

UNIVERSITI TEKNOLOGI MARA



**The Prevalence of Critical Limit Reported to the Ward in
Hospital Tuanku Ja'afar Seremban
Negeri Sembilan**

Sara Amellya binti Khairudin Jaffry

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ABSTRACT

THE PREVALENCE OF CRITICAL LIMIT REPORTED TO THE WARD IN HOSPITAL TUANKU JA'AFAR SEREMBAN

The aim of the present study was to know the prevalence of critical value results from the laboratory to the wards in the Hospital Tuanku Ja'afar Seremban by manual telephone calling pathway as timely reporting and acknowledgement are crucial steps in critical result management. Among the most important is the clear, accurate and rapid communication of critical value results.

Data from March 2013 until February 2014 were analysed including gynae, medical, surgical, pediatric, intensive care unit (ICU) and multidiscipline department. By using documentation audits, comparisons were made in the rate of compliance (%) for critical values reported to the wards between each month. About 3919 critical results were reported from almost a million tests performed in the chemical pathology laboratory which major tests were sodium, potassium and urea.

From this study, it showed that the critical value reporting management is not totally achieved to satisfactory level as the rate of compliance for critical value report to the all department were below the 80%. Factors leading to not acknowledge and undocumented critical result to the wards also were identified and ways approaching to improve the critical value notification management are being discuss in this study.

Key words : critical value, critical limit, rate of compliance

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TABLE OF CONTENTS

CHAPTER	CONTENT	PAGE
	TITLE PAGE	i
	DECLARATION	ii
	APPROVAL	iii
	ABSTRACT	iv
	ACKNOWLEDGEMENT	vi
	TABLE OF CONTENT	vii
	LIST OF TABLES	ix
	LIST OF FIGURES	xi
	ABBREVIATION	xii
1.0	INTRODUCTION	
	1.1 Background of study	1
	1.2 Problem statement	4
	1.3 Objectives	5
	1.3.1 General objective	5
	1.3.2 Specific objective	5
	1.4 Significance of the study	5
	1.5 Research hypothesis	6
	1.5.1 Alternate hypothesis	6
	1.5.2 Null hypothesis	6
2.0	LITERATURE REVIEW	
	2.1 Critical value	7
	2.2 Establishing a critical value list	8
	2.3 Critical value notification procedure	12
	2.4 Manual telephone calling pathway	16
	2.5 Automated communication pathway	16
	2.6 Critical value audit	18
3.0	METHODOLOGY	

CHAPTER 1

1.0 INTRODUCTION

1.1 Background of the Study

Reference range or reference value is a set of values used to interpret a laboratory result based on the gender, age as well as population. It is established by testing a large number of healthy people and observing what appears to be "normal" for them (Fink, J.D, 2005). The results would be averaged and a range (plus or minus 2 standard deviations of the average) of normal values. Outside the reference ranges, whether lower or higher indicate that abnormal condition of the patients associated with the test done. For instance, the liver function test (LFT) is done to know how well liver works as it plays an important role in the metabolism. Therefore, abnormal result means that there is some liver failure happened. Generally, if the test value is slightly higher or lower than the reference range, there is usually no reason to be alarmed as it may be due to some interference factors. Rerun the test for another 6 months is required to monitor the patient's result, especially since the result on the borderline of the reference range (Private MD Lab Testing Online, 2008).

Critical values or limits are a laboratory test result that represents a pathophysiologic state at such variance with normal as to be life threatening unless some action could be taken (Emory Healthcare, n.d.). Therefore, it needs urgent notification to the clinician as the patients can be died. According to Professor Dr Thomas, L., the publication on this topic which done since 1970's contribute to the improvement of many laboratory methods, parameter and also changes in the evaluation and treatment of disease. The