Assessment of Knowledge and Attitude of Staff Regarding Hospital Acquired Infection in Gorakhpur, District Uttar Pradesh

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ABSTRACT

Background: Nosocomial infections are known as “Hospital acquired infections”. A nosocomial infection can be defined as: "An infection acquired in hospital by a patient who is admitted for a reason other than infection.

Objective: To assess the knowledge and practice of the staffs in hospital care.

Method: A descriptive study was conducted in 4 private hospitals of Gorakhpur, District of Uttar Pradesh from 1January to 30th June 2019 with pre-tested interview schedule for collecting the data. Simple random sampling method was used for selecting the respondents and Gorakhpur district was selected purposively. Data collection was carried out from selected hospitals.

Results: In this study a sample of 246 respondents were selected, 73.2 per cent respondents aged between 20-30 years, were 90.65 per cent were females & 9.3 percent were male, this shows that number of females were more as compared to the males. Maximum 98.4 per cent of the respondents belonged to Uttar Pradesh.

Conclusion: It was concluded in the present study that the following measures can help in reducing hospital borne infection like hand washing which is the most convenient way for minimizing the hospital borne infection, and the poor practices of hand washing increases the chances of infection. Personal protective equipments (PPE) minimize exposure to hazards that can cause serious workplace injuries and illness.

Key words: Hospital acquired infection, nosocomial infection

INTRODUCTION

An infection occurring to the patient in a hospital or other healthcare facility where the infection was not present or incubating at the time of admission. This includes infections acquired in the hospital but appearing after discharge, and also occupational infections among staff of the facility." WHO (2002).The word "nosocomial" is a Greek word. The prefix "noso-" comes from "nosus" meaning disease and "comial" comes from "komeion" meaning to take care off.

A nosocomial infection is strictly and specifically an infection "not present or incubating prior to admittance to the hospital, but generally occurring after 48 hours of admittance."Hasiam (2018). “Nosocomial infections stated as occurring within 48 hours of hospital admission, 3 days of discharge or 30 days after operation. NI (Nosocomial infections) is observed 1 in 10 patients admitted to hospital." Although hospitals now have infection control policies but still those infections occur frequently, the amount of patient deaths and suffering from hospital acquired infections is particularly high. Nosocomial infections are different from non-nosocomial infections because they are...
contracted by patients or staff in a hospital setting. Other infections are attained elsewhere outside of a hospital, Inweregbu et al. (2005).

Nosocomial infections are becoming an increasingly important issue in public health, as there is an increasing amount of bacteria resistant to antibiotics. In an article by the BBC Walsh (2013), Dame Sally Davies describes this issue as a "ticking time bomb" and warns that "routine operations could become deadly in just 20 years if we lose the ability to fight infection." In England, Wales and Northern Ireland, 99,000 cases of blood stream infections were reported in 2011-12, and E. coli alone accounted for 36% of the cases compared with just 1.6% due to the hospital superbug MRSA, Davies (2013).

Objective: To assess the knowledge and practice of the staffs in hospital care.

MATERIALS AND METHODS
A descriptive study was conducted in 4 private hospitals through predesigned and pretested interview schedule for data collection in Gorakhpur District of Uttar Pradesh.

Study Population: As the researcher belongs to the same area. In the present study 246 respondents were belongs to the same area and private hospitals were selected because private hospitals can offer more personalized care and treatment to patients.

Sample size:
Sample size was calculated by the following formula, N=z^2pq/e^2
Where N =desired sample,
z= standard normal deviate usually set at 1.96 which corresponds to a confidence interval of 95%,
p=80% or .80,
q= 1-p=1-0.80 =.20
Confidence level (z) =1.96 %,
Permissible error (e) = 0.05
According to formula,
Sample size (N)= z^2pq/e^2
Sample size (N) = 1.96 *1.96* .80* .20 / .0025

N= 245.86
Therefore Sample size (no. of respondent) is 246.

Data collection tools and techniques: A pre-tested interview schedule was used to collect the data.

RESULTS
Study revealed that knowledge of the staffs about word infection was 100%, and the present finding showed that 68.7% had knowledge regarding HAI known as NI and 88.6% had knowledge of HAI are bloodstream infection. 47.2% staffs had no knowledge about wearing same ICU slippers in washroom and 88.2% of the staff knows about urinary catheter insertion only when it is indicated and 43.9% had knowledge about incineration is the best method for disinfection.

<table>
<thead>
<tr>
<th>Knowledge of the staff</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>246</td>
<td>100</td>
</tr>
</tbody>
</table>

1.1 Knowledge of the staff about the word Infection

Table 1.1 Shows that 100% staff had knowledge about word infection.

<table>
<thead>
<tr>
<th>HAI known as nosocomial infection</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>169</td>
<td>68.70</td>
</tr>
<tr>
<td>No</td>
<td>62</td>
<td>25.20</td>
</tr>
<tr>
<td>Don’t know</td>
<td>15</td>
<td>6.10</td>
</tr>
<tr>
<td>Total</td>
<td>246</td>
<td>100</td>
</tr>
</tbody>
</table>
Table 1.2 Shows that maximum 68.7% staff had knowledge about the HAI Known as NI (nosocomial infection) and minimum 6.1% don’t know about the HAI (Hospital acquired infection).

Table 1.3 Shows that maximum 88.6% staff had knowledge about the HAI are blood stream infection and minimum 9.3% staff doesn’t know About HAI is the blood stream infection.

Table 2.1 Shows that maximum 47.2 % staffs had no knowledge about Wearing same ICU slippers in washroom and minimum 29.3 % staff Have knowledge.

Table 2.2 Shows that maximum 88.2% staffs agreed on preventing HAI is using urinary catheter when indicated and minimum 3.7% staffs don’t know about it.
Table 2.3 Shows that maximum 43.9% staffs agreed on incineration is The best method for disinfection and minimum 17.5% don’t know about it.

**DISCUSSION**

In this study a sample of 246 respondents were selected 100 per cent respondents had knowledge regarding word infection. In the present study it was observed that knowledge of staffs regarding hospital acquired infection was 88.6 per cent. Similar finding was done by Sharif et.al. (2016) he stated in his study that majority 86.5 per cent were females and the knowledge of nurses was 74.5 per cent which shows that it was comparatively good. Finding also showed that 88.6 per cent had practice about sterilization process and 88.2 per cent known about urinary catheter insertion only when indicated and 11.4 per cent had poor knowledge about sterilization process; similar study was done by Sarani et.al.(2016) revealed that 43per cent of the participants in this study had poor knowledge, 42 per cent had average practice, and 37 per cent had a moderate attitude about hospital infection.

**Recommendation:**

- Single use of gloves can also decrease the number of bacteria.
- Personal protective equipment (gloves, gown, mask) are necessary for staffs to use at every surgical and non-surgical procedure that helps to reduce the number of microorganism.
- Safe injection practices are also a part of practice which is important for bacteria reduction.
- Knowledge of preventive measures of transmission from hospital environment, which involves routine hospital cleaning safe waste handling and disposal.
- Reprocessing of patient care equipment, and safe linen handling.
- Practices on nosocomial infection control measures include - Sterilization of instruments that kills the most of the microorganism.
- Isolation of patients also helps to reduce the number of bacteria.
- Refresher courses and training programs on infection control measures should be systematically planned and regularly conducted for staff nurses so as to help them increase and maintain their knowledge.

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