ISSN: 2322 - 0902 (P)
ISSN: 2322 - 0910 (O)

International Journal of Ayurveda and Pharma Research

Research Article

ASSESSMENT OF HEALTH CARE PROFESSIONALS KNOWLEDGE, ATTITUDE AND PRACTICE TOWARDS INFECTION CONTROL IN LABOUR ROOM

Parmar Meena[1]*, Parmar Gaurav[2]

*[1]Medical Officer, Department of Prasuti tantra and Stri roga, Chaudhary Brahm Prakash Ayurved Charak Sansthan Khera Dabur, New Delhi, India.

[2]Clinical registrar, Department of Shalya tantra, Chaudhary Brahm Prakash Ayurved Charak Sansthan khera Dabur, New Delhi, India.

ABSTRACT

Women in labour rooms are exposed to invasive devices and procedures that can cause significant infection risk. Although the period of contact is generally short, but the infection risk associated with care in labour rooms is probably quite high. The purpose of the study was to assess health care workers knowledge, attitude and practice towards infection control in labour room at Chaudhary Braham Prakash Ayurvedic Charak Sansathan New Delhi. A Questionnaire was prepared to assess the knowledge, attitude and practice of health care workers towards infection control in labour room. After a month of data collection I have found that only 50.02% of the health care professionals were adhered to infection control measures in labour room. Out of that nursing staff have the highest degree of knowledge and practice of infection control precautions. The good infection control practice is acquired by experience over years of work.

KEYWORDS: Health Care Professionals, Attitude and Practice Infection Control, Labour Room.

INTRODUCTION

Most nosocomial infections are largely preventable by the combination of simple good hygienic practices and appropriate decontamination of instruments Nosocomial infections such as endometritis, pelvic infections, urinary tract infections, neonatal sepsis etc. are serious complications in normal vaginal delivery. WHO recommends that there be (written) policies specifying the frequency of cleaning and types of cleaning agents used for walls, floors etc. Methods must be appropriate for the likelihood of contamination, including spillage, and necessary levels of asepsis. Nosocomial infections (NIS) are infections which result from treatment in a hospital or a healthcare service unit, but secondary to the patient's original condition. Infections are considered nosocomial if they first appear 48 hours or more after hospital admission or after discharge. This also includes occupational infections among staff of the facility. Nosocomial infections are also commonly known by the terms health care-associated and hospital-acquired infections (HAIs). The most common type of NIs are surgical wound infections, genitourinary infections, respiratory infections, as well as gastrointestinal infections[.1,2,3)]

The emergence of life –threatening infections have highlighted the need for efficient infection control programs in all health care settings and capacity building for health care workers, other patients and attendants. The responsible health authority should develop a national or regional programme to support hospitals in reducing the risk of health care associated HAIs or nosocomial infections.

The third most common nosocomial infection is surgical site infection includes obstetrics and gynaecological sources. The incidence of post-operative infections approaches 38%. The infection control programme was known to be simple, low cost, low technology intervention to reduce substantially the incidence of septicemias and mortality. [4,5,6)]

Effective infection prevention and control must be part of everyday practice and be applied consistently by everyone. Safe working practices must be followed for all patients regardless of known or suspected infection. The principle upon which this practice is based is that of standard precautions. All the patients have the right to be treated with dignity and respect and the use of standard precautions eliminates the risk of random in appropriate practice and permits staff to deliver high standards of care to all patients at all times.

RATIONALE

In developing countries, postpartum infection remains second only to postpartum hemorrhage as a cause of maternal deaths, and is the leading cause of serious maternal complications of childbirth. This is still the case despite the fact that more than 150 years have elapsed since it was determined not only that childbed fever (puerperial sepsis) was spread from woman to woman on the hands of physicians, but also that outbreaks of this deadly disease could be prevented by hand washing with chlorinated lime before delivery, and boiling all instruments and utensils after use when treating an infected postpartum woman.[7,8,9,10)]

A breach in infection control practices facilitates transmission of infection from patients to health care workers, other patients and attendants. It is therefore important for all health care professionals to adhere to the infection control guidelines strictly. It is also imperative

for health care administrators to ensure implementation of the infection control programme in health care facilities.

So this study was conducted to evaluate the situation of infection control practices in labour rooms at Chaudhary Braham Prakash Ayurvedic Charak Sansathan, Khera Dabar, Najafgarh, New Delhi, in order to determine the level of adherence of hospital and health care workers to infection control guidelines and to measure the extent of participation in infection control programmes. Also to evaluate health care workers knowledge and attitude towards infection control programmes.

