MRS.RATHIDEVI.S

PROFESSOR

ICON

DEMONSTRATION

ON

MEDICAL AND SURGICAL HAND WASHING

GENERAL OBJECTIVE:

At the end of the class students are able to understand regarding “medical and surgical hand washing ”. We can reduce the infection in clinical setting, while taking history collection and giving care of patients with proper hand washing.

SPECIFIC OBJECTIVE:

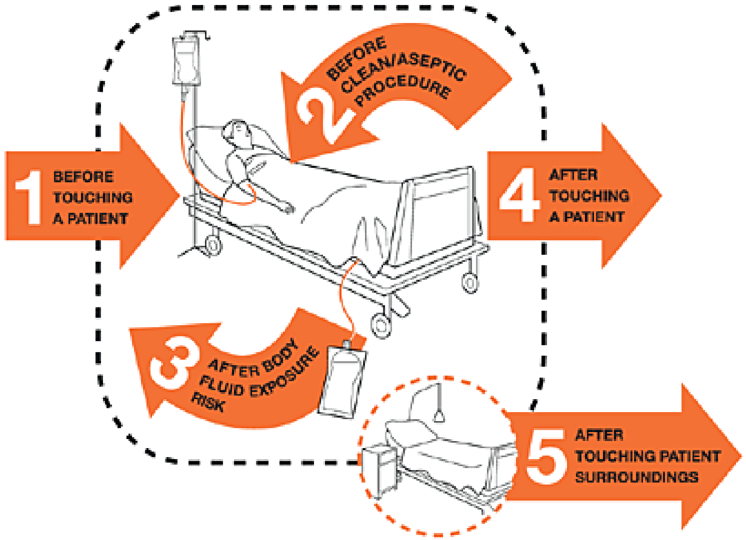
The students will able to:

- ✓ Definition of hand washing
- ✓ explain the importance hand washing
- ✓ List out the five moments and indication of hand washing.

- ✓ Describe the types of hand washing
- ✓ Demonstrate the medical and surgical hand washing steps.

S.NO	SPECIFIC OBJECTIVES	TIME	CONTENT	TEACHERS AND LEARNERS ACTIVITY	AVAIDS	METHODS OF EVALUATION
1.	The students will be able to explain the definition of hand washing	1 Minute	**DEFINITION OF HAND WASHING:** IgnazSemmelweis, a Hungarian physician practicing at a hospital in Vienna, Austria, proposed hand washing and chlorine solutions in the OB ward in 1847. • <u>Hand washing:</u> It refers to washing hands with plain soap and water. • <u>Antiseptic hand wash:</u> It refers to washing hands with water and soap or other detergents containing an antiseptic agent. • <u>Alcohol-based hand rub:</u> It refers to the alcohol-containing preparation applied to the hands to reduce the number of viable microorganisms.	Discuss the definition of hand washing Listening and taking notes	Roller board	What is the definition of hand washing?

			Surgical hand hygiene/antisepsis: It refers to an antiseptic hand wash or antiseptic hand rub performed preoperatively by surgical personnel to eliminate and reduce resident hand flora.			

2	Discuss the importance of hand washing	2 min	**IMPORTANCE OF HAND WASHING:** Thousands of people die every day around the world from infections acquired while receiving health care. •Hands are the main pathways of germ transmission during health care. •Hand hygiene is therefore the most important measure to avoid the transmission of harmful germs and prevent health care-associated infections.	Discuss the importance of hand washing. Listening and taking notes	Black board	What is the importance off hand washing?
3.	Indication and Five moments of hand washing	5 mint		Describe the Indication and Five moments of hand washing	Hand out	What are all the five moments of hand washing?

4.	Indication and Five moments of hand washing	5 mint	**1) Before touching a patient:** **WHY?** To protect the patient against colonization and, in some cases, against exogenous infection, by harmful germs carried on your hands. **WHEN?** Clean your hands before touching a patient when approaching him/her* **Situations when Moment 1 applies:** a)Before shaking hands, before stroking a child's forehead b)Before assisting a patient in personal care activities: to move, to take a bath, to eat, to get dressed, etc c)Before delivering care and other non-invasive treatment: applying oxygen mask, giving a massage c)Before performing a physical non-invasive examination: taking pulse, blood pressure, chest auscultation, recording ECG **2) BEFORE CLEAN/ASEPTIC PROCEDURE:** **WHY?** To protect the patient against infection with harmful germs, including his/her own germs, entering his/her body	Discuss the moments of hand washing Listening and taking notes		

