

# ORIENTATION MANUAL



## Department of Occupational Health Safety & Environment / Infection Control



**Alliance**  
Healthcare (PVT) LTD



Northwest General  
Hospital & Research Center



Northwest Institute of  
Health Sciences

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## OHS&E DEPARTMENT DESCRIPTION

### Introduction

Alliance Health Care (Pvt) Ltd (AHL) is committed to achieve excellence in Occupational Health, Safety & Environmental Protection. Ensuring health and safety requires both the management and employees to be actively involved and committed to health and safety policy. AHL encourages the employees to have a effective communication about safe practices to better assimilate the health safety and environmental policy of the organization.

### Goal

Our goal in respect of Health, Safety & Environment is to minimize all adverse environmental health impacts arising out of our operations to conserve all kind of resources to adhere all legal regulations. Good health & safety performance is not only a legal requirement but is an essential element in both the overall performance and accountability of the organization.

### Objectives

The main objective of this department is to provide a balanced consistent framework to secure the health of workers and safety of workplaces by:

- Protecting workers and other persons against harm to their health, safety and welfare through the elimination or minimization of risks arising from work or from specified types of substances.
- Providing for fair and effective workplace representation and issue resolution in relation to work health, safety and environment.
- Promoting the provision of advice, information, education and training in relation to work health, safety and environment.
- Ensuring appropriate scrutiny and review of actions taken by persons exercising powers and performing functions.

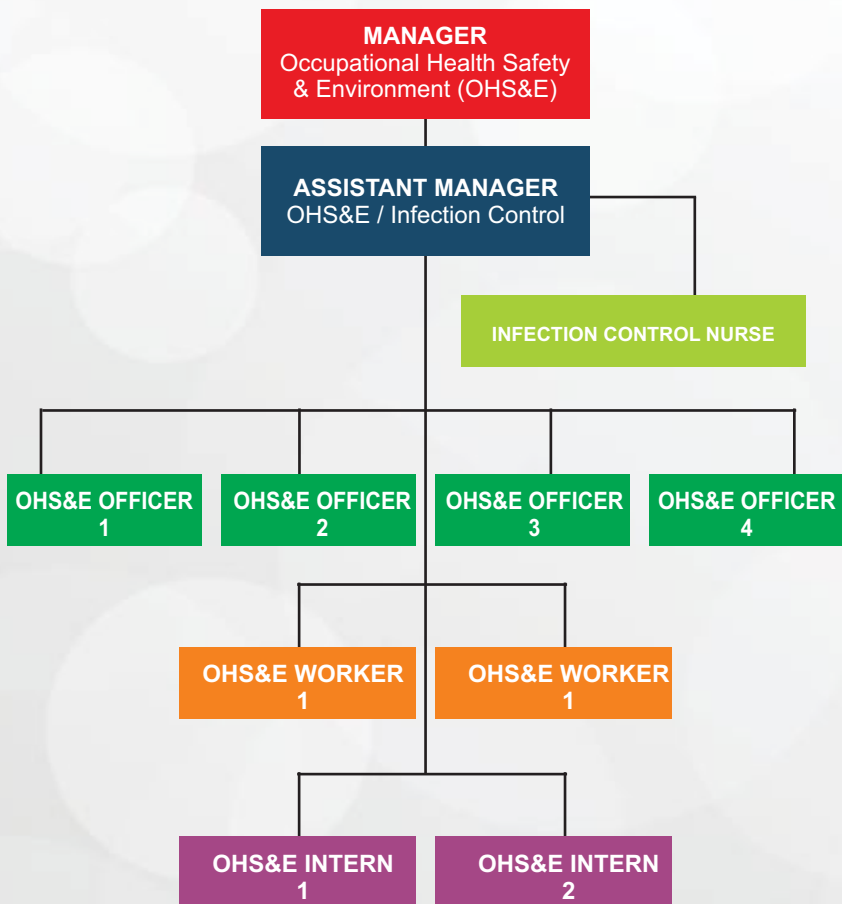
### Operating Areas of OHS&E

1. Hospital Waste Management
2. Emergency Preparedness & Evacuation
3. Fire Safety Management
4. Infection Control & Prevention
5. Personal Protective Equipment
6. Hand Hygiene Protocols
7. Deep Cleaning Management
8. Spill Prevention Management

This OHS&E Orientation Manual is designed as a tool to assist Staff, Students and Faculty in controlling health & safety risks within their department and area of responsibility.



