AWARENESS OF HAND WASHING AMONG HOUSE-SURGEONS OF GOVERNMENT GENERAL HOSPITAL, VIJAYAWADA

P. Madhavi¹, K. Kiran Prakash²

HOW TO CITE THIS ARTICLE:


KEYWORDS: House- surgeon, hand wash.

INTRODUCTION: Health care acquired infections are rampant, with an estimated 1.7 million cases annually resulting in 99000 deaths and significant added expenses.¹ ² Populations largely affected by malnutrition and a variety of diseases increase the risk of health care associated infections (HCAI). Under these circumstances numerous viral and bacterial HCAI are transmitted and the burden due to such infections seems likely to be several times higher than what is observed in developed countries. For example, in one day prevalence surveys carried out in single hospitals in Albania, Morocco, Tunisia and the United Republic of Tanzania, HCAI prevalence rates varied between 19.1% and 14.8%.

Internship is the primary training and socialization point for new physicians. During this critical transition period, after medical school at the very outset of residency, lifelong attitudes and behaviors are ingrained around diagnosis, treatment and interaction with patients and providers. Thus it is logical to expect that desired practices facilitating outcomes such as systems thinking and a culture of safety should be introduced to and absorbed by new physicians at this time. One such critical behavior is proper hand hygiene.¹

Defective hand cleansing (eg: use of an insufficient amount of product and / or an insufficient duration of hand hygiene action) leads to poor hand decontamination. Health care workers (HCWs)’ hands become progressively colonized with potential pathogens during patient care. In the absence of hand hygiene, the longer the duration of care, the higher the degree of hand contamination. Obviously, when health care workers fail to clean the hands during the sequence of care of a single patient and/or between patients’ contact microbial transfer is likely to occur. Contaminated HCWs’ hands have been associated with endemic HCAIs³, ⁴ and also with several HCAI outbreaks.⁵-⁷ Clean care is safer care is not a choice but basic right. Clean hands prevent suffering and save lives.⁸
OBJECTIVE: To study the awareness levels of house – surgeons of government general hospital, Vijayawada regarding hand washing.

METHODOLOGY: This is a cross sectional, descriptive study. The sample size is 100 i.e., all the house-surgeons working at government general hospital, Vijayawada. Due permission is obtained from Superintendent, government general hospital, Vijayawada for conducting the study. A list of house-surgeons along with their postings in various wards is obtained from the o/o government general hospital, Vijayawada. Several visits were paid to see that not even one house-surgeon is missed out and the response rate is 100%. The study period is 1st January, 2014 to 1st February, 2014. A structured questionnaire based on NACO guidelines is designed. In this study, NACO guidelines are followed to suit the Indian context. The designed questionnaire is administered to the house-surgeons and data is collected. The data thus obtained is analyzed using MS excel sheets. Confidentiality is maintained and verbal consent is obtained from the respondents.

What is the correct procedure of hand washing? (NACO guidelines):

- When should the hands be washed?
  - Before, during, and after preparing food.
  - Before eating food.
  - Before and after caring for someone who is sick.
  - Before and after treating a cut or wound.
  - After using the toilet.
  - After changing diapers or cleaning up a child who has used the toilet.
  - After blowing your nose, coughing, or sneezing.
  - After touching an animal, animal feed or animal waste.
  - After touching garbage.

What is the right way to wash hands?

- Hands should be made wet with clean running water (warm or cold) and soap should be applied. Hands should be rubbed together to make a lather and should be scrubbed well. It is to be made sure to scrub the backs of hands, between the fingers and under the nails. Rubbing of hands should be continued for at least 20 seconds. Need a timer? The "Happy Birthday" or "Twinkle, Twinkle "song should be hummed from beginning to end twice. Hands should be rinsed well under running water. They should be dried using a clean towel or air dried.

- Gloves are not the substitute for hand washing. Always hands should be washed before/after removing gloves and after handling all materials known or suspected to be contaminated. Good hand washing takes 20 seconds with running water, soap & friction. Gloves need to be removed between patients.

- Washing hands with soap and water is the best way to reduce the number of germs on them. If soap and water are not available, an alcohol based hand sanitizer which contains at least 60% alcohol should be used. Alcohol-based hand sanitizers can quickly reduce the number of germs on hands in some situations, but sanitizers do not eliminate all types of germs. The product should be applied to the palm of one hand. Hands should be rubbed together. The product is rubbed over all
surfaces of hands and fingers until the hands are dry. Hand sanitizers may not be as effective as soap and water when hands are visibly dirty.

