

**DETERMINATION OF ERRORS THAT COMPROMISE THE QUALITY  
OF CLINICAL CHEMISTRY LABORATORY SERVICE DELIVERY AT  
KENYATTA NATIONAL HOSPITAL**

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## ABSTRACT

The study established the level of pre-analytical, analytical, and post analytical errors found in the analysis of Clinical Chemistry Laboratory specimen at Kenyatta National Hospital, Kenya. This study adopted a descriptive survey design as the main approach and targeted 346 sampled specimens and request forms received. All the laboratory request forms, specimens/samples and dispatch of results were scrutinized and errors documented as per the different variables in the different phases, over a period of three months in the Clinical Chemistry Laboratory. The study aimed at establishing the levels of laboratory errors in all the phases. Results of the study showed that Preanalytical errors were most common with a frequency of 148(42.8%), statistically significant ( $P < 0.0001$ ), followed by analytical errors 114 (32.9%), statistically significant difference (Chi-square, 155.5; df, 1;  $P < 0.0001$ ), and post analytical errors 84 (24.3%), There was a statistically significant difference (Chi-square, 198.4; df, 1;  $P < 0.0001$ ) . Preanalytical errors found included request forms lacking address, tests not done in clinical chemistry laboratory, specimen drawn in wrong tube and specimen without request forms , while analytical errors found include reagent out of stock , inadequate sample during test runs , haemolyzed samples and double registration of specimen, and lastly is the post analytical errors found the following uncollected results, critical values not communicated results lost and unreviewed results. Clinical Laboratory error reduction, prevention and high quality laboratory service delivery requires team work, involving collaboration, coordination and effective communication among all health care workers. The study concludes that the development and adherence to standard operating procedures will minimize this errors, forecasting of reagents and critical results to be communicated immediately to the respective clinics or ward Team leaders for prompt action, the study also recommends that there is need for routine, schedule Clinical laboratory audits and implementation of Laboratory information system towards quality laboratory service delivery.