TO ASSESS THE LEVEL OF CLEANLINESS, HYGIENE, AND INFECTION CONTROL PRACTICES IN PUBLIC HEALTH CARE FACILITIES.

Dr. Vasundhara Aras¹ (Asst. Prof.)

¹Dept. of Community Medicine, Amaltas Institute of Medical Sciences, Dewas

Article Info: Received 14 September 2019; Accepted 20 October 2019

DOI: <https://doi.org/10.32553/ijmbs.v3i10.646>

Corresponding author: Dr. Vasundhara Aras

Conflict of interest: No conflict of interest.

Abstract

Method: This study is conducted at Primary, Secondary and Tertiary level of health care delivery centre of Indore district. Doctors, Staff Nurses, Housekeeping Staff, Staff Members, Beneficiaries (patient/relative). One year July 2010 - June 2011 Doctor Staff and Personnel involved in all selected centers were interviewed. 120 doctors, 56 nurses, 23 Housekeeping staff and 80 patients were selected for interviews & by method of Observation. Records view Hospital staff and patients interview record.

Result: IMCHRC, BSBH, Manpur, Sanwer, Simrol, & Hatod has 80% of hospital cleanliness with 72% of segregation collection, storage & transportation of BMW. DH Indore has 70% of cleanliness and 72% of segregation collection, storage & transportation of BMW, whereas Depalpur has 70% & 68%, respectively. Total number of doctors in all facilities is 120. 75% & 70% of Cleanliness and hygiene in procedure area and ambulatory & auxiliary area, respectively at IMCHRC, DH, BSBH Mhow. Sanwer & Hatod with 75% in both the areas by Depalpur 50%. Only Manpur and Simrol are with 100%.

Conclusion: Knowledge attitude and practices regarding Infection Control, benefits of hand wash & 6 steps of Hand wash correct method of wearing and removing hand gloves, when to use & its types, making Chlorine Solution, Decontamination & Cleaning of Instruments, standard Precautions, Knowledge about Personal Protective Equipment (PPE) and its practice among nurse and staff among all health care personnel is satisfactory.

Keywords: Cleanliness, Public Health, Care & Infection.

Introduction:

Maintenance of cleanliness and hygiene in hospitals is necessary with strict adherence to the guideline for infection control practices.¹ This is very much essential to prevent hospital acquired infections. Health care organizations are complex environments that contain a large diversity of microbial flora, many of which may constitute a risk to the patients, staff and visitors in the environment. Consistently high cleaning standards must be maintained in the high risk areas. Both informal monitoring and formal evaluation of cleanliness should take place continuously. Patient care areas and other facilities designated as high- risk category should be evaluated at least once a week until the Officer I/C Sanitation and Infection Control Team are satisfied that consistently high standards are being maintained, after which the frequency of evaluation may be reduced to once monthly.²

Keeping a hospital clean requires an active participation of all the personnel of hospitals along

with the patients and their visitors. One of the key dimensions of Quality of Care is cleanliness of health facilities. Maintenance of the hygiene and cleanliness of health facilities is not only related to aesthetics and patient satisfaction, but it also reduces the incidence of Hospital Acquired Infections (HAI). Keeping a hospital clean requires an active participation of all the personnel of hospitals including the patients and their visitors. Maintaining cleanliness in a health care facility differs from the conventional cleaning. Health facilities are required to maintain utmost cleanliness for minimizing the growth of infective organisms and their spread between patients, visitors and hospital staff. Public health facilities are generally unpleasant and unhygienic with poorly maintained buildings, overflowing drains, grazing cattle within the campus, presence of dogs/cats/rodents inside the hospital and patient care areas & often dirty/non-functional toilets.^{3&4}

Material & Method

Study Sites: Index Medical College Hospital & Research Centre, Indore & Primary, secondary and tertiary level of health care delivery centre of Indore district. Doctors, Staff nurses, Housekeeping staff, Staff members, Beneficiaries (patient/relative). One year July 2010 - June 2011 from the date of approval of study the ethical committee.

Sample Size: Doctor Staff and Personnel involved in all selected centers were interviewed. 120 doctors, 56 nurses, 23 Housekeeping staff and 80 patients were selected for interviews.

For beneficiary (inpatient and out-patient/relative) satisfaction assessment, 10% of the OPD and IPD patient on the day of visit were interviewed from each centre, which were selected by Simple Random Sampling method. Total 279 study subjects were selected according to the sample designed.

Study Method:

Observation

Records view

Hospital staff and patients interview record

Study Tools:

- Observational checklist to assess the infrastructure and facilities available with respect to cleanliness, hygiene and infection control practices in the public health facilities.

- Semi structured questionnaire to find out the awareness, attitude of staff towards study and problems faced in implementation of programme.

- Semi structured questionnaire to assess beneficiary's satisfaction with regard to cleanliness, hygiene, and infection control practices in the public health facilities.

Inclusion Criteria:

1. Staff, who were involved at the health centres and were present on the day of interview.

2. Beneficiaries present on the day of interview

- Those who gave consent.
- Only government health facilities were included in the study

Exclusion Criteria:

- Staff, who were absent and not given consent.
- All private health facilities.

