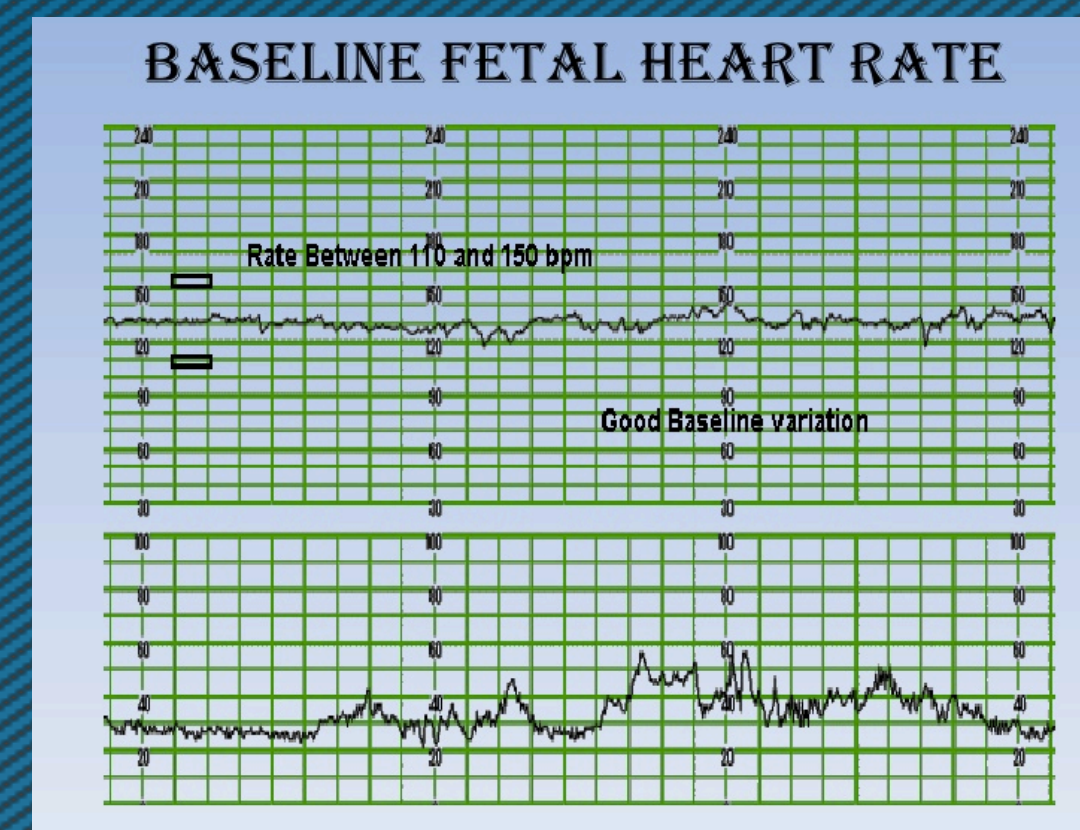
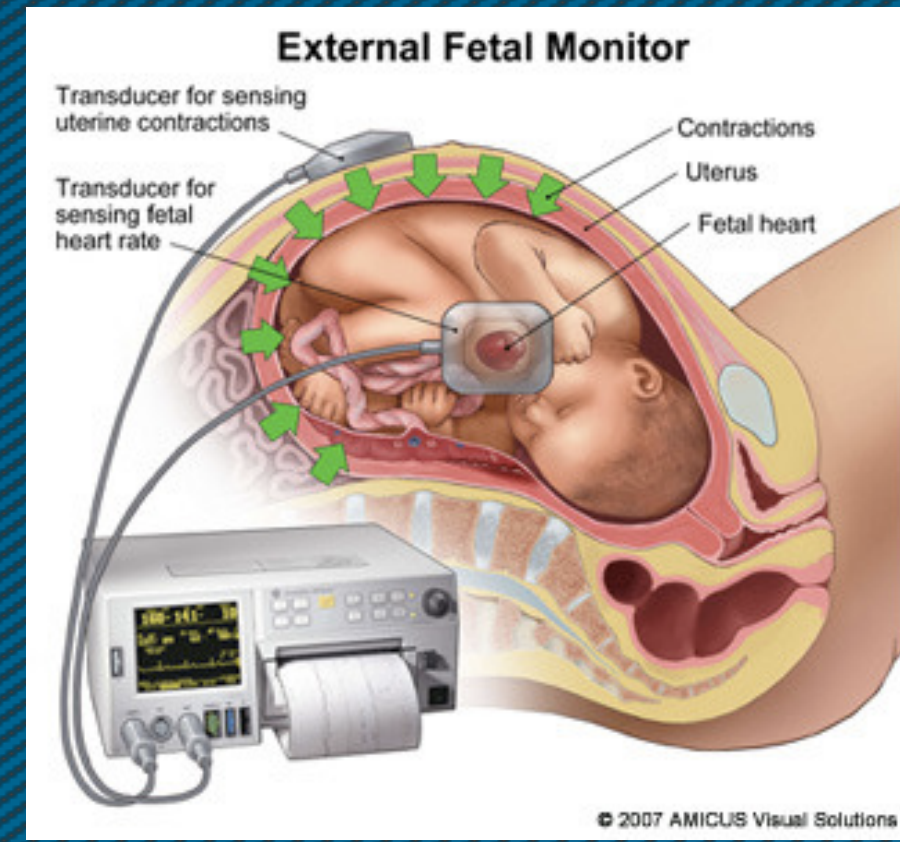