RESULTS: (Note: hand washing means washing hands with soap and water. N = 100) Before eating food, 99 out of 100 house surgeons washed their hands. Out of 100 house surgeons, 87 washed their hands before caring for someone who is sick. Ninety five house-surgeons washed their hands after caring for someone who is sick. Before treating a cut wound, 89 house-surgeons washed their hands. After treating a cut wound, 92 house-surgeons washed their hands. After using toilets 97 house-surgeons washed their hands. After coughing 61 house-surgeons washed their hands. After sneezing 49 house-surgeons washed their hands. After blowing nose, 56 house-surgeons washed their hands. After touching animals and pets 65 house-surgeons washed their hands. Before treating a cut wound, 89 house-surgeons washed their hands. After removing gloves, 88 house-surgeons washed their hands. Hand sanitizers (hand wash solutions and gels) were thought to be better than soap and water to reduce germs by 43 house-surgeons. Twenty six house-surgeons opined that gloves are a substitute to hand washing. Only 2 of 100 house-surgeons described the correct procedure of hand washing.

Table (N=100)

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Practice</th>
<th>Yes No. (%)</th>
<th>No No. (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Before eating food</td>
<td>99(99)</td>
<td>1(1)</td>
</tr>
<tr>
<td>2.</td>
<td>After using toilets</td>
<td>97(97)</td>
<td>3(3)</td>
</tr>
<tr>
<td>3.</td>
<td>After treating a cut / wound</td>
<td>92(92)</td>
<td>8(8)</td>
</tr>
<tr>
<td>4.</td>
<td>Before treating a cut / wound</td>
<td>89(89)</td>
<td>11(11)</td>
</tr>
<tr>
<td>5.</td>
<td>Before caring for someone who is sick</td>
<td>87(87)</td>
<td>13(13)</td>
</tr>
<tr>
<td>6.</td>
<td>Before wearing gloves</td>
<td>82(82)</td>
<td>18(18)</td>
</tr>
<tr>
<td>7.</td>
<td>After touching animals</td>
<td>65(65)</td>
<td>35(35)</td>
</tr>
<tr>
<td>8.</td>
<td>After coughing</td>
<td>61(61)</td>
<td>39(39)</td>
</tr>
<tr>
<td>9.</td>
<td>After blowing nose</td>
<td>56(56)</td>
<td>44(44)</td>
</tr>
<tr>
<td>10.</td>
<td>After sneezing</td>
<td>49(49)</td>
<td>51(51)</td>
</tr>
<tr>
<td>11.</td>
<td>Hand sanitizers are better than soap &amp; water</td>
<td>43(43)</td>
<td>57(57)</td>
</tr>
<tr>
<td>12.</td>
<td>Gloves are a substitute to hand washing</td>
<td>26(26)</td>
<td>74(74)</td>
</tr>
<tr>
<td>13.</td>
<td>Described the correct procedure of hand washing</td>
<td>02(02)</td>
<td>98(98)</td>
</tr>
</tbody>
</table>

DISCUSSION: In a Ugandan study done by Kamulegeya et al\(^9\). It was observed that, 13.6% of intern doctors always washed their hands before and after seeing a patient whereas in this study, 87 out of 100 and 95 out of 100 house-surgeons washed their hands before and after caring for someone who is sick. Thus our study findings differ from that of Ugandan study and our house-surgeons show better awareness regarding hand washing.

Out of 81 physicians – In training, in a study done by Bevin Cohen et al\(^10\) in New York, 49.41% (40) touched the patients with new gloves or washed hands. Our study findings differ from that of Bevin Cohen et al.
Enhanced adherence to hand washing was reported after caring for a patient than before, in a study done by Muhammad Ali Anwar\textsuperscript{11} in Pakistan. In our study also more number of house-surgeons washed their hands after patient care than before. Thus our study findings concur with that of Muhammad Ali Anwar et al.

It is welcoming that house-surgeons showed good awareness levels of washing hands with soap and water. But only two house-surgeons out of 100, showed correct knowledge of process of hand washing. It is understood that though the house-surgeons are washing their hands with soap and water, they are not following correct steps and correct duration as advised by NACO.

CONCLUSIONS: Majority of house-surgeons are aware of the situations when they have to wash their hands with soap and water. About half of the house-surgeons opined that hand sanitizers are better than soap and water to reduce germs on hands. Only 2 house-surgeons described correct way and duration of hand washing.

RECOMMENDATIONS: During the curriculum of M.B.B.S. steps of latest guidelines of hand washing should be incorporated. Repeated sensitization classes should be conducted to house-surgeons regarding hand washing. Steps of hand washing should be demonstrated by senior faculty as proven by Michael Whitby\textsuperscript{12} and Langford et al\textsuperscript{13}.

Proper hand hygiene is the single, most important, simplest and least expensive means of reducing the prevalence of HCAIs and anti-microbial resistance.\textsuperscript{14}

REFERENCES:

AUTHORS:
1. P. Madhavi
2. K. Kiran Prakash

PARTICULARS OF CONTRIBUTORS:
1. Associate Professor, Department of Community Medicine, Siddhartha Medical College.
2. Post Graduate Student, Department of Community Medicine, Siddhartha Medical College.

NAME ADDRESS EMAIL ID OF THE CORRESPONDING AUTHOR:
Dr. P. Madhavi,
H. No. 57-9-15,
New Postal Colony,
Pamatata, Vijaywada – 10, PIN – 520010.
E-mail: madhavipothukuchi@gmail.com

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