A STUDY ON LABORATORY SERVICES THROUGH PROCESS MAPPING IN SUPERSPECIALITY HOSPITAL

PRESENTED BY : **Dr. KANIKA SHARMA**
(Roll no 0432) MBA HM 21
GUIDED BY Dr. GOUTAM SADHU

INTRODUCTION

- Clinical laboratory is a basic source of healthcare data
- It is one of the most under-utilized resources not used efficiently in health care delivery system.
- Modern laboratories face significant challenges in terms of appropriate Timing and collection of sample, Identification of samples, fast delivery to the laboratory while ensuring appropriate reporting of results with interpretation and easy access from the patient medical record.

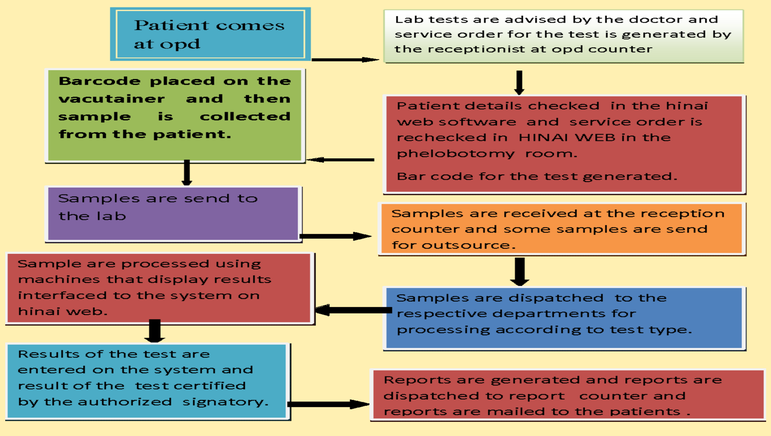
OBJECTIVE

1. To study the current process flow of laboratory services
2. To identify the errors of laboratory services.
3. To provide Suggestions for the improvement.

RESEARCH METHODOLOGY

Study Design : Descriptive study
Study Area : Laboratory of SMVDNH hospital
Study Population: Patients referred for laboratory investigations from OPD,IPD, Emergency department.
Duration of study:1 Month
Type of Data: Quantitative
Study Technique: A Prospective study done tracking the process flow starting from first stage of sample collection till report certification and report dispatch.
Mode of Data Collection : Observation
Sample size: 290 samples
Sampling technique: Purposive sampling technique

