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AN OBSERVATIONAL STUDY TO ABOUT THE FREQUENCY OF UNSTERILIZED INSTRUMENTS USED IN OPERATION THEATRES OF TERTIARY CARE HOSPITAL

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Abstract:

Objective: *Evaluate the incidence of unscrupulous personnel in contact with the patient and the use of hand hygiene in the operating room.*

Place and Duration: *The study was performed in the operation theatres of Mayo Hospital, Lahore a tertiary care hospital for the period of 1 year from April 2016 to March 2017.*

Methods: *A qualified observer performed a potential series of hidden observations. Several hand hygiene protocols have been established for hospital practice. The hospital protocol requires staff to clean their hands after and before the contact of every patient. Alcohol-swab rubbing of hand is available in and around the OT.*

Observation Methods: *The observer who is the nurse of the young personnel compiled the necessary data. The nurse is trained to accurately monitor hygiene sections of hands. Observation analysis was recorded in the prepared performance. Employees are not informed about the nature of the employee.*

Conclusion: *Measures to reduce the pollution of the operating room environment and the importance of applying hand hygiene during the management of patients. Accepted measures to reduce the rate of infection in a surgical patient cannot be exaggerated. This study provides a good approximation of the standard of practice and the areas where we should strive to increase the well-being of patients and to minimize the rate of infection in the operating room.*

Key words: *Operation Theater, hygiene, Hand washing, Contamination*

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INTRODUCTION:

Various measures for infection control are applied to minimize the pathogen risk transfer in the hospital setting. Standard measures are believed to be most beneficial against infections associated with healthcare. However, compliance with standard precautions is not high enough in health environments in third world countries. Often, the use of handwashing or alcohol-based solutions is an important precaution to minimize the transmission risk of contagious organisms from one person to another, but this is an important measure, although it is not easy to maintain high compliance in health care. Surgical field infections (SSI) studies in Western countries report a relative incidence of 15% to 20% in prevalence studies and an incidence ranging from 2% to 3% to 12% to 15% in general surgery. A recent survey of 30 studies published as a result of the prevention of nosocomial infections by intervention programs between 1990 and 2002 found that about 20% of all infections were preventable. Of the studies performed in the western parts of general surgery operations, two have shown that the rate of infection decreases by 24% -25% after the application of the infection control and control program. A national survey of hospital infection surveillance and control programs launched in Italy in early 2000 found that only 31% of the surgical departments had established protocols for the prevention of infections."Standard measures" employees assume that blood and body parts of all illnesses are a possible source of infection thought to be the case of diagnosis or infection. Additional measures are necessary for airborne diseases, droplets and contact. These are called "additional measures" (transmission based). Hand washing with soap (antimicrobial or non-antimicrobial) should be done when there is visible contamination with blood or body fluids. If there is no visible contamination, it is recommended to scrub alcohol for hand hygiene. Spore-forming organisms such as Clostridium difficile and Bacillus anthracis are weakly inactivated by water-free hand hygiene products and require physical action for rinsing for rinsing and rinsing. This study was conducted to realize the standard. Infection control practices implemented in a developing country tertiary care hospital in terms of hand hygiene in operating rooms.

Observation technique

A hand hygiene practice is defined as an alcohol-build disinfectant regardless of the amount of cleaning product used and duration , or the removal of gloves after contact with a patient. Hygiene opportunity Of hand is described as a condition that requires the application of hand hygiene. The personnel under observation are classified as professionals, anesthesia consultants, anesthesia assistants, anesthesia assistants, surgeons, surgeons, OT assistants, medical students and surgical nurses . A surgical scrub using technique staff and who wear gloves and who wear a clean OT dress were not included in the observation. Only before the surgery preparations Surgeons were observed and after done with the surgical procedure . The observation time for surgical nurses was related to their function during the surgery: rubbing (when wearing sterile clothes not observed) or nurse who is circulating in OT (non-sterile clothes, observed constantly). Other personnel were constantly monitored.

