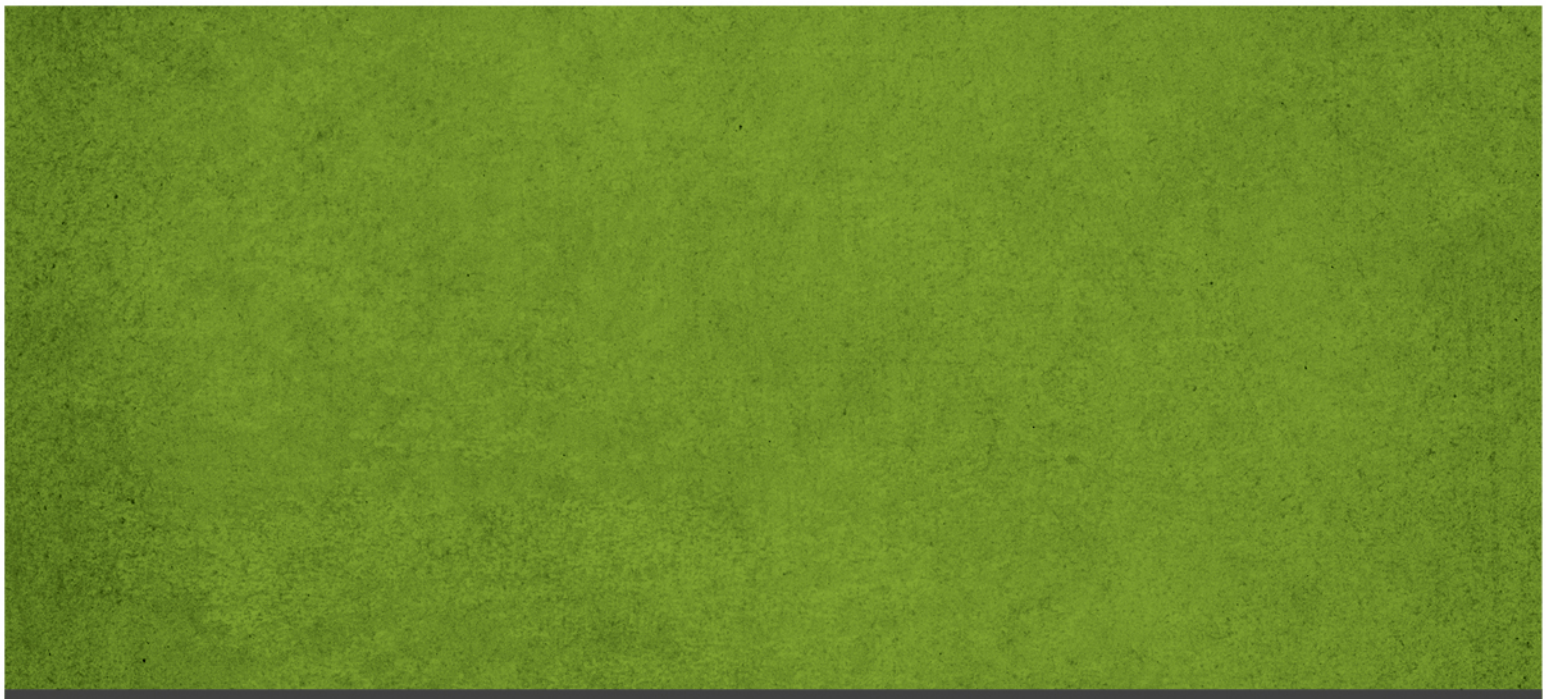
ROUTINE PRACTICES AND ADDITIONAL PRECAUTIONS ASSESSMENT AND EDUCATIONAL TOOLS



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INTRODUCTION

The Public Health Agency of Canada (PHAC) develops national infection prevention and control guidelines to provide evidence-based recommendations to complement provincial/territorial governments' practices in monitoring, preventing, and controlling healthcare-associated infections. National guidelines support infection prevention and control professionals, healthcare organizations and healthcare providers in the development, implementation and evaluation of infection prevention and control policies, procedures and programs to improve the quality and safety of health care and patient outcomes.

The purpose of the *Routine Practices and Additional Precautions Assessment and Educational Tools* (RPAP Tools) is to supplement PHAC's revised *Routine Practices and Additional Precautions for Preventing the Transmission of Infection in Healthcare Settings* (in press) and *Hand Hygiene Practices in Healthcare Settings* (in press) guidelines. These guidelines assist in promoting and applying routine practices and additional precautions by healthcare workers to prevent the transmission of infection in healthcare settings.

The RPAP Tools are organized into four separate tool sets, each with their own set of instructions found at the beginning of the relevant section of this document. The four tool sets are as follows:

1. Routine Practices Tool Set
2. Additional Precautions Tool Set
3. Performance Checklists Tool Set
4. Sample Program Tool Set

Target Users

The RPAP Tools are designed for infection prevention and control professionals and those responsible for educating healthcare workers on infection prevention and control.

RPAP Tools Working Group

PHAC's Centre for Communicable Diseases and Infection Control developed the RPAP Tools in collaboration with experts working in the field, such as infection prevention and control professionals, nurses, educators, paramedics, and infectious disease physicians.

RPAP Tools Working Group Members

- Dr. Donna Moralejo, Chair, Associate Professor, Memorial University of Newfoundland, St. John's, Newfoundland and Labrador
- Greg Bruce, Platoon Supervisor/Infection Control Officer, County of Simcoe Paramedic Services, Midhurst, Ontario
- Dr. B. Lynn Johnston, Hospital Epidemiologist and Division Chief, Infectious Diseases, Capital District Health Authority, Halifax, Nova Scotia
- Dany Larivée, Planning, Programming and Research Officer, Outaouais Public Health Department, Gatineau, Quebec
- Dr. Mary Vearncombe, Medical Director, Infection Prevention and Control, Sunnybrook Health Sciences Centre, Toronto, Ontario

The RPAP Tools were pilot tested in fall 2009 with 21 groups of infection prevention and control professionals, clinical educators, nurses and other healthcare workers from acute care and long-term care settings in different regions of Canada. Their feedback informed this (final) draft of the RPAP Tools.

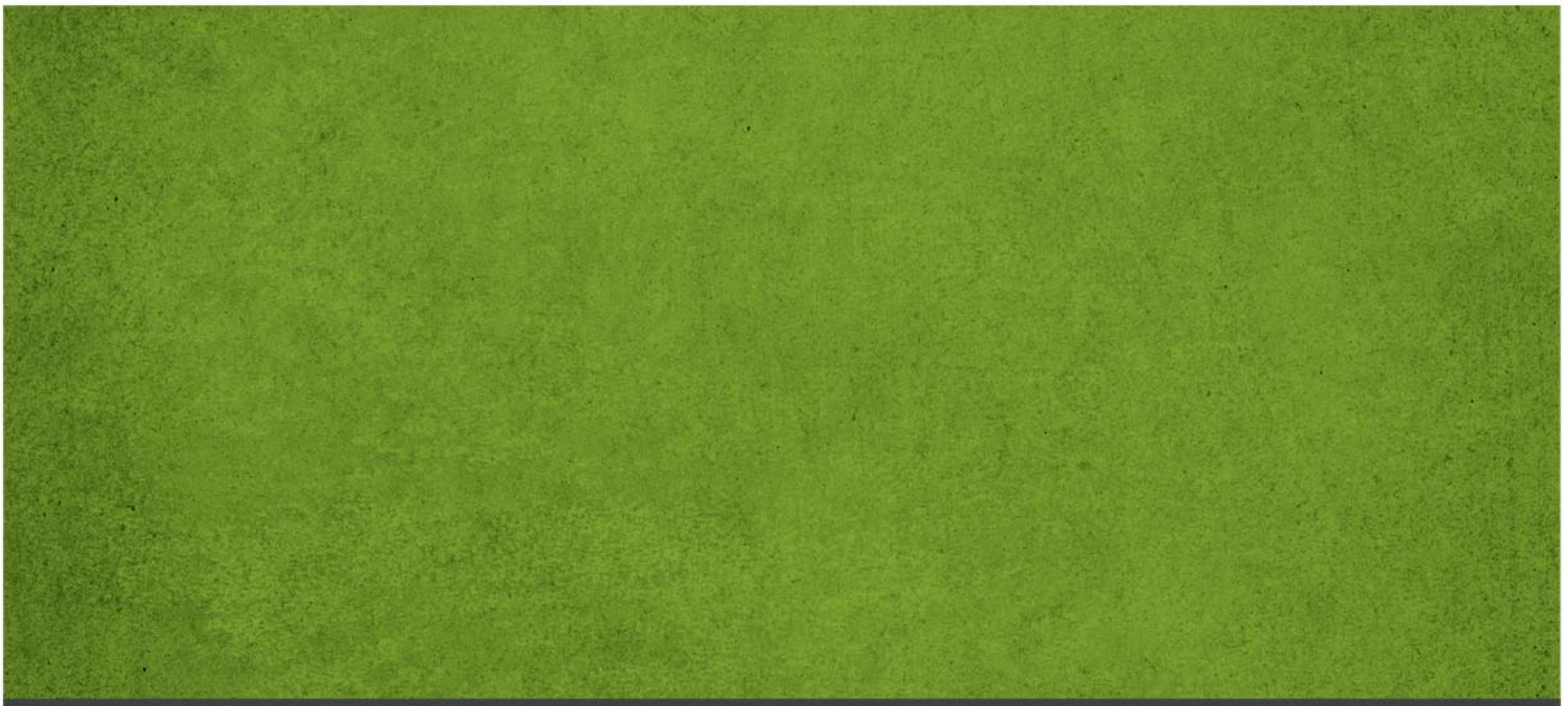
Pilot-testing of the RPAP Tools was a collaborative project between PHAC and the Community and Hospital Infection Control Association-Canada (CHICA).

Issuance and Review

These tools were made publicly available to interested stakeholders in 2013 and will be regularly reviewed in conjunction with the guidelines, *Routine Practices and Additional Precautions for Preventing the Transmission of Infection in Healthcare Settings* and *Hand Hygiene Practices in Healthcare Settings*.

This document is part of PHAC's *Infection Prevention and Control Guidelines* series and is intended to be used in conjunction with other pertinent guidelines.

PART I - ROUTINE PRACTICES TOOL SET



PART I. ROUTINE PRACTICES TOOL SET

INSTRUCTIONS

Description of the Tool Set

There are three types of tools in the Routine Practices Tool Set:

1. The *Elements of Routine Practices Summary*
2. The *Point of Care Risk Assessment for Routine Practices Algorithm: Appropriate Use of Personal Protective Equipment*
3. Five routine practices case scenarios
    I. Diaper Change
    II. IV Insertion
    III. Medication Administration
    IV. Morning Care
    V. Suctioning

The *Elements of Routine Practices Summary* is a diagram that illustrates assessments to be made in relation to routine practices.

- At the centre of the diagram is the risk assessment of the patient, incorporating the patient/healthcare worker interaction and the environment.
- The circles around the centre are the elements of routine practices. Half of these, in yellow, reflect assessments to be made prior to each interaction while the remaining half, in purple, reflect assessments to be made at least once a shift and more often as needed.
- Each element branches off to a box that includes examples of questions that healthcare workers should ask themselves related to that particular routine practices element.

The *Point of Care Risk Assessment for Routine Practices Algorithm: Appropriate Use of Personal Protective Equipment* outlines the decision-making process related to possible exposure to infectious materials and the relevant selection of personal protective equipment.

- This risk assessment is to be done at the point of care, just prior to each interaction with a patient and/or patient's environment.

Each routine practices case scenario consists of a short description of a patient/healthcare worker interaction and four to seven related questions.

- The questions were designed to illustrate application of the *Point of Care Risk Assessment for Routine Practices Algorithm: Appropriate Use of Personal Protective Equipment* in a variety of situations, and to highlight other elements of routine practices that should be considered.
- Suggested answers are provided to the questions, but groups may have different answers depending on their interpretation of the questions and local context.
- Discussion points, based on commonly raised questions or points requiring clarification are also provided to generate group discussion and critical thinking. It is expected that other points will be identified by groups during their discussion.
- The case scenarios reflect common patient care situations, but have been kept simple so that the decision-making process can be clearly illustrated.

How to Use the Tool Set

Use the Routine Practices Tool Set with small groups to generate discussion of routine practices. The Routine Practices Tool Set may also be used by individuals to become familiar with the point of care risk assessment for routine practices and elements of routine practices, but the greatest benefit comes through discussion. To use the Tool Set:

- Select a case scenario and answer its associated questions using the *Point of Care Risk Assessment for Routine Practices Algorithm: Appropriate Use of Personal Protective Equipment* and the *Elements of Routine Practices Summary* as relevant.
- Refer to the associated case scenario answers and discussion points to further promote critical thinking and discussion.
- Encourage the group to identify other relevant points for discussion and how the decision-making process outlined in the *Point of Care Risk Assessment for Routine Practices Algorithm: Appropriate Use of Personal Protective Equipment*, and the *Elements of Routine Practices Summary*, can be applied to their own setting and patient population.

Note: It is not necessary to review all of the case scenarios. Reviewing two or three case scenarios should promote a good understanding of the *Point of Care Risk Assessment for Routine Practices Algorithm: Appropriate Use of Personal Protective Equipment* and its application, as well as ensure discussion of a variety of elements of routine practices and types of personal protective equipment. Choice of scenarios to review will vary according to the target group and setting.

