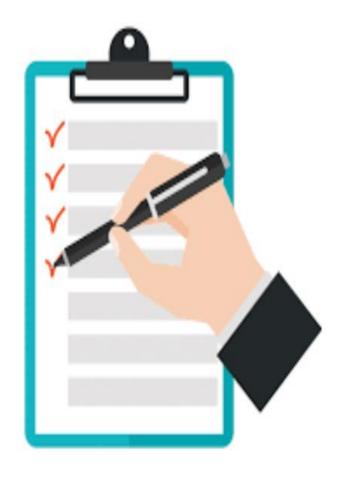


# **Agenda**

Methicillin-Resistant Staphylococcus aureus
 (MRSA) – Continuation





## How Can You Prevent the Transmission of MRSA?

#### Through Consistent Use of:

1. Routine Practices

2. Hand Hygiene



3. Personal Protective Equipment (PPE)



4. Contact Precautions







## How to Prevent the Transmission of MRSA?

The adherence to the following below for all residents will prevent the spread of MRSA, and other infectious organisms, from unidentified residents.

Point of Care Risk Assessment

Hand Hygiene

PPE

Education

Environmental Control



# What is Point of Care Risk Assessment (PCRA)

 A PCRA should be conducted before each interaction by HCWs. It assess the likelihood of exposing HCWs and others to infectious agents, and to inform selection of PPE.



- PCRA guides the choice of preventative measures and enhancing existing IPAC recommendations.
- PCRA is a vital tool for safe work, facilitates care provisions while minimizing risks, and promotes a healthy and safe environment.



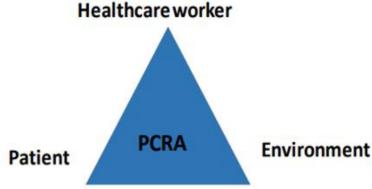




## What is Point of Care Risk Assessment (PCRA)

- A HCW's assessment of infection PCRA transmission risk includes:
  - During a specific interaction
  - > With a specific resident
  - > In a specific environment
  - Under available conditions

 Who Performs PCRA: Anyone who interacts with residents or their environment needs to understand PCRA.





#### Choose appropriate actions and PPE including the following:

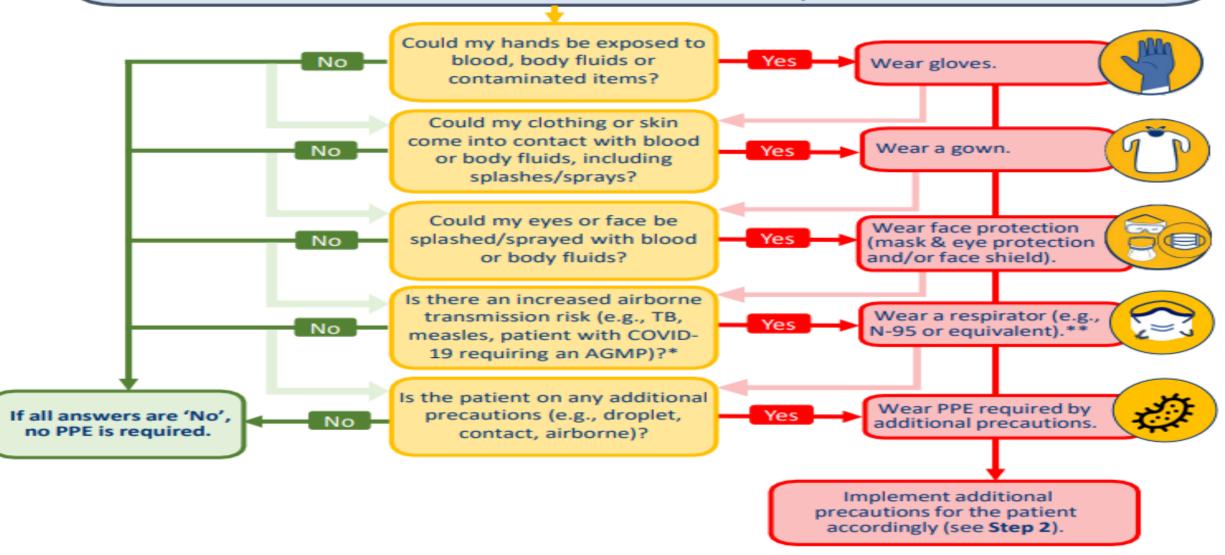
- □ Hand hygiene (e.g., before and after a task, before and after PPE use, before and after contact with patient).
   □ Respiratory etiquette (e.g., support patient to cover their coughs with a tissue or their elbow, wear a mask if tolerated).
   □ Patient placement (e.g., prioritize a patient with risks for infectious agents for a single occupancy room where possible).
   □ Environmental and equipment cleaning and disinfection (e.g., clean and disinfect re-usable equipment between each use).
   □ Implement additional precautions if required (e.g., droplet and contact precautions for COVID-19).
   □ Select appropriate pieces of PPE, as outlined below.
- Selecting PPE If additional precautions (e.g., droplet, contact, airborne) are in place, put on all required PPE. Could my clothing or skin Could my hands Could my eyes or face Is there an airborne or be exposed to be splashed/sprayed come into contact with increased aerosol blood or body with blood or body blood or body fluids. transmission risk? including splashes/sprays? fluids? fluids? Yes Yes Ye s Yes Wear N95 Wear medical mask Wear Wear respirator or and eye protection gloves gown equivalent (see Page2)\*