Methodology

Objectives

- To study the present practices of infection control in labour room.
- To assess Health Care Workers Knowledge, Attitude and Practice towards infection control in labour room.
- To study the methods for improvement for infection control in labour room.

Study Area

The research is to be conducted in Chaudhary Braham Prakash Ayurvedic Charak Sansathan, Khera Dabar, New Delhi.

Data Collection Tools and Techniques

1. It will be an observational prospective study.
2. Data collection from records and direct observation of various Infection Control Practices.
3. Questionnaire is to be used to evaluate the knowledge and practices of Health Care Professionals towards infection control guidelines.

INCLUSION CRITERIA

All health care professionals who have regular contact with patients in the labour room. This includes staff such as clinical registrars, medical officers, nursing staff and interns.

Sample Size and Sampling Strategy

1. The estimated study sample size was 20.
2. The survey was conducted by face to face interviews of respondents using a self administered questionnaire. The respondents will be consented and given the questionnaire to fill in and return on the same day to minimize response bias due to collaboration between respondents.
3. The distribution of questionnaire was done during the working hours of respondents and at a time convenient to both investigator and respondent.
4. A questionnaire was administrated to all respondents to assess their Knowledge, Attitude and Practice towards infection control with regard to ten (10) randomly selected guidelines from the Operation Theatre Policy Manual.
5. Evaluated the relationship between respondent group, sex and time since completion of basic medical training.
6. Did not set out to evaluate the evidence supporting existing policies for infection control in Labour room. Instead, aim was to evaluate staff's knowledge and adherence to existing protocols.
7. The questionnaire included items about demographics, level of training, specific training in infection control policy and current practices with respect to ten recommendations randomly selected from the operation theatre policy manual.

OBSERVATIONS AND RESULTS

Knowledge, Attitude and Practice of Medical Personnel on Standard Precautions of Infection control in labour room.

Table 1: Medical occupation VS Change gloves between tasks/procedures on the same patient to prevent cross-contamination between different body sites

		Every time	Sometimes	Never	Total
Medical Occupation	**Cl. Registrar**	01	01	00	02
	Medical Officer	01	01	00	02
	Interns	01	02	01	04
	Nursing Staff	07	04	01	12
Total		10	08	02	20

Interpretation

50% of respondents change gloves every time between tasks to prevent cross-contamination from whom nursing staff are 7out of 12, compared to clinical registrars 1out of 2, medical officers 1out of 2, interns 1 out of 4.

Table 2: Medical Occupation VS Change gloves during procedures between two patients to prevent cross-contamination

		Every time	Sometimes	Never	Total
Medical Occupation	**Cl. Registrar**	02	00	00	02
	Medical Officer	02	00	00	02
	Interns	01	02	01	04
	Nursing Staff	07	04	01	12
Total		12	06	02	20

Interpretation

60% of respondents always change gloves during procedure between two patients to prevent cross-contamination, from whom nursing staff are 7out of 12, compared to clinical registrars 2out of 2, medical officers 2out of 2, interns 1 out of 4.

Table 3: Medical occupation VS Wash/decontaminate hands before handling an invasive device (regardless of whether or not gloves are used) for patient care

		Every time	Sometimes	Never	Total
Medical Occupation	**Cl. Registrar**	01	01	00	02
	Medical Officer	02	00	00	02
	Interns	02	02	00	04
	Nursing Staff	08	04	00	12
Total		13	07	00	20

Interpretation

65% of respondents wash or decontaminate hands every time before handling an invasive device (regardless of whether or not gloves are used) for patient care from whom Medical officers are 2out of 2, compared to Clinical Registrars 1 out of 2, Nursing staff 8 out of 12, interns 2 out of 4.

Table 4: Medical Occupation VS Wear a surgical mask to protect nose and mouth during procedures and activities that are likely to generate splashes or sprays of blood and body fluids

		Every time	Sometimes	Never	Total
Medical Occupation	**Cl. Registrar**	01	01	00	02
	Medical Officer	01	01	00	02
	Interns	01	02	01	04
	Nursing Staff	07	04	01	12
Total		10	08	02	20

Interpretation

50% of respondents wear a surgical mask every time to protect nose and mouth during procedures and activities that are likely to generate splashes or sprays of blood and body fluids from whom nursing staff are 7 out of 12, compared to clinical registrars 1out of 2, medical officers 1 out of 2, intern 1 out of 4.