# OCCUPATIONAL HEALTH SAFETY & ENVIRONMENT DEPARTMENT ORGANOGRAM





## WASTE DISPOSAL GUIDELINES

### SHARP CONTAINER (SAFETY BOX)

SYRINGES  
NEEDLES  
CANNULA  
BLADES  
DISPOSABLE RAZORS



### GLASS WASTE

BROKEN GLASSES  
GLASS AMPULES  
GLASS VIALS



### INFECTIOUS WASTE

DRESSING  
CATHETERS  
STOMA BAGS  
DISPOSABLE GLOVES  
DISPOSABLE DRAINAGE BOTTLES  
I/V TUBING  
BURETTES  
BLOOD TRANSFUSION SETS  
BLOOD TRANSFUSION BAGS  
USED MASKS  
USED PLASTIC APRONS



### CYTOTOXIC WASTE

CHEMOTHERAPY BOTTLES  
I/V TUBING USED FOR CHEMO



### NON INFECTIOUS WASTE

PAPER  
CARDBOARD  
KITCHEN REFUSE



## FIRE SAFETY GUIDELINES

### Classes Of Fire And Type Of Fire Extinguisher

Type Extinguisher	CLASS A Combustible materials (e.g. paper & wood)	CLASS B Flammable liquids (e.g. paint & petrol)	CLASS C Flammable gases (e.g. butane and methane)	CLASS D Flammable metals (e.g. lithium & potassium)	Electrical equipment (e.g. computers & generators)	CLASS F Deep fat fryers (e.g. chip pans)	Comments
Water	✓	✗	✗	✗	✗	✗	Do not use on liquid or electric fires
Foam	✓	✓	✗	✗	✗	✗	Not suited to domestic use
Dry Powder	✓	✓	✓	✓	✓	✗	Can be used safely up to 1000 volts
CO2	✗	✓	✗	✗	✓	✗	Safe on both high and low voltage
Wet Chemical	✓	✗	✗	✗	✗	✓	Use on extremely high temperatures

### FIRE EXTINGUISHER SYMBOLS, CLASSIFICATIONS & AGENTS



**CLASS A** fires involve common combustibles such as wood, paper, cloth, rubber, trash and plastics.



ABC Dry Chemical (Multipurpose)  
Halotron  
Water  
Foam



**CLASS B** fires involve flammable liquids, solvents, oil, gasoline, paints, lacquers and other oil-based products.



ABC Dry Chemical (Multipurpose)  
BC Dry Chemical (Regular)  
Purple K  
Carbon Dioxide  
Halotron  
Foam



**CLASS C** fires involve energized electrical equipment such as wiring, controls, motors, machinery or appliances.



ABC Dry Chemical (Multipurpose)  
BC Dry Chemical (Regular)  
Purple K  
Carbon Dioxide  
Halotron



**CLASS D** fires involve combustible metals such as magnesium, lithium and titanium.



Dry Powder



**CLASS K** fires involve combustible cooking media such as oils and grease commonly found in commercial kitchens.



Wet Chemical



# INSTRUCTIONS

1

HOLD UPRIGHT. TWIST/PULL RING PIN.



2

START BACK 8 FEET.  
AIM AT BASE OF FIRE.



3

SQUEEZE LEVER—  
HOLD OPEN.  
SWEEP SIDE  
TO SIDE.



A



WOOD • TRASH • PAPER

B



LIQUID

C



ELECTRICAL





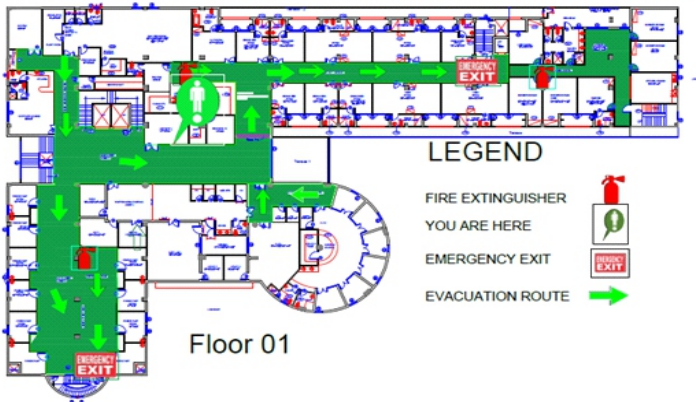
## EMERGENCY PREPAREDNESS & EVACUATION

### EMERGENCY EVACUATION

1. In case of Emergency, Leave Immediately by the Nearest Exit.
2. Never use Elevator in Emergency Situations.
3. Proceed in an orderly manner to Assembly Point, located at the Car Parking Area.
4. Remain at the Assembly Point, until "All-Clear" is given.

