

NMA/AGSM/2022/OBGYN/003 - Haemoglobin Genotype Patterns of Booked Mothers in a Tertiary Hospital in South-South Nigeria

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Abstract

Background: Haemoglobin, the protein that transports oxygen in the blood, is inherited in a Mendelian fashion. Mutation, deletion, insertion or point substitution in the gene sequence code leads to variants in human haemoglobin. Clinically these variants manifest in a range of ways, for the expectant mother, from asymptomatic carrier state to life-threatening, debilitating effects that affect either or both mother and foetus. The study sought to determine the haemoglobin genotype patterns of expectant women at booking in Rivers State University Teaching Hospital (RSUTH).

Methods: A retrospective study of antenatal clinic attendees at RSUTH between 1st January 2015 and 31st December 2020. A total of 9,990 pregnant women registered for antenatal care over the study period. Laboratory tests were carried out on all women at booking. The laboratory records were retrieved and reviewed for the haemoglobin patterns. The data were coded and analysed using IBM SPSS version 23.0 (Armonk, NY).

Results: A total number of 9,990 women registered for antenatal care during the study period. Over 60% (6234) of the women were aged 30 – 39 years. Modal parity was Para 0. The majority of the women had a tertiary level of education. More than 77% (7,779) were AA, 2,166 (21.7%) were AS, 37 (0.4%) were SS, 5 (0.1%) were SC and 3 (0.03%) were AC.

Conclusion: The majority of the women had normal adult haemoglobin patterns. Less than a quarter of the women had sickle cell trait. Haemoglobin SC and AC variants were uncommon among the women.

Keywords: Haemoglobin Variants; Antenatal Attendees; Booking; RSUTH.

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