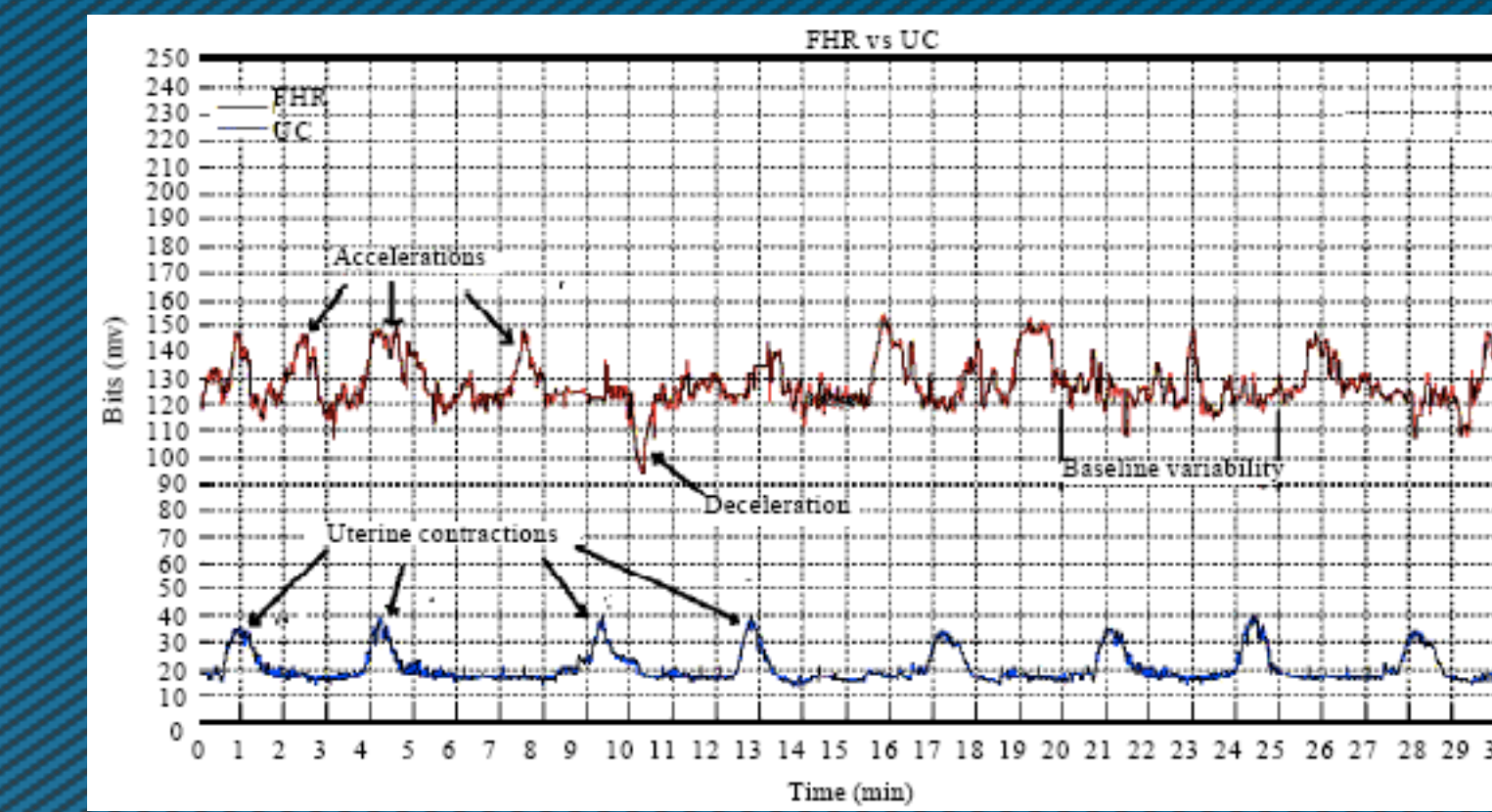
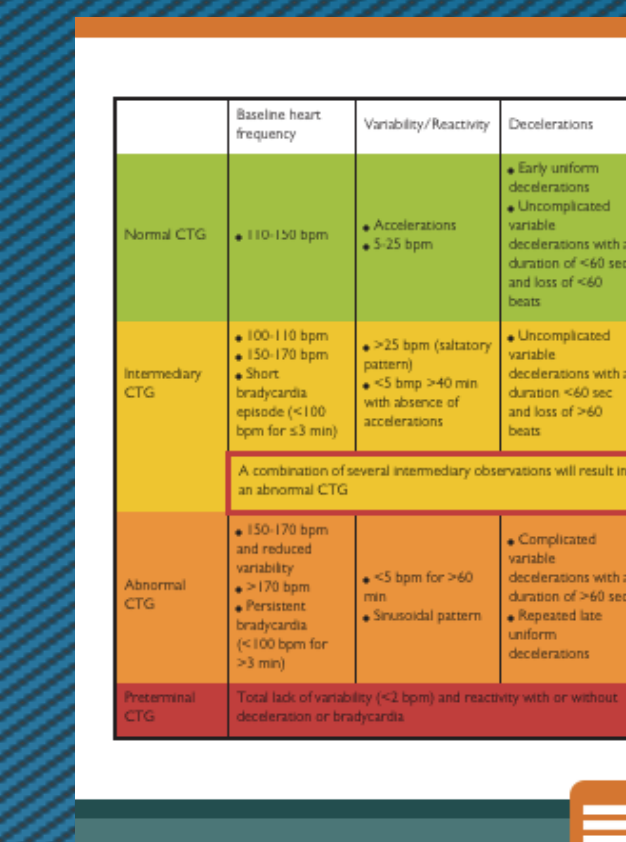
# Survey of CTG interpretation and training amongst obstetric anaesthetists