## EVACUATION PLAN

IN CASE OF FIRE, DO NOT USE ELEVATOR, USE STAIRS

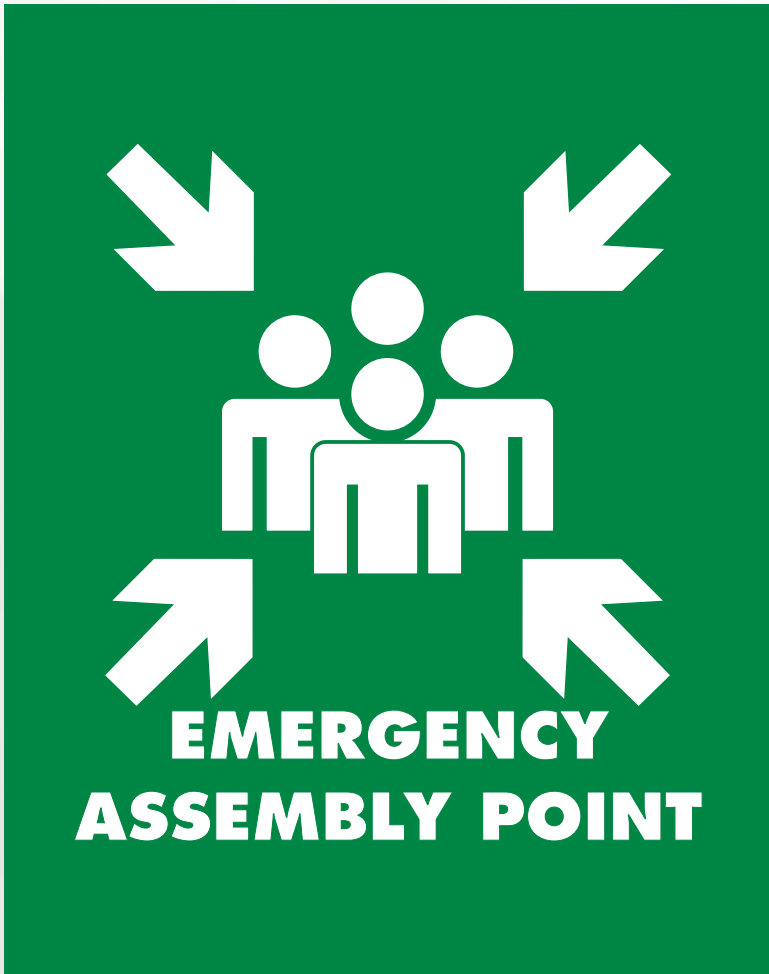






## EMERGENCY ASSEMBLY POINTS

All staff, faculty, patients, visitors and students should evacuate the building safely through an emergency exit and gather at designated assembly point (parking area).





## ALLIANCE HEALTH CARE (PVT) LIMITED EMERGENCY PROCEDURE GUIDE

### CODE RED

### FIRE/SMOKE

کوڈ ریڈ: آگ اور دھواں کے لئے

Remove anyone in danger and call for assistance.  
CALL ON EXT. #1234  
Confine the Fire/Smoke by closing doors.  
Extinguish the fire-only if it is safe to do so OR  
Evacuate the area.

1۔ خطرے میں موجود افراد کو باہر نکالیں اور مدد کے لئے پکاریں  
2۔ ایکشن #1234 پر کال کریں اور کوڈ ریڈ کا بتائیں  
3۔ آگ کو خود دودھ کے لئے کمرے کے دروازے بند کر دیں  
4۔ آگ کی صورت میں بجائیں اگر آپ کی جان کو خطرہ نہ ہو ورنہ محفوظ مقام پر چلیں

### CODE BLUE

### MEDICAL EMERGENCY

کوڈ بلیو: طبی ایمرجنسی کے لئے

Remain with the patient and call for assistance.  
Call on EXT. #1234 and advice Code Blue + Area.  
Commence basic life support and await arrival for  
Rapid Response Team (RRT).

1۔ مریض کے ساتھ رہیں اور مدد کے لئے پکاریں  
2۔ ایکشن #1234 پر کال کریں اور کوڈ بلیو کا بتائیں۔ سب سے پہلے جہاں مریض موجود ہے  
3۔ ابتدائی طبی امداد دیں جب تک سہ ماہی ریسپانس ٹیم نہ پہنچے

### CODE YELLOW

### INTERNAL EMERGENCY

کوڈ یلو: اندرونی ایمرجنسی

In the event of structural damage, chemical spill  
or gas leak/toxic smell, call EXT. #1234  
Evacuate and seal off area immediately.

1۔ عمارتی نقصان کی یا زہریلی گیس کے اخراج کی صورت میں  
ایکشن #1234 پر کال کریں اور کوڈ یلو کا بتائیں  
متاثرہ جگہ کو بند کریں اور فوراً محفوظ مقام پر چلیں

### CODE BLACK

### BOMB THREAT

کوڈ بلیک: بم کا خطرہ یا حملے کی صورت میں

Treat caller as genuine and record  
DO NOT HANG UP THE PHONE  
Have someone to dial EXT. #1234  
and advice location of illegal intruders.  
Await further instructions.  
Do NOT alert other staff until advised to do so.

1۔ پرنٹل فون کال کو تصدیق سے لیں اور ساری معلومات نوٹ کریں  
2۔ فون پر گزربند نہ کریں  
3۔ دوسرے فون سے ایکشن #1234 پر کال کروائیں ان کو کوڈ بلیک کا بتائیں  
مزید ہدایت کا انتظار کریں  
4۔ دوسرے ملازمین کو اطلاع نہ دیں تاہم ہنگامہ کوڈ کا کہا جائے

### CODE ORANGE

### EXTERNAL EMERGENCY

کوڈ اورنج: بیرونی ایمرجنسی

Call EXT. #1234 and advice operator of the details  
of nature, extent and location of disaster.  
Continue normal duties unless instructed otherwise.

