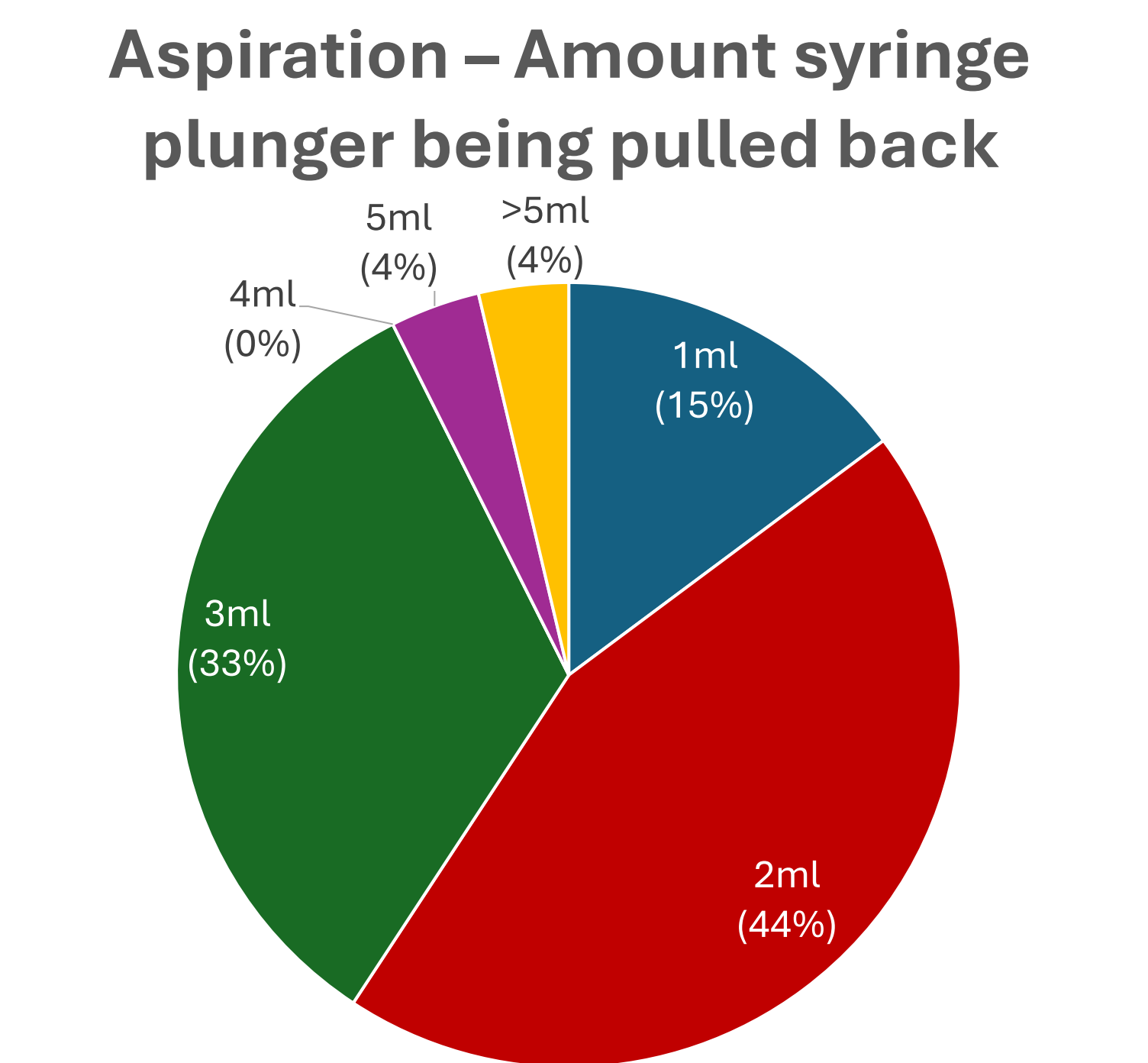
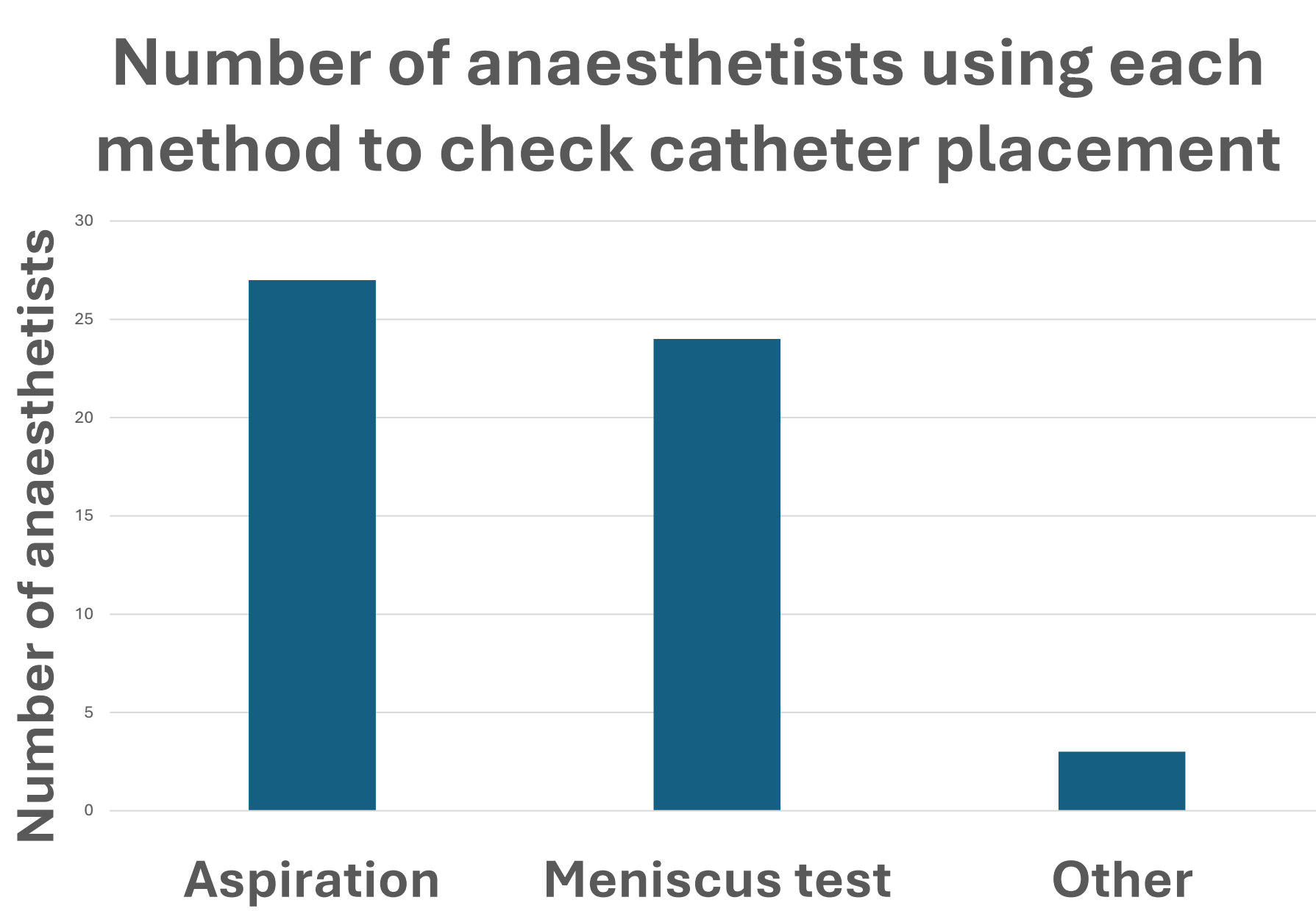
Aim

