HENRY FORD HEALTH

HENRY FORD HEALTH + MICHIGAN STATE UNIVERSITY Health Sciences

International Vaccine Institute

# Integrated Activity and Tools for Antimicrobial Stewardship, Infection Prevention & diagnostic Stewardship

## Breakout Session: Case Based Infection Prevention and Control Session

CAPTURA
Capturing data on Antimicrobial resistance Patterns and Trends in Use in Regions of Asia

TACE ASIA
Technical Assistance for Clinical Engagement

MOTT MACDONALD

UKaid from the British people

The Fleming Fund Regional Grants

# Let's Donn and Doff!

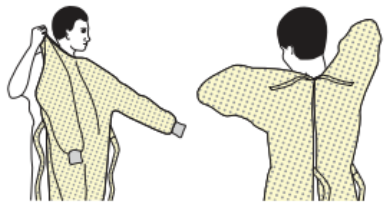
- We need 1 volunteer to demonstrate the correct steps for donning and doffing PPE

# SEQUENCE FOR PUTTING ON PERSONAL PROTECTIVE EQUIPMENT (PPE)

The type of PPE used will vary based on the level of precautions required, such as standard and contact, droplet or airborne infection isolation precautions. The procedure for putting on and removing PPE should be tailored to the specific type of PPE.

## 1. GOWN

- Fully cover torso from neck to knees, arms to end of wrists, and wrap around the back
- Fasten in back of neck and waist



## 2. MASK OR RESPIRATOR

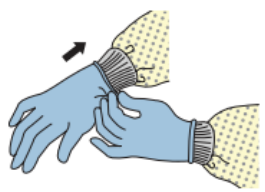
- Secure ties or elastic bands at middle of head and neck
- Fit flexible band to nose bridge
- Fit snug to face and below chin
- Fit-check respirator

## 3. GOGGLES OR FACE SHIELD

- Place over face and eyes and adjust to fit

## 4. GLOVES

- Extend to cover wrist of isolation gown

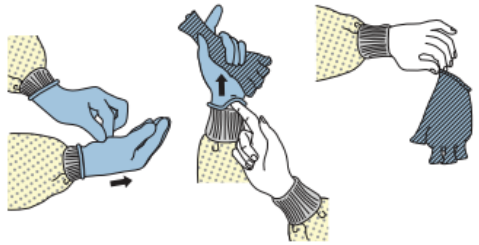


# HOW TO SAFELY REMOVE PERSONAL PROTECTIVE EQUIPMENT (PPE) EXAMPLE 1

There are a variety of ways to safely remove PPE without contaminating your clothing, skin, or mucous membranes with potentially infectious materials. Here is one example. **Remove all PPE before exiting the patient room** except a respirator, if worn. Remove the respirator **after** leaving the patient room and closing the door. Remove PPE in the following sequence:

## 1. GLOVES

- Outside of gloves are contaminated!
- If your hands get contaminated during glove removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Using a gloved hand, grasp the palm area of the other gloved hand and peel off first glove
- Hold removed glove in gloved hand
- Slide fingers of ungloved hand under remaining glove at wrist and peel off second glove over first glove
- Discard gloves in a waste container

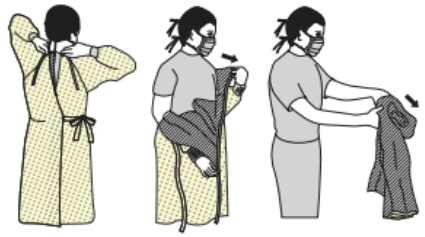


## 2. GOGGLES OR FACE SHIELD

- Outside of goggles or face shield are contaminated!
- If your hands get contaminated during goggle or face shield removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Remove goggles or face shield from the back by lifting head band or ear pieces
- If the item is reusable, place in designated receptacle for reprocessing. Otherwise, discard in a waste container