"HCW must be fit-tested for N95 respirator and a seal check must be performed prior to use. Other equivalent respirators, such as elastomeric half-face respirators (EHFRs) and Powered Air Purifying Respirators (PAPRs), may also be used if staff have been provided training on its appropriate use and organizational procedures related to their use are followed.



#### **Assessment for PPE Selection**

- · Follow all provincial and organizational masking policies.
- Choose additional PPE based on a risk assessment of the anticipated situation and environment.



## **Hand Hygiene**

- Research has shown MRSA is most often transmitted via the hands of HCWs.
- Effective hand hygiene kills or removes microorganisms on the skin.
- However, the failure to follow proper hand hygiene regimens is considered to be a leading cause of healthcare-associated infections.
- As the rates of hand hygiene increase, the rates of MRSA decrease!

THE SINGLE MOST IMPORTANT WAY TO PREVENT THE TRANSMISSION OF MRSA IS TO PERFORM PROPER HAND HYGIENE!



# Personal Protective Equipment (PPE)

- PPE, such as gloves and a gown, act as a barrier between the individual and infectious agents such as MRSA.
- HCWs can contaminate themselves and transmit MRSA to other residents through improper removal of PPE or by not performing hand hygiene immediately after removal of PPE.
- Gloves must be worn when contact with blood or body fluids, mucous membranes, nonintact skin, or potentially contaminated objects or the environment is anticipated.
- Since hand contamination may occur due to holes, leaks, tears, or improper removal, gloves are not a substitute for proper hand hygiene.
- Hand hygiene must be performed following removal of gloves.



### **Environmental Control**

- MRSA can survive on inanimate objects. An error committed by many is that equipment is not cleaned after use on one resident and prior to the use on another resident.
- Try to dedicate equipment to a single patient on Contact Precautions whenever possible, e.g., a wheelchair which must clearly labeled with the name of the resident.



- When using equipment for multiple residents be sure to clean and disinfect it between residents, e.g., a blood pressure cuff or stethoscope.
- Do not permit any sharing of personal effects, e.g., toothbrush or a deck of cards.



#### **Environmental Control**

- All horizontal and frequently touched surfaces should be cleaned and disinfected at least daily and when visibly soiled.
- All curtains, including shower and privacy curtains, must be removed and laundered when soiled and after discharge of a patient on Contact Precautions.

- Routine Practices apply when handling garbage.
- Ensure cleaning supplies such as cloths and mops are changed following cleaning of a room where the patient is on Contact Precautions.

#### Education

- Residents with MRSA infections and their family members must be provided with the following written information:
  - ➤ What is MRSA?
  - > How is it transmitted?
  - ➤ How is MRSA treated?
  - > What are Contact Precautions?
- All visitors must be directed to see the staff before entering the room of a patient on Contact Precautions to receive specific information and instructions. This would include:
  - > A demonstration of applying and removing PPE.
  - > A review of hand hygiene procedures and when it is to be performed.
  - > A demonstration of the proper disposal of PPE.
  - Instructions to not visit other patients at the facility or common areas of the unit (e.g., such as the dining room) while wearing PPE or without performing hand hygiene.



#### **MRSA Staff Factsheet**

#### WHAT IS MRSA?

Staphylococcus aureus is a bacterium that periodically lives on the skin and mucous membranes of healthy people.