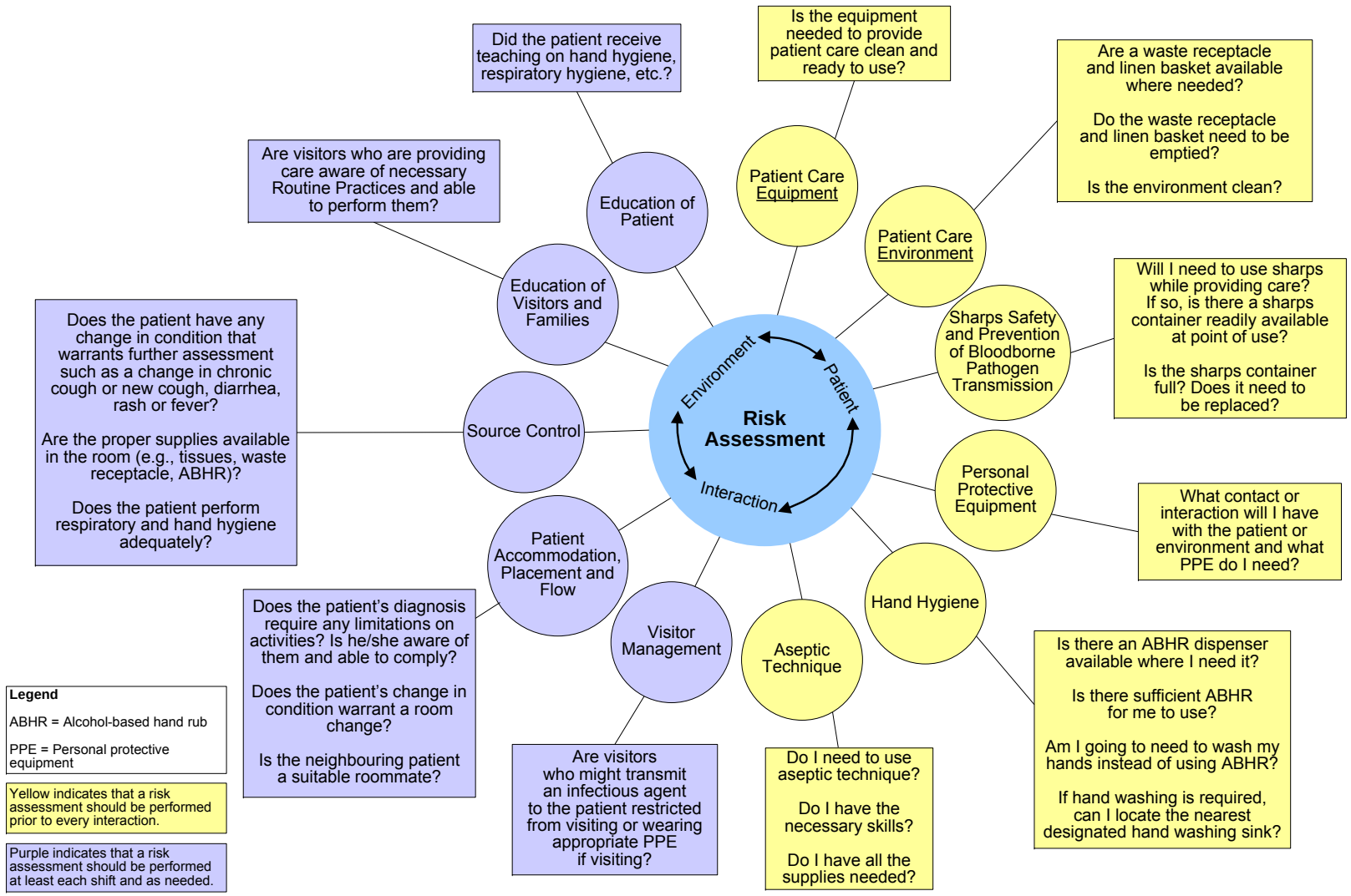
Local Adaptation

This Routine Practices Tool Set is based on PHAC's guideline, *Routine Practices and Additional Precautions for Preventing the Transmission of Infection in Healthcare Settings*. Each institution is encouraged to adapt and add to this tool set to accommodate local realities such as local legislation, regulations, occupational health and safety requirements, guidelines or evidence-informed practice. For example:

- Modifying the case scenarios to better illustrate locally encountered situations
    - It is not necessary to modify the scenarios for them to be applicable to a different setting, but doing so may increase the comfort level of those discussing the case. For example, the same principles apply when giving a bed bath, starting an IV or giving a medication, regardless of whether the setting is acute care or long-term care, or whether the patients in the local setting are similar or different to the ones in the cases.
- Adding new case scenarios that reflect the local setting and practices
    - The easiest way to create a new case scenario is to describe a typical encounter. *The Point of Care Risk Assessment for Routine Practices Algorithm: Appropriate Use of Personal Protective Equipment* and *Elements of Routine Practices Summary* can then be applied.
    - These cases are recommended for nurses and licensed practical nurses. *The Point of Care Risk Assessment for Routine Practices Algorithm: Appropriate Use of Personal Protective Equipment* are recommended for all healthcare workers, but cases will need to be developed for other groups, including but not limited to paramedics, home care workers, environmental services staff, community health nurses, clinic staff, physiotherapists, occupational therapists, respiratory therapists, and physicians.

- Adding new discussion points
    - It is recommended discussion not be limited to the case questions and identified discussion points, but includes other points raised by the group. Many of these can be brought forward to subsequent groups for discussion.

ELEMENTS OF ROUTINE PRACTICES SUMMARY



POINT OF CARE RISK ASSESSMENT FOR ROUTINE PRACTICES ALGORITHM: APPROPRIATE USE OF PERSONAL PROTECTIVE EQUIPMENT

Notes

This PCRA applies to all patients at all times in all healthcare settings, when contact with the patient or environment is expected.

Use in addition to AP if patient has already been placed on AP.

Follow the appropriate AP algorithm if patient has indications for AP **(**see yellow box *Indications for AP*)

Legend

PCRA = Point-of-care risk assessment

AP = Additional precautions

Facial protection = mask and eye protection, face shield, or mask with visor attachment

PPE = Personal protective equipment

Indications for AP

New or worse respiratory symptoms – See *Respiratory Illness Algorithm*

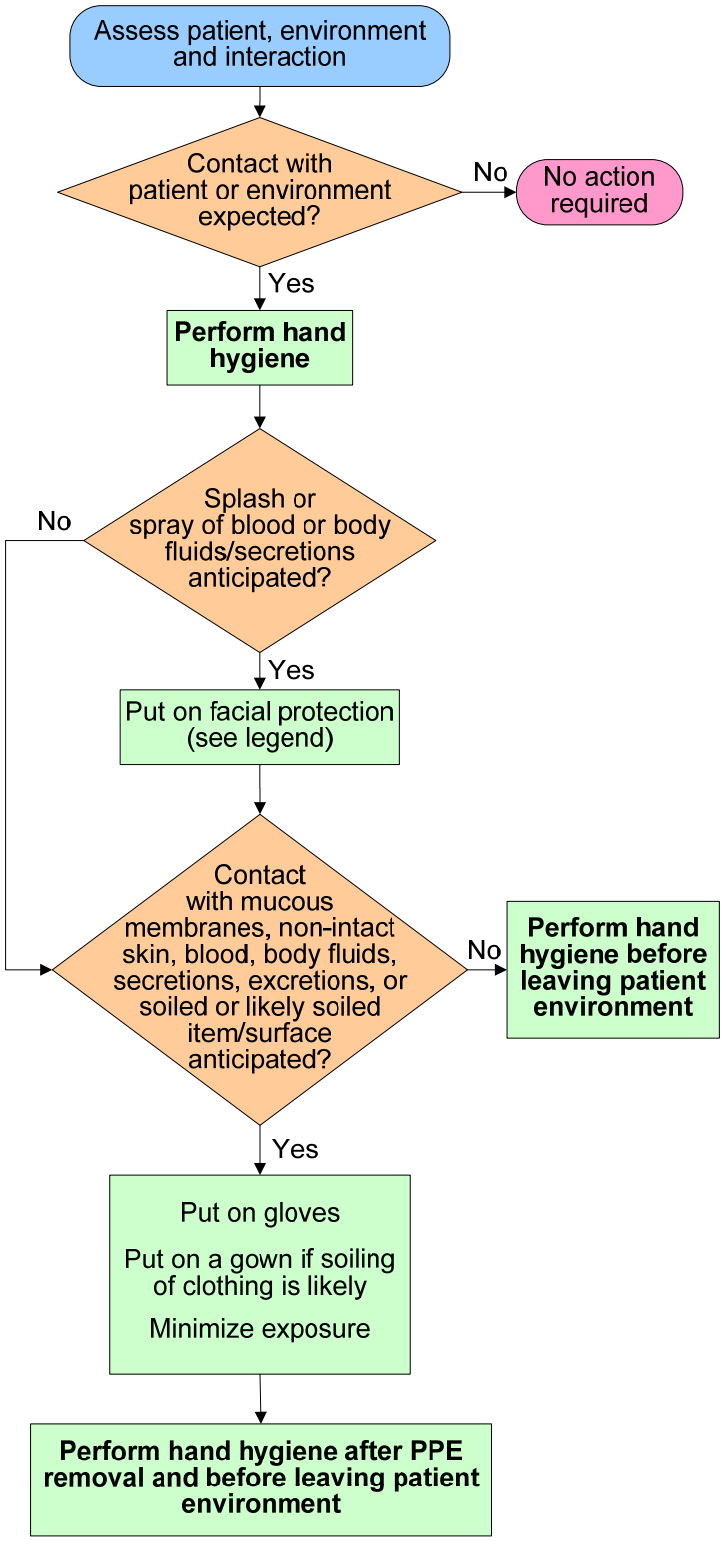
Diarrhea likely caused by an infectious agent – See *Diarrhea Algorithm*

Skin rash – See *Rash Algorithm*

Suspected meningitis or encephalitis – See *Acute Neurological Syndrome Algorithm*

Draining wound/cellulitis – See *Draining Wound/Soft Tissue Infection Algorithm*

Pandemic influenza – *See Annex F of the Canadian Pandemic Influenza Plan for the Health Sector*



ROUTINE PRACTICES CASE SCENARIO #1 – DIAPER CHANGE: QUESTIONS

Instructions:

- Individually or in small groups, answer the questions associated with the practice case using the point of care risk assessment, explaining rationales for decisions, and linking routine practices to the chain of infection and problem solving.
- Answers may vary, depending on assumptions made about the individuals, environment and context in each scenario.
- The first section includes a case scenario and associated questions; the second section includes the same case scenario and questions but answers have been provided along with discussion points to highlight additional learning opportunities.

Alice, a nurse assistant, is going to change the diaper of 3-month-old Rose, who has been admitted for failure to thrive.

Question 1: Identify, using the *Point of Care Risk Assessment for Routine Practices Algorithm: Appropriate Use of Personal Protective Equipment*, what personal protective equipment (PPE) is required and when hand hygiene should occur. Explain your reasoning by stating your decisions at each decision point in the algorithm.

ROUTINE PRACTICES CASE SCENARIO #1 – DIAPER CHANGE: QUESTIONS

Question 2: How would your answer to question 1 differ if the baby were male rather than female?

Question 3: How would your answer to question 1 differ if Rose were admitted with suspected croup?

ROUTINE PRACTICES CASE SCENARIO #1 – DIAPER CHANGE: QUESTIONS

Question 4: How would your answer to question 1 differ if the patient were an elderly female rather than an infant?

Question 5: How would your answer to question 1 differ if a healthcare worker were going to empty a bedpan of an elderly female patient, rather than changing a diaper?

ROUTINE PRACTICES CASE SCENARIO #1 – DIAPER CHANGE: QUESTIONS

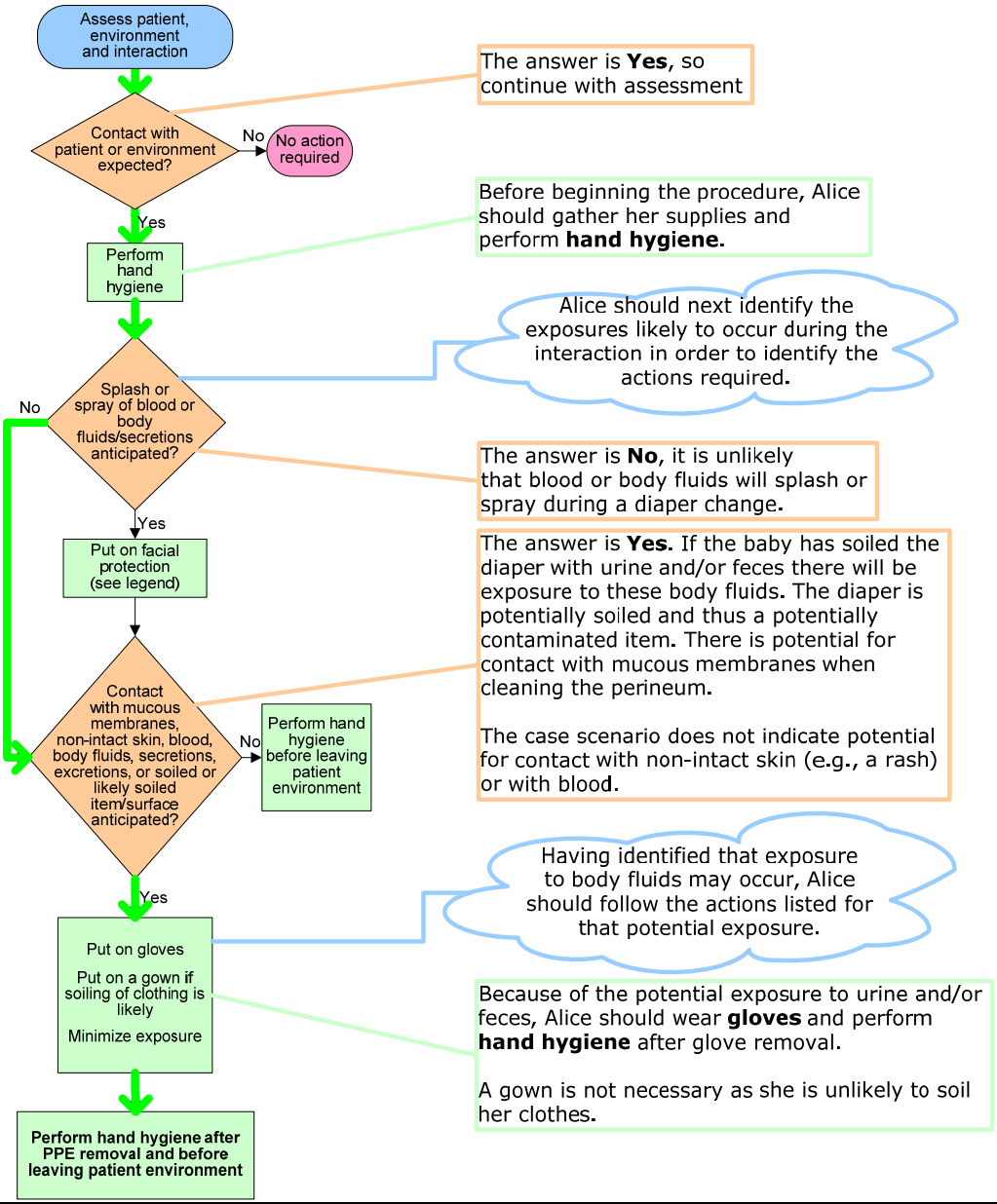
Question 6: Identify, using the *Elements of Routine Practices Summary*, what other elements of routine practices, besides Hand Hygiene and Personal Protective Equipment, are most relevant to this scenario?