1۔ ایکشن #1234 پر کال کریں اور کوڈ اورنج کا بتا دیں ان کا حادثہ کی نوعیت  
کا مقام اور شدت کے بارے میں بتائیں  
2۔ معمول کے مطابق کام کرتے رہیں تاہم ہنگامہ کوڈ کوئی اور ہدایت نہ ملیں

### CODE GREEN

### BUILDING EVACUATION

کوڈ گرین: بچاؤ اخراج

Gather personal belongings.  
calmly evacuate the building, moving most endangered/  
ambulant patients first, semi-ambulant patients second  
and non-ambulant/fully dependant patients third.  
Assemble at the closest emergency assembly point.  
DO NOT Re-enter the building until the "All Clear" is given

1۔ ذاتی اشیاء اکٹھے کر کے پرسکون طریقے سے عمارت سے نکل جائیں  
2۔ سب سے پہلے پلے بھرنے کے قابل مریضوں کو باہر نکالیں پھر مشکل سے  
چلنے بھرنے والے مریضوں کو اور آخر میں سب سے کمزور مریض باہر نکالیں  
3۔ سب سے قریبی ایمرجنسی آسٹری پوائنٹ پر چلیں  
4۔ جب تک ہنگامہ میں دہلیز نہ آئی جب تک کہ کال نہ جائے

## EMERGENCY NUMBER FOR ALL EMERGENCY COLOR CODES

# 1234

AHL EMERGENCY CODES	
Department/Area	Extension No.
Emergency Room	1236/1238/1239
Fire Safety DHS&E Office	1277
Security Control	1012
Maintenance Complaints	1247
House Keeping Control	1063/1440
Infection Control	1277/3063
Administration	1063
Duty Nursing Supervisor	2888/2666
Exchange	0/02
Porter Supervisor	1440/1063
Department of Occupational Health, Safety and Environment	

ESSENTIAL INFORMATION ON FIRE SAFETY	
<b>In case of fire follow</b> <b>R.A.C.E</b>	<b>Rescue</b> those in danger <b>Activate</b> fire alarm or call 1234 <b>Contain</b> fire by closing doors/windows <b>Extinguish</b> if safe to do so or <b>Evacuate</b> the area
<b>Use Extinguisher by following</b> <b>P.A.S.S</b>	<b>Pull</b> the pin between the handle <b>Aim</b> the nozzle at the base of fire <b>Squeeze</b> the handle <b>Sweep</b> the nozzle across the fire
Suitable Extinguishing Media for Different Fires	
For fire in ordinary combustible material (wood, paper, clothes etc), use ABC Dry Chemical Powder (DCP) or water. Never use water on electrical fires. For fire in flammable liquids or gases or for electrical fires, use ABC Dry chemical Powder (DCP) or Carbon Dioxide	

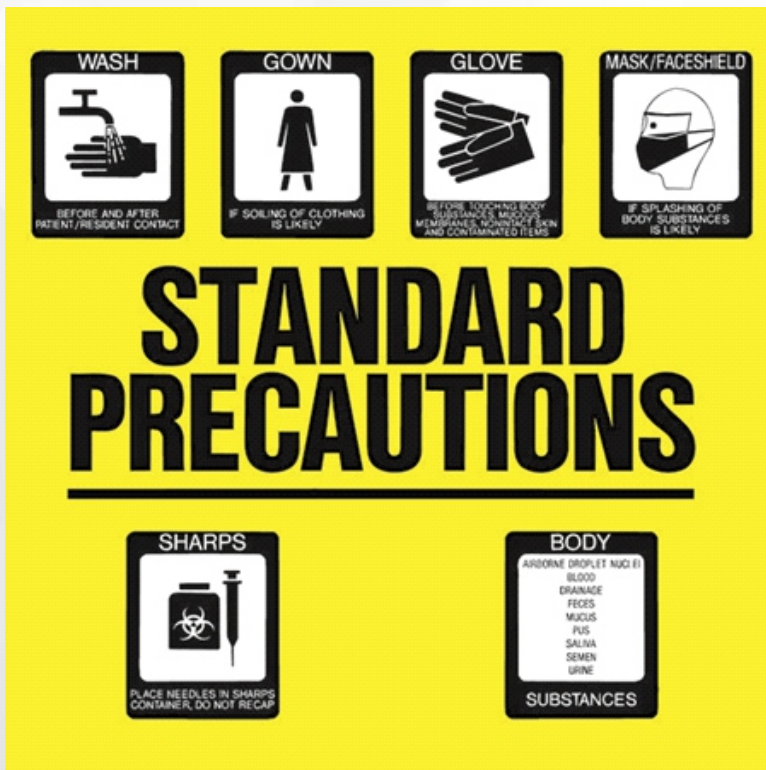
AHL EMERGENCY COLOR CODES	
COLOR CODE	TYPES OF EMERGENCY
<b>Red</b>	Fire Emergency
<b>Blue</b>	Medical Emergency (cardio-pulmonary arrest)
<b>Yellow</b>	Internal Emergency
<b>Black</b>	Bomb Threat/ Terrorism
<b>Orange</b>	Casualty influx from External Emergency
<b>Green</b>	Building Evacuation
SECURITY TIPS	
1. ID cards must be worn at all times while on duty. 2. Report suspicious person/activity at Ext. 1234 3. Valuables must be kept secure in locked desk or locker.	