Occasionally *S. aureus* can cause an infection. When *S. aureus* develops resistance to the beta-lactam class of antibiotics, it is called methicillin-resistant Staphylococcus aureus, or MRSA.

#### **HOW IS MRSA SPREAD?**

MRSA is spread from one person to another by contact, usually on the hands of caregivers. MRSA can be present on the caregiver's hands either from touching contaminated material excreted by the infected person or from touching articles contaminated by the skin of a person with MRSA, such as towels, sheets, wound dressings. MRSA can survive well on hands and can survive for weeks on inanimate objects such as door handles, bedrails, pagers and stethoscopes.

#### COLONIZATION AND INFECTION:

Colonization occurs when bacteria are present on or in the body without causing illness. MRSA can colonize the nose, skin and moist areas of the body.

Infection occurs when bacteria get past the person's normal defences and cause disease (e.g. skin bacteria getting into the bloodstream via an intravenous catheter). Infections with MRSA may be minor, such as pimples and boils, but serious infections may also occur, such as surgical wound infections and pneumonia.

#### RISK FACTORS FOR MRSA INFECTION:

MRSA infection usually develops in hospitalized clients/patients/residents who are elderly or very sick (weakened immune systems). Other factors that increase the risk for acquiring MRSA infection include:

- Being colonized with MRSA
- Previous hospitalization or transfer between health care facilities (in Canada or outside Canada)
- Presence of an indwelling device (e.g., catheter)

#### GOOD HAND HYGIENE PRACTICES:

#### PREVENTION & CONTROL OF MRSA:

- Admission screening for MRSA must be completed:
- Check for previous history of MRSA or high risk for MRSA using an admission screening tool.
- If the client/patient/resident has previously had contact with an MRSA case, screening specimens must be obtained.
- If the client/patient/resident is considered to be at risk for MRSA based on the results of the screening tool, screening specimens must be obtained.
- If the client/patient/resident is known to have had MRSA in the past, <u>Contact Precautions</u> must be initiated:
- Hand hygiene as described in Routine Practices
- Appropriate client/patient/resident placement
- Gloves for all activities in the patient's room or bed space in acute care, or for direct care of clients/residents in long- term care and ambulatory/clinic settings
- Long-sleeved gown for activities where skin or clothing will come in contact with the patient or their environment in acute care, or for direct care of clients/residents in long- term care and ambulatory/clinic settings
- A surgical mask should be worn as per Routine Practices
- Dedicated equipment or adequate cleaning and disinfecting of shared equipment, including transport equipment
- Daily cleaning of all touched surfaces in the room
- Notify the Infection Prevention and Control Professional or delegate to discuss the infection control management of client/patient/resident activities.
- Precautions are <u>not</u> to be discontinued until reviewed by Infection Prevention and Control.
- Additional surveillance specimens for colonization of client/patient/resident contact(s) may be required, as directed by Infection Prevention and Control.



## MRSA Information Sheet for Residents and Visitors

#### WHAT IS MRSA?

Staphylococcus aureus is a germ that lives on the skin and mucous membranes of healthy people. Occasionally S. aureus can cause an infection. When S. aureus develops resistance to certain antibiotics, it is called methicillin-resistant Staphylococcus aureus, or MRSA.

#### **HOW IS MRSA SPREAD?**

MRSA is spread from one person to another by contact, usually on the hands of caregivers. MRSA can be present on the caregiver's hands either from touching contaminated material excreted by the infected person or from touching articles contaminated by the skin of a person with MRSA, such as towels, sheets and wound dressings. MRSA can live on hands and objects in the environment.