Question 7: What microorganisms are of concern, and for whom?

ROUTINE PRACTICES CASE SCENARIO #1 – DIAPER CHANGE: QUESTIONS & ANSWERS

Alice, a nurse assistant, is going to change the diaper of 3-month-old Rose, who has been admitted for failure to thrive.

Question 1: Identify, using the *Point of Care Risk Assessment for Routine Practices Algorithm: Appropriate Use of Personal Protective Equipment*, what personal protective equipment (PPE) is required and when hand hygiene should occur. Explain your reasoning by stating your decisions at each decision point in the algorithm.



ROUTINE PRACTICES CASE SCENARIO #1 – DIAPER CHANGE: QUESTIONS & ANSWERS

Question 2: How would your answer to question 1 differ if the baby were male rather than female?

Answer: The answer would not change. The potential remains for exposure to feces and/or urine, so gloves are required followed by appropriate hand hygiene after glove removal. With a male infant, extra caution should be used when removing the diaper in order to prevent being sprayed with urine. As well, one might consider standing on the side of the male infant during the procedure instead of in front of him as a further safety measure to prevent spraying.

Discussion points:

- Discuss why the healthcare worker may consider that he or she needs to wear a gown or facial protection (mask and eye protection, face shield, or mask with visor attachment) if the baby were male, e.g., if concerned the strategies described above would not be sufficient.
- Discuss the similarities and differences between the healthcare worker and the parents, and changing diapers in the hospital versus home, in terms of the need to wear gloves, the need for hand hygiene, and the implications of contaminated hands.

Question 3: How would your answer to question 1 differ if Rose were admitted with suspected croup?

Answer: The routine practices for changing the diaper remain the same. Because the baby is suspected of having croup, which is a respiratory illness and routine practices may not be sufficient to prevent transmission to others, one would need to do a further assessment of whether additional precautions are required. Refer to either the *Which Microbe/Which Additional Precautions Table* or the *Respiratory Illness Algorithm*.

Question 4: How would your answer to question 1 differ if the patient were an elderly female rather than an infant?

Answer: The answers remain the same. Because there is potential for exposure to feces and/or urine, gloves are required followed by appropriate hand hygiene after glove removal. In some situations where the healthcare worker anticipates that soiling of the uniform may occur, a gown should be worn for the activity.

Discussion point:

- Discuss situations where soiling of the uniform may occur, e.g., cognitive impairment, uncooperative patient, contracture, etc.

ROUTINE PRACTICES CASE SCENARIO #1 – DIAPER CHANGE: QUESTIONS & ANSWERS

Question 5: How would your answer to question 1 differ if a healthcare worker were going to empty a bedpan of an elderly female patient, rather than changing a diaper?

Answer: Gloves should be worn, as there will still be potential for contact with urine and/or feces from the patient, and there will be contact with the bedpan, which is a contaminated item. The healthcare worker should avoid splashing the contents while emptying/cleaning the bedpan. If the healthcare worker anticipates that splashing and/or soiling of the uniform may occur, then a gown should be worn for the activity. Facial protection should also be worn if splashing is anticipated. The potential for exposure by splashing depends on the disposal/cleaning system used. Appropriate hand hygiene should be performed after glove removal.

Discussion points:

- Discuss ways of minimizing contamination of the healthcare worker's uniform and the environment while emptying/cleaning the bedpan, e.g., wearing a gown, using disposable bedpans, using a closed bedpan cleaning system, using a macerator system, appropriate storage of bedpan.
- Discuss ways of minimizing contamination if spraywands are used, such as ensuring hoses have appropriate water pressure.
- Discuss the importance of ensuring adequate housekeeping/cleaning of the environment.

Question 6: Identify, using the *Elements of Routine Practices Summary*, what other elements of routine practices, besides Hand Hygiene and Personal Protective Equipment, are most relevant to this scenario?

Answer: All elements of routine practices are important, however, certain elements may be more relevant than others for a particular situation. Some elements of routine practices require a risk assessment prior to each patient/healthcare worker interaction (e.g., hand hygiene) and others may require a risk assessment at less frequent intervals such as at least each shift and as needed (e.g., education of patient, visitors and families).

In this particular situation, the most relevant elements of routine practices are Patient Care Environment, and Education of Visitors and Family. Alice will need to be sure she has the appropriate receptacle available for immediate disposal of the used diaper so that she does not contaminate the environment with it. She needs to ensure that the patient care environment is clean after completion of the diaper change. She also needs to be sure that family members have a good understanding of hand hygiene.

Question 7: What microorganisms are of concern, and for whom?

Answer: Microorganisms of concern include those carried in stool and/or urine (e.g., vancomycin-resistant enterococcus, *Clostridium difficile*, *Escherichia coli*, etc). These may be picked up by the healthcare worker, who could then carry the microorganisms to other patients, or inoculate himself/herself.

ROUTINE PRACTICES CASE SCENARIO #2 – IV INSERTION: QUESTIONS

Instructions:

- Individually or in small groups, answer the questions associated with the practice case using the point of care risk assessment, explaining rationales for decisions, and linking routine practices to the chain of infection and problem solving.
- Answers may vary, depending on assumptions made about the individuals, environment and context in each scenario.
- The first section includes a case scenario and associated questions; the second section includes the same case scenario and questions but answers have been provided along with discussion points to highlight additional learning opportunities.

Greg, a new paramedic, is going to start a peripheral IV on Mr. Michaels, a 45-year-old man complaining of chest pain.

Question 1: Identify, using the *Point of Care Risk Assessment for Routine Practices Algorithm: Appropriate Use of Personal Protective Equipment*, what personal protective equipment is required and when hand hygiene should occur. Explain your reasoning by stating your decisions at each decision point in the algorithm.

ROUTINE PRACTICES CASE SCENARIO #2 – IV INSERTION: QUESTIONS

Question 2: In addition to personal protective equipment, what actions could Greg take to minimize exposure?

Question 3: How would your answer to question 1 differ if the person who is going to start the IV has a lot of experience starting IVs?

ROUTINE PRACTICES CASE SCENARIO #2 – IV INSERTION: QUESTIONS

Question 4: How would your answer to question 1 differ if Mr. Michaels were agitated?

Question 5: How would your answer to question 1 differ if an arterial line were started in the Emergency Department, rather than a peripheral IV?

ROUTINE PRACTICES CASE SCENARIO #2 – IV INSERTION: QUESTIONS

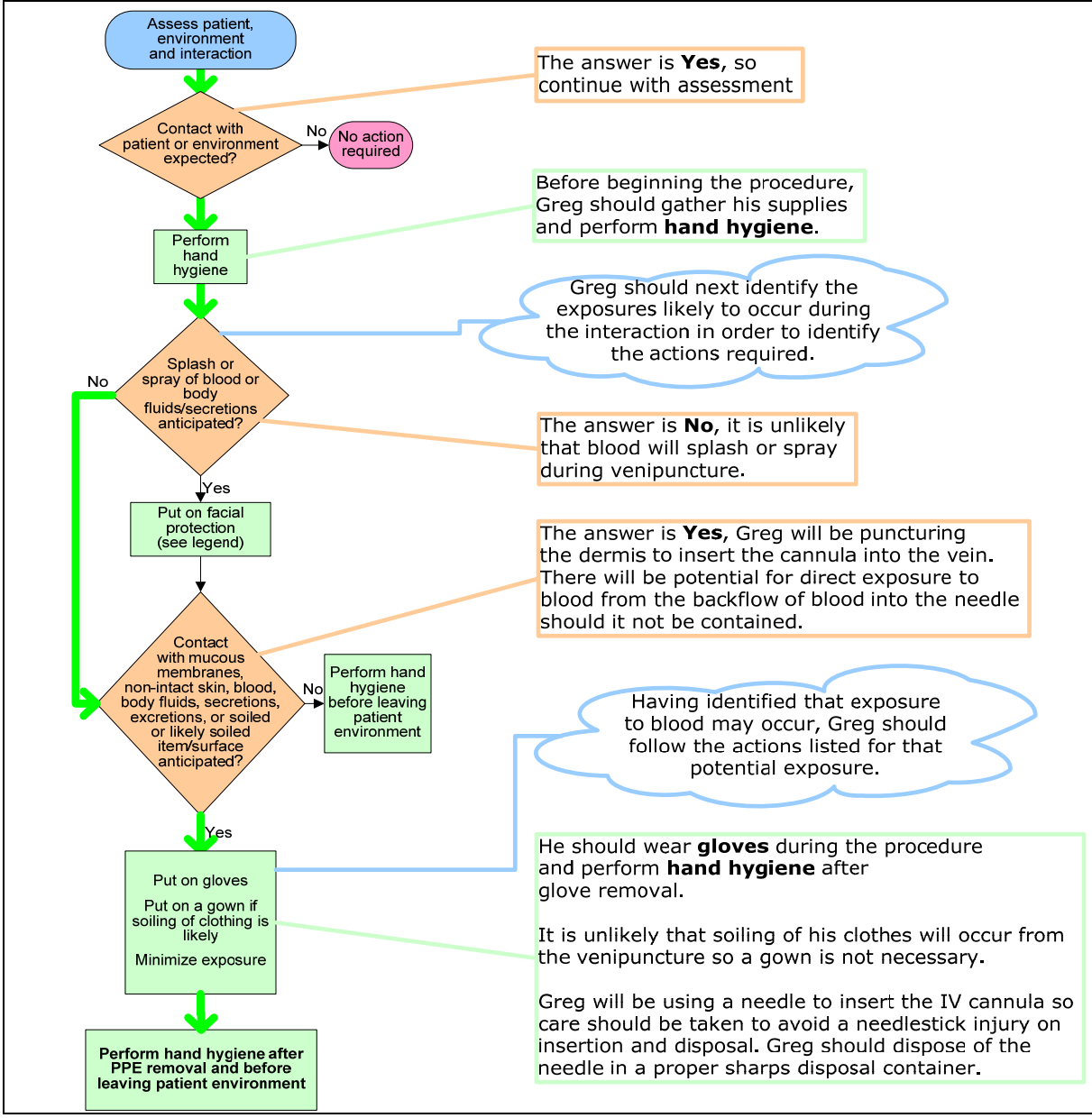
Question 6: Identify, using the *Elements of Routine Practices Summary*, what other elements of routine practices, besides Hand Hygiene and Personal Protective Equipment, are most relevant to this scenario?

Question 7: What microorganisms are of concern, and for whom?

ROUTINE PRACTICES CASE SCENARIO #2 – IV INSERTION: QUESTIONS & ANSWERS

Greg, a new paramedic, is going to start a peripheral IV on Mr. Michaels, a 45-year-old man complaining of chest pain.

Question 1: Identify, using the *Point of Care Risk Assessment for Routine Practices Algorithm: Appropriate Use of Personal Protective Equipment*, what personal protective equipment (PPE) is required and when hand hygiene should occur. Explain your reasoning by stating your decisions at each decision point in the algorithm.



ROUTINE PRACTICES CASE SCENARIO #2 – IV INSERTION: QUESTIONS & ANSWERS

Question 2: In addition to personal protective equipment, what actions could Greg take to minimize exposure?

Answer: Other actions he can take are: applying pressure above the cannula, using a drape or towel to catch any blood, making sure connections are secure, and having all necessary equipment at hand and ready to use. These strategies would reduce the potential for blood exposure and for a puncture from the needle following insertion.

Having a designated puncture resistant container at point of use and using it correctly will also reduce the potential for a needlestick injury. Using safety-engineered sharp devices may reduce the risk of needlestick injuries.

Greg can practice so that his technical proficiency increases.

Discussion point:

- Discuss the link between technical proficiency and reducing risk.

Question 3: How would your answer to question 1 differ if the person who is going to start the IV has a lot of experience starting IVs?

Answer: The answers do not change—there is still a potential for exposure to blood or a needlestick injury and so the person would still need to wear gloves and perform hand hygiene. The actual risk might be lower because of technical proficiency, but is still present.

Discussion points:

- Review the link between potential exposure to blood during IV insertion (e.g., source) and technical proficiency, then link this back to the *Point of Care Risk Assessment for Routine Practices Algorithm: Appropriate Use of Personal Protective Equipment* and the rationale for wearing gloves.
- Discuss the pros and cons of wearing gloves for starting IVs and how to overcome the latter (e.g., if glove has a good fit and is of appropriate thickness, it will not interfere with dexterity).

