K A P Study on Nosocomial Infections in a Tertiary Care Teaching Hospital among Nursing staff

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Abstract
It is a knowledge based study done among health care providers of nursing staff in a tertiary teaching hospital, we found those who are having more years of experience had less knowledge than the fresher’s, which is statistically significant.

Keywords: HAI- health care associated infections, karl Spearman correlation,CVC-catheter associated healthcare infection, VAP-Ventilator associated pneumonia,BSI-Bloodstream infection.

Introduction
Health care acquired infection (HAI) is an infection acquired by a person in the hospital, manifestation of which may occur during hospitalization or after discharge from the hospital. The incidence rate is 5 infections/1000 patient days (1).

The incidence of HAIs was more than 2million when the total number of patients admitted was 35million in US from 1986 to 1998. HAIs result in additional 26,250 deaths (range 17,500-70,000) and an added expenditure in excess of $4.5 billion/year and more than 1 billion pounds/year in UK HAIs are estimated to more than double the mortality and morbidity risks of any admitted patients and probably result in as many as 70,000 deaths per year in the united states. This is the equivalent of 3, 50,000 years life lost in the United States. In India 10-30% 0f patients admitted to hospitals are HAI affected.

India’s rate Overall HAI is 12.29% (73out of 594). Most common HAIs are CVC associated BSI 46.6 % (34 out of 73),VAP was 38.4 % (28 out of 73). UTI was 15.7 % (11 out 73) (2).The aim of this study is to assess and evaluate the current knowledge, attitudes and practices regarding HAIs amongst the nursing staff and suggest measures for controlling the same.

Materials & Methods
The study was conducted in a tertiary care teaching hospital during 2011-2012.

An open ended questionnaire with 25 multiple choice questions on Knowledge, Attitudes and Practices considering the factors such as Universal precautions, Aseptic measures, Hand hygiene, BMW management, Isolation practices was prepared. Our study group was nursing staff (n=50). The sample comprised of nurses from wards (n=25) & critical care areas (n=25).The questionnaire contained questions for data on age,
qualification, years of experience and job cadre. Each parameter in the questionnaire was given a KAP score the answers were statistically analyzed. The data was analyzed with spearman correlation. The mean, median, range and standard deviation of the data were also analyzed. The Spearman correlation was used to measure the linear relationship between two variables.

Results & Discussion
Two variables are casually related which means that one of variables is independent and other one is dependant. A large number of independent causes are operating in both the variables so as to produce a normal distribution. The spearman correlation showed a negative trend (figure-1) (3). The negative trend in r value is suggestive that correlation is taking place in opposite direction. The p value < 0.05 is suggestive that the study is significant. KAP score deteriorated with experience (table-1). The staff with less experience had a better KAP score (4).

Figure-1

![Total KAP score](image)

Table-1

<table>
<thead>
<tr>
<th>Experience</th>
<th>Knowledge</th>
<th>Attitude</th>
<th>Practice</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spearman r</td>
<td>-0.26</td>
<td>-0.39</td>
<td>-0.25</td>
<td>-0.42</td>
</tr>
<tr>
<td>P value</td>
<td>0.0647</td>
<td>0.005</td>
<td>0.08</td>
<td>0.003</td>
</tr>
</tbody>
</table>

Conclusion
Our study claims that experienced nursing staffs are less aware of the latest practices regarding HAIs. Nurses who have just completed their graduation had a better knowledge regarding latest guidelines for HAIs. Hence regular and periodic training programs for nurses regarding HAIs will help the clinicians and administrators to overcome HAI ghost.

Recommendations
Periodic training programmes & CME’s on Nosocomial infections to the all level health care providers.

Limitations
1) This study cannot be generalized.
2) There may have been difficulty among some nurses in analyzing the questions.
3) As the staff answered the questions during and after their shifts, their analytical skills may be affected due to work load.

References
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