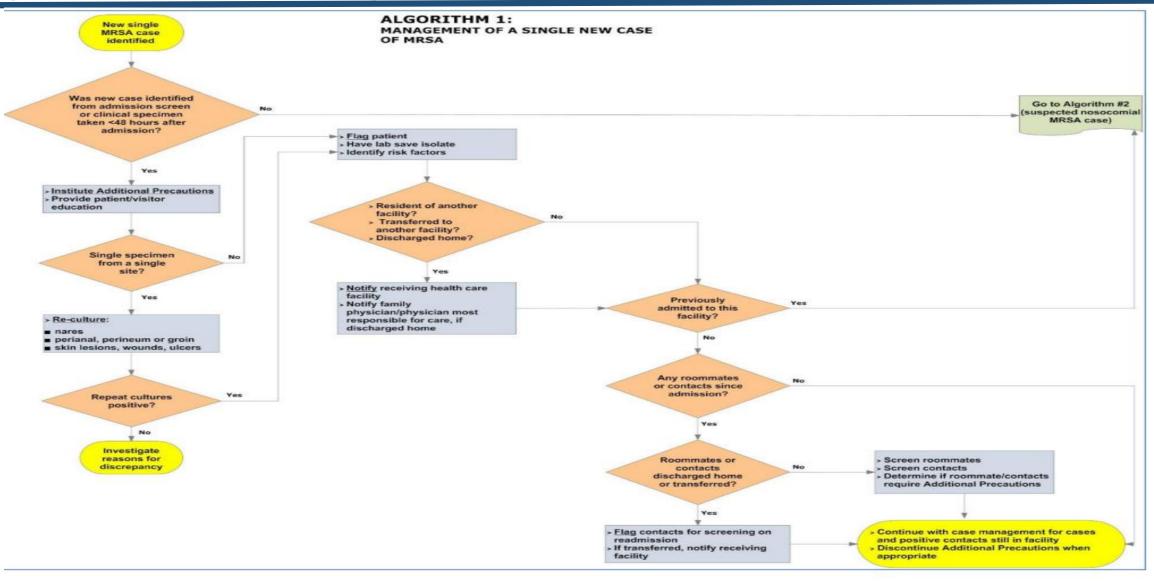
#### WHAT SPECIAL PRECAUTIONS ARE REQUIRED FOR MRSA?

It is important that special precautions are taken to stop MRSA from spreading to other patients in the hospital. These precautions include:

- Single room accommodation (the door can remain open)
- A long-sleeved gown and gloves will be worn by everyone who cares for you
- A sign may be placed on your door to remind others who enter your room about the special precautions
- The room and the equipment used in the room will be cleaned and disinfected regularly
- Everyone who leaves your room must clean their hands well
- You must clean your hands before you leave your room



## Algorithm 1: Management of a Single New Case of MRSA





Question: A new resident, Mr. Johnson, is being admitted to your long-term care facility. He was recently discharged from a hospital where he spent 14 days.

Which of Mr. Johnson's characteristics would be considered a definite risk factor for MRSA?

- A. His recent hospital stay
- B. His age
- C. His medication list

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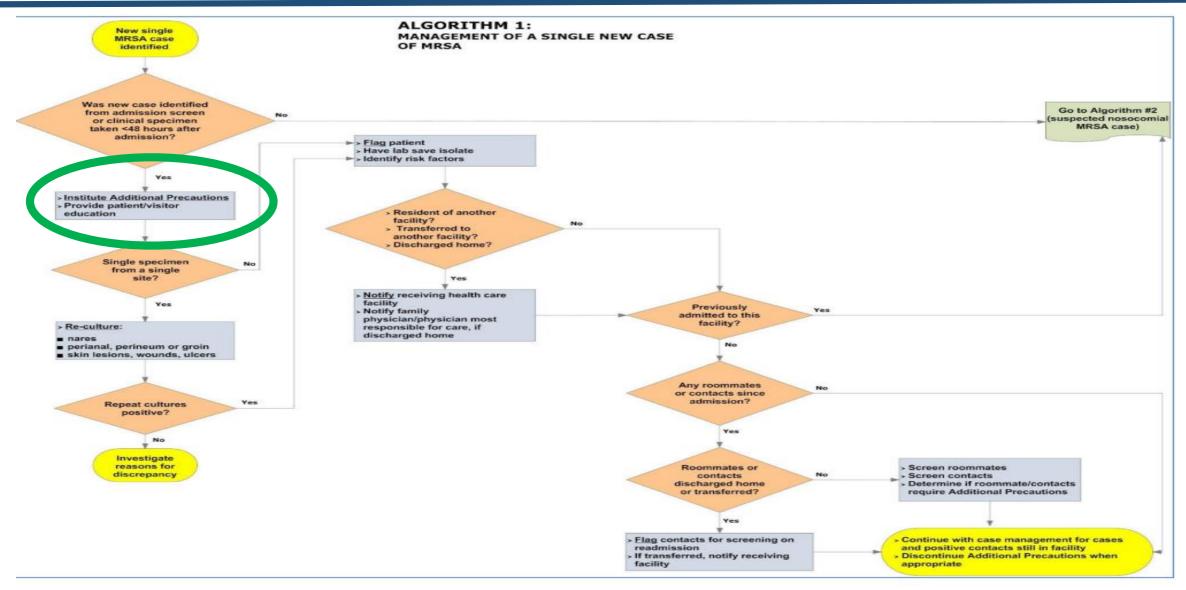
Question: As part of the admission process, Mr. Johnson was swabbed for admission MRSA screening and was found to be MRSA positive. What action should be taken regarding Mr. Johnson's MRSA status?