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**INTRODUCTION:** A cardiotocograph (CTG) records fetal heart rate (FHR) either measured from a transducer on the abdomen or a probe on the fetal scalp. Possible effects of regional blockade during labour on the fetus which can be detected by CTG have been described. It is essential that anaesthetists have adequate knowledge of intrapartum fetal assessment in order to comply with the Royal College of Anaesthetists guidance on competency -based training requirements. There is currently no standardised CTG training module or methodology available for anaesthetists. This survey aimed to explore the level of knowledge and to quantify the extent of CTG training amongst OAA members.



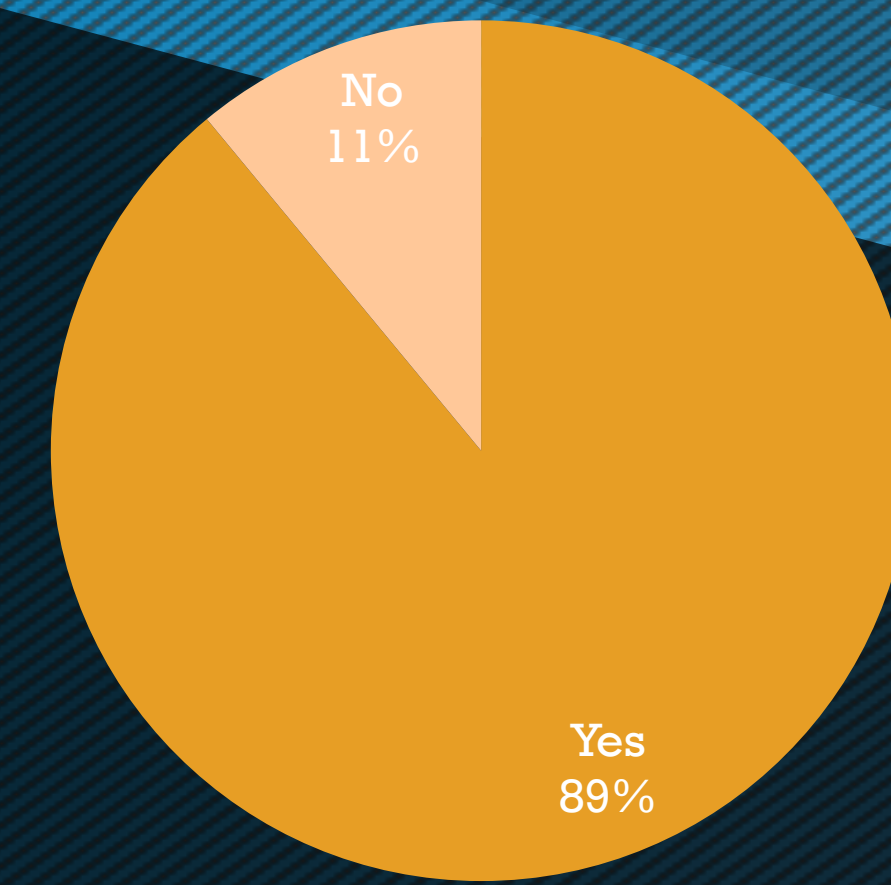
INTERPRETATION OF FEATURES OF CTG				
