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## INTRODUCTION

- Preanalytical errors contribute to about 70% of all the mistakes in diagnostic laboratory. (Plebani, 2012)
- Stringent rejection criteria are therefore necessary as pre-analytical error may significantly affect patient's safety and care.
- This subject is of main concern in a newly established pathology laboratory of a new hospital.

## OBJECTIVE

- The aim of this study was to determine the rate, type, cause and time of sample rejections at our laboratory since its operation in October 2016.

## METHODS

- All samples received at the common specimen receiving counter, Department of Pathology and Laboratory Medicine, IIUMMC were included. The records of sample rejection were retrieved from the Laboratory Information System and analysed.

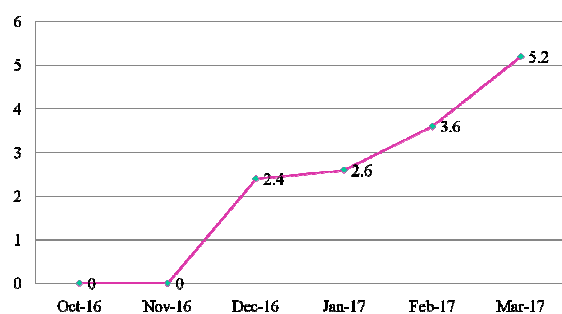
## RESULTS

- A total number of 1419 samples were received from October 2016 to March 2017, with 54 rejections (3.8%).
- The rate of sample rejection showed an upward trend each month (0%, 0%, 2.4%, 2.6%, 3.6% and 5.18% respectively from October 2016 to March 2017).

**Table 1: Number of Samples Received and Rejected**

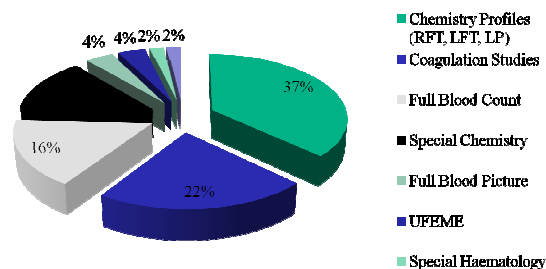
Month	Number of Sample Received	Number of Sample Rejected
Oct-16	15	0
Nov-16	44	0
Dec-16	125	3
Jan-17	266	7
Feb-17	390	14

**Figure 1: Rate of Sample Rejection**

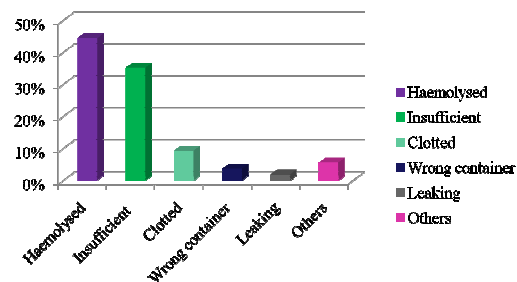


## RESULTS

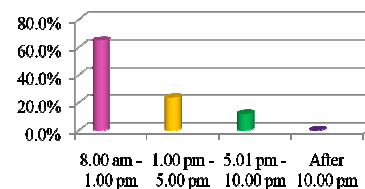
**Figure 2: Type of Sample Rejected**



**Figure 3: Causes of Sample Rejection**



**Figure 4: Time of Sample Rejection**



## DISCUSSION

- Haemolyzed and insufficient samples are among the most common causes of sample rejection in this study which is in line with other reported study (Atay 2014; Gimenez-Marin et al., 2014; Najat, 2017).
- Although sample rejection rate at IIUMMC (3.8%) is still far from the national target of 0.83%, the rate is rather low as compared to the other reported data (Dickmen et al, 2015; Najat, 2017)
- The increasing trend of rejection rate could be due to the increasing number of new inexperience staff combined with unfamiliarity with new hospital setting.
- This is one of the challenges faced by any new hospital.

## CONCLUSION

The increasing rejection rate in our newly established Pathology Laboratory warrants further investigation and improvement on proper sample collection and handling.

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