

# INFECTION PREVENTION AND CONTROL

## NEW EMPLOYEE ORIENTATION

# INFECTION PREVENTION AND CONTROL TEAM

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- What is standard precautions?
- Hand Hygiene
- Personal Protective Equipment (PPE)
- Interactive Q&A
- Sharp Safety
- Sterilization, High and Low Level Disinfection
- Prevention of Healthcare Associated Infections
- Multi-drug Resistant Organisms (MDROs)
- Transmission-based Precautions

# What Is The Purpose Of An Infection Prevention And Control Program?

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- Improve patient safety via PREVENTION, IDENTIFICATION, and CONTROL of infections & communicable diseases
- Prevent hospital acquired infections
- Minimize occupational health risk to healthcare workers

Starting with the basics.....

# HAND HYGIENE: Key to Preventing Infection

Beth Israel Lahey Health  
Beverly Hospital



## WHAT?

A general term that applies to either hand washing, antiseptic hand-wash/hand-rub, or surgical hand antisepsis

## WHEN?

Before and after **ALL** patient interactions (including surfaces); before using and after removing gloves

## HOW?

Rub hands vigorously for at least 20 seconds per CDC recommendation

## WHAT TO USE?

Soap and water or alcohol-based hand gel if hands are not visibly soiled. **Always soap and water for patients on Contact Plus precautions.**

## WHO?

All healthcare providers, patients, family

**EVERY PATIENT - EVERY TIME!!**



## Standard Precautions

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- Previously called *Universal Precautions*
- Standard Precautions are a set of infection control practices that healthcare personnel use to reduce transmission of microorganisms in healthcare settings
- Anyone who could be "reasonably anticipated" to face regular exposure to blood or OPIM (other potentially infectious materials) as a result of performing their job duties
- Standard Precautions protect **all**: healthcare personnel, patients and visitors from contact with infectious agents

### It includes:

- Hand Hygiene
- Proper use of Personal Protective Equipment
- Surface cleaning/disinfection

**Use Standard Precautions for *Every patient – every time* to prevent spread of microorganisms including Multidrug Resistant Organisms (MDROs)**

# Coronavirus (COVID 19) Pandemic

## How It Spreads

- There is no vaccine currently to prevent coronavirus disease 2019
- The virus can spread from person-to-person through respiratory droplets
  - Between people who are in close proximity with one another (**within 6 feet**)
  - Through respiratory droplets produced when an infected person coughs, sneezes or talks
  - These droplets can land in the mouths, noses or eyes of people who are near by or possibly be inhaled into the lungs
  - These droplets can land on the surfaces and by touching them, not sanitizing/washing your hands, you can contaminate you're your eyes, nose and mouth with unwashed hands
- **Some people may be asymptomatic (not showing any symptoms. They do not know they have COVID19) but they can infect other people**



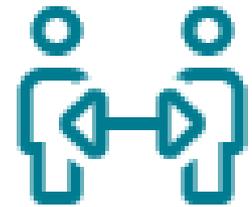
# Coronavirus (Covid 19) Pandemic

## How to Protect Yourself and Others

- All staff taking care of the patients regardless of Covid 19 status at this time must use:
  - Hospital approved mask
  - Eye protection (goggles, visors, full face shields, mask with face shield)



- Soap and water or alcohol-based hand gel if hands are not visibly soiled. Rub hands vigorously for at least 20 seconds per CDC recommendation
- **Eye glasses are not eye protection**
- Avoid close contact. Keep distance at least 6 feet
- Clean and disinfect frequently touched surfaces



# Clean Hands Save Lives! Are Yours Clean?

# 5

## Moments for Hand Hygiene



### 1. Before Patient Contact

**WHEN?** Clean your hands before touching a patient.

**EXAMPLES:** Examinations, helping a patient to move, checking name bands.

### 2. Before an Aseptic Task

**WHEN?** Clean hands before and after an aseptic task.

**EXAMPLES:** Oral care, secretion aspiration, wound care, catheter placement, patient feeding, medication administration.