ROUTINE PRACTICES CASE SCENARIO #2 – IV INSERTION: QUESTIONS & ANSWERS

Question 4: How would your answer to question 1 differ if Mr. Michaels were agitated?

Answer: The personal protective equipment required and other actions to minimize exposure, as previously discussed, also apply if Mr. Michaels were agitated. The risk of exposure to blood would increase. This could be a direct exposure to blood if there is a delay attaching the tubing to the cannula so more blood may flow out. The risk of a needlestick injury also increases if Greg's hand carrying the needle gets knocked by Mr. Michaels. If explaining to Mr. Michaels what he was going to do was insufficient to ensure his compliance, Greg should get help so that someone calms Mr. Michaels and assists in reducing movement of the patient.

Discussion points:

- Discuss who can help and how they might help (e.g., calming through distraction or comfort, etc.).
- Discuss how options and risk differ in a moving ambulance, in a small physical space and in a large physical space.

Question 5: How would your answer to question 1 differ if an arterial line were started in the Emergency Department, rather than a peripheral IV?

Answer: There is higher pressure within the artery than vein, so there is likely to be more backflow of blood, or a risk of splash and sprays of blood. Additional personal protective equipment may therefore be required, i.e., facial protection (mask and eye protection, face shield, or mask with visor attachment) and gown. Speed and technical proficiency reduce the risk of exposure; having someone help the person inserting the line may also reduce risk of exposure.

Discussion points:

- Go through the *Point of Care Risk Assessment Algorithm: Appropriate Use of Personal Protective Equipment* to reinforce the assessment process, and compare the differences in the assessment in this situation (question 5) with the assessment from the original scenario (question 1).
- Discuss the degree to which technical proficiency makes a difference to risk of exposure for the IV insertion and the arterial line insertion.

ROUTINE PRACTICES CASE SCENARIO #2 – IV INSERTION: QUESTIONS & ANSWERS

Question 6: Identify, using the *Elements of Routine Practices Summary*, what other elements of routine practices, besides Hand Hygiene and Personal Protective Equipment, are most relevant to this scenario?

Answer: All elements of routine practices are important, however, certain elements may be more relevant than others for a particular situation. Some elements of routine practices require a risk assessment prior to each patient/healthcare worker interaction (e.g., Hand Hygiene) and others may require a risk assessment at less frequent intervals such as at least each shift and as needed (e.g., Education of Patient, Visitors and Families).

In this particular situation, the most relevant elements of routine practices are Aseptic Technique, Sharps Safety and Patient Education. Greg will need to use aseptic technique to start the IV and should be sure he has all the supplies needed, as well as the necessary skills. He also needs to be sure there is a designated puncture resistant container available at the point of use, and that it has sufficient space for him to add the used needle without risk of injury to himself. If the designated puncture resistant container is full, he should get another one before starting the IV. The patient will also need to be taught about his IV—many aspects of patient teaching (e.g., reason for the IV) are not related to infection prevention and control but Mr. Michaels will need to understand how to protect the IV site from contamination (e.g., not to touch it, why it has a sterile dressing).

Discussion point:

- Discuss strategies to ensure appropriate access to a designated puncture resistant container and its use.

Question 7: What microorganisms are of concern, and for whom?

Answer: Greg, or whoever starts the IV, should be concerned about the potential transmission of bloodborne pathogens. Note: The question is not about the specific microorganisms but rather about the broad category of bloodborne pathogens (e.g., hepatitis B and C viruses or human immunodeficiency virus).

Discussion point:

- Reinforce that one does not know who is carrying what microorganism; hence the need to assume everyone carries something and act accordingly.

ROUTINE PRACTICES CASE SCENARIO #3 – MEDICATION ADMINISTRATION: QUESTIONS

Instructions:

- Individually or in small groups, answer the questions associated with the practice case using the point of care risk assessment, explaining rationales for decisions, and linking routine practices to the chain of infection and problem solving.
- Answers may vary, depending on assumptions made about the individuals, environment and context in each scenario.
- The first section includes a case scenario and associated questions; the second section includes the same case scenario and questions but answers have been provided along with discussion points to highlight additional learning opportunities.

Mrs. Lee, age 37, is 2 days post-appendectomy. She is alert but not moving well in bed because of pain. Mark, the nurse, prepares the analgesic for her in the medication room, after first performing hand hygiene. He immediately brings it to Mrs. Lee and checks her armband before handing her the medicine cup containing the two pills, and the glass of water that was already on the bedside table. He stands at the end of the bed while she takes the medication, then leaves.

Question 1: Identify, using the *Point of Care Risk Assessment for Routine Practices Algorithm: Appropriate Use of Personal Protective Equipment*, what personal protective equipment is required and when hand hygiene should occur. Explain your reasoning by stating your decisions at each decision point in the algorithm.

ROUTINE PRACTICES CASE SCENARIO #3 – MEDICATION ADMINISTRATION: QUESTIONS

Question 2: How would your answer to question 1 differ if Mrs. Lee had not required assistance and Mark had not touched anything in the room, including her armband, the bedside table or the door handle?

Question 3: How would your answer to question 1 differ if Mark helped Mrs. Lee sit up and take the medication?

ROUTINE PRACTICES CASE SCENARIO #3 – MEDICATION ADMINISTRATION: QUESTIONS

Question 4: How would your answer to question 3 differ if Mark had an open cut or abrasions on his hands?

Question 5: Identify, using the *Elements of Routine Practices Summary*, what other elements of routine practices, besides Hand Hygiene and Personal Protective Equipment, are most relevant to this scenario?

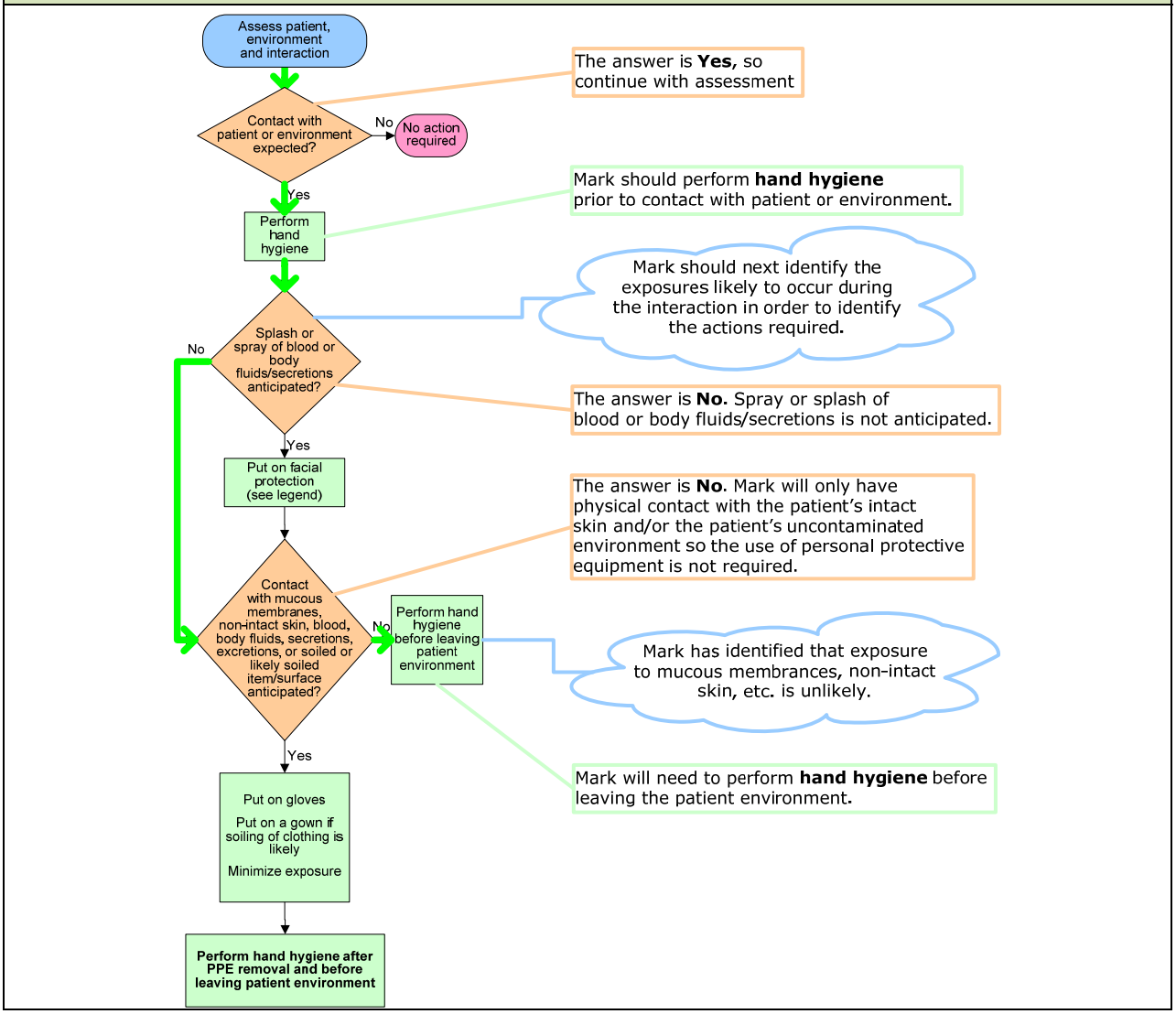
ROUTINE PRACTICES CASE SCENARIO #3 – MEDICATION ADMINISTRATION: QUESTIONS

Question 6: In questions 2, 3 and 4, what microorganisms are of concern, and for whom?

ROUTINE PRACTICES CASE SCENARIO #3 – MEDICATION ADMINISTRATION: QUESTIONS & ANSWERS

Mrs. Lee, age 37, is 2 days post-appendectomy. She is alert but not moving well in bed because of pain. Mark, the nurse, prepares the analgesic for her in the medication room, after first performing hand hygiene. He immediately brings it to Mrs. Lee and checks her armband before handing her the medicine cup containing the two pills, and the glass of water that was already on the bedside table. He stands at the end of the bed while she takes the medication, then leaves.

Question 1: Identify, using the *Point of Care Risk Assessment for Routine Practices Algorithm: Appropriate Use of Personal Protective Equipment*, what personal protective equipment (PPE) is required and when hand hygiene should occur. Explain your reasoning by stating your decisions at each decision point in the algorithm.



ROUTINE PRACTICES CASE SCENARIO #3 – MEDICATION ADMINISTRATION: QUESTIONS & ANSWERS

Question 2: How would your answer to question 1 differ if Mrs. Lee had not required assistance and Mark had not touched anything in the room, including her armband, the bedside table or the door handle?

Answer: If Mark has absolutely no direct physical contact with any aspect of the patient or patient's environment, e.g., bedside table, glass of water, or door handle, then he would not need to perform hand hygiene on leaving the room or bed space. This would be extremely difficult to do when administering a medication, but might be possible if he just stood in the doorway (with the door already open) to see if she had any concerns.

Discussion points:

- Discuss whether it is possible to enter and leave a patient's environment without touching anything at all. Discuss the difference in need for hand hygiene when one is sure nothing was touched versus when one just thinks nothing was touched versus when one is not sure of what was touched.
- Discuss what message others would get if they see Mark leave the room without doing hand hygiene, not knowing his rationale.
- Discuss the appropriate response of healthcare workers when they observe a colleague fail to perform appropriate hand hygiene.

Question 3: How would your answer to question 1 differ if Mark helped Mrs. Lee sit up and take the medication?

Answer: The answer would not change. If Mark helps Mrs. Lee sit up and take the medication, he has direct physical contact with her intact skin as well as the other parts of the environment, e.g., bed, bed rail, table, water glass. He should perform hand hygiene after the interaction. Gloves need not be worn as the contact is with intact skin.

Question 4: How would your answer to question 3 differ if Mark had an open cut or abrasions on his hands?

Answer: The abrasions are a portal of entry for microorganisms. Therefore, Mark would need to cover them with a waterproof bandage to protect himself from inoculation with microorganisms colonizing Mrs. Lee's skin or transiently picked up from her environment as he will be having direct contact with both.

ROUTINE PRACTICES CASE SCENARIO #3 – MEDICATION ADMINISTRATION: QUESTIONS & ANSWERS

Question 5: Identify, using the *Elements of Routine Practices Summary*, what other elements of routine practices, besides Hand Hygiene and Personal Protective Equipment, are most relevant to this scenario?

Answer: All elements of routine practices are important, however, certain elements may be more relevant than others for a particular situation. Some elements of routine practices require a risk assessment prior to each patient/healthcare worker interaction (e.g., Hand Hygiene) and others may require a risk assessment at less frequent intervals such as at least each shift and as needed (e.g., Education of Patient, Visitors and Families).

In this particular situation, the most relevant element of routine practices is actually hand hygiene.

Question 6: In questions 2, 3 and 4, what microorganisms are of concern, and for whom?

Answer: Microorganisms of concern are those colonizing Mrs. Lee's skin. These microorganisms are of concern for Mark, who could then carry them to other patients, or inoculate himself (e.g., *Staphylococcus aureus*, methicillin-resistant *Staphylococcus aureus*).

ROUTINE PRACTICES CASE SCENARIO #4 – MORNING CARE: QUESTIONS

Instructions:

- Individually or in small groups, answer the questions associated with the practice case using the point of care risk assessment, explaining rationales for decisions, and linking routine practices to the chain of infection and problem solving.
- Answers may vary, depending on assumptions made about the individuals, environment and context in each scenario.
- The first section includes a case scenario and associated questions; the second section includes the same case scenario and questions but answers have been provided along with discussion points to highlight additional learning opportunities.