AHL SPILL CLEAN UP PROCEDURES		
Cytotoxic/Biological Spill	Chemical Spills	Mercury Spills
1. Wear appropriate personal protective equipment and secure area		
2. Decontaminate with sodium hypochlorite for 20 minutes	2. Use neutralizer if required	2. Pick droplets using plastic card & masking tape
3. Use absorbent to absorb spill and wash the area twice with detergent		3. Pour zinc powder on removing spill, transfer to plastic bin and send it to House Keeping
4. Discard cytotoxic waste in plastic container for cytotoxic spill and infectious waste in pink bag	4. Discard waste in red bag	4. Wash area with sodium hydrochloride
Department of Occupational Health, Safety and Environment		



## STANDARD INFECTION CONTROL PRECAUTIONS

Hospital acquired infections are a major cause of morbidity and mortality in patients, particularly those in intensive care units. The agent and host factors of infection are difficult to control however; interruption in the chain of infection can be possible by ensuring standard precautions. In order to reduce the risk of transmission of infection, the following precautionary measures can be practiced according to the individual patient needs mentioned below;



## 1. ISOLATION OF PATIENT IN A SINGLE ROOM

### Procedure:

#### The following patients need isolation:

- 1.1 All patients with communicable disease (suspected or confirmed) should be nursed in a single room
- 1.2 Patients' with infections that are transmitted by airborne route
- 1.3 Patients' with diseases that are highly infectious or are caused by microorganisms that are likely to be virulent when transmitted.
- 1.4 If patients' hygiene is poor; for example if patient does not wash hands after touching infective material (faeces, purulent drainage or secretions), contaminates the environment, or shares contaminated articles, such patients' may include patients who have altered mental status.
- 1.5 Patients' colonized with microorganisms of special clinical or epidemiologic significance, for example, Multiple Drugs Resistance Bacteria or Meticillin-resistant Staphylococcus aureus (MRSA) or Beta Hemolytic Streptococcus Group A (BHS-A).
- 1.6 COVID Patients.

Patients' with the same diseases may share a room.

#### Diseases requiring a single room

- MRSA
- COVID
- Bronchiolitis – suspected RSV infection
- Multiple Antibiotics Resistant Bacteria (Acinetobacter species)
- Pulmonary Tuberculosis
- Viral haemorrhagic Fever / Congo Haemorrhagic fever
- Gastroenteritis (food poisoning) due to enteric pathogens
- Hepatitis A, Rota virus, Acute Poliomyelitis
- Meningococcal meningitis
- Chicken pox
- Clostridium difficile
- Immune-compromised emergency exit and gather at designated assembly point (parking area).



## 2. HAND HYGIENE GUIDELINES

# How to Handwash?

WASH HANDS WHEN VISIBLY SOILED OTHERWISE, USE HANDRUB

Duration of the entire procedure: 40-60 seconds



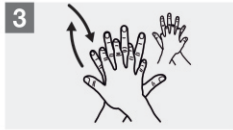
Wet hands with water



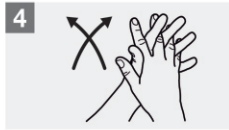
Apply enough soap to cover all  
hands surfaces



Rub hands palm to palm



Rub back of each hand with palm  
of other hands with interlaced  
fingers



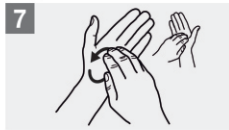
Palm to palm with finger  
interlaced



Back of fingers to opposing  
palms with fingers interlocked



Rotational rubbing of base of  
thumbs



Rotational rubbing of finger nails  
in palm



Rinse hands with water



Dry hand thoroughly with  
a single use towel



Use towel to turn off the tap



Your hands are now safe



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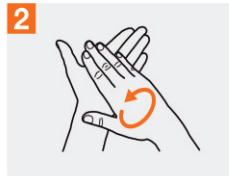
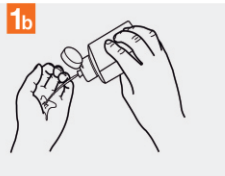
# How to Handrub?

**RUB HANDS FOR HAND HYGIENE WASH HANDS WHEN VISIBLY SOILED**

**Duration of the entire procedure: 20-30 seconds**



**1a** Apply enough sanitizer to completely cover both hands



**2** Rub hands palm to palm



**3** Rub back of each hand with palm of other hand interlaced fingers



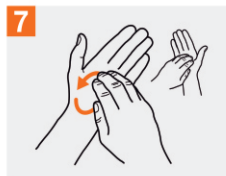
**4** Palm to palm with fingers interlaced



**5** Back of fingers to opposing palms fingers interlocked



**6** Rotational rubbing of base of thumbs



**7** Rotational rubbing of finger nails



**8** Keep rubbing hands together until they are dry. Do not dry with a towel



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### 3. USE OF MASK AND PROTECTIVE EYE WEAR

- 3.1 Masks should be used to protect the wearer from inhaling large particle aerosols (droplets) that are transmitted by close contact and generally travel only short distances (about 3 feet), and small particle aerosols (droplet nuclei) that remain suspended in the air.
- 3.2 Masks should be worn during procedures that are likely to generate droplets of blood or other body fluids to prevent exposure of mucous membranes of the mouth and nose.
- 3.3 Masks in combination with eye protection devices, such as goggles or glasses shall be worn whenever splashes, splatter, spillage or droplets of blood or other potentially infectious materials may be reasonably anticipated.
- 3.4 Masks should cover both the nose and mouth with no gaping on the sides
- 3.5 Masks should be used only once and become ineffective when moist
- 3.6 Masks should not be lowered around the neck and reused
- 3.7 Talking causes droplet dispersion. This should be kept to a minimum while the mask is being worn.
- 3.8 Reusable goggles, glasses, etc. may be washed in soap and water when visibly soiled.
- 3.9 Respiratory isolation card should be placed at the entrance of a patient room if the patient has an airborne disease
- 3.10 All patient with airborne diseases should wear a mask when transported to other department for procedures