Features	Baseline rate (Beats/min) Baseline Rate	Variability Baseline variability	Deceleration Decelerations	Acceleration Accelerations
Reassuring	110-160	Over 5	None	Present
Non-reassuring	100-109 161-180	Under 5 for 40-90 min	Early Typical variable	Absence of unknown significance
Abnormal	Under 100 Over 180	Under 5 for over 90 min	Late Atypical variable	Absence of unknown significance



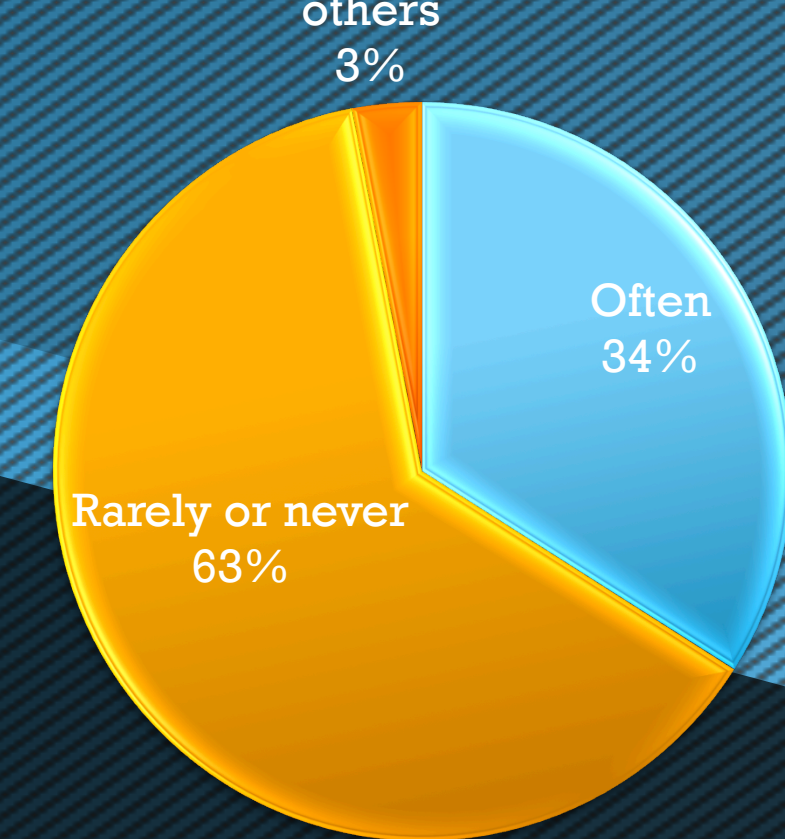
**METHODS:** We conducted an OAA approved, national survey, sent electronically to 1722 OAA members. Questions examined how confident respondents were in interpreting CTG, whether they had seen regional block affecting CTG in their clinical practice, and what training, if any, in analysing CTGs they had received. Respondents were also asked to give feedback on which training modalities might best address any deficits in knowledge

