

DEPARTMENT OF SCIENCE TECHNOLOGY AND ENVIRONMENT

RESEARCH PROJECT PROPOSAL

i) TITLE OF THE PROJECT

PREVALENCE OF HIV AND SYPHILIS AMONG ANTENATAL MOTHERS IN A RURAL POPULATION

ii) PRINCIPAL INVESTIGATOR AND ADDRESS FOR COMMUNICATION

DR.L.SURESH BABU, MSc PhD

Assistant Professor, Dept. of Microbiology
Sri Manakula Vinayagar Medical College and Hospital
Kali theerthalkuppam, Madagadipet
PONDICHERRY-605107.
Ph. 9442036118.

iii) DESIGNATION AND NAME OF THE INSTITUTION IN WHICH WORKING

ASSISTANT PROFESSOR

Sri Manakula Vinayagar Medical College and Hospital
Madagadipet, Pondicherry.

iv) CO- INVESTIGATOR AND ADDRESS FOR COMMUNICATION

DR.R.GOPAL, MD

Professor and Head of the Dept. of Microbiology
Sri Manakula Vinayagar Medical College and Hospital
Kali theerthalkuppam, Madagadipet
PONDICHERRY- 605107.
Ph. 0413-2643000.

v) BACK GROUND INFORMATION

Human immunodeficiency virus (HIV) ^{infection} is increasing at an alarming rate globally. It has now become a major challenge and threat to public health. HIV infection in women occur primarily during their reproductive ages, and hence pregnancy provides a unique opportunity for implementing prevention strategies against it. Estimation of HIV seroprevalence in pregnancy and effective and timely intervention will reduce the transmission of infection to newborns.

Syphilis may be transmitted from mother to foetus transplacentally. The lesions of congenital syphilis usually develop only after fourth month of gestation. It can manifest at any time from birth and can produce various clinical manifestations leading to increased morbidity and mortality among the affected children. Congenital syphilis can be prevented, by early diagnosis of the infection in the mother during pregnancy and initiation of appropriate treatment.

vi) OBJECTIVES OF THE PROJECT

- a) To study the prevalence of HIV and syphilis among the antenatal mothers.
- b) To initiate preventive measures among the positive mothers by proper counselling and treatment.

vii) METHODOLOGY

a) MATERIALS / CASES

All **antenatal mothers** attending the **antenatal clinic of SMVMCH** will be screened for HIV and syphilis after obtaining informed consent.

Approximately **1000 antenatal women** will be screened over a **period of 1 year**.

b) METHODS

SCREENING TESTS

All the samples will be tested for, **HIV 1& 2 antibodies by rapid screening tests** and **the reagin antibodies for syphilis by RPR screening test**.

CONFIRMATORY TESTS

Samples positive by screening tests will be confirmed by **Western blot assay for HIV** and **specific treponemal antibody test for syphilis**.

c) REFERENCES

1. Seroprevalence of human immunodeficiency virus infection in pregnancy in a tertiary care hospital. Indian J Med Sci 2005;59:382-387.
2. HIV seroprevalence in various high risk groups at Jaipur. Indian J Dermatol Venereol Leprol 1994;60:262-265.

viii) BUDGET

a) Western blot assay kit	Rs.50000/-.
b) Specific treponemal test kit	Rs.15000/-.
c) Miscellaneous	<u>Rs.10000/-.</u>
Total	Rs.75000/-.

ix) BENEFITS OF THE PROJECT

- a) Patients can be treated and counselled for initiating prophylactic treatment of the newborn, thereby reducing the morbidity and mortality among the infected mothers.
- b) Preventing the infection among the newborns.
- c) Spouses of the infected patients can also be screened and counselled, thus reducing the spread of the infection in the community and associated morbidity.