

## DECLARATION

I hereby declare that this seminar report written under the supervision of **Dr C.I. AYOLABI** is a product of my research work. Information derived from various sources has been duly acknowledged in the text and a list of references is provided. This seminar report has not been previously presented anywhere for the award of any degree or certificate.

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**OBI, O. COMFORT**

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Date

## CERTIFICATION

This is to certify that this project titled “**ADENOVIRUS INFECTION IN CHILDREN**” was carried out by **OBI, COMFORT OZIOMA** with the matriculation number **18010101011** in partial fulfilment of BACHELOR OF SCIENCE (B.Sc.) Degree in the department of Microbiology, College of Basic and Applied Sciences in Mountain Top University under the supervision of **DR C.I AYOLABI**

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DR MRS C.I. AYOLABI

(Project Supervisor)

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DATE

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DR MRS C.I. AYOLABI

(Ag. Head of Department)

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DATE

## **DEDICATION**

This report is dedicated to God Almighty for his faithfulness and preservation over my life during this period all glory belong to him. I also dedicate this project to my mum (Mrs Obi O. Ogechi) for her love, her support throughout from the beginning up till now, I really appreciate you mummy, God bless you!!

## ACKNOWLEDGEMENTS

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## **ABSTRACT**

Diarrhea is the second largest cause of mortality in children under the age of 5 and it is responsible for about 1.5 million deaths every year. Diarrhea is characterized by at least three loose, liquid, or watery bowel movements every day. Viral Diarrhea is caused by Rotavirus (being the commonest virus), Calicivirus, Astrovirus and Enteric Adenovirus. Adenoviruses that are mostly associated with diarrheal diseases or gastroenteritis in young children are a result of serotypes A, F and G. There is no seasonal variation of Adenovirus infection, it occurs throughout the year. This study was undertaken to investigate the molecular epidemiology of Adenovirus in children under the age of 5 presenting with diarrhea in Ogun state, Nigeria. With the consent of the caregivers, questionnaire was administered and a total of one hundred (100) stool samples were collected from children presenting with diarrhea. Using molecular techniques, viral RNA was extracted from the samples and screened for presence of Adenovirus using RT-Nested PCR. Data obtained were statistically analysed using SPSS version 20. Analysis of the samples showed Adenovirus prevalence to be 29% out of which 15% were females and 14% males. Further analysis revealed that children less than 2 years old were more affected than children greater than or equal to 2 years of age. However, this was not statistically significant. In Conclusion, this study revealed the presence of Adenovirus in the study population. This further establish Adenovirus as an important etiology of diarrhea within Ogun state. Adenovirus associated diarrhea is an issue of public health concern requiring a need for prompt response among concerned stakeholders.

Keywords: Adenovirus, Diarrhea, Enteric, Gastroenteritis, Nested, Viral