### 3. After Body Fluid Exposure Risk

**WHEN?** Clean your hands immediately after an exposure to a bodily fluid and after removing gloves.

**EXAMPLES:** After contact with any bodily fluids to include urine, saliva, sputum, feces, blood, etc..

### 4. After Patient Contact

**WHEN?** Clean your hands after any patient contact.

**EXAMPLES:** After activities of daily living, handling of a patient's personal effects, after positioning a patient for an exam or procedure.

### 5. After Contact with Patient Surroundings

**WHEN?** Clean your hands after you have had contact with a surface that a patient may have touched.

**EXAMPLES:** After cleaning up the patient's bedside and over bed table, making up the bed, moving wheelchairs or walkers.

# STOP the bugs!

*Clean hands = patient safety*



Culture of a hand before  
disinfection



Culture of a hand after  
disinfection

*Photos by John M. Boyce, M.D.*

# Which products should I use?

## Alcohol Hand Sanitizer - rub until hands are dry :

- Use before putting on gloves
- For non visibly-soiled hands
- Use after skin contact
- Use after removing gloves
- Quick, effective, kind to skin
- More effective than soap and water for killing bacteria



## Use Soap and Water for at least 20 seconds:

- When hands are visibly soiled
- Before preparing or eating food
- After using the restroom
- After caring for a patient who has C. difficile and Norovirus

## Hand Lotion

- Only use hospital approved hand lotions
- Other lotions: **may not be compatible with our soap and/or sanitizer and may cause skin or gloves break down**



# Other Things To Know

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## What About Your Fingernails?

- Nails should be kept short
- Nail polish should not be chipped, cracked or scratched
- Direct patient care: No artificial nails (wraps, acrylics, tips, gels, shellac, tapes or bonding material)
- No nail jewelry or appliques

## Blood Pressure Cuffs

- Disposable vs. re-usable

## Food & Drink At Nursing Station

- Policy was approved to allow staff to have covered drinks at nurse's station, (or similar areas) computers desks, WOWs, **but due to Covid 19 pandemic NO DRINKS allowed at NURSE'S stations**
- Best practice: designate an area for drink storage within designated "clean area"
- No food in patient care areas/or on Work Station On Wheels (WOWs)



# How Is Hand Hygiene Done?

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## Hand Sanitizer:

- Apply to palm of one hand
- Rub hands together, covering all surfaces –
  - Focusing on the fingertips, fingernails, between fingers and wrist area
  - Rub until dry

## Hand Washing:

- Wet hands with water
- Apply soap
- Vigorously rub hands together for at least 20 seconds,
  - Pay attention to areas between and around fingers/nails and under rings
- Rinse under running water and dry hands thoroughly with paper towel(s)
- Use paper towel to turn off the faucet

## Better SAFE than SORRY

- During Covid 19 pandemic all staff taking care of any patients must wear mask and eye protection
- If patient is on isolation precautions or not, use PPE based on the behavior of the patient and the task to be performed
- If you think you might be exposed to blood or other potentially infectious materials (OPIM) then use additional PPE
- Gown and/or gloves for wound examination and dressing changes
- Dispose of PPE prior to leaving patient care area
- Perform hand hygiene

**Eye Protection:**  
splash goggles, face shield or procedure mask with visor.

**Mask:**  
A fluid-resistant procedure mask is required.  
Staff have the option of using an N95 respirator.\*

**Gown:**  
yellow isolation gown, tied at the back.

**Gloves:**  
non-sterile procedure gloves



\*Refer to N95 Respiratory Protection Policy to determine when the N95 is mandatory.  
October 2004

# What Are The Pictures Showing?



Off the floor



NO clean  
next to dirty



Use right bag for right trash.