#### **4. USE OF GOWNS AND PLASTIC APRONS**

- 4.1 Appropriate protective clothing such as gowns, plastic aprons and lab coats, shall be worn in occupational exposure situations.
- 4.2 Protective clothing should not permit blood or other potentially infectious materials to pass through or to reach care giver's clothes or body. If a garment is penetrated by blood or other potentially infectious materials, the garment should be removed immediately or as soon as feasible.
- 4.3 Surgical caps and shoe cover should be worn for instance when gross contamination can be anticipated e.g. autopsies, orthopedic surgery.
- 4.4 All personal protective clothing should be removed prior to leaving the work area.
- 4.5 Unsterile gown or apron to protect the wearer should be worn.
- 4.6 Sterile protective gown should be used to protect the patient when full sterile protection is required.
- 4.7 Hands must be thoroughly washed and dried before taking off the gown or aprons.

#### **5. USE OF GLOVES**

- 5.1 The purpose of this procedure is to provide guidance for Use of Gloves and ensure the usage of Gloves.
- 5.2 To cover hands and prevent transmission of infection.
- 5.3 To protect care givers from potentially hazardous materials.
- 5.4 Possibility for care givers to become infected with microorganisms that are infecting patients.
- 5.5 Likelihood for care givers to transmit their own endogenous microbial flora to patients.
- 5.6 Possibility for care givers to become transiently colonized with microorganisms that can be transmitted to other patients.
- 5.7 Inoculum by 50% in case of needle stick injury.
- 5.8 Gloves should be worn when in contact with blood, and other potentially infectious materials, mucous membranes, and non-intact skin.
- 5.9 Gloves should be worn for vascular access procedures.



- 5.10 Gloves should be worn when handling or touching contaminated items or surfaces.
- 5.11 Use sterile gloves for procedures involving contact with sterile areas of the
- 5.12 Use nonsterile gloves (Latex) for procedures involving:
  - a) Contact with mucous membranes.
  - b) Diagnostic procedures that do not require the use of sterile gloves.
  - c) Emptying drainage bags.
  - d) Contact suspected or known infected excretions and secretions.
  - e) Chemicals which are known to cause skin reaction.
- 5.13 Disposable gloves should be replaced as soon as task is completed, or if they are torn, punctured, or when their ability to function as a barrier is compromised.
  - a) Disposable gloves should not be washed or decontaminated for re-use.
  - b) Hands should be washed immediately after gloves are removed.

## **6. SAFE HANDLING OF CONTAMINATED LINEN**

- 6.1 Contaminated linen should be handled gently to prevent aerosols dispersal in the patient care environment.
- 6.2 Soiled linen should be handled as little as possible and with minimum agitation.
- 6.3 Attention can be given to prevent gross microbial contamination of the patient care environment, and persons handling the linen.
- 6.4 Prepare hamper bags as follows:

Fix a hamper bag in a hamper stand, then red plastic bag over it and then the water soluble isolation bag on top of it. After doing the patient's bed making, sealed/closed the isolation bag with a pink ribbon and then tie the red plastic bag securely with the isolation bag inside it and labeled accordingly for laundry return.
- 6.5 The importance of using Isolation Alginate water soluble and red plastic bag in infected linen disposal is:
  - a) The RED color alert the laundry staff that linen is infected.
  - b) The contents of the bag does not have to be handled by the laundry staff for sorting
  - c) The isolation alginate water soluble bag dissolves in hot water and release contents of the bag in the washing machine.

- d) The cross infection and occupational health hazards associated with sorting contaminated linen is minimized as it is practically possible.
- 6.5 Great care must be taken to ensure that irrelevant articles are not put in laundry bags, e.g. incontinent pad, tissue paper, cotton, gloves, etc.
- 6.6 It is the responsibility of the Inpatient/outpatient nursing staff to ensure that soiled linen and infected linen is sealed in the appropriate color coded plastic bag at their level.
- 6.7 It is the responsibility of the Inpatient/Outpatient management to ensure that there is adequate supply of these bags.
- 6.8 Keep hamper bag within reach near to the bed.
- 6.9 Wear gloves when handling linen soiled with body fluids.
- 6.10 Wear plastic apron, if clothing is likely to become soiled.
- 6.11 Completely remove all soiled linen from the bed and wash hands before starting bed making.
- 6.12 Remove bed linen by gently rolling linen towards center of bed in such a way to contain body fluids if present.
- 6.13 Hold linen away from body to prevent contamination of uniform.
- 6.14 Do not throw dirty linen on floor and don't leave overly filled hamper bags in patient care areas.
- 6.15 Soiled mattresses and pillows should not be sent to laundry for washing, but to be given to the housekeeping for disposal with complete form to be filled and submitted for re-issuance to keep par level in balance.
- Mattresses and pillows should be covered with impervious plastic and should be decontaminated by wiping with a disinfectant and detergent.
  - All soiled linen should be double bagged at the bedside and sealed in RED plastic bag.
  - Hamper bags should not be filled to more than 3/4 of its total capacity.
  - Linen transport cart should be cleaned and disinfected daily or when visibly soiled.
  - Wash hands after handling used linen, hamper and cart.
  - Clean linen should be not be kept in patient care areas.
  - Clean linen should be transported and stored in a covered linen trolley.
  - Protect your non-intact skin from contamination.
  - Report unprotected exposure to blood and body fluid immediately to Infection Control Officer.