Table 5: Medical Occupation VS Wear a gown during procedures that are likely to generate splashes or sprays of blood and body fluids

		Every time	Sometimes	Never	Total
Medical Occupation	**Cl. Registrar**	01	01	00	02
	Medical Officer	01	01	00	02
	Interns	01	03	00	04
	Nursing Staff	07	05	00	12
Total		10	10	00	20

Interpretation

50% of respondents wear gown every time during procedures that are likely to generate splashes or sprays of blood and body fluids from whom Nursing staff are 7 out of 12, compared to clinical registrars 1out of 2, medical officers 1 out of 2, interns 1 out of 2.

Table 6: Medical occupation VS Place used disposable syringes and needles, scalpel blades and other sharp items in a puncture-resistant container with a lid

		Every time	Sometimes	Never	Total
Medical Occupation	**Cl. Registrar**	01	01	00	06
	Medical Officer	01	01	00	04
	Interns	02	02	00	02
	Nursing Staff	09	02	01	08
Total		13	06	01	20

Interpretation

65% of respondents every time place used disposable syringes and needles, scalpel blades and other sharp items in a puncture-resistant container with a lid from whom Nursing staff are 9 out of 12, compared to Clinical Registrars 1 out of 2, medical officers 1out of 2 and Interns 2 out of 4.

Table 7: Medical Occupation VS Recap or bend needles

		Every time	Sometimes	Never	Total
Medical Occupation	**Cl. Registrar**	01	00	01	02
	Medical Officer	00	01	01	02
	Interns	01	02	01	04
	Nursing Staff	07	02	03	12
Total		09	05	06	20

Interpretation

45% respondents every time recap or bend needles from whom Nursing staff are 7 out of 12, compared to Clinical registrars 1 out of 2, medical officers 1 out of 2, interns 1 out of 4.

Table 8: Medical occupation VS Use a plain soap, antimicrobial agent or waterless antiseptic agent to wash my hands after removing gloves

		Every time	Sometimes	Never	Total
Medical Occupation	**Cl. Registrar**	01	01	00	02
	Medical officer	01	01	00	02
	Interns	01	03	00	04
	Nursing Staff	07	05	00	12
Total		10	10	00	20

Interpretation

50% respondents every time use a plain soap, antimicrobial agent or waterless antiseptic agent to wash hands after removing glove**s** from whom Nursing staff are 7 out of 12,compared to Clinical registrars 1out of 2, medical officers 1 out of 2, interns 1out of 4.

Table 9: Medical occupation VS Containers should be disposed of when they are three-quarters full

		Every time	Sometimes	Never	Total
Medical Occupation	**Cl. Registrar**	01	01	00	02
	Medical officer	01	01	00	02
	Interns	01	03	00	04
	Nursing Staff	07	05	00	12
Total		10	10	00	20

Interpretation: 50% respondents thought containers should be disposed of when they are three-quarters full from whom Nursing staff are 7out of 12, compared to registrars 1 out of 2, medical officers 1out of 2, interns 1 out of 4.

Table 10: Medical occupation Vs Had received previous formal training on infection control precautions

		Yes	No	Total
Medical Occupation	**Cl. Registrar**	01	01	06
	Medical officer	01	01	04
	Interns	00	04	02
	Nursing Staff	05	07	12
Total		07	13	20

Interpretation

35% respondents had received previous formal training on infection control precautions from whom Clinical registrars 1 out of 2, medical officers 1 out of 2, Nursing staff are 5 out of 12 and interns 0 out of 4.

DISCUSSION

Many factors promote infection among hospitalized patients; decreased immunity among patients; increasing variety of medical procedures and invasive techniques creating potential routes of infection; and the transmission of drug resistant bacteria; and the transmission of drug resistant bacteria among crowded hospital populations, where poor infection control practices may facilitate transmission.

Treating all patients in the health care facility with the same basic level of "standard" precautions involves work practices that are essential to provide a high level of protection to patients, health care workers and visitors (WHO 2004).

Studies through the world document the HAIs are a major cause of morbidity and mortality, its prevention is the responsibility of all individuals and services providing health care.

To reduce the risk of infection everyone in the hospital directly or indirectly related to patient care has to work collectively.