## Environments/Work Areas To Keep Clean



Wiped clean and contain **NO**  
expired items or Personal Items



**No corrugated outer boxes for**  
pest control, contamination



Prevent cross contamination!  
Protect yourself!



**Clean all** High Touch Areas  
Decluttering and cleaning

## Patient Transportation



- At this time, staff must wear mask and eye protection
- Patient must wear mask
- Ensure patient is in clean clothes
- Clean bedding
- Clean stretcher and handles
- Remove PPE before transporting patient
- Perform hand hygiene
- Transport patient safely and without spreading infection
- If patient is on airborne or droplet precaution, patient should use surgical mask

# SHARP SAFETY/BLOODBORNE PATHOGENS

- Do not recap needles
- Plan for safe handling and disposal of needles before using them
- Prompt disposal of needles in appropriate sharp disposal container
- Report all needle stick and other sharp related injuries promptly to Employee Health in order to get appropriate care
- Always use PPE to prevent Bloodborne Pathogen infection: for blood and possibly infectious body fluids (Hepatitis B virus (HBV); Hepatitis C virus (HCV))  
(Human immunodeficiency virus (HIV))

## Other Modes of Transmission:

- Splashes to the eyes or mucous membranes
- Cuts or non-intact skin



- Sterilization:
  - Used for implants and surgical instruments **that have contact with sterile body tissues or fluids**
- High level disinfection :
  - Used for items that come in **contact with non-intact skin or mucous membranes.**
  - They are considered semi critical items. This category includes endoscopes, bronchoscope
- Low level disinfection :
  - Items that come in **contact with intact skin are considered non-critical items.**
  - This category includes bedpans, blood pressure cuffs, crutches, linens, bedside tables, and furniture



# Germicidal Wipes

**Both wipes can be used to clean/disinfect COVID 19**

## Disinfect in 2 minutes

Use enough wipes for treated surface to remain visibly wet for 2 minutes. Let air dry



**2 Minutes**

## Disinfect in 4 minutes

Use enough wipes for treated surface to remain visibly wet for 4 minutes. Let air dry



**\*C. difficile and Norovirus**

**4 Minutes**

# What Can We Do To Prevent Hospital Associated Infections (HAI)



CLABSI



CAUTI



VAE



SSI





## CONTACT and DROPLET Isolation Status

NO ACCESS WITHOUT ALL PPE



Clean hands before entry and exit  
Follow Contact and Droplet Precautions with Eye protection



Wear a gown and gloves



- Standard mask for usual care
- Respirator (N95 or PAPR)\* for aerosol-generating procedures \*Trained users only



Wear eye protection (goggles or shield)



Close the door



Use patient-dedicated or disposable equipment  
Clean and disinfect shared equipment

\*Airborne Isolation for patients with likelihood of prolonged generation of aerosols  
4/30/2020 11:51 AM  
Performance Improvement Dept



## Droplet Precautions

Visitors:  
Report to nursing station before entering room.

Health Care Workers:  
Wear standard paper mask when entering room.

Use in addition to Standard Precautions

<p><b>Entering Room</b></p>  <b>Door may be open</b>	<p><b>Leaving Room</b></p> <p><b>Mask</b> Remove and discard just prior to leaving the room</p> <p><b>Hand Hygiene</b> Clean hands after removing mask</p>
 <b>Mask</b> Required to enter room. <b>Wear Mask with eye shield</b> (within 3 feet of patient).	<p><b>Hand Hygiene</b> Clean hands upon entering room</p>
<p><b>Transport Patient</b> Limit the movement/transport to essential purposes only, place a surgical mask on the patients.</p>	

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## Airborne Precautions

ROOM WITH NEGATIVE  
AIR PRESSURE REQUIRED

Visitors:  
Check with nurse prior to entering room for appropriate mask to wear.

Health Care Workers:  
Wear N95 respirator mask when entering room.