- To determine how many anaesthetists are using non-pharmacological methods to check epidural catheter placement and if they are being used appropriately

Method

- Electronic survey sent to all anaesthetists at East Surrey Hospital
- Questions included asking which methods they used to check epidural catheter placement and how they performed these methods

Results



References
1. Bell DN, Leslie K. Detecon of intravascular epidural catheter placement: a review. AnaesthIntensive Care. 2007 Jun;35(3):335-41.
2. TrojanowskiA, Murray WB. A test to prevent subarachnoid and intravascular injecons during epidural analgesia. S AfrMed J. 1995 Jun;85(6):531-4

Results

- 100% use at least 1 non-pharmacological test
- Aspiration:
 - Used by 93%
 - 77% pull syringe back to 2 or 3ml
- Meniscus test:
 - Used by 85%
 - 41% identified 30cm as height to hold tip
 - 42% perform the second step

Discussion

- Confirming epidural catheters are correctly placed is essential to ensure patient safety
- It is vital that methods used to check catheter placement are performed correctly.
- The survey confirmed all respondents were using at least 1 non-pharmacological method
- Whilst the majority use aspiration correctly, less then half are able to correctly identify the height to hold the catheter for the meniscus test or performed the 2nd part of the test
- This variability means the test is not being performed consistently between clinicians
- To address this, the results of this survey along with the recommended method to perform the meniscus test were presented at a local clinical governance meeting.