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A study to assess the knowledge and practice on Methicillin Resistant Staphylococcus Aureus (MRSA) infection and the carrier status among healthcare professionals of a tertiary care hospital, Udupi District.

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"ABSTRACT

"A study to assess the knowledge and practice on Methicillin Resistant Staphylococcus aureus (MRSA) infection and the carrier status among healthcare professionals of a tertiary care hospital, Udupi District" was carried out at Manipal University, Manipal by Ms Diana D Mello for the award of M.Sc Nursing degree.

The objectives of the study were to assess the infection control practices followed by healthcare professionals, their knowledge on MRSA infection and to assess the carrier status of MRSA infection among healthcare professionals of surgical units of Kasturba hospital, Manipal.

The conceptual framework was based on Irwin Rosen Stocks Health Belief Model 1950. The research approach was a quantitative approach and cross sectional descriptive survey design was used. Total enumerative sampling was used to assess the knowledge and carrier status of MRSA. Event sampling (relative precision) was done to calculate the events (infection control practices) for this study.

Data was collected using demographic proforma and knowledge questionnaire. The infection control practices performed by the healthcare professionals were observed using observation checklist. The participants were assessed for carrier status of MRSA through swab culture and sensitivity testing.

The content validity of the tools was established by giving the tools to seven experts and modifications were made based on their suggestions. All the three tools were pre-tested and reliability was established for the two tools except demographic proforma. The reliability of knowledge questionnaire was established by using split

half method ($r=0.8$). The reliability of the observation checklist was established using inter-rater reliability method. ($r=0.9$). Both the tools were reliable. Pilot study was done and was found to be feasible.

The analysis was done using SPSS 16.0. The study findings revealed that 94.1% of study participants were females with 20-24 years of age. 72.3% were staff nurses and majority (49.5 %) had completed diploma in nursing. Majority (43.3%) of the healthcare professional's possessed excellent knowledge on MRSA infection whereas only few (10%) needed improvement in this area. Out of 112 healthcare professionals screened for MRSA carrier status, 2.7% were MRSA carriers in the nose and 0.9% were MRSA carriers in the throat.

Observations of infection control practices showed that, 74% and 71% of the participants washed hands before and after the care activities respectively. Among events observed, 1.5% of observations reported that participants did not follow finger interlocking step in hand washing. In 53% of observations, healthcare professionals used gloves during the procedures. Percentage of participants who wore masks when changing linen was 6.2. Hand washing was followed before dressing in 68.9% of the events and after the dressing in 66.2% of the events. Hand rubs were present at all nurses station and all the wards followed appropriate technique for specimen collection and transportation. All the wards in the study followed proper colour coding for waste disposal.

The study concluded that healthcare professionals have excellent knowledge on MRSA infection and also the carrier rate is considerably low compared to other studies conducted in

the similar area of interest. The mean knowledge score was 20.09 ± 4.08 . Compliance to infection control practices were

hindered in some areas. Waste disposal and specimen collection was followed appropriately in all the areas. Non-compliance was high in the areas of hand hygiene, dressing, ryles tube feeding and use of personal protective equipment. Location of hand rubs was appropriate to serve the purpose but the healthcare professionals were non-compliant in following the steps of hand hygiene before and after the procedure. Awareness program on MRSA infection prevention and transmission can be conducted and the compliance towards infection control practices can be improved.

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