

EXCECUTIVE SUMMARY

Improving efficiency in a laboratory service should be a priority which ensures quality results. The aim of this research project was to improve the sample management system of sample receiving counter at Medical Research Institute which is the national reference laboratory in Sri Lanka. The study was an institution based interventional project. The Mixed method was used including direct observations, document reviews, performance check list to identify the gaps in the existing process and practices. Satisfaction survey was conducted among Medical Laboratory Technologists for the aspects of management support given, availability of facilities to perform the duties, training they receive for skill upgrade, overall procedure of sample handling and issuing of test reports. Incidences of temporarily misplacement of samples and request forms, inadequate performance in documentation activities, poor rejection monitoring made at the sample receipt, unorganized counter procedure and long time taken to handle the samples were the gaps identified during pre intervention period. Modifications were introduced to the existing sample handling process and capacity building training was conducted for Medical Laboratory Technologists as interventions. The results indicated that the incidences reporting of temporarily missing of samples and request forms have been significantly reduced at the confidence level of 95% at the post intervention ($p < 0.05$). Documentation activities and rejections made at receipt was significantly improved after the intervention ($p < 0.05$). Staff satisfaction on training they received and the way of report issuing was significantly improved after the intervention ($p < 0.05$) except management support given, facility available and the overall procedure of sample handling. The study recommends modifying the counter layout with adequate expansion. It also recognized the significant of implementing

Laboratory Information Management System with Standard Operational Procedure to whole laboratory operation.

Key words: Laboratory system, Sample management, LIMS, SOP