

**DISSERTATION
AT**

**Heritage Hospital Pvt. Ltd.
Varanasi**



**“A Study on Hospital Acquired Infection
and Prevention in Intensive care units”**

PROJECT GUIDE

**Dr. Alok Mathur
Associate Professor
Indian Institute of Health
Management Research
(IIHMR)
JAIPUR**

PROJECT BY

**Dr. Priyanka Singh
IIHMR, JAIPUR**

CONTENT

- **Introduction**
- **Objectives**
- **Methodology**
- **Study findings and analysis**
- **Suggestions**

INTRODUCTION OF STUDY

- An infection acquired in a patient in a hospital or other facility in whom it was not present or incubating at the time of admission or the residual of an infection acquired during a previous admission .
- Hospital acquired Infection is called which occurs after 48 hrs of hospital admission, with in 3 days of discharge or with in 30 days of any surgical procedure.
- In India nosocomial infection rate is over 25%.
- 1/3 of such infections are preventable.
- Study is done to reduce the complication and cost of treatment.

OBJECTIVES

- **To identify the causes of infection in intensive care units of Heritage hospital.**

METHODOLOGY

Study Design:-

Non-experimental observational study.

Data collection tools:-

- Interview and discussions with nursing staff of ICUs.
- Observation check list .

Study Time:-

3 months

Primary data:

Direct observation

Interview (12 nursing staff)

Secondary Data:

Records of various ICUs.

Sample size:

