A STUDY ON THE INCIDENCE OF HOSPITAL ACQUIRED INFECTIONS IN ICU

INTRODUCTION :

World Health Organization (WHO) defined Hospital as, an integral part of the social and medical organization, the function of which is to provide for the population complete health care, both curative and preventive, and whose outpatient services reach out to the family and its home environment.

Patients in intensive care units (ICUs) have a higher risk of acquiring Health care associated infections (HAIs) as compared to those in non-critical care areas. ICU-acquired infection rate is five to ten times higher than hospital-acquired infection rates in general ward patients. The most common Health Care Associated Infections (HCAIs) in Intensive Care Unit patients are respiratory tract infections (RTIs), urinary tract infections (UTIs) and bloodstream infections (BSIs) and are most often associated with the use of invasive devices.

OBJECTIVES:

1. To observe and analyze the incidence of nosocomial infections in ICU.
2. To search for areas of problem and find reasons for the same.
3. To give recommendations for further improvement in infection control practices and minimize Healthcare acquired infections (HAIs).

RESEARCH METHODOLOGY:

Study Design:
Analytical in service statistics.

Sample Criteria:

Inclusion criteria-
Doctor's & Nurses practising in ICU's at Max Hospital, East & West wing, Saket.
Standard Protocols Followed by Doctors and Nurses and assigned Infection Control Nurses at Max Saket Hospital.

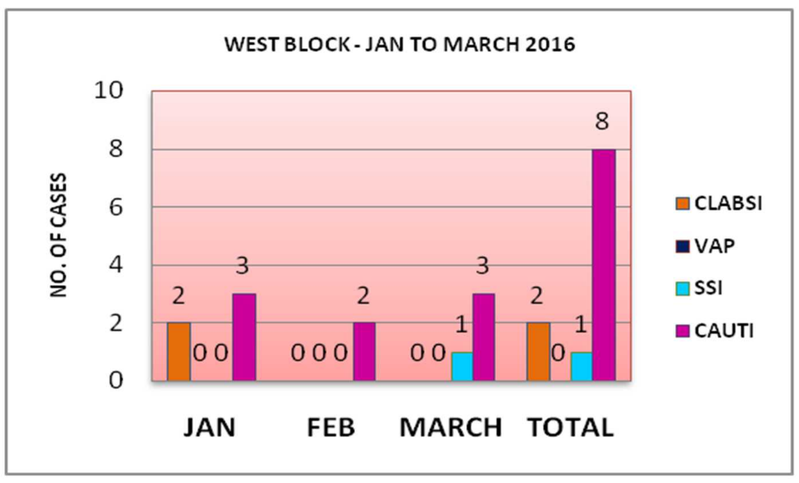
Exclusion criteria-
Doctors and Nurses working in rest area of the Hospital.

Study Area:
All ICU's at Max Hospital, East & West wing, Saket, Delhi

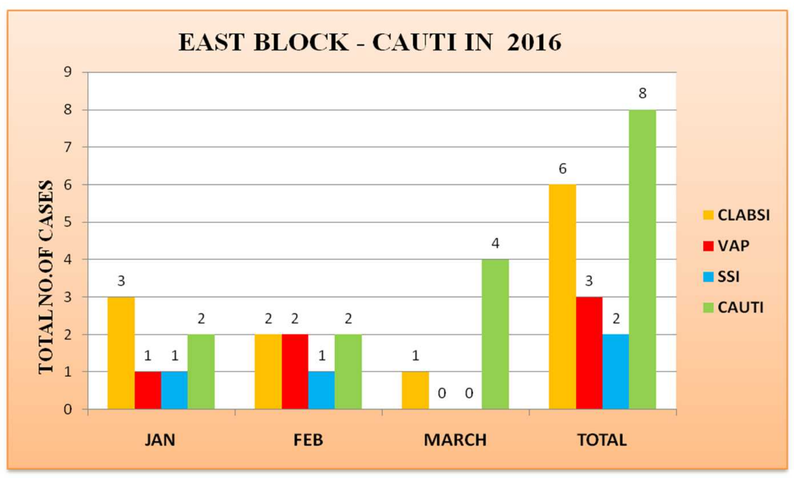
Data analysis:
using bar charts

Technique:
Secondary Data collected.