Observations

1) Practice of hand hygiene Practice of hand hygiene Practice of hygiene of hand was documented when each participant performed this process.

2) The frequency at which staff touched the patient was assessed.

3) We control the potential contamination, defined as contact objects in the chamber, after contact with the patient or patient's body fluids, without hand hygiene practice.

We have not distinguished between touching the patient with gloves or naked hands without gloves if the patient had not contacted the glove before the previous contact and hand hygiene was not applied. After contact with the patient, the handler should be cleaned to prevent microbial contamination of the OT inserts. Microbial contamination can also be caused by contact with the body fluid of the patient (eg blood or saliva in the bandage material). Various articles that were touched by the OR staff were also pointed out through potential contamination.

4) The total number of surgical procedures was observed for 60 hours. Patients undergoing various procedures including general surgery, otorhinolaryngology, urology, gynecology, obstetric and orthopedic surgery.

5) Average number of personnel. The average number of gifts in OT was recorded at the same time.

Statistical analysis

We use descriptive statistics by using the Microsoft spreadsheet. Data analysis is the result of the operations in number, the number of watches, the number of personnel and the gloves in number used. Hand hygiene performance is expressed as percentage of personnel (hand hygiene practices / hand hygiene opportunities) or hourly hand hygiene practices. The categories used for the analysis were 'before the patient' and 'potential contamination'. A total of 40 surgical procedures consisting of 60-hour observations were observed. Patients underwent

various procedures such as general surgery, orthopedics, otorhinolaryngology , gynecology and obstetrics . At the same time, the average number of employees in OT was 8,025 (5-12 people). The team usually comprised two or three members of the anesthesia team, four or five members of the surgical team, and a medical student. A total of 238 hand hygiene practices were observed during the study, with an average hand hygiene of 0.12. Per person per hour. A total of 204 pairs of gloves were used. This creates an average of 5.1 (range 2-7) gloves per operation, excluding sterile gloves worn by the operation team for the operation. The anesthesia team used 145 204 pairs of gloves. They were mainly used during anesthesia induction (intubation, patient placement), when apparently contaminating body fluids and during contact with anesthesia (eg extubation, patient transport to the bed). Surgeons wore gloves. For surgical nurses and operating room assistants, they would wear gloves to treat non-sterile objects, usually blood or secretions (eg gauze, tube or pathological tissue specimens) that were contaminating and cleaned after processing. 49 pairs) Percentage of hand hygiene (hand hygiene practices / opportunities of hand hygiene) and the mean operating standard in the operating room was 37% (11-50%).

DISCUSSION:

When we compare the use of hand hygiene by the staff 0.12, Kradiet and his colleagues offered 0.14 hand hygiene per employee per hour. After contacting a patient, we tried to apply hand hygiene and this represented an average of 37%. We do not count on the practice of hand hygiene after entering the operating room due to the large intermittent locations of hand-cleaning solution dispensers containing alcohol. In the Kradiet study, hand hygiene was performed at 2% (7/363) and 8% (28/333), respectively, when entering or leaving OT. A total of 69 hand hygiene practices were observed throughout the study. Compliance with glove guidelines ranged from 0% to 87%. In our study, the non-sterile parts of the patient and the largest number of contacts were performed by the anesthesia team, which accounted for 72% of all contacts. This points to the importance of hand hygiene and other infection control practices among anesthesia personnel. It was a similar percentage in another study. We observed that 8 teams used an average of 5 gloves (2-7 ranges) for each operation. The smallest number of gloves (6 gloves) used by surgical consultants, the highest number used by anesthesia residents (73), is probably in contact with the largest number of contacts, airway management and secretions. As a greater awareness of anesthesiologists, the potential contamination rate with patient contacts was 0.97 (range 0.6-1.44), reflecting the potential of the team to contaminate the operating room environment. Compared to the previous study, the team used a total of six to seven non-sterile gloves in the surgical procedure.