## 3. GOWN

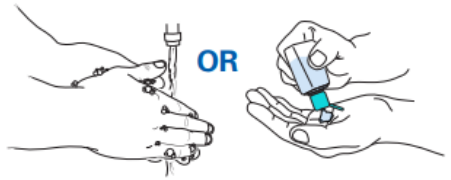
- Gown front and sleeves are contaminated!
- If your hands get contaminated during gown removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Unfasten gown ties, taking care that sleeves don't contact your body when reaching for ties
- Pull gown away from neck and shoulders, touching inside of gown only
- Turn gown inside out
- Fold or roll into a bundle and discard in a waste container



## 4. MASK OR RESPIRATOR

- Front of mask/respirator is contaminated — DO NOT TOUCH!
- If your hands get contaminated during mask/respirator removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Grasp bottom ties or elastics of the mask/respirator, then the ones at the top, and remove without touching the front
- Discard in a waste container

## 5. WASH HANDS OR USE AN ALCOHOL-BASED HAND SANITIZER IMMEDIATELY AFTER REMOVING ALL PPE

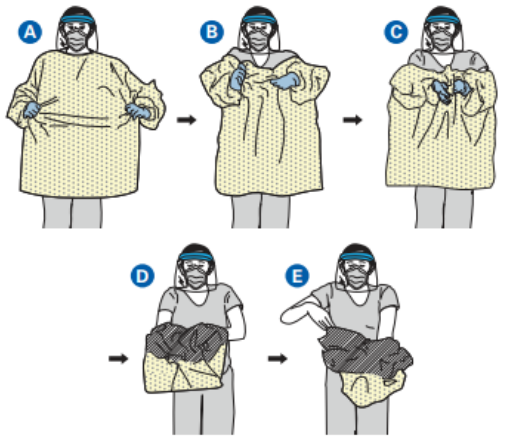



# HOW TO SAFELY REMOVE PERSONAL PROTECTIVE EQUIPMENT (PPE) EXAMPLE 2

Here is another way to safely remove PPE without contaminating your clothing, skin, or mucous membranes with potentially infectious materials. **Remove all PPE before exiting the patient room** except a respirator, if worn. Remove the respirator **after** leaving the patient room and closing the door. Remove PPE in the following sequence:

## 1. GOWN AND GLOVES

- Gown front and sleeves and the outside of gloves are contaminated!
- If your hands get contaminated during gown or glove removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Grasp the gown in the front and pull away from your body so that the ties break, touching outside of gown only with gloved hands
- While removing the gown, fold or roll the gown inside-out into a bundle
- As you are removing the gown, peel off your gloves at the same time, only touching the inside of the gloves and gown with your bare hands. Place the gown and gloves into a waste container



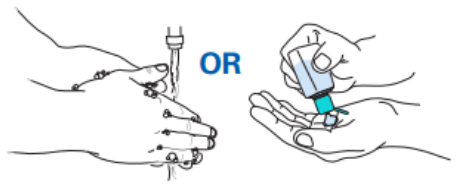

## 2. GOGGLES OR FACE SHIELD

- Outside of goggles or face shield are contaminated!
- If your hands get contaminated during goggle or face shield removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Remove goggles or face shield from the back by lifting head band and without touching the front of the goggles or face shield
- If the item is reusable, place in designated receptacle for reprocessing. Otherwise, discard in a waste container

## 3. MASK OR RESPIRATOR

- Front of mask/respirator is contaminated — DO NOT TOUCH!
- If your hands get contaminated during mask/respirator removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Grasp bottom ties or elastics of the mask/respirator, then the ones at the top, and remove without touching the front
- Discard in a waste container

## 4. WASH HANDS OR USE AN ALCOHOL-BASED HAND SANITIZER IMMEDIATELY AFTER REMOVING ALL PPE



# Let's identify some common mistakes...


EXIT

slido

Please download and install the Slido app on all computers you use

# What is required before you perform hand hygiene? Select all that apply.

ⓘ Start presenting to display the poll results on this slide.

slido

Please download and install the Slido app on all computers you use

# Who should be in contact precautions? Select all that apply.

ⓘ Start presenting to display the poll results on this slide.

slido

Please download and install the Slido app on all computers you use

# What conditions warrant airborne precautions? Select all that apply.

ⓘ Start presenting to display the poll results on this slide.