## 7. SAFE MANAGEMENT OF CONTAMINATED SHARPS

- 7.1 All used sharps are considered contaminated. Contamination occurs as a result of contact with blood or body fluids, chemicals, drugs, etc.
- 7.2 Placed all used sharps into the puncture resistant sharps container labeled "DANGER", available in all patient care related areas.
- 7.3 Dispose needle and syringe as one unit uncapped into the sharps container at the point of use.
- 7.4 Needles removed from IV tubing should be disposed into sharps container immediately.
- 7.5 Nursing staff must ensure the replacement of sharps containers when it is 3/4 full.
- 7.6 Filled sharps containers should be secured in red plastic bag before being removed by housekeeping staff for incineration.
- 7.7 Needles and sharp objects are to be cautiously handled to minimize risk of needle stick injuries.
- 7.8 Needles and other sharp objects such as cannulas, scalpels, etc. must not be bent, broken or manipulated by hand.
- 7.9 Do not recap contaminated needles unless recapping is unavoidable such as:
  - a) When giving serial is of a solution for the same patient over a short period of time.
  - b) When disposal container is not available due to the unpredictable nature of the patient population (for example, psychiatric patient's room)
  - c) When removal of a contaminated needle is essential in order to replace it with a new sterile needle, for example, collecting anaerobic or blood gases.
- 7.10 Use the "scoop method" to recap the needle, or remove needle with forceps and place carefully into sharps container.
- 7.11 Acceptable methods of recapping include:
  - a) Hold the cap vertically while the needle is inserted.
  - b) The one handed "scoop method"
  - c) Place cap of needle on a horizontal surface
  - d) Carefully scoop the cap with the tip of the needle.
  - e) Carefully grasp cap at the base and secure to the hub of the syringe.

7.13 Contaminated broken glassware should not be picked up directly with hands. Mechanical means e.g. brush & dust pan should be used.

7.14 Report immediately all sharps injuries to Infection Control Nurse

## **8. PREVENTION OF BLOOD-BORNE VIRUSES**

### **High Risk Patients**

Patients at high risk of blood borne infections include patients who are:

- a) HIV Ab positive (with or without AIDS)
- b) HepBsAg positive
- c) Hep C Ab positive (especially those with viraemia i.e. HCV RNA PCR positive)

### **Universal / Standard Precautions for the Control of Blood Borne viruses**

- 8.1 All staff working within theatre must use standard precautions at all times.
- 8.2 Healthcare workers who may come into contact with blood, secretions and excreta may be exposed to pathogens including blood borne viruses such as HIV, Hepatitis B and C.
- 8.3 The most common means of transmission is direct contact, particularly via hands.
- 8.4 Blood borne infections are most likely to be transmitted by direct percutaneous inoculation of infected blood via a sharps injury.
- 8.5 Blood contact with broken skin or mucous membranes also provides a route of transmission. Adoption of universal / standard precautions aims to prevent transmission of blood borne viruses and minimize the transmission of other pathogens.

### **The aim is to:**

- Prevent sharps injuries
- Prevent contaminated items being used between patients

### **Universal / standard precautions apply to:**

- Invasive procedures
- Care or procedures involving the handling of blood and body fluids
- Handling and cleaning of contaminated equipment
- Disposal of clinical waste materials and sharps.



## 9. NEEDLE STICK INJURY

Steps to be followed on the Event of a Sharps or Needle Stick Injury:

- 9.1 Encourage bleeding from the wound. Do not suck or rub.
- 9.2 Wash area thoroughly with soap and water
- 9.3 Cover with a waterproof dressing
- 9.4 If known, note the following
  - . Name of the patient,
  - . Patient's Status of Hepatitis B, Hepatitis C and HIV
  - . Area in which the injury has occurred
  - . Source of trash
- 9.5 As soon as possible complete an incident report form signed by departmental head/designee. Send it immediately to the Infection Control office.
- 9.6 On week days, contact Infection Control Nurse on Ext: 1277
- 9.7 On weekends and public holidays, contact the Nursing Supervisor
- 9.8 Report to Consultant Microbiologist
- 9.9 Notify line manager and document incident
- 9.10 Steps to be followed after Blood and Body Fluids/Mucosal Exposure
  - . If the eyes are contaminated, rinse gently with open tap water or saline
  - . If blood gets in the mouth, spit it out and then rinse mouth with water several times.