Mrs. Grace, age 71, is 3 days post-hip replacement surgery. She has a dressing on the incision which is dry and intact. She is alert but not moving well in bed because of pain and arthritis. Gina, the licensed practical nurse who has cared for her since her surgery, is going to give her a bed bath.

Question 1: Identify, using the *Point of Care Risk Assessment for Routine Practices Algorithm: Appropriate Use of Personal Protective Equipment*, what personal protective equipment is required and when hand hygiene should occur. Explain your reasoning by stating your decisions at each decision point in the algorithm.

ROUTINE PRACTICES CASE SCENARIO #4 – MORNING CARE: QUESTIONS

Question 2: How would your answer to question 1 differ if Mrs. Grace had been incontinent of urine or stool?

Question 3: Identify, using the *Elements of Routine Practices Summary*, what other elements of routine practices, besides Hand Hygiene and Personal Protective Equipment, are most relevant to this scenario?

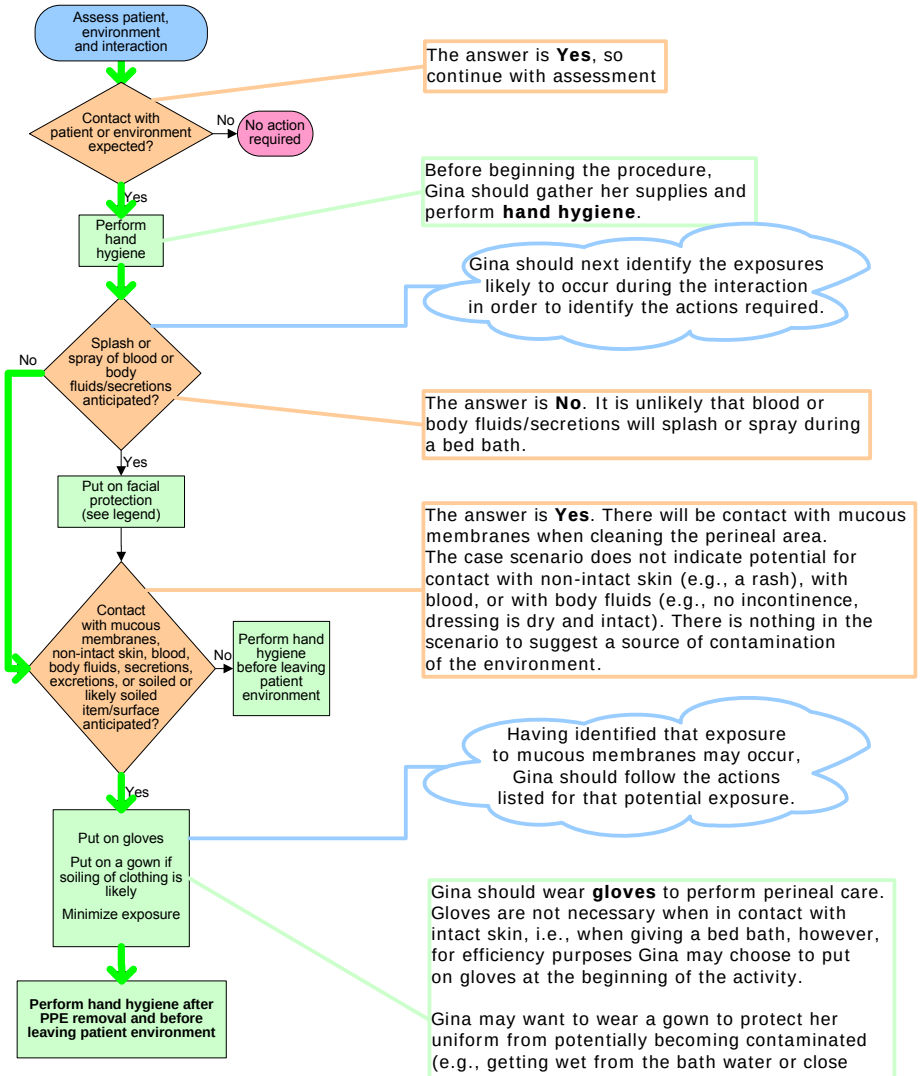
ROUTINE PRACTICES CASE SCENARIO #4 – MORNING CARE: QUESTIONS

Question 4: What microorganisms are of concern, and for whom?

ROUTINE PRACTICES CASE SCENARIO #4 – MORNING CARE: QUESTIONS & ANSWERS

Mrs. Grace, age 71, is 3 days post-hip replacement surgery. She has a dressing on the incision which is dry and intact. She is alert but not moving well in bed because of pain and arthritis. Gina, the licensed practical nurse who has cared for her since her surgery, is going to give her a bed bath.

Question 1: Identify, using the *Point of Care Risk Assessment for Routine Practices Algorithm: Appropriate Use of Personal Protective Equipment*, what personal protective equipment (PPE) is required and when hand hygiene should occur. Explain your reasoning by stating your decisions at each decision point in the algorithm.



ROUTINE PRACTICES CASE SCENARIO #4 – MORNING CARE: QUESTIONS & ANSWERS

Question 2: How would your answer to question 1 differ if Mrs. Grace had been incontinent of urine or stool?

Answer: If Mrs. Grace had been incontinent of urine or stool, the risk of exposure to feces and/or urine has increased. In the original scenario, the indication for gloves was potential contact with mucous membranes when cleaning the perineal area. Gloves are not necessary when in contact with intact skin, i.e., when giving a bed bath, however, for efficiency purposes Gina may choose to put on gloves at the beginning of the activity. Appropriate hand hygiene should be performed after glove removal.

If Mrs. Grace had been incontinent of urine, however, there is now potential contact with body fluids (urine or feces), as well as potential contact with contaminated linen. Gina should wear gloves to handle the linen and clean contaminated skin. In addition, if Gina anticipates soiling her uniform, then a gown should be worn for the activity. Similarly, if her point of care risk assessment suggests the potential for being splashed with body fluids, she should wear facial protection (masks and eye protection, face shields, or masks with visor attachment).

Gina should change gloves between handling the soiled linen and cleaning Mrs. Grace's soiled skin prior to starting the bed bath. Gina should perform appropriate hand hygiene after glove removal.

Discussion points:

- Discuss the difference between wearing gloves for infection prevention and control reasons (e.g., contact with mucous membranes or secretions/excretions or contact with contaminated items) and wearing gloves for logistic or aesthetic reasons (e.g., personal comfort, patient comfort, discretion).
- Discuss the appropriate time(s) for changing gloves when performing different tasks on the same patient.
- Discuss the difference between wearing gowns for infection prevention and control reasons (e.g., contact with contaminated environment or splashing with blood and body fluids to prevent contaminating clothing) and wearing gowns for logistic or aesthetic reasons (e.g., to prevent getting wet).

ROUTINE PRACTICES CASE SCENARIO #4 – MORNING CARE: QUESTIONS & ANSWERS

Question 3: Identify, using the *Elements of Routine Practices Summary*, what other elements of routine practices, besides Hand Hygiene and Personal Protective Equipment, are most relevant to this scenario?

Answer: All elements of routine practices are important, however, certain elements may be more relevant than others for a particular situation. Some elements of routine practices require a risk assessment prior to each patient/healthcare worker interaction (e.g., Hand Hygiene) and others may require a risk assessment at less frequent intervals such as at least each shift and as needed (e.g., Education of Patient, Visitors and Families).

In this particular situation, the most relevant elements of routine practices are Patient Care Environment and Patient Care Equipment. Gina will need to be sure she has the appropriate receptacle available for immediate disposal of the used linen and that the receptacle is not full, so that she does not contaminate the environment with the soiled linen. She should be sure that any equipment she used, e.g., basin, has not been used for another patient. She also needs to ensure that the patient care environment is clean after completion of the bed bath.

Question 4: What microorganisms are of concern, and for whom?

Answer: Microorganisms of concern include those carried in stool and/or urine (e.g., vancomycin-resistant enterococcus, *Clostridium difficile*, *Escherichia coli*, etc.). These may be picked up by the healthcare worker who could then carry the microorganisms to other patients, or inoculate himself/herself.

Discussion points:

- Discuss why wearing personal protective equipment for potential exposure to body fluids as part of routine practices does not mean the patient is on contact precautions.
- Discuss the need to assess the reason for Mrs. Grace's incontinence and assess the need for additional precautions.

ROUTINE PRACTICES CASE SCENARIO #5 – SUCTIONING: QUESTIONS

Instructions:

- Individually or in small groups, answer the questions associated with the practice case using the point of care risk assessment, explaining rationales for decisions, and linking routine practices to the chain of infection and problem solving.
- Answers may vary, depending on assumptions made about the individuals, environment and context in each scenario.
- The first section includes a case scenario and associated questions; the second section includes the same case scenario and questions but answers have been provided along with discussion points to highlight additional learning opportunities.

Lisa, a respiratory therapist, is going to suction Mrs. Arthurs, an 84-year-old diabetic woman who is on a ventilator; she has respiratory distress due to pulmonary edema. There is no fever or other signs of infection. Lisa will be using an open-suction system as there are copious secretions.

Question 1: Identify, using the *Point of Care Risk Assessment for Routine Practices Algorithm: Appropriate Use of Personal Protective Equipment*, what personal protective equipment is required and when hand hygiene should occur. Explain your reasoning by stating your decisions at each decision point in the algorithm.

ROUTINE PRACTICES CASE SCENARIO #5 – SUCTIONING: QUESTIONS

Question 2: How would your answer to question 1 differ if there were not copious amounts of secretions or Lisa uses a closed system?

Question 3: Identify, using the *Elements of Routine Practices Summary*, what other elements of routine practices, besides Hand Hygiene and Personal Protective Equipment, are most relevant to this scenario?

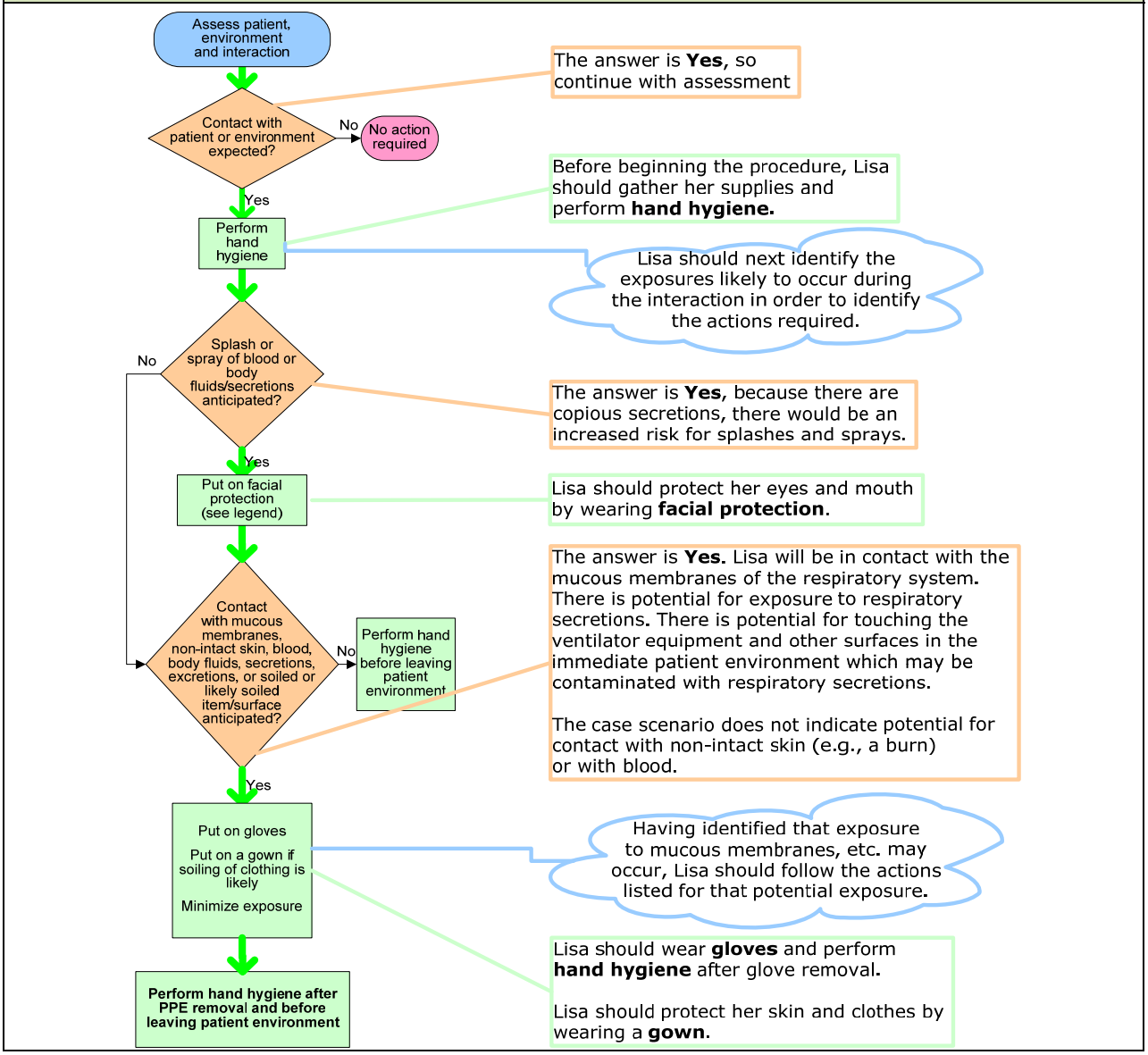
ROUTINE PRACTICES CASE SCENARIO #5 – SUCTIONING: QUESTIONS

Question 4: What microorganisms are of concern, and for whom?

