## Intermittent Auscultation in Obstetrics Practice in Tertiary Health Facilities in Nigeria: Are we doing it correctly?

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Background: Intermittent auscultation (IA) is defined as the technique of listening to the fetal heart rate (FHR) for short periods of time without a display of the resulting pattern. It is performed with the aid of hand-held doppler ultrasound devices, e.g. sonicaid, cardiotocography(CTG), and a Pinard fetal stethoscope. Intermittent auscultation (IA) was the main method of fetal monitoring in Nigeria, with the pinard stethoscope more in use than the hand-held doppler. Accurately performed IA was an indispensable aspect of care which should reduce perinatal morbidity and mortality.

**Purpose**: To produce a standard protocol for IA in obstetric care and to ascertain how correct that it was performed.

Methods: It is mixed-method design (observational-descriptive, review and an audit). It was carried out at the Rivers State University Teaching Hospital and University of Port Harcourt Teaching Hospital. The WHO 2018, FIGO 2015 and other guidelines on IA were reviewed. Good practice points were extracted from the literatures and used to produce a guideline. 17 review criteria for the audit were chosen from the protocol and used to test the 150 Doctors, Midwives and Nurses that work in the maternity units of 2 tertiary health facilities in Rivers State. Simple proportions were used in the descriptive analysis.

**Results:** All the participants answered questions 1 a, b and c correctly. 121 (80.67%) out of the 150 participants answered the second question correctly while 28(18.67%) of them did not know that they have to ask about fetal movements 24 hours prior to auscultation (Figure 1). Only 17(11.33%) of the obstetric Practitioners answered all the options for question 3 correctly – need to know the lie, position and presentation of the presenting part for accurate auscultation. 40(26.67%) ticked only lie, 34(22.67%) chose only presentation while 3(2%) chose only position. 34 (22.67%) of the participants answered question 4 (the best place on maternal abdomen to listen to the fetal heart correctly while 38 (25.33%) ticked "a" and another 38 (25.33%) chose "c" both of which were correct answers.

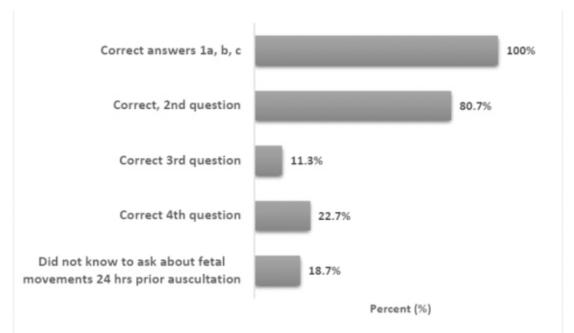


Figure 1. Knowledge of Intermittent Auscultation

**Discussion:** This study shows visible variations amongst medical staff in the performance of intermittent auscultation of fetal heart in the antenatal clinic, ward and the labour ward. Twenty eight (18.67%) out of the 150 Obstetric Practitioners did not know that they had to assess foetal wellbeing by asking a question about foetal movements 24 hours prior to auscultation. Only 17 participants (11.11%) knew the complete answer on the prerequisites (on physical examination) for correct auscultation. Although predicted, the achieved result was far worse than expected.

**Conclusions:** The performance of IA by obstetric practitioners was poor and that may account for some of the wrong management plan in the antenatal and intrapartum periods. Yearly training in IA was therefore recommended.

**Key Words:** Intermittent auscultation, Obstetric practice, Tertiary care

Disclosure: None