**RESULTS:** 692 responses were received (40.2% response rate). The majority of respondents were consultants (74.8%).

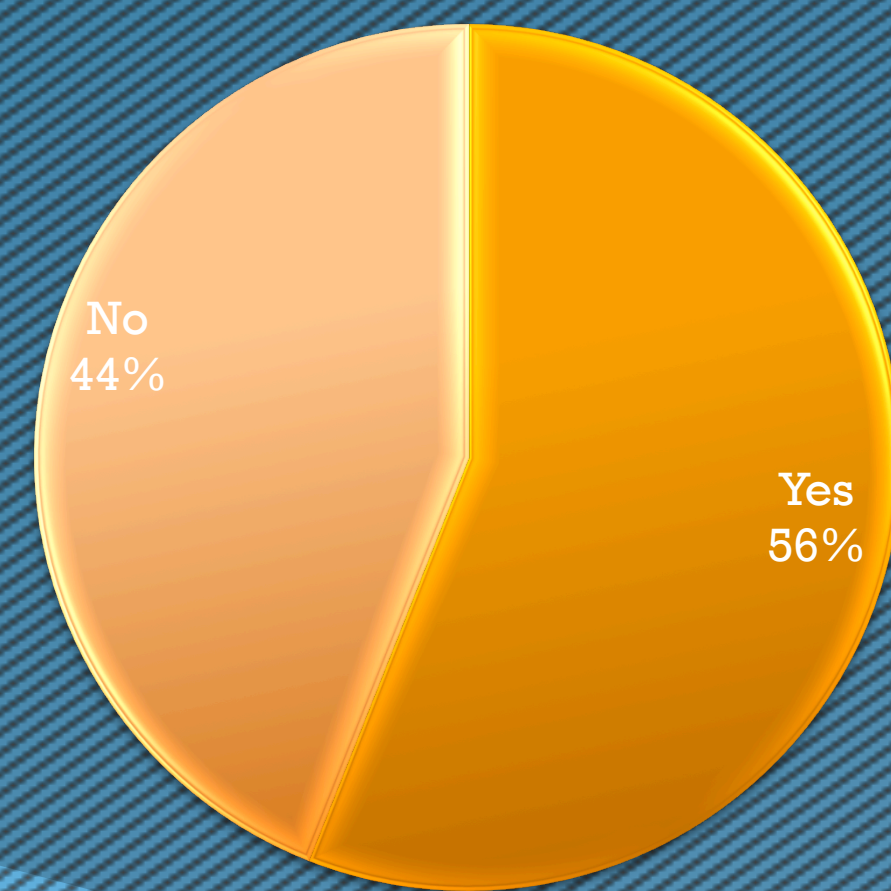
**Do you think Obstetric Anaesthetists should have basic knowledge of CTG**