ROUTINE PRACTICES CASE SCENARIO #5 – SUCTIONING: QUESTIONS & ANSWERS

Lisa, a respiratory therapist, is going to suction Mrs. Arthurs, an 84-year-old diabetic woman who is on a ventilator; she has respiratory distress due to pulmonary edema. There is no fever or other signs of infection. Lisa will be using an open-suction system as there are copious secretions.

Question 1: Identify, using the *Point of Care Risk Assessment for Routine Practices Algorithm: Appropriate Use of Personal Protective Equipment*, what personal protective equipment (PPE) is required and when hand hygiene should occur. Explain your reasoning by stating your decisions at each decision point in the algorithm.



ROUTINE PRACTICES CASE SCENARIO #5 – SUCTIONING: QUESTIONS & ANSWERS

Question 2: How would your answer to question 1 differ if there were not copious amounts of secretions or Lisa uses a closed system?

Answer: If there were not copious amounts of secretions and an open system was used, the answer remains the same. The use of a closed system would reduce the risk for splashes and sprays and she would not need to wear a gown or facial protection (masks and eye protection, face shields, or masks with visor attachment) but would still need to wear gloves.

Discussion points:

- Discuss what type(s) of suctioning system (open or closed) is/are used in your facility.
- Discuss the risks of exposure to secretions when suctioning using different systems of suctioning.

Question 3: Identify, using the *Elements of Routine Practices Summary*, what other elements of routine practices, besides Hand Hygiene and Personal Protective Equipment, are most relevant to this scenario?

Answer: All elements of routine practices are important, however, certain elements may be more relevant than others for a particular situation. Some elements of routine practices require a risk assessment prior to each patient/healthcare worker interaction (e.g., Hand Hygiene) and others may require a risk assessment at less frequent intervals such as at least each shift and as needed (e.g., Education of Patient, Visitors and Families).

In this particular situation, the most relevant elements of routine practices are Aseptic Technique and Source Control. Lisa will need to be sure she has the appropriate supplies and the skills she needs for using aseptic technique. If there is a roommate, Lisa should consider ways to minimize exposing the roommate to Mrs. Arthurs' respiratory secretions.

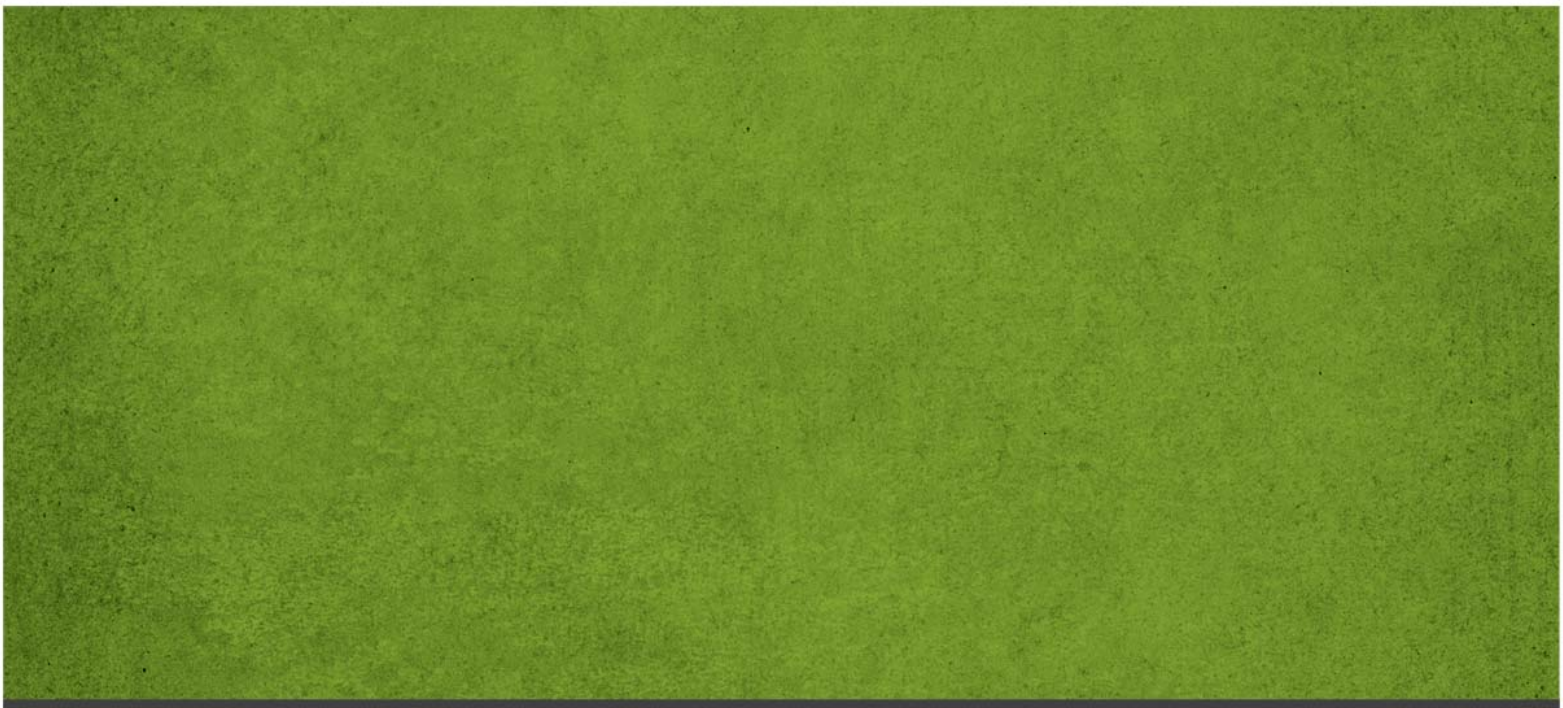
Discussion point:

- Discuss methods of minimizing exposure of roommates to respiratory secretions when single in-patient rooms are not available.

ROUTINE PRACTICES CASE SCENARIO #5 – SUCTIONING: QUESTIONS & ANSWERS

Question 4: What microorganisms are of concern, and for whom?
Answer: Lisa, or whoever does the suctioning, should be concerned about the normal flora of the mouth and respiratory tract, including multiple, potentially pathogenic bacteria (e.g., Group A streptococcus, meningococcus) and herpes simplex virus, which can cause herpetic whitlow. These may be picked up by the healthcare worker, who could then carry the microorganisms to other patients, or inoculate himself/herself. The greatest risk in this scenario is to the healthcare worker.
Discussion point: • Discuss why wearing personal protective equipment for suctioning as part of routine practices does not mean the patient is on droplet precautions.

PART II - ADDITIONAL PRECAUTIONS TOOL SET



PART II. ADDITIONAL PRECAUTIONS TOOL SET

INSTRUCTIONS

Description of the Tool Set

There are five types of tools in the *Additional Precautions Tool Set*:

1. Five algorithms for syndromes or conditions requiring Additional Precautions:
    I. Respiratory Illness
    II. Diarrhea
    III. Acute Neurological Syndrome
    IV. Rash
    V. Draining Wound/Soft Tissue Infection
2. The *Stopping or Changing Additional Precautions Algorithm*
3. Four additional precautions checklists:
    I. Application of Contact Precautions for Admitted Patients in Healthcare Facilities
    II. Application of Droplet Precautions for Admitted Patients in Healthcare Facilities
    III. Application of Airborne Precautions for Admitted Patients in Healthcare Facilities
    IV. Application of Contact and Droplet Precautions for Admitted Patients in Healthcare Facilities with a Suspected or Confirmed Viral Respiratory Infection
4. The *Which Microbe/Which Additional Precautions Table*
5. Five additional precautions case scenarios with questions, answers and discussion points:
    I. Patient with a Cough
    II. Patient with Diarrhea
    III. Patient with Acute Neurological Symptoms
    IV. Patient with Herpes Zoster (Shingles)
    V. Patient with a Draining Wound

The additional precautions algorithms outline the decision-making process related to identifying the need to place a person on additional precautions if that person has a specific clinical syndrome.

- This assessment is to be done whenever a person presents with the clinical syndrome, regardless of whether it is a new patient or a change in a patient's condition.

Note: The application of additional precautions will vary depending on the setting where health care is being provided. Refer to the guideline, *Routine Practices and Additional Precautions for Preventing the Transmission of Infection in Healthcare Settings*, for guidance on how to modify for specific healthcare settings.

The *Stopping or Changing Additional Precautions Algorithm* outlines the decision-making process involved in stopping or changing the additional precautions for a particular patient.

The *Which Microbe/Which Additional Precautions Table* is a summary table that provides a quick reference for healthcare workers as to the type and duration of additional precautions required for some of the more common microorganisms encountered in both adult and pediatric healthcare facilities.

Each of the additional precautions checklists summarizes a list of key actions to be taken by the healthcare worker when admitting a patient requiring the specified additional precautions to a facility.

Each additional precautions case scenario consists of a short description of a patient/healthcare worker interaction and seven to eight related questions.

- The questions were designed to illustrate application of the associated additional precautions algorithm in a particular situation, and to highlight application of the *Stopping or Changing Additional Precautions Algorithm*, *Which Microbe/Which Additional Precautions Table*, and *Elements of Routine Practices Summary* that should be considered. Each case also refers to one of the additional precautions checklists.
- Suggested answers are provided to the questions, but groups may have different answers depending on their interpretation of the questions and local context.
- Discussion points, based on commonly raised questions or points requiring clarification are also provided to generate group discussion and critical thinking. It is expected that other points will be identified by groups during their discussion.
- The case scenarios reflect common patient care situations, but have been kept simple so that the decision-making process can be clearly illustrated.

How to Use the Tool Set

Use the *Additional Precautions Tool Set* with small groups to generate discussion of additional precautions. The Additional Precautions Tool Set may also be used by individuals to become familiar with the algorithms and other tools, but the greatest benefit comes through discussion. To use the Tool Set:

- Select an additional precautions case scenario and work through the questions using the relevant additional precautions algorithm, the *Stopping or Changing Additional Precautions Algorithm*, the *Which Microbe/Which Additional Precautions Table*, the relevant *Additional Precautions Checklist*, the *Point of Care Risk Assessment for Routine Practices Algorithm: Appropriate Use of Personal Protective Equipment* and the *Elements of Routine Practices Summary* as relevant.
- Refer to the relevant case scenario answer and discussion points to further promote critical thinking and discussion.
- Encourage the group to identify other relevant points for discussion and how the decision-making process outlined in the algorithm, and the other tools, can be applied to their own setting and patient population.

Note: Because each additional precautions algorithm relates to a different syndrome, ideally all five will be reviewed and discussed. However, if time does not permit review of all, then reviewing two or three algorithms and their related case scenarios should promote a good understanding of the algorithms and their application, as well as the associated tools. Choice of algorithms to review will vary according to the target group and setting.

How to Read the *Which Microbe/Which Additional Precautions Table*:

Clinical presentation	Microorganism	Additional precautions			Duration of additional precautions
		Contact	Droplet	Airborne	
Rash	Rubella – Acquired		√ [3]		Until 7 days after onset of rash

3 – Only immune staff to enter room unless absolutely unavoidable.

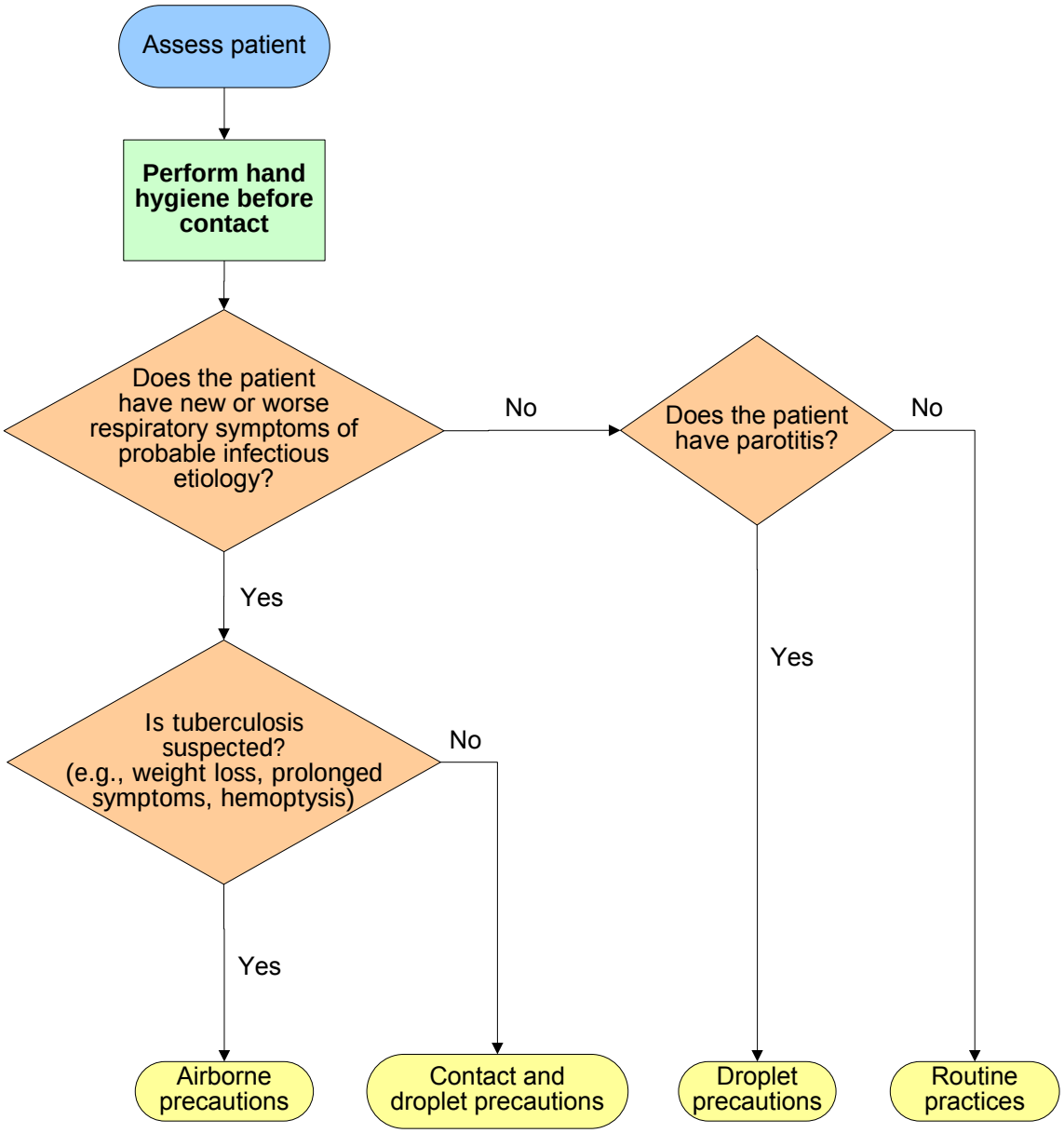
- Identify the clinical presentation of patient.
- Link to the relevant microorganism within that clinical presentation.
- Identify the additional precautions required; this is indicated by a checkmark in the appropriate column. Refer to the relevant footnote if applicable.
- Refer to the "Duration of additional precautions" column for information on how long additional precautions should remain in effect. When the information is too detailed for the purposes of the table, the reader should refer to PHAC's guideline, *Routine Practices and Additional Precautions for Preventing the Transmission of Infection in Healthcare Settings*.