## 10. POST EXPOSURE MANAGEMENT OF HEALTH CARE WORKER EXPOSED TO BLOOD AND BODY FLUID

- 10.1 To minimize the risk of infection in the health care setting from blood-borne pathogens which are most commonly involved in occupational transmission of Hepatitis (B & C) and HIV infections.
- 10.2 To provide guidance on the follow-up on HCW's exposed to hazardous blood and body fluids, needle stick injuries, abraded skin and mucous membrane contact (eye or mouth)
- 10.3 To provide guidance for post exposure follow-up, counseling, screening



against Hepatitis B (HBV), Hepatitis C (HCV), and Human Immunodeficiency Virus (HIV)

- 10.4 To establish reporting and record keeping systems for follow-up of high exposures for early detection and health intervention.
- 10.5 All reported exposures to patient's blood and body fluids will be included in Infection Control surveillance program.
- 10.6 All blood and body fluids are potentially infectious.
- 10.7 Blood and body fluids from known or suspected cases can cause contamination of eye, mouth, skin cuts or abrasions and transmission of blood borne pathogens
- 10.8 These exposures are preventable by careful attention and adherence to Universal/standard Precautions

#### **Post Exposure counseling of the employee about:**

Importance of Universal/Standard Precautions:

- Wearing gloves if there is a risk of contact with blood and body fluids.
- Wearing eye glasses or goggles, mask and/or gown if there is a risk of splashing of blood and body fluids.
- Always wash hands before and after patient contact and on removal of gloves.
- Disinfection and cleaning of contaminated spills immediately.
- The risks of HIV/HBV, HCV infection.
- Routes and possible risk of transmission.
- Safer sex, delaying pregnancy and not donating blood.
- Report any febrile episodes within 12 weeks after the exposure,
- rashes, fever or swollen lymph glands should be noted during this period.
- With informed consent, test the health care giver's blood for HIV, HBV, and HCV at the time of exposure for a baseline.

## **11. MULTI DRUG RESISTANT ORGANISMS (MDRO) INCLUDING GRAM POSITIVE (MRSA), GRAM NEGATIVE (ESBL) BACTERIA**

Hand washing, adequate cleaning and disinfection of environment are important issues;.

### **11.1 Hand washing**



- 11.2 Isolation
- 11.3 Protective Clothing
- 11.4 Gown, Apron and Face mask
- 11.5 Patient Care Equipment and Linen
- 11.6 Minimal Staff & Visitors safety by wearing plastic apron if involved in direct patient care to reduce the chances of cross transmission.
- 11.7 Transfer of patient with MDRO to other wards / department must be kept to minimal. Relevant ward staff must be notified prior to transfer of such patients.
- 11.8 Routine cleaning
- 11.9 Terminal Cleaning: All surfaces and non-disposable should be washed with detergent and warm water.

## **12. STANDARD OPERATING PROCEDURE FOR VIRAL HEMORRHAGIC FEVERS**

### **Suspected Case:**

- 12.1 Patient with sudden onset of illness with high-grade fever over 38.5°C for more than 72 hrs and less than 10 days, especially in CCHF endemic area and among those in contact with sheep or other livestock (shepherds, butchers, and animal handlers).
- 12.2 Note that fever is usually associated with headache and muscle pains and DOES NOT respond to antibiotic or anti-malarial treatment.

### **Probable case:**

- 12.3 Suspected case with acute history of febrile illness 10 days or less, AND
- 12.4 Thrombocytopenia less than 50,000/mm<sup>3</sup> AND any two of the following:
- 12.5 Petechial or purpuric rash, Epistaxis, Haematemesis, Haemoptysis, Blood in stools, Ecchymosis, Gum bleeding, other haemorrhagic symptom AND No known predisposing host factors for haemorrhagic Manifestation.

### Confirmed Case:

12.6. Probable case with positive diagnosis of CCHF in blood sample, performed in specially equipped high bio-safety level laboratories, i.e.

- a) Confirmation of presence of IgG or IgM antibodies in serum by ELISA
- b) Detection of viral nucleic acid in specimen by PCR
- c) Isolation of virus

12.7 If a suspicion is raised after the patient is admitted to the hospital:

- Bio-safety is the key to avoiding nosocomial infection. Patients with suspected or confirmed CCHF should be isolated and cared for using barrier-nursing techniques to prevent nosocomial spread of infection.
- The patient should be treated in a separate room under strict barrier nursing.
- Only designated medical / para-medical staff and attendants should attend the patient. Non-essential staff and attendants should not be allowed to enter the room.
- All secretions of the patient and hospital clothing in use of the patient should be treated as infectious and should be autoclaved before incinerating.
- All medical and para-medical staff and attendants should wear disposable gloves, disposable masks and gowns (gowns should be autoclaved before sending to the laundry or incineration). Use of disposable items should be ensured by supervisor.
- Every effort should be made to avoid spills, pricks, injury and accidents during the management of patients. Needles should not be re-capped but discarded in proper safety disposal box.
- All used material e.g. syringes, gloves, cannula, tubing etc, should be collected in autoclave-able bag and autoclaved before incinerating.
- All instruments should be de-contaminated and autoclaved before re-use.
- All surfaces should be decontaminated with liquid bleach.
- The samples for laboratory testing should be properly collected, labeled, sealed, and decontaminated from outside with liquid bleach and packed in triple container packing.



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