“The value of adhering to turnaround times in the Bacteriology and Zoonotic Diseases Laboratories at Onderstepoort. An assessment over 2 years”.

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Introduction

- Turnaround time (TAT) is the total time taken between the submission of an input for execution and the return of the completed output to the customer/user. BZDL defines the TAT as the total time taken from when the samples are received in the laboratory until a report to be sent to the customer is generated. TAT is an important parameter that strongly influences customers’ and personnel satisfaction in testing laboratories and is often used as a key indicator of a laboratory’s performance and the effectiveness of its quality management system (QMS).

- Adhering to a comprehensive philosophy of quality management today is vital for testing laboratories to compete with other laboratories, hence, TAT is used as a criterion for selecting the laboratory’s service by customers and to assess the workflow of the laboratory activities. The measurement of TAT is a helpful variable of efficacy which is feasible in most testing laboratories.

- Measuring turnaround times may have major goals such as improving the service rendered by the laboratory within a reasonable time, taking care of customer’s satisfaction, increased productivity, improved personnel culture (quality of work life) and the confidence in reporting correct and valid results to the customers.

Aim

The aim of this study was to review trend analysis on complaints received and their correlation if any, with TAT.

Methods

The data used was generated by one of the laboratories within the Bacteriology and Zoonotic diseases laboratories (BZDL) of the Agricultural Research Council-Onderstepoort Veterinary Institute (ARC-OVI). Data on complaints received from 2013 and 2014 with the source being TAT were compared.
Results and discussions

Complaints

A total of 18 complaints was received between 2013 and 2014. Figure 1 gives the breakdown of the main source of the complaints.

Figure 1. The breakdown of the main source of 18 complaints received between 2013 and 2014 at a laboratory of the BZDL, ARC-OVI.

During the comparison, it was observed that when the TAT was met there was an increase of invalid complaints (customer’s mistake) by 40% and 14% increase of general enquiries, 32% decrease of complaints with the source being TAT, 22% decrease of complaints due to personnel mistakes and compared to when TAT was not adhered to see figure 2a) and 2b.

Figure 2 Correlation of complaints received in 2013 and 2014
Samples received and personnel competence

It was also observed that as the number of complaints decreased there was an increase in the number of samples received in the laboratory as compared to when the TAT was not met. Figure 3.

![Comparison of samples received in the laboratory in 2013 and 2014](image)

**Figure 3** Comparison of sample received in the laboratory in 2013 and 2014

Conclusion

- In testing laboratories, customer satisfaction is directly linked to technical competency aspects such as personnel performing tests and meeting TAT, use of validated test methods, operation of equipment, handling of test items, assuring quality of results produced by the laboratory and reporting of results. As the BZDL improves its testing activities and Quality management system through following procedures and complying with the requirements of ISO/IEC 17025, complaints from customers will surely decrease and increased production will definitely be observed.

- Therefore not only is meeting TATs an indicator of compliance to the ISO 17025 requirements but impacts on a rendered service to customers, laboratory testing activities, quality system and also contributes to Quality of work life.

The study proves that that TAT has an impact on customer satisfaction which and when customers are satisfied increased productivity occurs.
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References

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