Local Adaptation

This *Additional Precautions Tool Set* is based on PHAC's guideline, *Routine Practices and Additional Precautions for Preventing the Transmission of Infection in Healthcare Settings*. Each institution is encouraged to adapt and add to this *Additional Precautions Tool Set* to accommodate local realities such as local legislation, regulations, occupational health and safety requirements, guidelines or evidence-informed practice. For example:

- Modifying the case scenarios to better illustrate locally encountered situations
    - It is not necessary to modify the scenarios for them to be applicable to a different setting, but doing so may increase the comfort level of those discussing the case. For example, the same principles apply for drawing conclusions about the need for specific additional precautions regardless of whether the individual is in an acute care or long-term care facility, or whether the patients in the local setting are similar or different to the ones in the cases.
- Adding new case scenarios that reflect the local setting and practices
    - The easiest way to create a new case scenario is to describe a typical encounter. The tools can then be applied.
    - All of the cases are appropriate for nurses and physicians, and for any individual who has responsibility for deciding the need for additional precautions.
    - Individuals whose responsibility is limited to adhering to additional precautions may find many of the questions in the cases, as well as the *Additional Precautions Checklists* to be useful, rather than the algorithms and *Which Microbe/Which Additional Precautions Table*.
- Adding new discussion points
    - Discussion should not be limited to the case questions and identified discussion points, but should include other points raised by the group. Many of these can be brought forward to subsequent groups for discussion.
- Adding microorganisms to the *Which Microbe/Which Additional Precautions Table*
    - Additions might reflect commonly encountered microorganisms in the setting, including microorganisms for which routine practices alone are recommended rather than additional precautions.

ADDITIONAL PRECAUTIONS ALGORITHM: RESPIRATORY ILLNESS



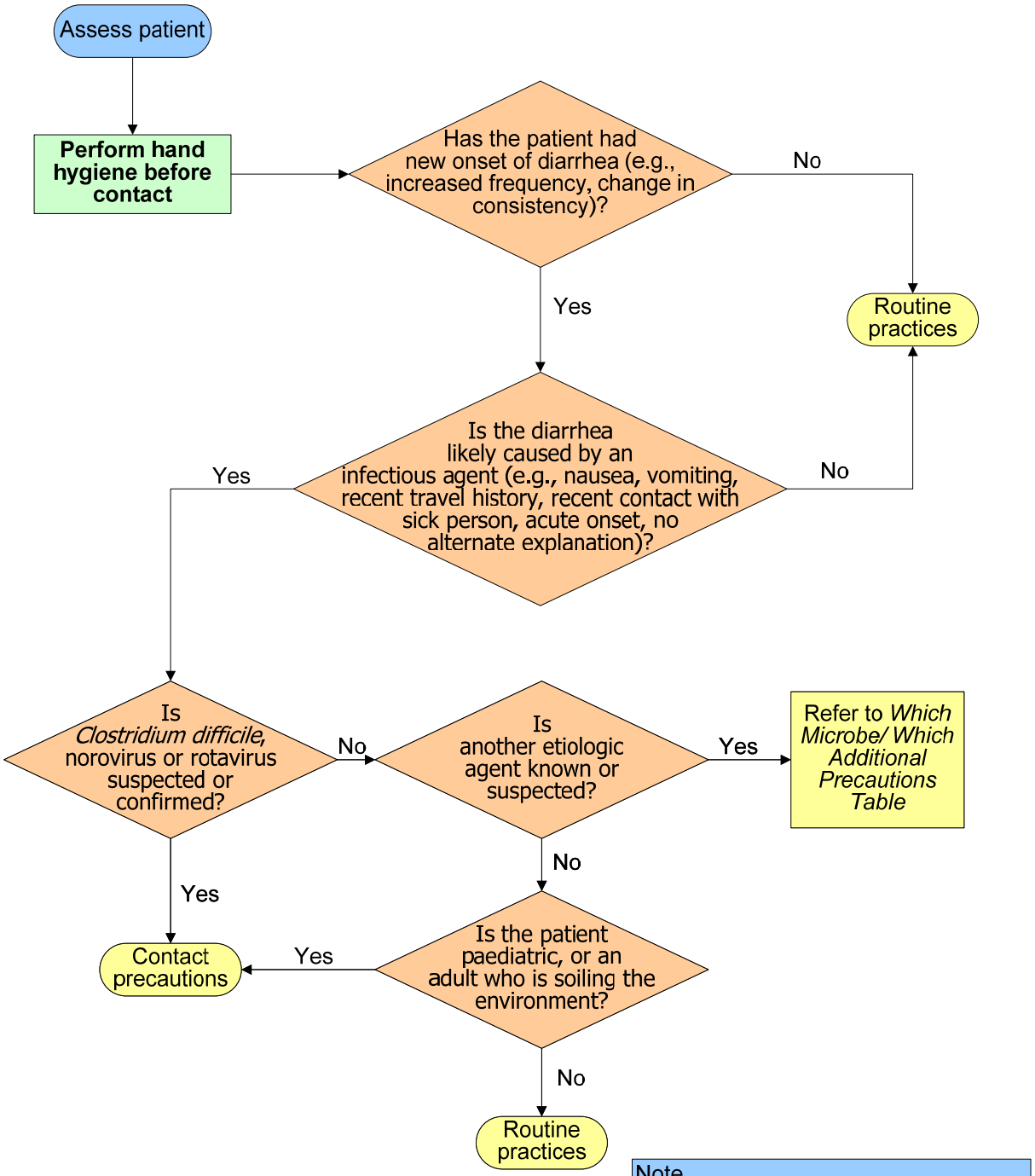
If there is a public health advisory in effect, (e.g., travel advisory, emerging respiratory infection, or pandemic declaration) follow the recommendations of the advisory.

Note

Reassess additional precautions on an ongoing basis as new information (e.g., clinical, laboratory) becomes available.

Refer to the *Stopping or Changing Additional Precautions Algorithm* for the steps involved in this process.

ADDITIONAL PRECAUTIONS ALGORITHM: DIARRHEA

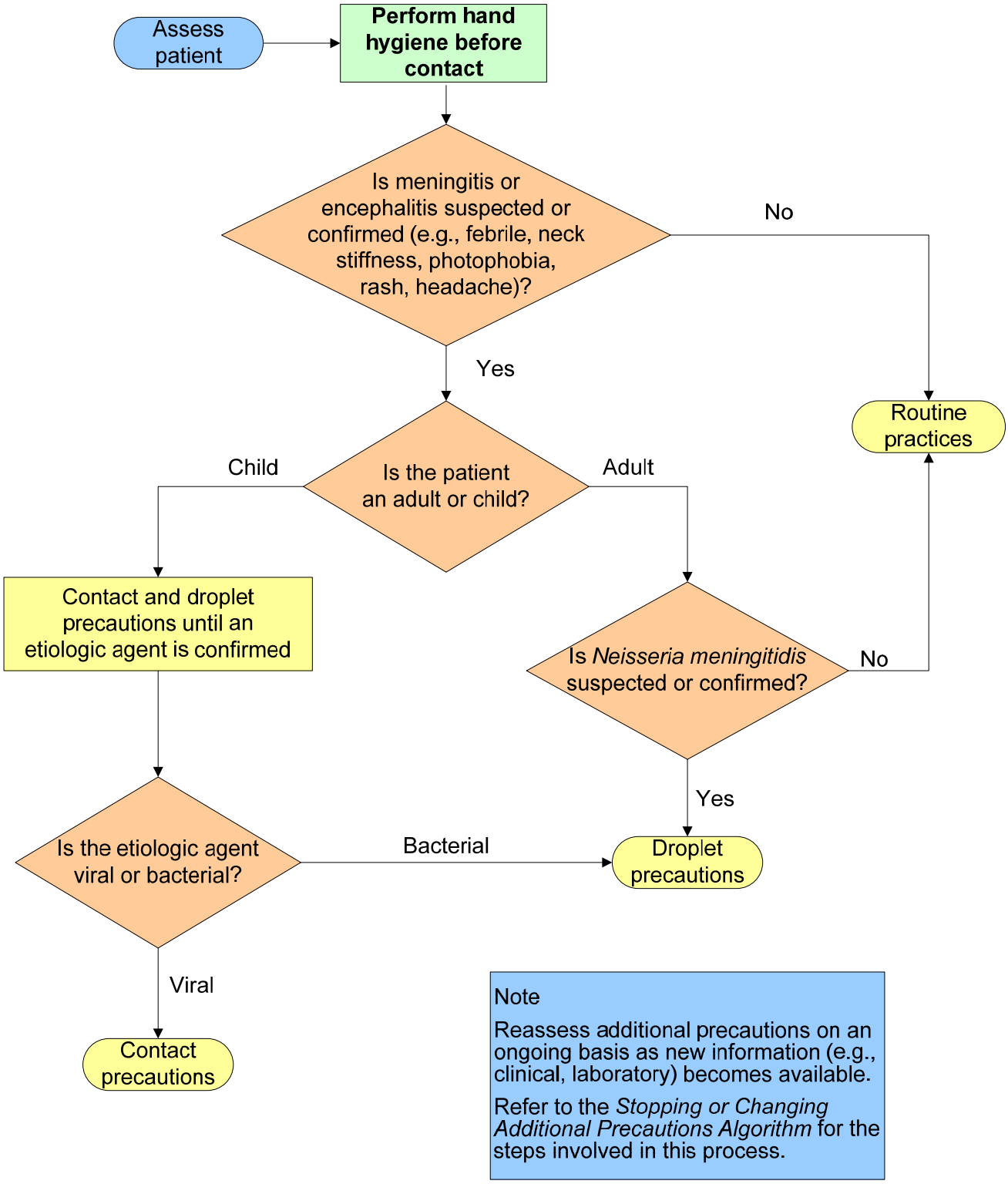


Note

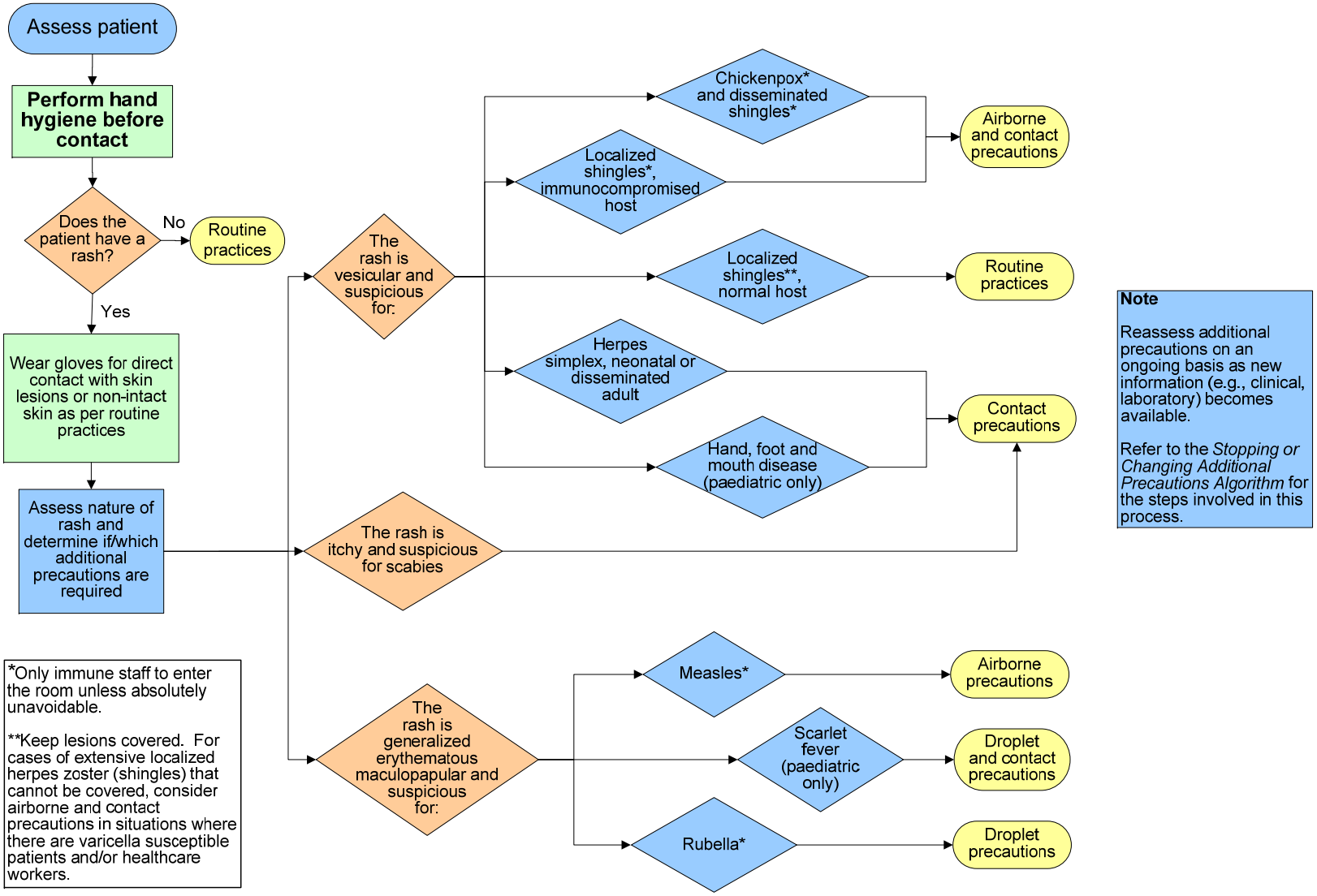
Reassess additional precautions on an ongoing basis as new information (e.g., clinical, laboratory) becomes available.