			WHEN? Clean your hands immediately before accessing a critical site with infectious risk for the patient (e.g. a mucous membrane, non-intact skin, an invasive medical device)* Situations when Moment 2 applies: a)Before brushing the patient's teeth, instilling eye drops, performing a digital vaginal or rectal examination, examining mouth, nose, ear with or without an instrument, inserting a suppository / pessary, suctioning mucous b)Before dressing a wound with or without instrument, applying ointment on vesicle, making a percutaneous injection /puncture c)Before inserting an invasive medical device (nasal cannula, nasogastric tube, endotracheal tube, urinary probe, percutaneous catheter, drainage), disrupting / opening any circuit of an invasive medical device (for food, medication, draining, suctioning, monitoring purposes) **3. AFTER BODY FLUID EXPOSURE RISK** **WHY?** To protect you from colonization or infection with			

			patient's harmful germs and to protect the health-care environment from germ spread **WHEN?** Clean your hands as soon as the task involving an exposure risk to body fluids has ended (and after glove removal)* Situations when Moment 3 applies: a)When the contact with a mucous membrane and with non-intact skin ends b)After a percutaneous injection or puncture; after inserting an invasive medical device (vascular access, catheter, tube, drain, etc); after disrupting and opening an invasive circuit c)After removing an invasive medical device d)After removing any form of material offering protection (napkin, dressing, gauze, sanitary towel, etc) e)After handling a sample containing organic matter, after clearing excreta and any other body fluid, after cleaning Uncontaminated **4.AFTER TOUCHING A PATIENT** **WHY?** To protect you from colonization with patient germs and to protect the health-care environment from germ spread WHEN?			

			Clean your hands when leaving the patient's side, after having touched the patient * Situations when Moment 4 applies, if they correspond to the last contact with the patient before leaving him / her: a)After shaking hands, stroking a child's forehead b)After you have assisted the patient in personal care activities: to move, to bath, to eat, to dress, etc c)After delivering care and other non-invasive treatment: changing bed linen as the patient is in, applying oxygen mask, giving a massage d)After performing a physical non-invasive examination: taking pulse, blood pressure, chest auscultation, recording ECG **5.AFTER TOUCHING PATIENT SURROUNDINGS** **WHY?** To protect you from colonization with patient germs that may be present on surfaces / objects in patient surroundings and to protect the health-care environment against germ spread **WHEN?** Clean your hands after touching any object or furniture when living the patient surroundings, without having touched the patient* This Moment 5 applies in the following situations if they correspond			

			to the last contact with the patient surroundings, without having touched the patient: a)After an activity involving physical contact with the patients immediate environment: changing bed linen with the patient out of the bed, holding a bed trail, clearing a bedside table b)After a care activity: adjusting perfusion speed, clearing a monitoring alarm c)After other contacts with surfaces or inanimate objects **TYPES OF HAND WASH PROCEDURE** **1. SOCIAL HAND WASH:** Why should a social hand wash be performed? Social hand wash is performed to render the hands physically clean and to remove transient microorganisms. It is an infection control practice with a clearly demonstrated efficacy and remains the cornerstone of efforts to reduce the spread of infection .			

			When should a social hand wash be performed? The times that hand hygiene should be performed have been summarised into the “Your 5 Moments for Hand Hygiene”, as these are considered the most fundamental times for the levels of hand hygiene to be undertaken during care delivery and daily routines Your 5 Moments for Hand Hygiene **Examples of when to perform a social hand wash** **Before:** •the beginning of the shift •preparing, handling and eating food •donning gloves •any patient contact •clean/aseptic procedures •entering/leaving clinical areas •entering/leaving isolation cubicles •preparing/giving medications •using a computer keyboard in a clinical area			

			After: •the end of a shift •any patient contact •bed making •contact with patient surroundings •visiting the toilet •the removal of gloves •hands become visibly soiled •handling laundry/waste •using a computer keyboard in a clinical area •the administration of medications •blood and/or body fluid exposure risk What solution should be used for performing a social hand wash? Liquid soap (plain or antimicrobial) •The soap comes in disposable cartridges and must not be reused or "toppedup" •Bar soap should not be used in clinical areas How should a social hand wash be performed?			

			Social hand washing should take at least 30 seconds: •Wet hands under running warm water. •Dispense one dose of soap into cupped hands. •Rub hands palm to palm. •Right palm over the back of the other hand with interlaced fingers and vice versa. •Palm to palm with fingers interlaced. •Back of fingers to opposing palms with fingers interlocked. •Rotational rubbing of left thumb clasped in right palm and vice versa. •Rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa. •Rinse hands with warm water. •Dry thoroughly with paper towel. Cloth towels must not be used Warm air hand dryers may be used in non clinical areas Turn off taps using a 'handsfree' technique (eg elbows). Where this is not possible, the paper towel used to dry the hands can be used to turn off the •Dispose of the paper towel without recontaminating hands. Do not touch bin lid with hands.			