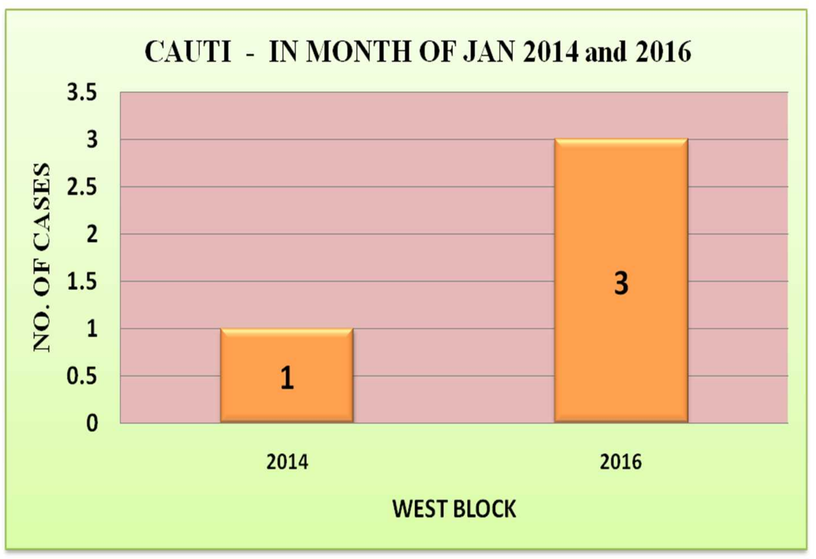
FINDINGS

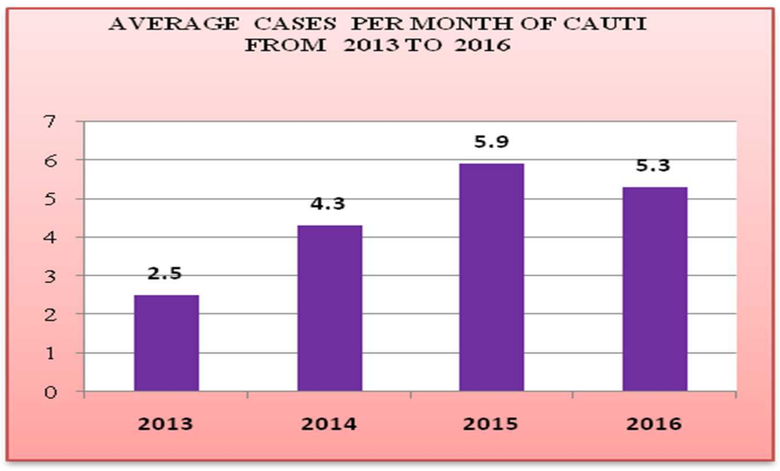


INFERENCE:
THE INCIDENCE OF CAUTI CASES WERE MAXIMUM IN THE MONTH JAN and MARCH. 2016

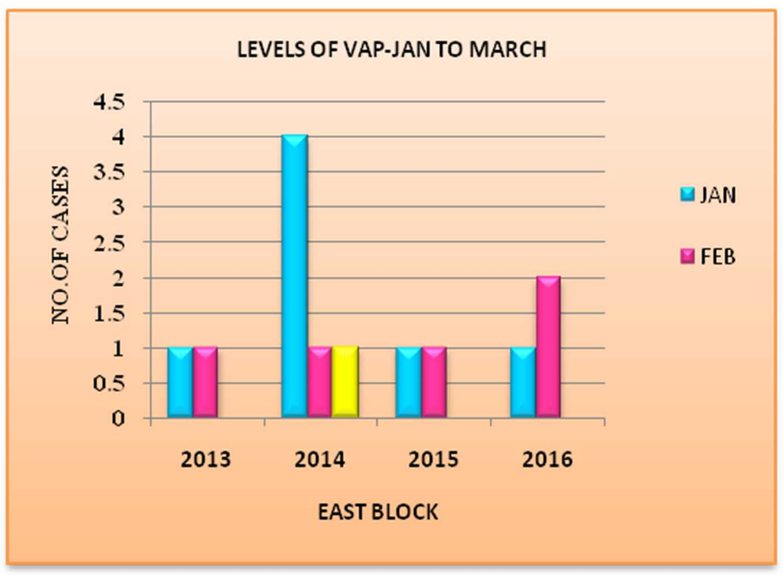


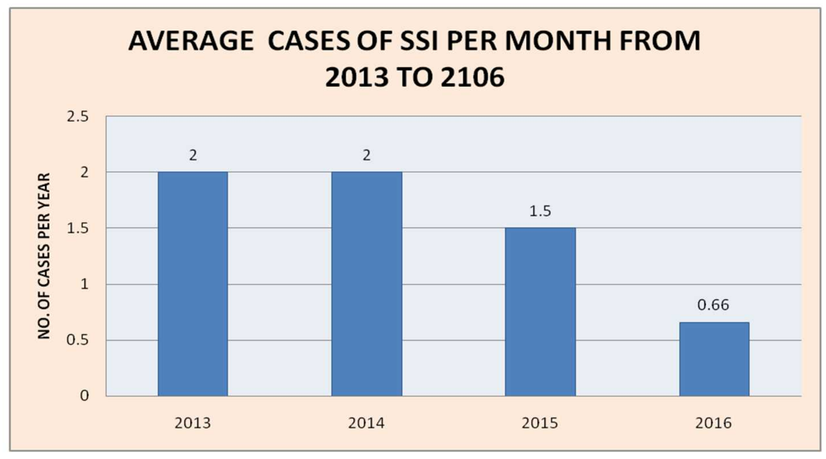
INFERENCE:
ON ANALYSIS IT IS OBSERVED THAT IN EAST BLOCK CAUTI CASES WERE MAXIMUM IN THE MONTH OF MARCH 2016





INFERENCE:
THE INCIDENCE OF AVERAGE CASES OF CAUTI PER MONTH FROM 2013 TO 2016 HAS INCREASED TREMENDOUSLY





INFERENCE:
THE INCIDENCE OF AVERAGE CASES OF SSI PER MONTH FROM 2013 TO 2016 HAS REDUCED TREMENDOUSLY.

Infection control practices observed at MAX Saket

1. Resistant Staphylococcus aureus (MRSA), Catheter Associated Urinary Tract Infection (CAUTI), Centre Line Associated Blood Stream Infections (CLABSI) occur at Max Saket, followed by 15% i.e. Ventilator Associated Pneumonia as 2nd most common Infection.
2. According to the CDC (Centre for Disease Control) Standards 1 minute should be the ideal time for Hand washing. Intensive Care Unit Nurses were about the ideal time followed by who feel 30 seconds to be the ideal time.
3. 80% of the Intensive Care Unit Nurses said that they receive training for nosocomial infection once a month. 17% nurses said they receive training twice a week.
4. The Intensive Care Unit Nurses believe that they are overburdened with patients and this hampers their Hand washing practices and sometimes they miss practicing washing hands while attending Nosocomial patients.
5. Intensive Care Unit Nurses feel the greatest challenge is the spread of infection from the patient. , nurses feel that there are lack of isolation rooms and feel there is shortage of staff.

RECOMMENDATIONS:

