ETOPIC APPLICATION OF LIQUID DISINFECTANTS IN THE TREATMENT OF WOUNDS USING ANIMAL MODEL (ALBINO RATS)

BY

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U14/NAS/MCB/061

DEPARTMENT OF MICROBIOLOGY

FACULTY OF NATURAL AND APPLIED SCIENCES

GODFREY OKOYE UNIVERSITY UGWUOMU NIKE ENUGU STATE

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A RESEARCH PROJECT SUBMITTED TO THE DEPARTMENT OF MICOBIOLOGY, FACULTY OF NATURAL AND APPLIED SCIENCES

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APPROVAL PAGE

This project has been presented and approved by Godfrey Okoye University, Enugu in partial fulfilment of the requirement for the award of Bachelor of science (B.Sc), degree in microbiology from the department of microbiology, Faculty of Natural and Applied Sciences.

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DEDICATION

This work is dedicated to the Almighty God in whose infinite mercy has been my strength and helper during my research project. I also dedicate my work to my parents Mr and Mrs Justus Emeka Madubuchi for their financial support and assistance.

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**ABSTRACT**

The aim of this topic was to determine the etopic application of disinfectants on wounds using animal model (Albino rats), the objective of this topic was to determine the time duration of healing on these animal models, the efficacy of the chosen disinfectants on identified isolates from the wounds. The specimen wound were swabbed, cultured on nutrient agar and incubated at 370C for 24 hours. The pure culture of the organisms was gram stained which reliably indicates sterile and mixed abscesses as well as those containing pure *Staphylococcus aureus*. The time duration of healing between the test control and the disinfectants showed that the test control healed faster but was scarred while the disinfectant healed completely within a period of seven (7) to ten (10) days. The efficacy of the chosen disinfectants which were Dettol (a make of Reckitt Benckiser., man date: 04/18, exp date: 04/21), izal ( a make of Nath Peters Hygeian Ltd., man date: 07/17, exp date: 06/2020) ivy’s (a make of Gilsan manufacturing co. Ltd., man date: 05/18, exp date: 04/18) and normal saline which showed that Dettol and Izal were effective which aided in the healing process while Ivy and normal saline were effective but slow in the healing process. The probable organisms identified and isolated were species of Staphylococcus and *E.coli* which are responsible for the infection on wounds of animals. It can be seen from the result that Dettol and Izal are very effective in the treatment of wound.