			2.HYGIENIC HAND WASH : Why should a hygienic hand wash be performed? To remove or destroy transient microorganisms and to substantially reduce resident microorganisms during times when surgical procedures are performed. When should a hygienic hand wash be performed? Before all aseptic procedures on the ward. What should be used for performing a hygienic hand wash? An approved antiseptic detergent (eg 4% Chlorhexidinegluconate or 7.5% Povidone iodine). How should a hygienic hand wash be performed? 'How should a social hand wash be performed? like that only. **How to handrub:** To effectively reduce the growth of germs on hands, hand rubbing must be performed by following all of the illustrated steps. This takes only 20–30 seconds:			

			HOW TO HANDWASH: To effectively reduce the growth of germs on hands, hand washing must last 40–60 sec and should be performed by following all of the illustrated steps **3.SURGICAL HAND WASH :** Why should a surgical hand wash be performed? To remove or destroy transient microorganisms and to substantially reduce resident microorganisms during times when surgical procedures are performed. It is intended to decrease the risk of wound infections should surgical gloves become damaged. When should a surgical hand wash be performed? Before all surgical/invasive procedures. What should be used for performing a surgical hand wash?			

			An approved antiseptic detergent (eg 4% Chlorhexidinegluconate or 7.5% Povidone iodine). How should a surgical hand wash be performed? •When performing a surgical hand wash, the level of the hands should always remain above the elbows •Always use sensor or elbow operated taps Apply antiseptic detergent to the hands and wrists and wash for at least one minute up to the elbow. •A sterile brush may be used for the first application of the day, but continual use is inadvisable. •Using a prepacked sterile brush, clean under the nails only of both hands. •Rinse thoroughly. •Apply a second application of antiseptic detergent and wash hands and two thirds of the forearms with either Povidone iodine for at least one minute, or Chlorhexidinegluconate for at least two minutes. •Rinse thoroughly. •One sterile towel should be used to blot dry the first hand and arm and another sterile towel for the second hand and arm			

			When we don't wash our hands: □ Too busy/insufficient time □ Patient needs take priority □ Understaffing/overcrowding □ Sinks are inconveniently located or lack of sinks □ Lack of soap and paper towels □ Hand washing agents cause irritation and dryness □ Low risk of acquiring infection from patients **Assignment:** What are all the steps are involved in medical and surgical hand washing? **Summary Conclusion:** A serious disease burden and significant economic impact on patients and health-care systems Good hand hygiene – the simple task of cleaning hands at the right times and in the right way – saves lives There are 5 Moments for Hand Hygiene in Health Care Global compliance with the My 5 Moments for Hand Hygiene			

			approach is universally sub-optimal has implemented an Action Plan to improve hand hygiene and reduce infection .As a nurse we have to follow hand washing techniques properly. **Book reference:** 1. Brunner and Suddarth,(2009),Textbook of Medical-Surgical Nursing,Lippincott publication,11th edition. 2. Annamajacop "nursing procedure book mannuval" elesever publication. **NET REFERENCE:** www.google.com www.wikipedia.com www.health science.com			

JOURNAL REFERENCE:

INTERVENTIONS TO IMPROVE PATIENT HAND HYGIENE: A SYSTEMATIC REVIEW.

Auther name:

- J.A. Srigleya, b, , , C.D. Furnessc, d, M. Gardame, f
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Abstract:

Nosocomial pathogens may be acquired by patients via their own unclean hands, but there has been relatively little emphasis on patient hand hygiene as a tool for preventing healthcare-associated infections (HCAIs). The aim of this systematic review was to determine the efficacy of patient hand hygiene interventions in reducing HCAIs and improving patient hand hygiene rates compared to usual care. Electronic databases and grey literature were searched to August 2014. Experimental and quasi-experimental studies were included if they evaluated a patient hand hygiene intervention conducted in an acute or chronic healthcare facility and included HCAI incidence and/or patient hand hygiene rates as an outcome. All steps were performed independently by two investigators. Ten studies were included, most of

			which were uncontrolled before–after studies (N = 8). The majority of interventions (N = 7) were multi-modal, with components similar to healthcare worker hand hygiene programmes, including education, reminders, audit and feedback, and provision of hand hygiene products. Six studies reported HCAI outcomes and four studies assessed patient hand hygiene rates; all demonstrated improvements but were at moderate to high risk of bias. In conclusion, interventions to improve patient hand hygiene may reduce the incidence of HCAIs and improve hand hygiene rates, but the quality of evidence is low. Future studies should use stronger designs and be more selective in their choice of outcomes.