329

Opportunistic pathogens

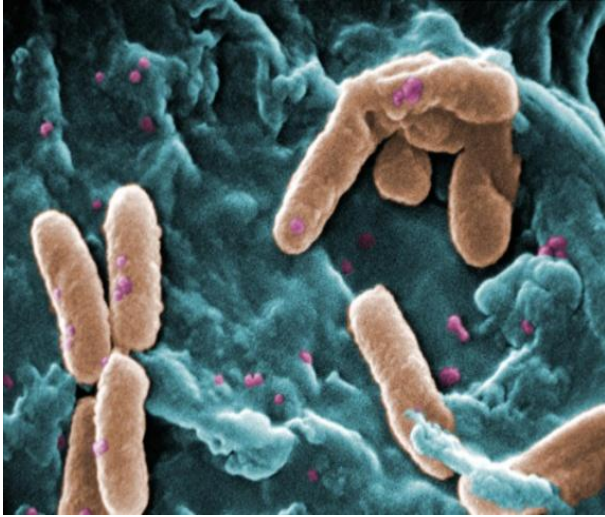
BACTERIA



STAPHYLOCCUS AUREUS



ESCHERICHIA COLI

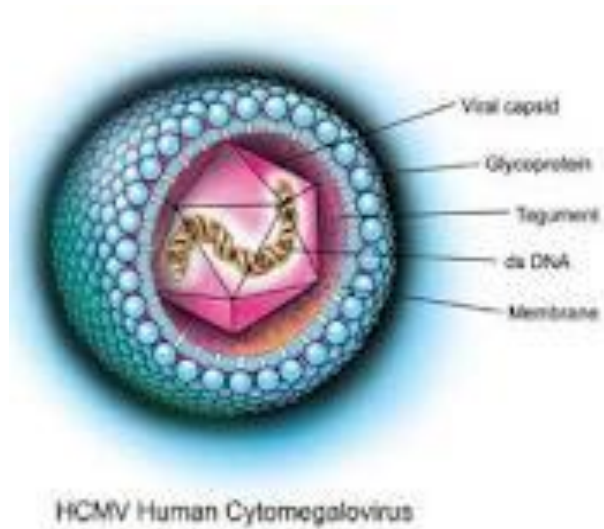


PSEUDOMONAS



KLEBSIELLA

VIRUS



CYTOMEGALO VIRUS