Table-1: The average number of events occurring during the stay of a patient in the operating room for a surgical procedure

	Oppurtunity for hand hygiene application per procedure	HH application	potential contamination	Average # gloves used
Anesthesthetist	1.925	0.925	1.15	0.825
Anesthesthesia resident	6.475	2.1	5.375	1.825
Anesthesthesia assistant	3.65	1.125	3.575	0.975
Surgeon	0.525	0.2	0.5	0.15
Surgery resident	0.625	0.275	0.525	0.125
Scrub Nurse	1.6	0.8	1.225	0.675
Circulating nurse	0.75	0.325	1	0.275
ODA	1.875	0.2	2.7	0.1
Medical student	0	0	0	0

Av # of gloves used/case =8.025 (Range 5-12)
Total observation time= 60.2 hours

Approximately three patients of four surgical team members were touched and OT was applied intermittently without hand hygiene practice. Almost invariably, members of the anesthesia team are contacted with the patient or body fluids and with the patient's OTs, without the need to apply hand hygiene. Ten of the OT personnel wore non-sterile gloves when nine trachea were tracheal intubated or when a nasogastric tube was placed. However, while the peripheral venous catheter was inserted, four members of the anesthesia team had fewer than one glove. Anesthesia machine dispenser, monitor controls, electrocardiogram wiring, SaO, probe, separation control, anesthesia machine, anesthesia machine, use of anesthesia equipment, including a surface anesthesia machine, halothane / isoflurane control laryngoscope use line, a list of different items or surfaces contaminated with oxygen flow control nitrogen flow vaporizer ventilator controls and stethoscope. The incidence of occult contamination on the surface of these areas was observed between 31.2% and 42.2%. Our observations include items such as infusion bags, pressure bags, dropping games, syringes oxygen mask, masks, their own face, supports or disposable covers, eyeglasses, pens,

books, mobile phones, OR as well as above items, operations, drug cartoons, tables OR doors, OR door handles and walls. Most of them are mentioned in different studies. Almost an anesthesiologist can be avoided by the mucocutaneous barrier that protects blood and saliva from all exposure.

The greatest contribution to potential contamination was made by the anesthesia team responsible for 63% of the total according to our observations. However, the potential contamination rate for hand hygiene was highest for OT assistants (1.44) and lowest (0.6) for anesthesia consultants. It has been found that resident anesthesiologists are more likely to fit glove policy than those who care (33.8% versus 61.8%, p <0.0001). However, lower compliance among participants, 11.5% compliance for employees under 55 years of age, and higher-level employees over 55 years of age (above 55 years of age) (p <0.0001). Partition adjustment as a whole was 49.6%. In pediatric cases compliance was found to be 10%, and the entire department was equally devoid of staff. 14 We do not recognize our observations by staff age. Surgery is a study conducted by Kushimo and colleagues, who consider the infection control practices in the operating room environment, which is the story of HIV-positive patients. One hundred (66.7%) of the 150 surveys distributed in the Nigerian Anesthetists Association were distributed and delivered. Fifty-five percent (55%) of the respondents' requests were confirmed, but only 45% of the individuals tested for HIV. Although 23% of all participants did not transient non-urgent selective blood, only 1 (8.3%) of the consultants would do so. Damara guandarán Despite the routine glove presence of only 12 (70.5%) home officials, this trend was reflected in consultants who would routinely use gloves in behavioral gloves, with 11 (91.6%) at the same time. Other facilities, such as goggles, shavings disposal, containers for routine tests of all surgical patients, can be used in more special hospitals in patients, warn. Surveys were distributed to 213 consultant anesthesiologists in the northwestern United Kingdom with a response rate of 68%. These surveys are designed to assess hygienic measures taken to reduce the potential for transmission of contagious agents and their care for patients. Masks and gloves were always used at 35.2% and 14.5%, respectively, only 36.4% were washed between hands. Most of the respondents have changed their practice since the introduction of HIV transmission (74.8%) and hepatitis B and C (69.8%). A large proportion of anesthesiologists continue to administer anesthesia despite gastrointestinal (42.9%) respiratory problems (94%), or herpes simplex (32.6%) infections.

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