Use in addition to Standard Precautions

<p><b>Entering Room</b></p>  <b>Keep door closed for negative air pressure</b>	<p><b>Leaving Room</b></p> <p><b>N95 Respirator Mask</b> Remove after leaving the room</p>
 <b>N95 Respirator Mask</b> Required to enter room	<p><b>Hand Hygiene</b> Clean hands upon exiting the room, after removing N95 mask</p>
<p><b>Transport Patient</b> Patient to wear a procedure/surgical mask for transport</p>	

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## Contact Precaution Plus

Visitors:  
Report to nursing station before entering room.

Health Care Workers:  
GLOVES and Gowns must be worn when entering room.

Use in addition to Standard Precautions

<p><b>Entering Room</b></p>  <b>Door may be open</b>	<p><b>Leaving Room</b></p> <p><b>Gloves and Gown</b> Remove and discard just prior to leaving the room</p>
 <b>Hand Hygiene</b> Disinfect hands with hand sanitizer before entering room.	<p><b>Hand Hygiene</b> Clean hands with soap and water after removing gloves and gown</p>
<p><b>Bleach-based room cleaning</b> upon patient discharge/transfer. <b>Room/patient should have dedicated equipment.</b> (e.g., blood pressure cuff)</p>	

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## Contact Precautions

Visitors:  
Report to nursing station before entering room.

Health Care Workers:  
GLOVES must be worn when entering room.  
GOWNS must be worn for contact with the patient or environment.

Use in addition to Standard Precautions

<p><b>Entering Room</b></p>  <b>Door may be open</b>	<p><b>Leaving Room</b></p> <p><b>Gloves and Gown</b> Remove and discard just prior to leaving the room</p>
 <b>Hand Hygiene</b> Disinfect hands with hand sanitizer before entering room.	<p><b>Hand Hygiene</b> Clean hands after removing gloves and gown</p>
<p><b>Room/patient should have dedicated equipment.</b> (e.g., blood pressure cuff).</p>	

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## Protective Precaution

Visitors:  
Talk to a staff person before going into this room.

Protective Precautions

<p><b>Entering Room</b></p>  <b>Hand Hygiene</b> Disinfect hands with hand sanitizer before entering room.	<p><b>Leaving Room</b></p> <p><b>Mask</b> Remove and discard just prior to leaving the room</p>
 <b>Mask</b> Required to enter room	<p><b>Hand Hygiene</b> Clean hands with soap and water after removing mask</p>
<p><b>Transporting Patient</b> Patient should wear a procedure/surgical mask for transportation</p>	
<p><b>Room/patient should have dedicated equipment or equipment should be disinfected before and after use with patient.</b></p>	

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## Multi-drug resistant organisms (MDROs)

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- Organisms that have developed resistance to antimicrobial drugs
- Growing threat to public health

### Examples:

- Methicillin Resistant Staphylococcus Aureus (MRSA)
- Vancomycin Resistant Enterococcus (VRE)
- Extended spectrum beta lactamase (ESBL) i.e. Klebsiella, E. Coli
- Carbapenem-resistant Enterobacteriaceae (CRE)
- Multi-drug resistant Acinetobacter

## Modes of transmission of MDROs

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- Unwashed hands
- Gloves worn from patient to patient
- Contaminated environmental surfaces
- Inadequately cleaned and disinfected equipment
- Inadequate, inappropriate or prolonged use of antibiotic agents

# Preventing Transmission of MDROs

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- **HAND HYGIENE**
- Use of appropriate PRECAUTIONS, PPE and dedicated equipment and supplies
- Proper cleaning and disinfection of the room
- Education of staff and patients
- Antimicrobial stewardship

## In case of exposure...

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- Wash area
- Notify supervisor and Employee Health immediately
- Fill out appropriate forms

All hospital policies are available on line (NIC)

For Infection Control questions contact us on ext  
x3105 and x3179

After hours, call Nursing Supervisor.

# Remember:

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**Please Play Your Part in keeping our patients safe!**

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