# Where are the “hot spots” on this hand?

https://ecampusontario.pressbooks.pub/ipacp/

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https://ecampusontario.pressbooks.pub/ipacp/

# Case #1

- A 10-year-old has been admitted to a clinic with influenza virus and has a fever, cough, and runny nose. The patient is lethargic and not eating due to nausea. Today, he is vomiting.

- What symptoms increase the risk of spreading the infection to the healthcare staff and other clients at the clinic?

# Case #1

- A 10-year-old has been admitted to a clinic with influenza virus and has a fever, cough, and runny nose. The patient is lethargic and not eating due to nausea. Today, he is vomiting.

- What personal protective equipment (PPE) would you wear while providing care?

# Case #1

- A 10-year-old has been admitted to a clinic with influenza virus and has a fever, cough, and runny nose. The patient is lethargic and not eating due to nausea. Today, he is vomiting.

- What teaching strategies should be implemented with the patient and the family to control the infection, and eliminate potential reservoirs where pathogens live?

# Case #2

- A 27-year-old man is admitted with pancreatitis, admitted to the ICU with prolonged hospitalization, and he requires a tracheostomy for ventilator dependence. He has vascular catheters in place in the right femoral groin and right internal jugular veins. He is febrile, and blood cultures are sent. The blood cultures result positive for vancomycin-resistant *Enterococcus*.

- Does this patient have a healthcare-associated infection? Discuss why or why not.

# Case #2

- A 27-year-old man is admitted with pancreatitis, admitted to the ICU with prolonged hospitalization, and he requires a tracheostomy for ventilator dependence. He has vascular catheters in place in the right femoral groin and right internal jugular veins. He is febrile, and blood cultures are sent. The blood cultures result positive for vancomycin-resistant *Enterococcus*.

- What if patient had intra-abdominal fluid collection with cultures revealing the same organism?

# Case #3

- A patient is admitted to the hospital for elective surgery, and a MRSA screening test is positive. On the same day, the patient undergoes total abdominal hysterectomy. Post-operative course is unremarkable, and the patient is discharged. She returns 10 days later with acute incisional pain. The wound is open to the fascial layer, and pus is sent for culture and sensitivities. The culture results positive for MRSA.

- Is this a healthcare associated infection? Discuss why/why not?

# Case #4

- 64-year-old male with end-stage renal disease on dialysis via IJ tunneled catheter, tracheostomy, and indwelling catheter is hospitalized for PEG tube placement. Two days post-operative, she has a fever. There is no drainage at the catheter site, the lungs are clear, and the PEG site is clean and dry. Blood, urine, and sputum cultures are sent. The urine reveals + leukocyte esterase, and urine Cx +*C. albicans*. The team empirically starts fluconazole.
- Later, blood cultures reveal +*K. pneumoniae*.

- Is this a healthcare associated infection? Discuss why/why not?

# Case #4

- 64-year-old male with end-stage renal disease on dialysis via IJ tunneled catheter, tracheostomy, and indwelling catheter is hospitalized for PEG tube placement. Two days post-operative, she has a fever. There is no drainage at the catheter site, the lungs are clear, and the PEG site is clean and dry. Blood, urine, and sputum cultures are sent. The urine reveals + leukocyte esterase, and urine Cx +*C. albicans*. The team empirically starts fluconazole.
- Later, blood cultures reveal +*K. pneumoniae*.

- Your colleague comments that there is an increase in blood culture infection positivity in your hospital. What would you do to help combat this?