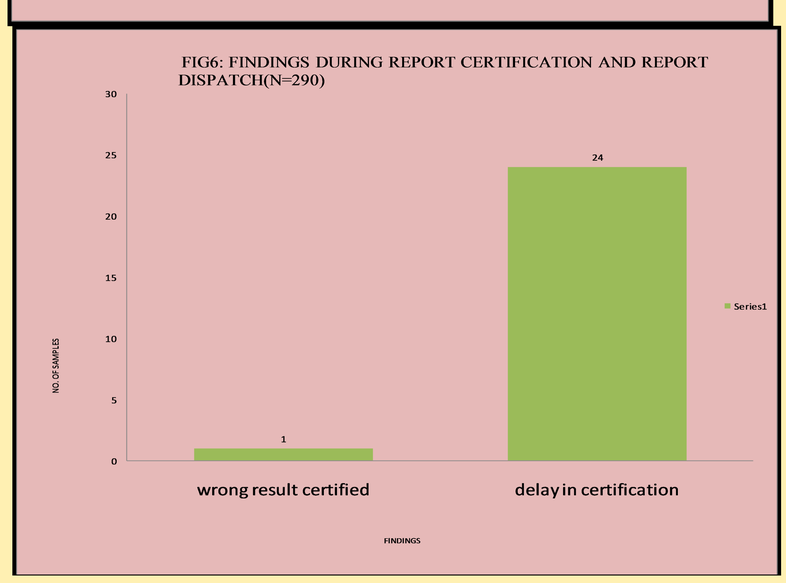
IDEAL PROCESS FLOW AT OPD

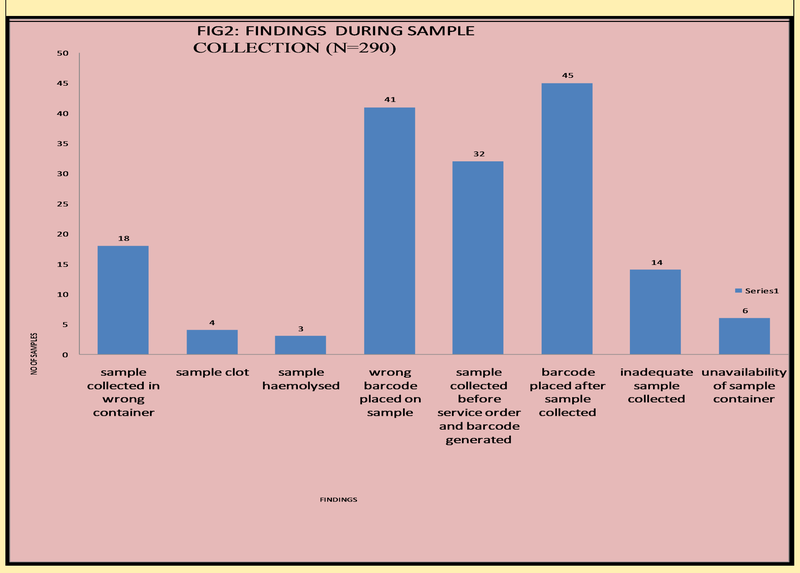


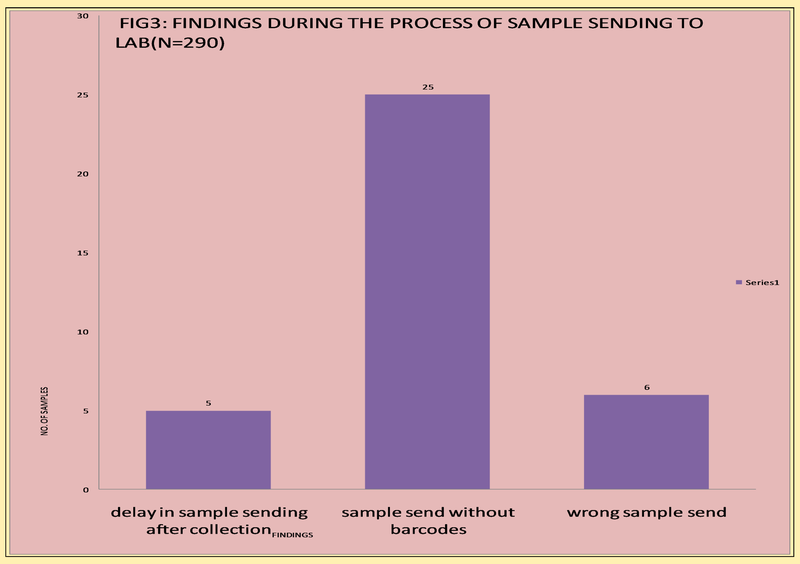
FINDINGS AND DATA ANALYSIS

MAJOR FINDINGS OF THE STUDY

- Out of the 290 samples taken for the study it has been seen that56% samples are detected with sample collection errors and rest stages of process flow like sample send , sample receiving process accounts for almost equal percentage of errors.
- From the study of 290 samples 45 samples are seen in which ideal sequence of process flow is not followed during sample collection and barcode is placed on the sample after the sample collection. This can have serious implications like wrong barcode placement on sample leading to non identification of patient MRN by machine and wrong performance of test 18 samples are seen in which sample is collected in wrong container.
- Out of 290 samples ,38 samples were reported with receiving errors which is mainly contributed by delay in sample receiving detected in 20 samples it can lead to wrong test results due to delay in sample processing leading to false hematology results.