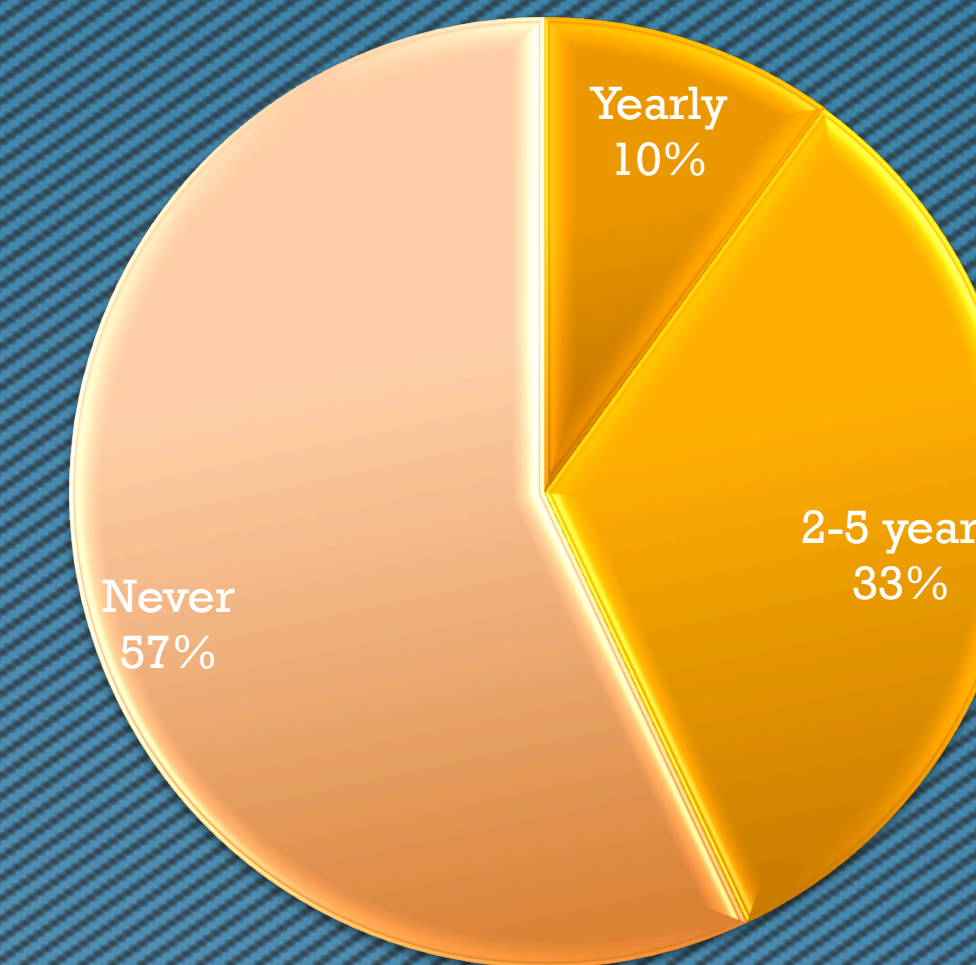
**Have you seen the impact of haemodynamic parameter changes during regional blockade on CTG?**



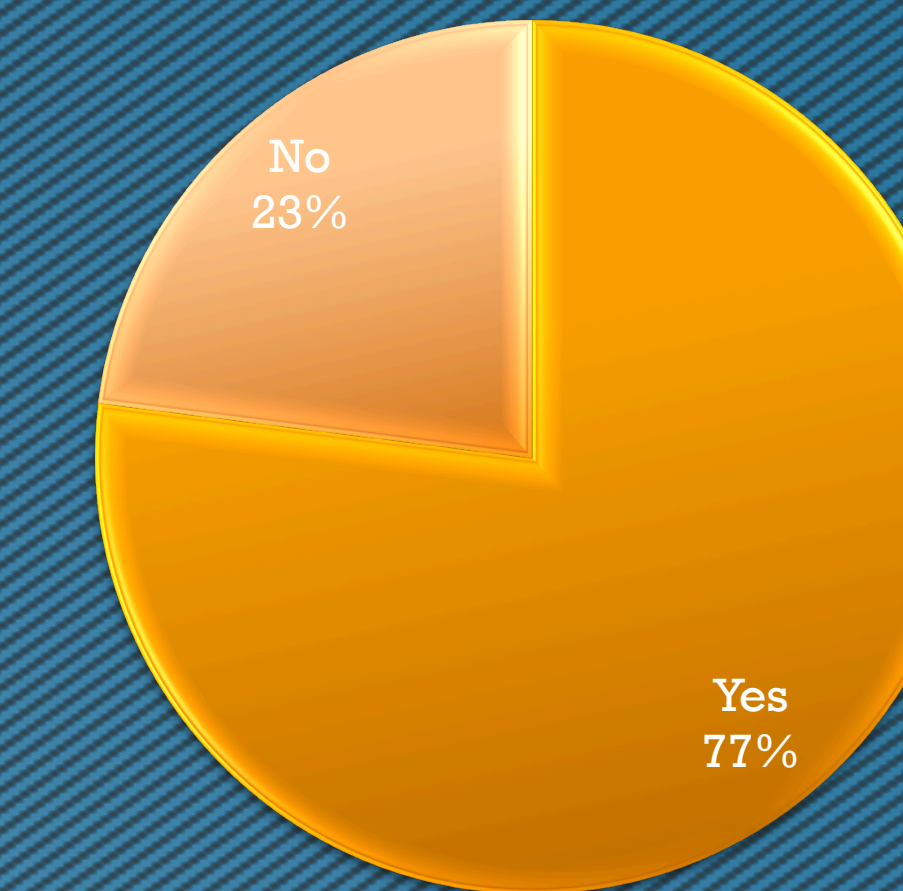
**Have you had a training session on CTG interpretation**