- A. Mr. Johnson can remain on routine practices.
- B. Place Mr. Johnson on Contact Precautions.
- C. Place Mr. Johnson on Droplet/Contact Precautions.
- D. Place Mr. Johnson on Airborne Precautions.

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## Algorithm 1: Management of a Single New Case of MRSA





Question: TPH has declared your LTCH in a MRSA outbreak. What screening measure should you consider if additional cases are found after contact tracing?

- A. Daily temperature checks
- B. Prevalence screening/surveillance
- C. Weekly blood tests for all residents
- D. Do nothing

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Question: What staffing strategy might you implement to control the spread of MRSA?

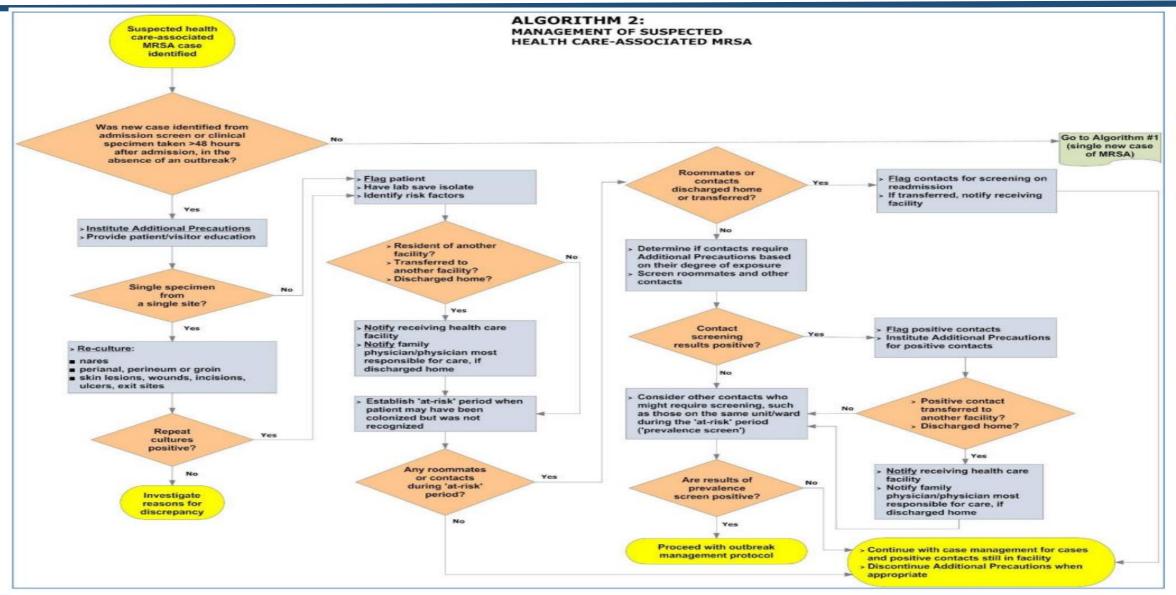
- A. Sending all staff home
- B. Rotating staff between all floors randomly
- C. Cohorting of residents and staff
- D. Hiring new staff unfamiliar with the facility



Question: What staffing strategy might you implement to control the spread of MRSA?

- A. Sending all staff home
- B. Rotating staff between all floors randomly
- C. Cohorting of residents and staff
- D. Hiring new staff unfamiliar with the facility

#### Algorithm 2: Management of Suspected Health care-associated MRSA





### References

PIDAC: Annex A: Screening, Testing and Surveillance for Antibiotic-Resistant Organisms (AROs) In all Health Care Settings.

• aros-screening-testing-surveillance.pdf (publichealthontario.ca)



# A&Q





# Thank you



1235 Wilson Avenue Toronto, Ontario M3M 0B2 416.242.1075

www.hrh.ca