ROTAVIRUS

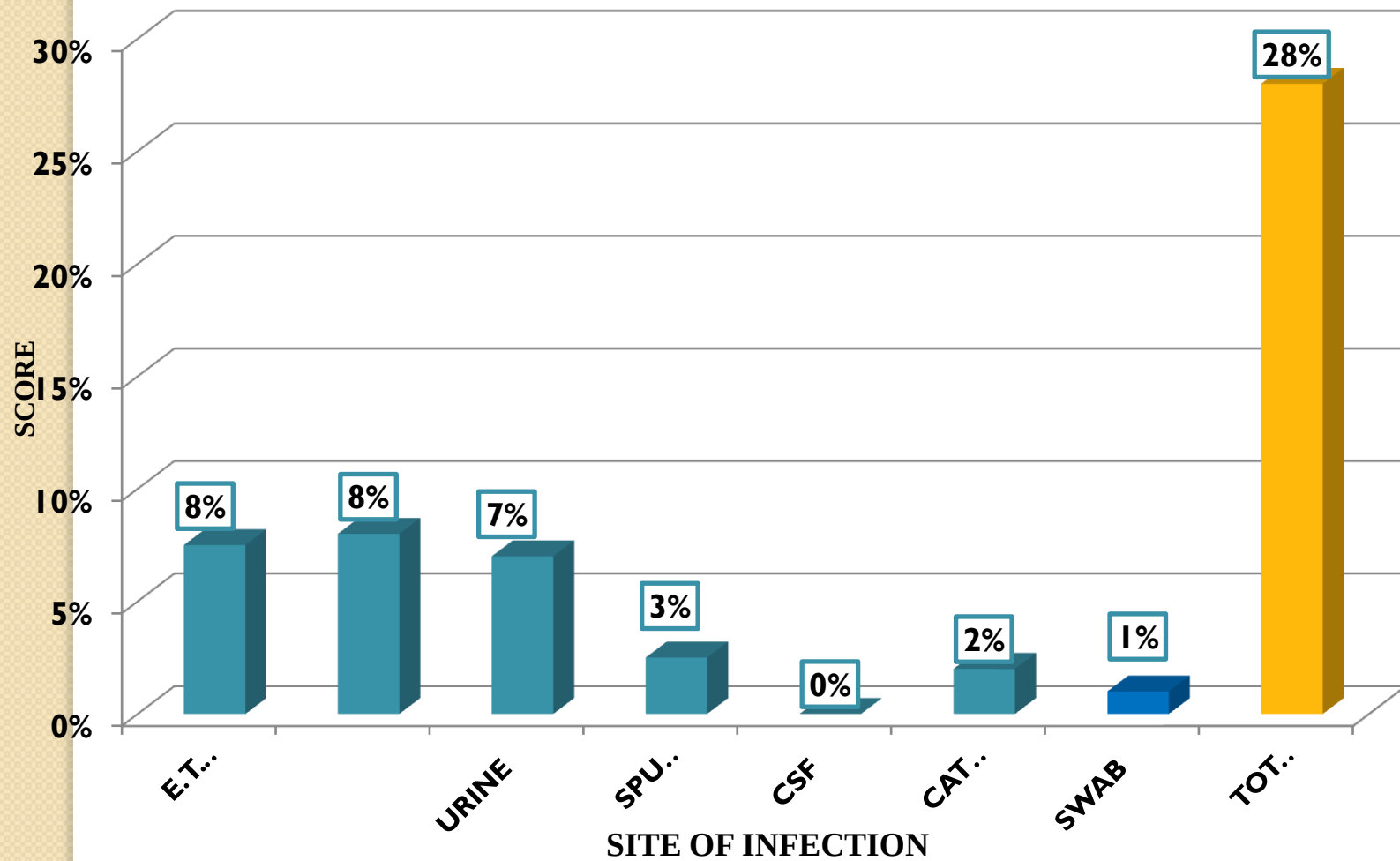
PARASITES AND FUNGI



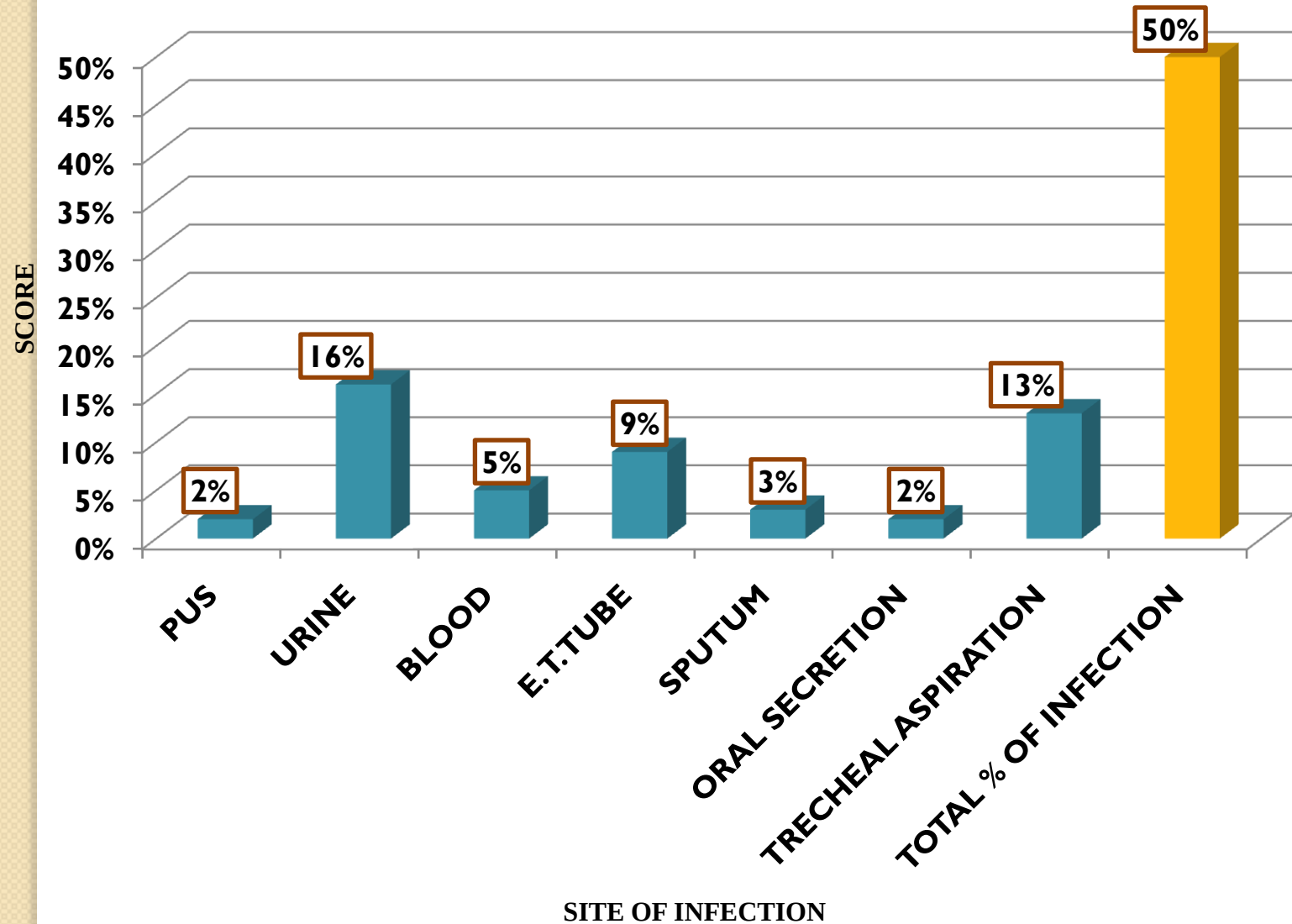
- *Candida albicans*, *Aspergillus* species
- *Cryptosporidium*, *Toxoplasma pneumonia*

