

Overview of Pre-Analytical Lab Errors in a Tertiary Care Hospital at Rawalpindi, Pakistan

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Abstract : Objective: To determine the frequency of pre-analytical errors in samples taken from patients for various lab tests at Fauji Foundation Hospital, Rawalpindi. Material and Methods: All the lab specimens for diagnostic purposes received at the lab from Fauji Foundation hospital, Rawalpindi indoor and outdoor patients were included. Total number of samples received in the lab is recorded in the computerized program made for the hospital. All the errors observed for pre-analytical process including patient identification, sampling techniques, test collection procedures, specimen transport/processing and storage were recorded in the log book kept for the purpose. Results: A total of 476616 specimens were received in the lab during the period of study including 237931 and 238685 from outdoor and indoor patients respectively. Forty-one percent of the samples (n=197976) revealed pre-analytical discrepancies. The discrepancies included Hemolyzed samples (34.8%), Clotted blood (27.8%), Incorrect samples (17.4%), Unlabeled samples (8.9%), Insufficient specimens (3.9%), Request forms without authorized signature (2.9%), Empty containers (3.9%) and tube breakage during centrifugation (0.8%). Most of these pre-analytical discrepancies were observed in samples received from the wards revealing that inappropriate sample collection by the medical staff of the ward, as most of the outdoor samples are collected by the lab staff who are properly trained for sample collection. Conclusion: It is mandatory to educate phlebotomists and paramedical staff particularly performing duties in the wards regarding timing and techniques of sampling/appropriate container to use/early delivery of the samples to the lab to reduce pre-analytical errors.

Keywords : pre analytical lab errors, tertiary care hospital, hemolyzed, paramedical staff

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