Results

Table 1: Hospital cleanliness, hygiene & sanitation

		Tertiary level	Secondary level(urban)		Total (urban)	Secondary level(rural)			Total (rural)	Primary level		Total (%)	P value
					(%)				(%)				
S. No		IMCHRC Indore (%)	DH Indore (%)	BSBH Mhow (%)		Manpur (%)	Depalpur (%)	Sanwer (%)		Simrol (%)	Hatod (%)		
1	Hospital Cleanliness	80	70	80	75	80	70	80	76	80	80	80	.979 (Non Significant)
													.943 (Non Significant)
	Hygiene & Sanitation	80	60	80	70	80	60	80	73	80	80	80	
2													.920 (Non Significant)
	Segregate collection, storage & transportation of BMW	72	72	72	69	72	68	72	66	72	72	69	

Table depicts that IMCHRC, BSBH, Manpur, Sanwer, Simrol, & Hatod has 80% of hospital cleanliness with 72% of segregation collection, storage & transportation of BMW. DH Indore has 70% of cleanliness and 72% of

segregation collection, storage & transportation of BMW, whereas Depalpur has 70% & 68%, respectively. Total number of doctors in all facilities is 120.

Table 2: Assessment of Cleanliness and Hygiene

		Tertiary level	Secondary level(urban)		Total (urban)	Secondary level(rural)			Total (rural)	Primary level		Total	P value
S. No		IMCHRC	DH	BSBH	n=30	Manpur	Depalpur	Sanwer	n=24	Simrol	Hatod	n=6	
		Indore	Indore	Mhow	(%)	(n=6)	(n=10)	(n=8)	(%)	(n=2)	(n=4)	(%)	
		(n=60)	(n=10)	(n=20)		(%)	(%)	(%)		(%)	(%)		
		(%)	(%)	(%)									
1	Procedure area	45(75)	7.5(75)	15(75)	23(75)	4(100)	5(50)	6(75)	15(62)	2(100)	3(75)	5(83)	.5
													(Non
													Significant)
2	Ambulatory & auxiliary area	42(70)	7(70)	14(70)	21(70)	4(100)	5(50)	6(75)	15(62)	2(100)	3(75)	5(83)	.77
													(Non
													Significant)

Table revealed that there is 75% & 70% of Cleanliness and hygiene in procedure area and ambulatory & auxiliary area, respectively at IMCHRC, DH, BSBH Mhow. Sanwer & Hatod with 75% in both the areas by Depalpur 50%. Only Manpur and Simrol are with 100%.

Discussion

According to present study, Standard Methods of Cleaning were used in all the healthcare facilities. Standard Methods of Cleaning was 70% at IMCHRC Indore, 62% & 66% at Secondary healthcare facilities urban & rural respectively and 50% at PHC. Usage of standard materials & Equipments for Cleaning was 70% at IMCHRC and 50% at PHC. Cleanliness of Toilets at IMCHRC was 60 % followed by 50% at PHC (Simrol & Hotod).

There was 75% cleanliness observed in the Procedure Areas and also cleanliness of Ambulatory & Auxiliary area was found to be 70% in all Healthcare Facilities of Indore district. According to **Ahirwar Ghanshayam et al June (2016)⁵** in **Gajra Raja Medical College, Gwalior, M.P.** found Cleanliness of Circulation Area (60%), Cleanliness of wards (60%), Cleanliness of Procedure Areas (70%), Cleanliness of Ambulatory Area (60%), Cleanliness of Auxiliary Area (60%), Cleanliness of toilets (30%), use of standards materials and equipment for Cleaning (60%), use of Standard Methods Cleaning (50%), Monitoring of Cleanliness Activities (60%) and Drainage & Sewage Management (30%).

According to a study by **M V Kulkarni et. at⁶**, Patients' level of satisfaction was found to be better regarding cleanliness in patients' area, wards and hospital

campus (68.13%, 61.85% and 65.93%, respectively). But dissatisfaction was found to be more regarding the cleanliness in toilets (56.01 %) which were statistically significant. In Most of the places toilet is neglected area in the cleanliness. 51.93% were unsatisfied with quality of food and 16.98% patients were unsatisfied with availability of drinking water in the hospital. The study was carried out during summer season. That may be the reason for unavailability of water.⁷

Conclusion

Knowledge attitude and practices regarding Infection Control, benefits of hand wash & 6 steps of Hand wash correct method of wearing and removing hand gloves, when to use & its types, making Chlorine Solution, Decontamination & Cleaning of Instruments, standard Precautions, Knowledge about Personal Protective Equipment (PPE) and its practice among nurse and staff among all health care personnel is satisfactory.

References

1. Lowbury EJJ, Ayliffe GAJ, Geddes AM, Williams JD. Control of hospital infection: A practical handbook; 1998: 13-25.
2. Park K. Textbook of Preventive Medicine 24th edition, Jabalpur: Barandas Bharat Publisher; 2005: 826.
3. Swachhta Guidelines for Public Health Facilities 2015, <https://www.nhp.gov.in/kayakalp-swachhta-guidelines-for-public-healthfacilities>
4. MOHFW 2015. Kayakalp National Guideline for clean hospital applicable to tertiary care hospitals, hospitals associated with medical

colleges, super specialty hospitals in India (2015)
<http://www.mohfw.nic.in/>

5. A study to assess the Sanitation & Hygiene on the basis of Kayakalp tools in Tertiary Care Hospital of G.R. Medical College Gwalior, M.P., by Ahirwar Ghanshyam Assistant Professor, Dept of Community Medicine Govt Medical College, Datia, M.P. Gautam Praveen Assistant Professor, Dept of Community Medicine, Gajra Raja Medical College, Gwalior, M.P. 2016
6. Management and Control of Nosocomial Infections in Hospitals. International Journal of Scientific Research. 3(2) : 227-228. Tuhina Banerjee, Joel Filgona and Shampa Anupurba, 2013.
7. Study of Satisfaction of Patients admitted in a Tertiary Care Hospital in Nagpur M V Kulkarni¹, S Dasgupta², A R Deoke¹, Nayse³
¹Associate Professor, Department of Community Medicine, ²Dean, ³Statistician, Department of Community Medicine, NKP Salve Institute of Medical Sciences, Nagpur, Maharastra, 2011.