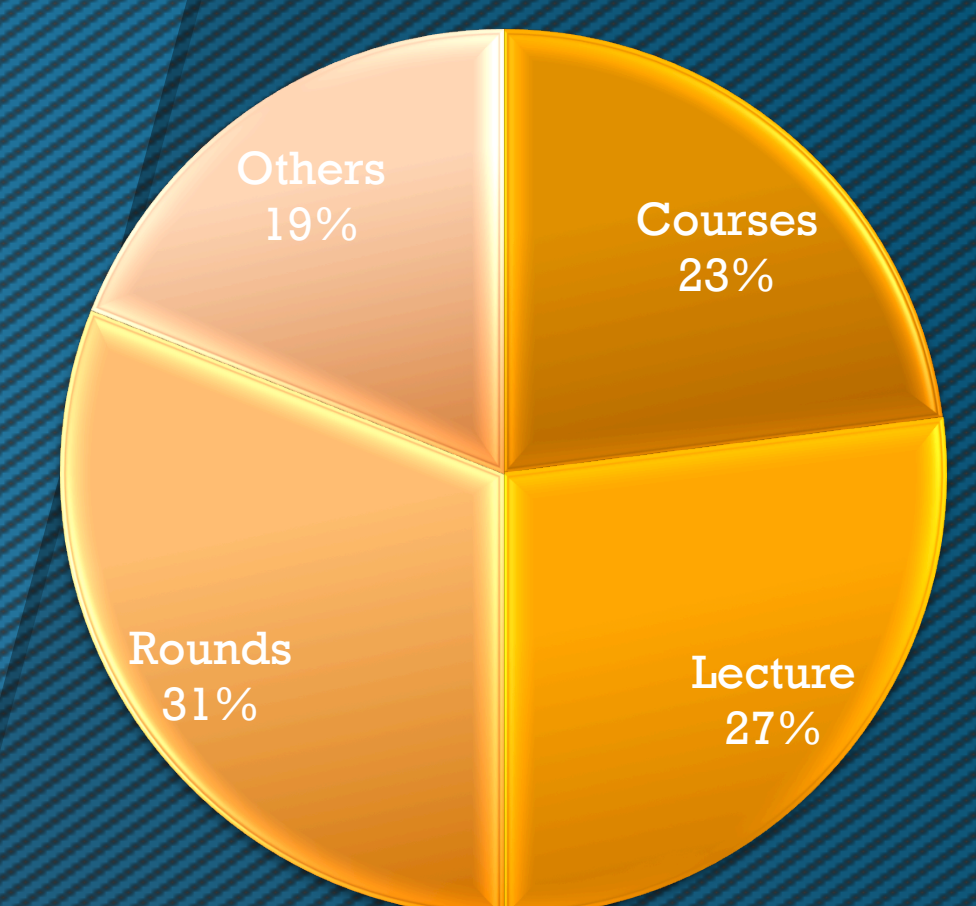
**How frequently do you update your CTG training**



**Of those not trained: How many would like to receive CTG training?**



**Preferred Method of teaching**



**DISCUSSION:** Most anaesthetists commented that basic knowledge of CTG is essential to allow an understanding of urgency of caesarean sections, crisis management, prioritisation of workload and aid communication between labour ward teams. While obstetricians always maintain the primary responsibility for making clinical decisions based on CTG abnormalities in obstetric emergencies, it is essential that we understand the obstetric context of our anaesthetic practice. Our survey respondents suggested an OAA approved e-learning module would be an innovative learning tool but the value of integrated learning with obstetricians and midwives during clinical work on the delivery suite cannot be underestimated. As the role of anaesthetists expands into the realms of perioperative medicine, obstetrics cannot lag too far behind.

1. Abrao KC, Francisco RPV, Miyadahira S, et al. Elevation of uterine basal tone and fetal heart rate abnormalities after labor analgesia: a randomized controlled trial. *Obstet Gynecol* 2009;113: 41 -7.  
2. Royal College of Anaesthetists. Curriculum for a CCT in Anaesthetics. OB\_BK\_04: Recalls/describes how to assess fetal well being in utero. CCT in anaesthetics 2010. Edition 2. Version 1.6. pg .B-52.