DATA ANALYSIS

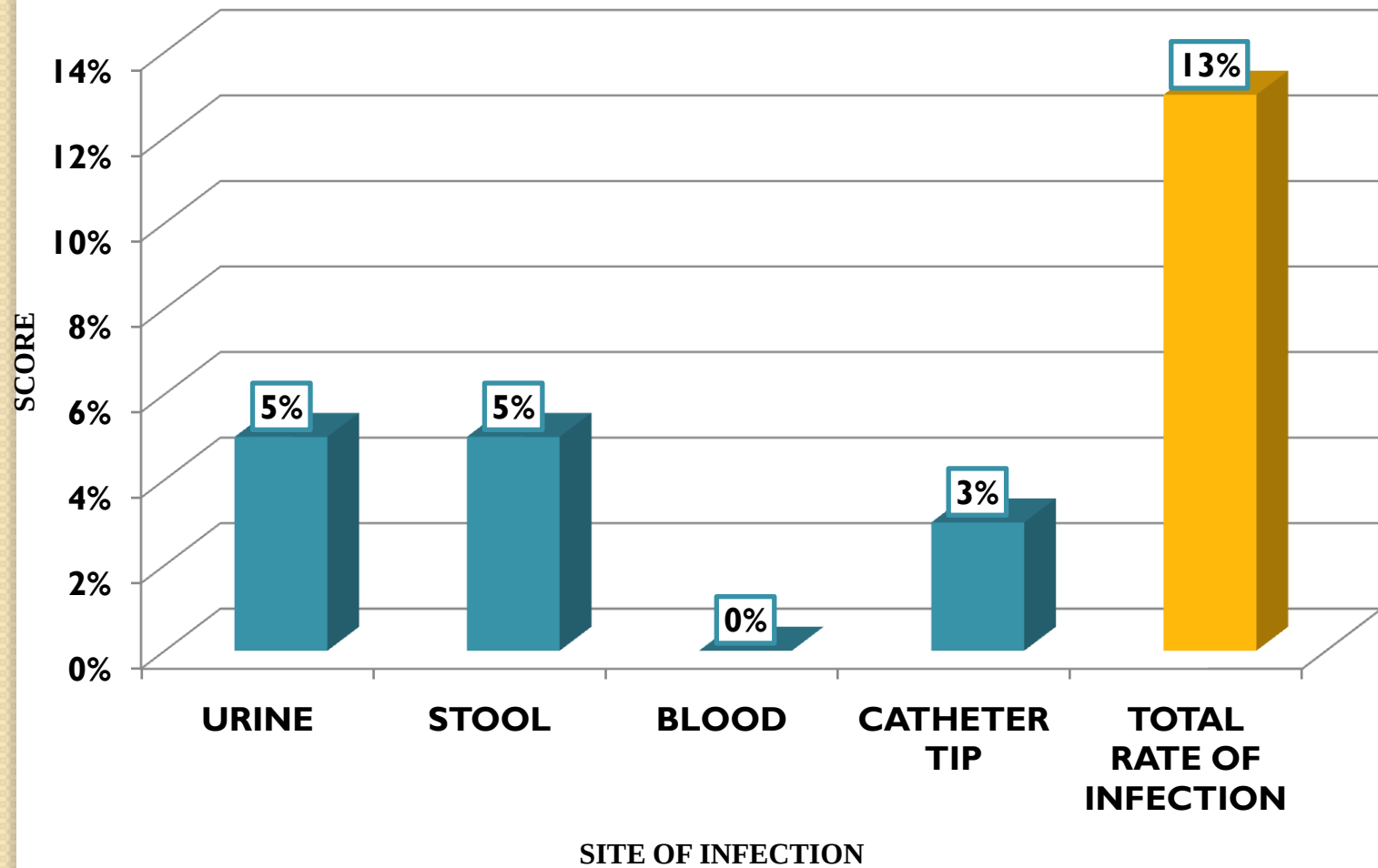
MICU



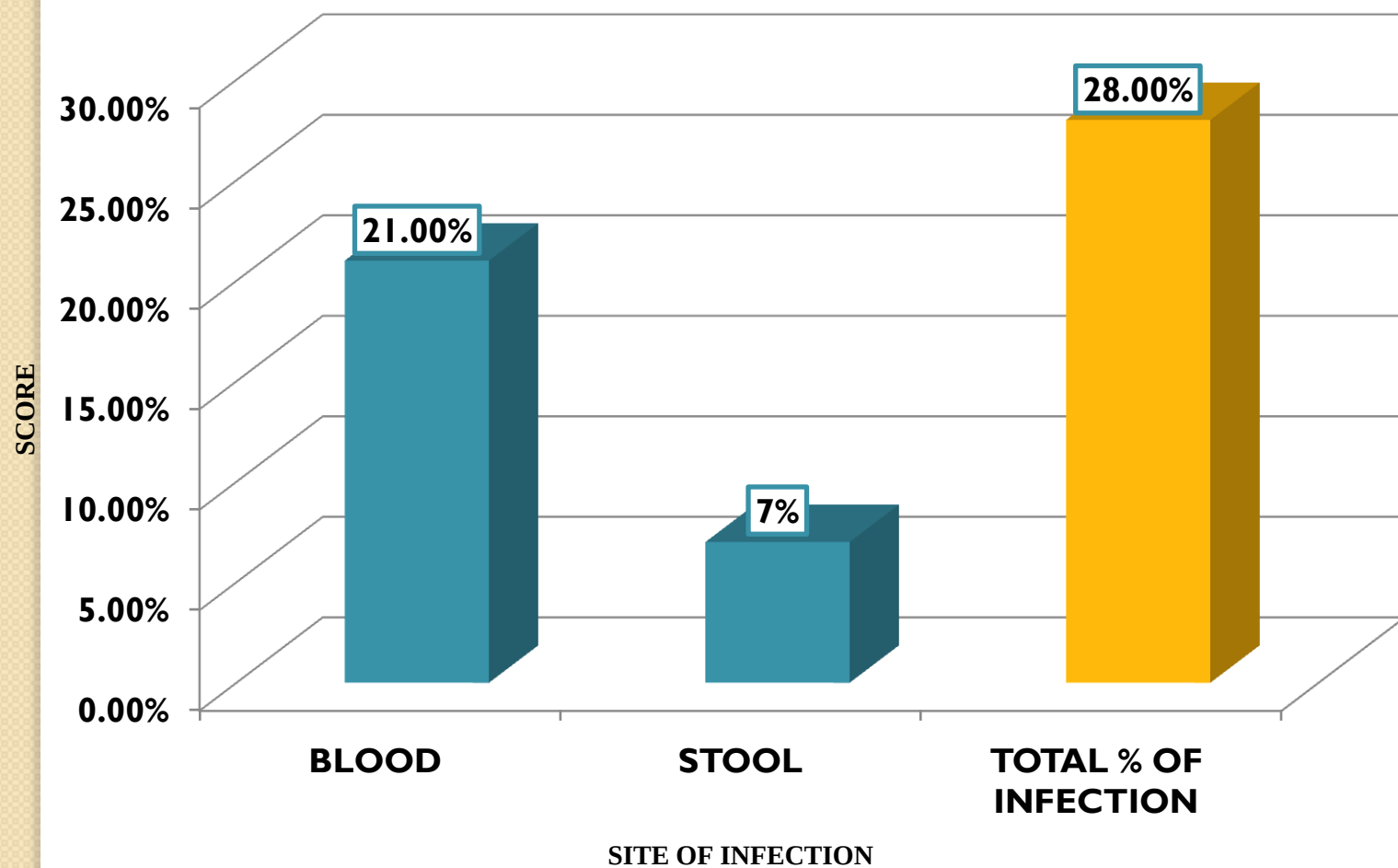
SICU



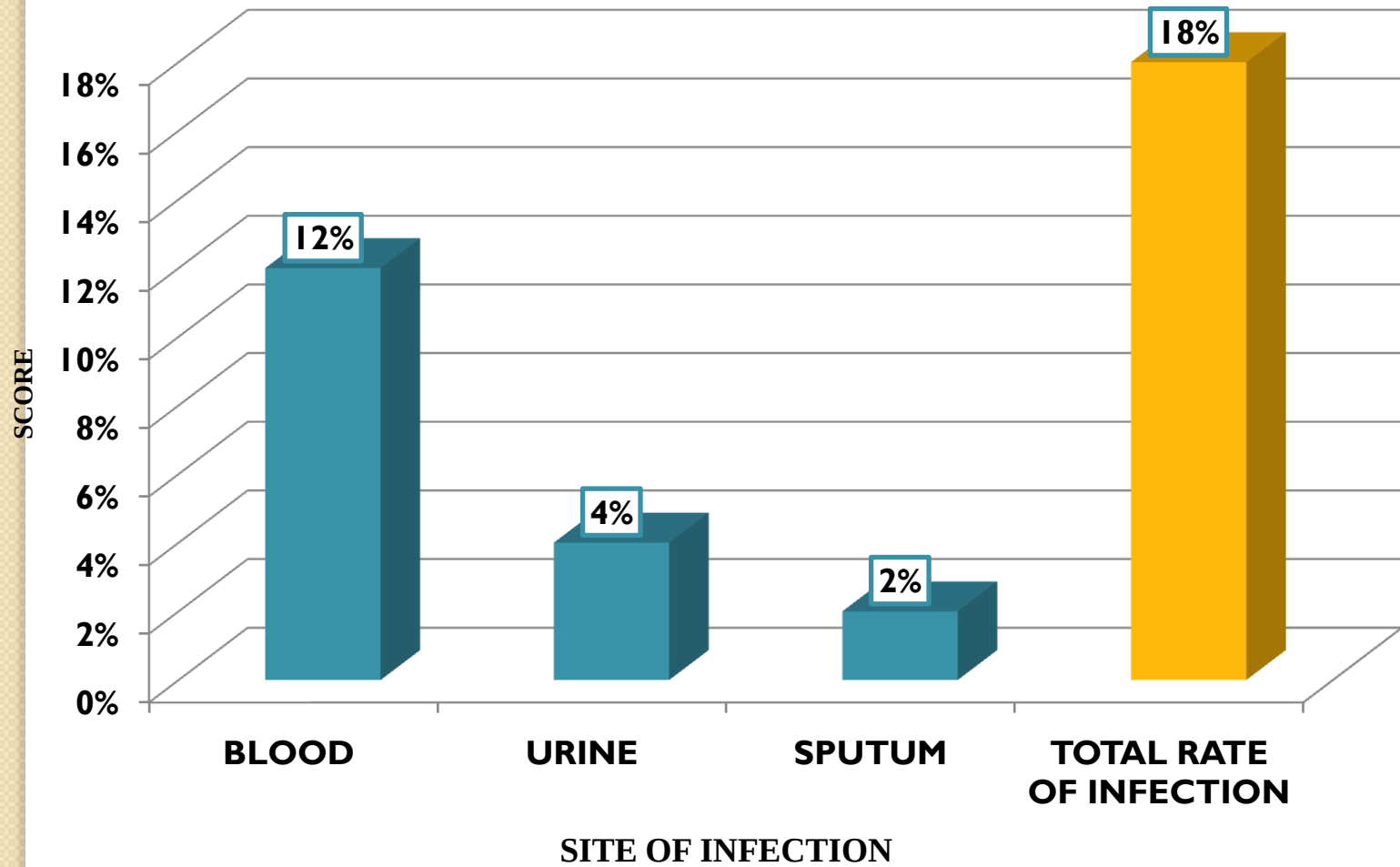
PICU



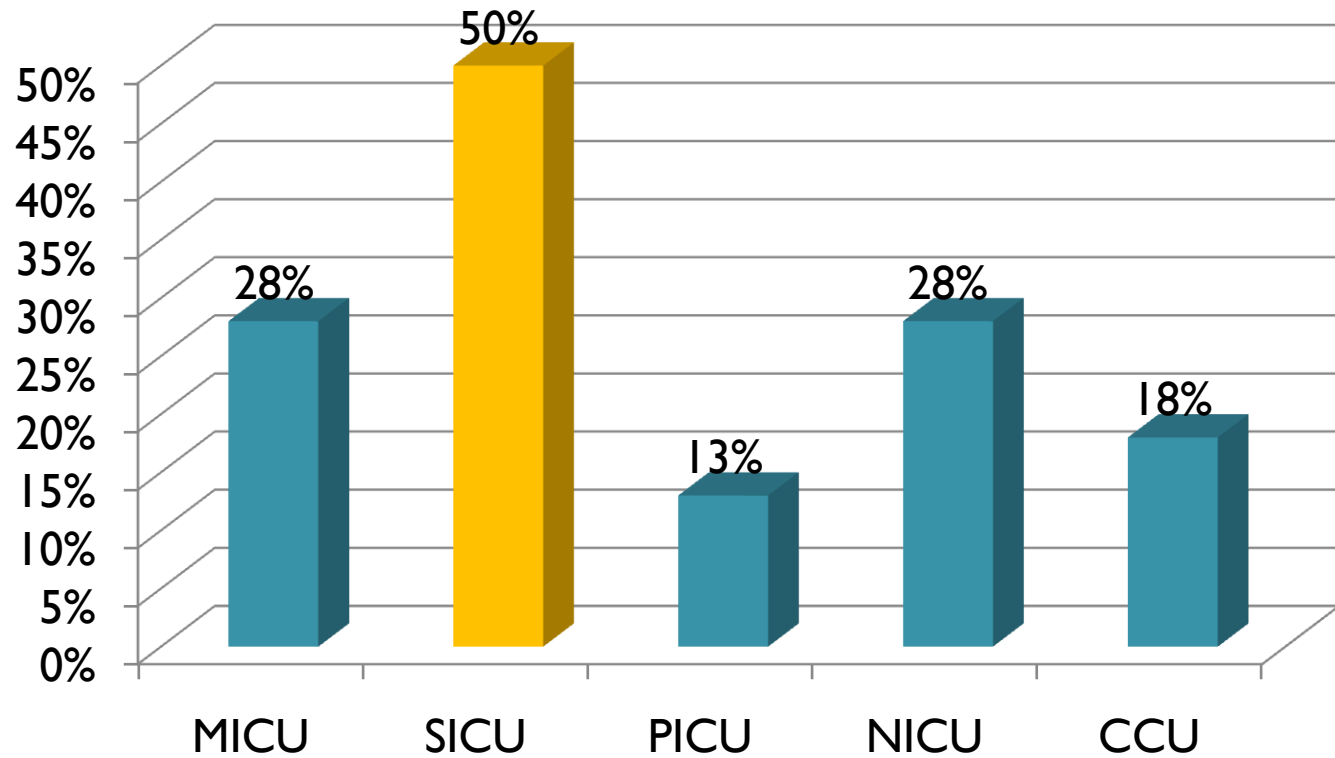
NICU



CCU



% of Infection



Result

- Total 329 patients are admitted in and taken as sample in various ICUs of hospital during the period of study and out of those 91 patients that are 28% got infection during the period of stay in hospital. There is the highest rate of infection 50% in Surgical ICU. In MICU the HAI rate is 28%, in NICU HAI rate is 28%, in CCU it is 18% and in PICU it is 13%.

Suggestions

- All patient, staff and visitors area of the organization should included in the infection control program.
- The hospital should provide barrier precautions and isolation procedures that protect patient, visitors, and staff from communicable diseases and protects immune suppressed patients from acquiring infections to which they are uniquely prone.

- Proper bio waste- collection process should be used by nurses and housekeeping staff of the hospital.
- Gloves, masks, eye protection, other protective equipments, soap and disinfectants are available and used correctly when required. Internationally acceptable hand hygiene guidelines are generated by World Health Organization (WHO) and the United States Center for disease control and prevention. These should be followed strictly.
- Proper body and hand hygiene should be followed by nursing and housekeeping staff of HAI as well as general IPD staff.

- Proper personal protective equipments should be used by CSSD staff in the process of sterilization of equipments with proper storage and transferring facility.
- Adequate gloves, masks, soaps and disinfectants are available and used correctly.

