College of Allied Health & Nursing

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Haemoglobin Profiles Of Students Participating In The Northern Caribbean University Routine Medical Examinations, Fall Semester 2009. Fabian Pitkin

Haemoglobin estimation is one of the most frequently investigated laboratory tests as it is the primary predictor of anaemia. Anaemia is a public health problem in places all around the world as it is known to adversely impact energy levels. Aims and objectives of this study were to evaluate the prevalence of anaemia based on haemoglobin measurement among Northern Caribbean University students who participated in routine medical examinations 2009-2011. Method: Two hundred and seventy two cases were included in a convenience sampling. Samples with haemolysis and female who were menstruating were excluded from the study. Blood was collected in the standard EDTA purple top tubes. Samples were thoroughly mixed and haemoglobin estimation was done using the HemoQue Haemoglobin System. Commercial controls were run with each batch. Results: Commercial controls results showed 1.1559 % coefficient of variation. Mean age and haemoglobin concentration of all students were 23.011 ± 2.919 years (range 17-36), and 13.209 ± 1.356 g/dl (range 7.6 - 19.7), respectively. Anaemia prevalence was lower in males than females (13.8%; n = 123 vs 18.7%; n = 159respectively, p<0.05). Conclusions: At Northern Caribbean University emphasis is placed on quality nutrition, a likely factor in stemming the prevalence of the more common dietary related anaemias. More laboratory evaluations will be needed to determine the specific cause of anaemia in the student population whose haemoglobin falls below the WHO age and gender specific cut off points.