

UNIVERSITI TEKNOLOGI MARA

**CONTAMINATION OF CONTACT LENS
STORAGE CASES AMONG ASYMPTOMATIC
CONTACT LENS WEARERS**

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This Final Year Project Report entitled “Contamination of Contact Lens Storage Cases Among Asymptomatic Contact Lens Wearers” was submitted by Noor Aina Yusoff, in partial fulfillment of the requirement for the Degree of Bachelor of Science (Hons.) Medical Technology in the Faculty of Health Science, and was approved by

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ABSTRACT

CONTAMINATION OF CONTACT LENS STORAGE CASES AMONG ASYMPTOMATIC CONTACT LENS WEARERS

Contact lens related disease is a potentially blinding disease. Although the absolute risk is low, this grave complication could be prevented by proper contact lens handling system. The purpose of this study to identify, isolate and confirm the presence of pathogenic microorganism in contact lens storage cases. The presence of pathogenic microorganisms due to non-compliance of hygienic practices among the subjects was also studied. Microbiological techniques were used to identify samples from asymptomatic contact lens wearers. Ten contact lens storage cases samples were culture positive. Five different Gram negative and one Gram positive organisms (*Enterobacter* spp., *Klebsiella* spp., *E.coli*, *Aeromonas* spp., *Providencia* spp. and *S. aureus*) were isolated from the samples. They were considered as potentially pathogenic organisms after biochemical tests as a confirmation method was done. Through questionnaire assessment, the findings showed the subjects did not truly follow the hygienic practice in lens care system. New and more sensitive methods such as Polymerase Chain Reaction (PCR) should be applied in future to detect other than bacteria which may be a potential contaminant in contact lens storage cases.

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