



**THE PREVALENCE OF CANDIDURIA IN UKM
MEDICAL CENTRE**

IRMA HERDIANI BT HARDI EFFENDY

**DIPLOMA MEDICAL LABORATORY TECHNOLOGY
FACULTY OF HEALTH SCIENCES
UNIVERSITI TEKNOLOGI MARA**

SEPTEMBER 2014

ABSTRACT

THE PREVALENCE OF CANDIDURIA IN UKM MEDICAL CENTRE

Background of study. Candiduria refers to the presence of *Candida* spp. in the urine. Candiduria is often observed in hospitalized patients. Candiduria is neither a symptom nor a sign, and it does not necessarily indicate a urinary tract infection.

Method. In this cross-sectional study, a total of 675 samples were collected for analysis. All urine samples received for routine culture and sensitivity in January 2013 at UKM Medical Centre (UKMMC) were included. Patients' demographic data were obtained from the lab request forms.

Results. Out of 675 patients, 291 (43.1 %) were male and 384 (56.9 %) were female. The youngest patient was 1 year old and the oldest was 82 years old. Forty five patients had candiduria and out of these, 22 (48.9%) were males and 23 (51.1%) were females. Gender did not appear to be a predisposing factor for candiduria ($p=0.418$). The overall prevalence of candiduria in UKMMC was 6.7 %.

ACKNOWLEDGEMENT

First and above all, I praise God, the almighty for providing me this opportunity and granting me the capability to proceed successfully. This thesis appears in its current form due to the assistance and guidance of several people. I would therefore like to offer my sincere thanks to all of them. I would never have been able to finish my dissertation without the guidance of my supervisor and co-supervisor, and also help from friends, and support from my family.

A big thanks to my supervisor, Miss Nor Hafeeda that always giving her best in helping me with this study. I would like to express my deepest gratitude to my advisor, Dr. Ding Chuan Hun, for his excellent guidance, caring, patience, and providing me with an excellent atmosphere for doing this study.

I would like to thank Safiah Baharin, who as a good friend, was always willing to help and give her best suggestions. It would have been hard without her. Finally, I would also like to thank my parents and my sibling. They were always supporting me and encouraging me with their best wishes. They were always there cheering me up and stood by me through the good times and bad.

TABLE OF CONTENTS

Chapter	Content	Page
	DECLARATION	i
	APPROVAL	ii
	ABSTRACT	iii-vi
	ACKNOWLEDGEMENT	vii
	TABLE OF CONTENTS	viii-iv
	LIST OF TABLES	x
	LIST OF FIGURES	xii
	ABBREVIATIONS	xii
1.0	INTRODUCTION	
1.1	Background of the study	1
1.2	Problem statement	1
1.3	Objective	2
	1.3.1 General objective	2
	1.3.2 Specific objective	2
1.4	Significance of the study	2
1.5	Research hypothesis	2
	1.5.1 Alternative hypothesis	2
	1.5.2 Null hypothesis	2
2.0	LITERATURE REVIEW	
3.0	MATERIALS AND METHODS	
3.1	Study design	6
3.2	Study venue	6
3.3	Sample size	
3.4	Study population	7
3.5	Method of study	7
3.6	Statistical analysis	8

CHAPTER I

INTRODUCTION

1.1 Background of the study

Since 1980s there has been increase in the prevalence of *Candida* species causing urinary tract infections. It is common in the patients admitted in intensive care units, individuals with multiple predisposing factors, including diabetes mellitus, indwelling urine catheter, long term exposure to antibiotics and immunosuppressive therapy [1].

Candiduria is neither a symptom nor a sign, and it does not necessarily indicate a UTI. If present in critically ill patients, it should be regarded as a marker for the possibility of invasive candidiasis[2]

Risk factors for candiduria include extremes of age, female sex [2], use of immunosuppressive agents, use of iv catheters, interruption of the flow of urine, radiation therapy, and genitourinary tuberculosis.

1.2 Problem statement

Currently, the laboratory diagnostic tests available are neither sensitive nor specific to reliably distinguish infection from colonization [3]. Many hospital laboratories do not speciate yeasts that are isolated from urine unless specifically requested to do so. Thus, changes or trends in species causing candiduria cannot easily be tracked.