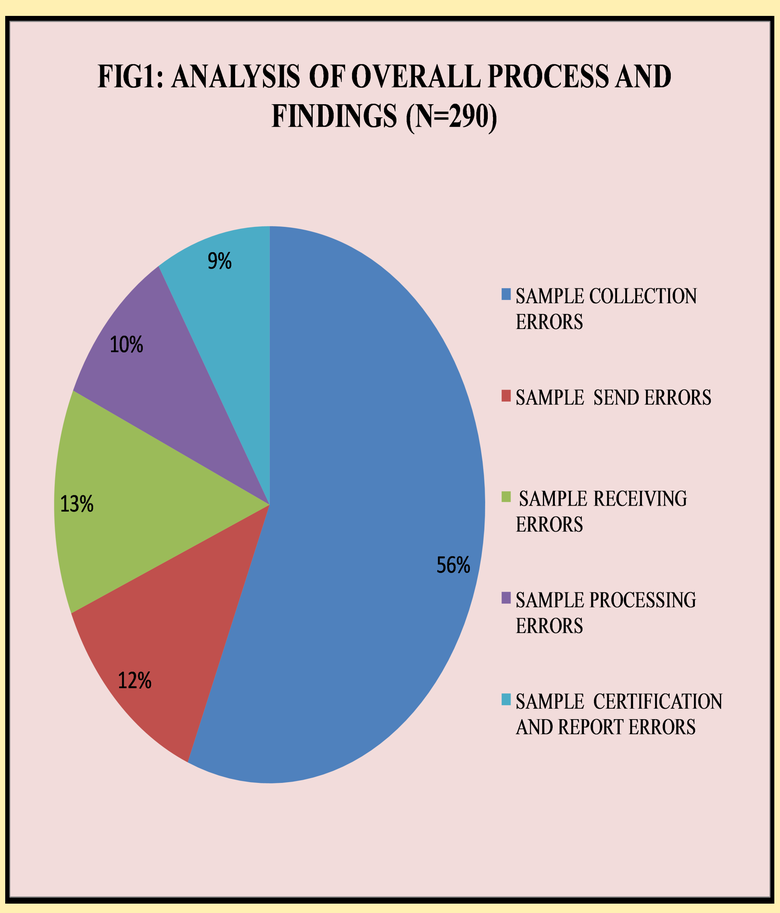


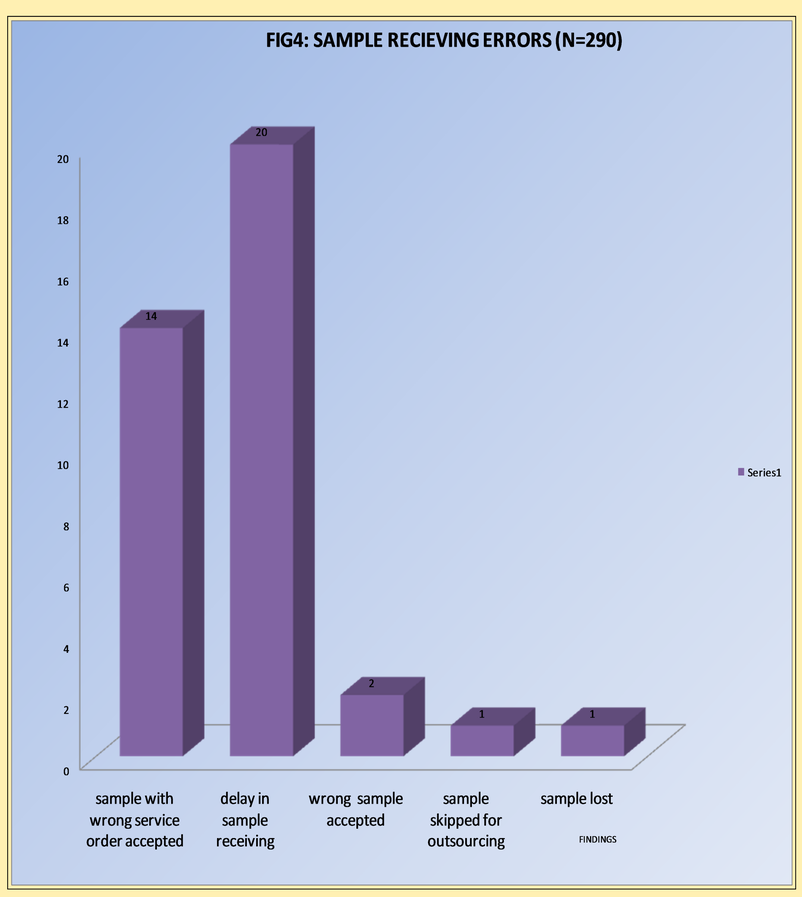




CONCLUSION:

More than 56%error were seen at the time of sample collection due to lack of training and knowledge of involved personnel. There is scope for further improvement in this area by providing relevant training of the involved personnel and updating their knowledge on more frequent basis. However by providing effective communication between the doctor, lab technician and nurses various frequent errors like ordering and performing wrong test can be prevented..As modern lab of today is constantly evolving there is addition of new investigations which are not familiar to today doctors and lab staff so consistent updating of knowledge along with effective communication between the involved personnel can improve the further condition and can prevent occurrence of common errors





SUGGESTIONS

1 Timely training and education of nursing and lab technicians for following ideal sequence for making and doing lab investigations, educations about proper placement of sample in right sample container and correct barcode placement for proper tracking of sample.
2 Proper monitoring of stock of vacutainer.
3 Proper monitoring of LIS system by lab coordinator for checking pending and interfaced cases to prevent report delay.
4 Proper monitoring , calibration and maintenance of equipments
5 Deploy trained staff for making and ordering tests on the LIS
6 Effective communication should be there between the doctors, nurses, lab technicians and housekeeping in order to guide each other in making right tests at the right time.
7 A Committee of 5 members consisting of nursing superintendent manager operations, lab coordinator, HOD of lab ,house keeping supervisor should be made for discussing the issues and making improvements. They can discuss important issues like TAT management for lab test ,preventing report delay and briefing of policies and SOP on frequent basis to staff.

REFERENCES

1 (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4355825)
2 (http://www.medscape.com/viewarticle/521336_2)