1 An observer usually a nurse should use a checklist to ensure that evidence based practices are followed - Hand washing before line placement , Full barrier precautions, Avoiding line placement at the Femoral Site, Using Chlorhexidine to cleanse the site, Removing unnecessary lines.
2. Experienced and well trained staffs only should be allowed to treat "ISOLATED" patients. Adequate gloves, masks and disinfectants are available. The usage must be monitored by infection control team.
3. There should be increase in knowledge regarding HCAI and routes of transmission, barrier nursing and hand washing techniques, hospital waste management, and importance of infection control team.
4. Complying with the Recommendations of the Antimicrobial use Committee regarding the use of antibiotics.
5. Infection control nurses should not adhere 100% on CAUTI bundles, SSI bundles.
6. Educate Doctors about Hand Hygiene; implementing standard precautions, particularly best hand hygiene practices at the bedside. Hand washing should be monitored regularly and continuous encouragement should be done.

CONCLUSION:

The study provides baseline infections of Healthcare Associated Infections & associated risk factors for future surveillance. If the measures followed are continuously updated and upgraded the infection level can be further reduced. This can be done by giving training awareness Training Programme on Standard Requirements, guidance on implementation of infection control programs. The awareness about infection control should also be developed among visitors. The awareness about the infection has to be created that will help in decrease of infections and control of the same.

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