Preventive measures and universal precautions regarding infection control are applied in the labour room premises of Chaudhary Braham Prakash Ayurvedic charak Sansthan, but there are some problems observed during this study.

The study revealed that HCWS had good knowledge about PPE(Personal Protective Equipment) but 30-40% of HCWs still had to ensure implementation of universal precautions; because failure to meet these infection control standards may facilitate infections among patients and HCWs.

Overall study revealed that 50.02% respondents were always adhered to the Infection control precautions, whereas 29% sometimes and 20.5% respondents never follow universal precautions regarding Infection control guidelines. In nut shell, it has been observed that 50% Health Care Professionals working in labour room has good knowledge and attitude of Infection Control Practices but still 50% out of them require proper training, education and implementation of Universal Precautions regarding Infection Control to provide safe and effective medical care to all patients.

CONCLUSION

- There is a lack of supervision regarding implementation of Universal Precautions by Infection

Control Committee and the adherence of health organization to it.

- Lack of proper training and education of staff regarding Infection Control Precautions.
- Instead of the knowledge of Personal Protective Equipments, non- adherence of staff to it.
- There are problem in the application of preventive measures especially in the field of waste disposal.
- More experienced Health Care Professionals has good infection control practice than less experienced HCWs.

RECOMMENDATIONS

- To establish a multidisciplinary Infection Control Committee.
- Ensuring education and training of all staff on the prevention of infection in disinfection and sterilization techniques, their health and other hospital programmes, universal precautions and additional precautions like transmission based and contact precautions.
- Regular monitoring regarding implementation of universal precautions an d aseptic techniques by Infection Control Committee or senior staff.
- Safety manual should be prepared by hospital with clear guidelines and should be placed in wards, O.T. and labour room.
- Additional concern should be given to the availability and quality of Personal Protective Equipments.
- There should be regular reviewing, approving and implementing policies approved by Infection Control Committee.

REFERENCES

1. Abdullahi N Hassan and Moawia A Hassan. Knowledge, attitude, and practice of healthcare personnel about sterilization and disinfection at Khartoum North Teaching Hospital, Hospital report 2007.
2. American Society of Health-System Pharmacists. ASHP statement on the pharmacist's role in infection control. Am J Health-Syst Pharm. 1998; 55:1724–6. http://www.ashp.org/DocLibrary/BestPractices/InfectionControl.aspx
3. Constance Faro, Sebastian Faro. Postoperative pelvic infections. www. The clinic.com. infectious disease clinics of North America. Volume 22, issue December 2008.
4. Dever, GEA, Improving Outcomes in Public Health Practice, Strategy and Methods. Aspen Publishers, 1997, p10
5. Doyle PM, Alvi S, Johanson R. The effectiveness of double gloving in obstetrics and gynaecology. Br J Obstet Gynaecol 1992; 99: 83-4
6. Emori TG and RP Gaynes. 1993. An overview of nosocomial infections, including the role of the clinical laboratory. Clin Microbiol Rev 6(4): 428–442.
7. Finnegan LP, Sheffield J, Sanghvi H, Anker M. Infectious diseases and maternal morbidity and mortality [conference summary]. Emerg Infect Dis [serial on the Internet], 2004 November. http://www.cdc.gov/ncidod/EID/vol10no11/040624_05.htm.
8. Gala CL, Hall CB, Schnabel KC, et al. The use of eye-nose goggles to control nosocomial respiratory syncytial virus infection. Jama 1986;256(19):2706-8.
9. William A. Rutala, David J. Weber. Guideline for Disinfection and Sterilization in Healthcare Facilities. Healthcare Infection Control Practices Advisory Committee(HIPAC) 2008.
10. World Health Organization 2004,Practical Guidelines for Infection Control in HealthCare Facilities. Regional Office for Western Pacific, Manila. Regional Office for South-East Asia, New Delhi.

Cite this article as:
Parmar Meena, Parmar Gaurav. Assessment of Health Care Professionals Knowledge, Attitude and Practice towards Infection Control in Labour Room. International Journal of Ayurveda and Pharma Research. 2016;4(4):32-36.
Source of support: Nil, Conflict of interest: None Declared

***Address for correspondence**
Dr. Meena Parmar
Dept. of Prasuti Tantra and Stri roga,
Choudhary Brahm Prakash Ayurved Charak Sansthan Khera Dabur,
New Delhi.
Email : takshu2009@gmail.com
Contact no. 08750235896