Refer to the *Stopping or Changing Additional Precautions Algorithm* for the steps involved in this process.

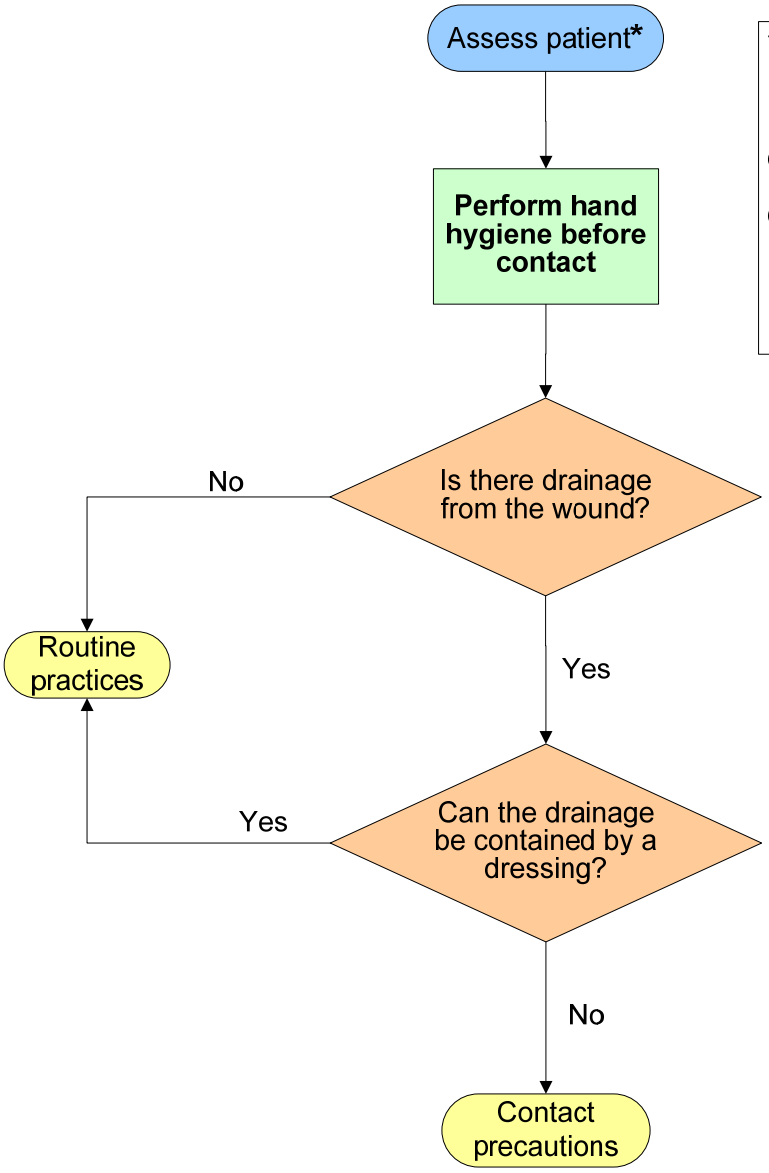
ADDITIONAL PRECAUTIONS ALGORITHM: ACUTE NEUROLOGICAL SYNDROME



ADDITIONAL PRECAUTIONS ALGORITHM: RASH



ADDITIONAL PRECAUTIONS ALGORITHM: DRAINING WOUND/SOFT TISSUE INFECTION



*If necrotizing fasciitis is suspected (e.g., rapid onset and progression of a cellulitis type presentation) both droplet and contact precautions should be initiated until the patient is deemed no longer infectious.

Note

Reassess additional precautions on an ongoing basis as new information (e.g., clinical, laboratory) becomes available.

Refer to the *Stopping or Changing Additional Precautions Algorithm* for the steps involved in this process.

STOPPING OR CHANGING ADDITIONAL PRECAUTIONS ALGORITHM

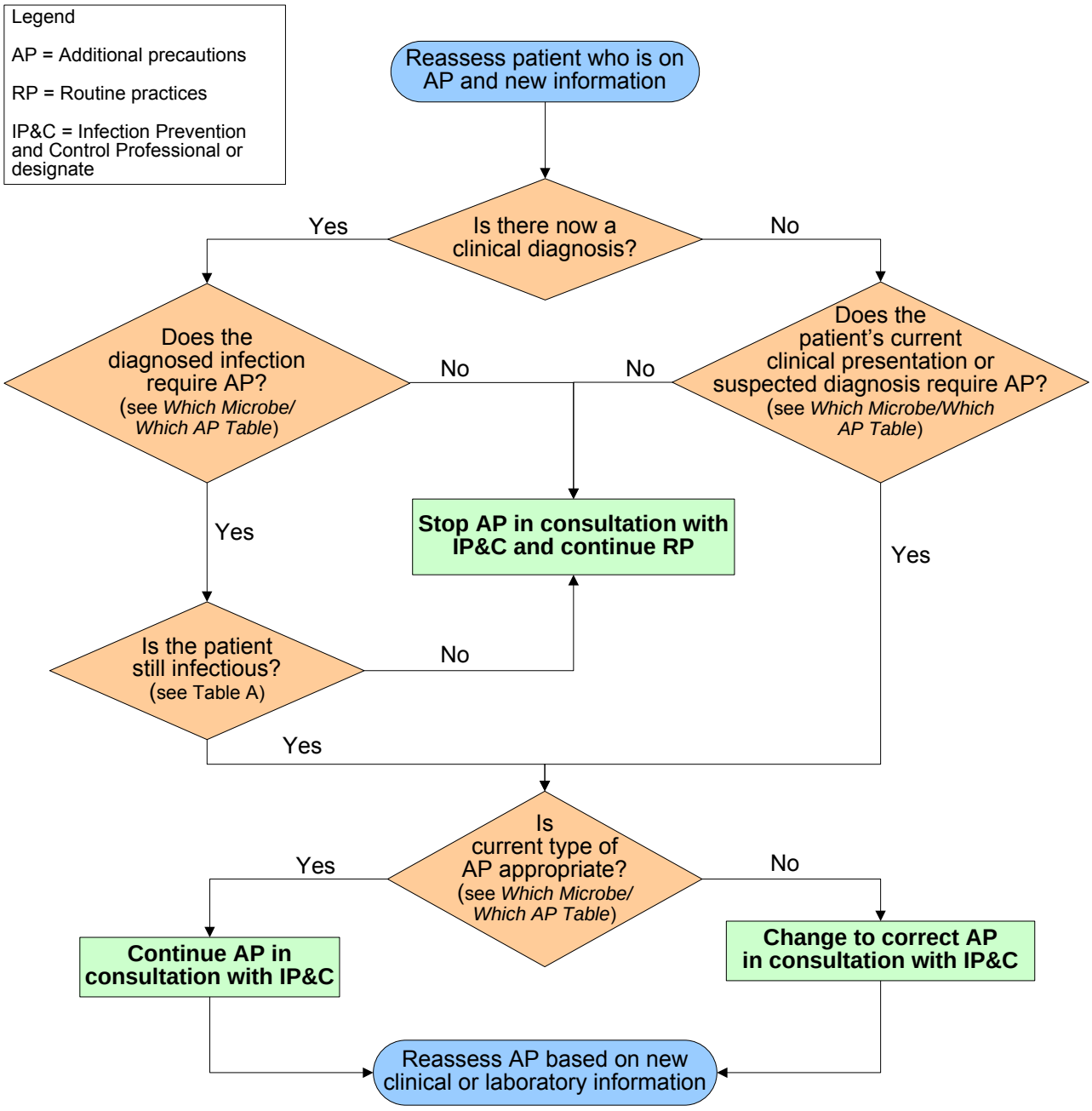


Table A

The patient is likely still infectious if one of the following is present:

- the cultures/smears are still positive;
- the patient is still in the period of communicability;
- the patient still has the symptoms for which he/she was put on AP or the symptoms are worse;
- the patient has not been on the appropriate treatment for a sufficient length of time.

ADDITIONAL PRECAUTIONS CHECKLIST: APPLICATION OF CONTACT PRECAUTIONS FOR ADMITTED PATIENTS IN HEALTHCARE FACILITIES

Patient Accommodation and Placement	☐	Place patient in a single-patient room if possible with a private toilet (or designated commode chair), designated patient sink and a designated staff hand washing sink. The room door may remain open.
	☐	Consider cohorting patients with confirmed diagnosis of same microorganism and who are suitable roommates in consultation with infection prevention and control professional or designate.
	☐	If a single-patient room is not available and cohorting is not feasible, draw the privacy curtain between beds to minimize opportunities for direct contact with roommate(s). In a shared room, a patient with diarrhea should not share a toilet with another patient.
Personal Protective Equipment (PPE)	☐	**In acute care**, wear gloves when entering the room or designated bedspace. **In long-term care**, wear gloves if direct personal care contact with the patient is required or if direct contact with frequently touched environmental surfaces is anticipated.
	☐	Wear a long-sleeved gown if anticipated that forearms or clothing will be in direct contact with patient or with environmental surfaces or objects in the patient care environment.
Signs, Supplies and Equipment	☐	Post a contact precautions sign in a manner so that it is clearly visible to all prior to entering the room or bedspace.
	☐	Dedicate non-critical patient-care equipment (e.g., patient's blood pressure cuff, thermometer) to the use of patient. Toys, electronic games and personal effects should not be shared among patients.
	☐	Ensure PPE supplies are available and in sufficient quantities outside the patient's room or designated bedspace.
Handling of Waste and Linen	☐	Ensure that a no-touch waste receptacle and linen basket are available where needed and are ready for use.
Patient Leaving Room	☐	Allow patient out of his/her room as required for their care plan. Provide supervision of patient if compliance with precautions is inadequate. **In long-term care**, participation in group activities should not be restricted if wound drainage or diarrhea are contained.
	☐	Ensure that patient performs hand hygiene before leaving room or designated bedspace.
	☐	Provide patient with clean bedclothes and bedding, contain draining wounds with clean dressings, ensure infected areas of the patient's body are covered and body substances contained when transfer or movement within facility is necessary.
	☐	Inform transport and other personnel in receiving area/unit/facility that the patient is on contact precautions.
Patient and Visitor Teaching	☐	Explain to patient and visitors that the patient is on contact precautions and what these precautions entail.
	☐	Instruct patient on how and when to perform hand hygiene.
	☐	Instruct visitors on how and when to perform hand hygiene and put on and take off PPE.
	☐	Keep the number of visitors to a minimum.

NOTE:
Routine practices including hand hygiene recommendations still apply.

ADDITIONAL PRECAUTIONS CHECKLIST: APPLICATION OF DROPLET PRECAUTIONS FOR ADMITTED PATIENTS IN HEALTHCARE FACILITIES

Patient Accommodation and Placement	☐ Place patient in a single-patient room preferably with a private toilet (or designated commode chair), designated patient sink and a designated staff hand washing sink. The room door may remain open.
	☐ Consider cohorting patients with confirmed diagnosis of same pathogen and who are suitable roommates, in consultation with infection prevention and control professional or designate.
	☐ If a single-patient room is not available and cohorting is not possible, ensure that patients are physically separated (at least 2 metres apart) from each other and draw the privacy curtain between beds to minimize opportunities for droplet spread.
Personnel Restrictions	☐ Do not enter the room, unless unavoidable, if susceptible to disease/condition (i.e., mumps, rubella) for which the patient is on precautions. If must enter, wear appropriate personal protective equipment (PPE).
Personal Protective Equipment (PPE)	☐ Wear facial protection***** within 2 metres of patient unless immune to the specific disease/condition for which the patient is on precautions.
Signs, Supplies and Equipment	☐ Post a droplet precautions sign in a manner so that it is clearly visible to all prior to entering the room or designated bedspace.
	☐ Ensure PPE supplies are available in sufficient quantities outside the patient's room or designated bedspace.
Handling of Waste and Linen	☐ Ensure that a no-touch waste receptacle and linen basket are available where needed and are ready for use.
Patient Leaving Room	☐ Allow the patient out of his/her room as required for their care plan. Provide supervision if compliance with precautions listed in next bullet is inadequate.
	☐ Direct patient to put on a mask** (if tolerated), perform hand hygiene and follow respiratory hygiene when outside room or designated bedspace.
	☐ Inform transport and other personnel in receiving area/unit/facility that the patient is on droplet precautions.
Patient and Visitor Teaching	☐ Explain to patient and visitors that the patient is on droplet precautions and what these precautions entail.
	☐ Teach patient respiratory hygiene and ensure tissues are available near patient.
	☐ Instruct patient on how to put on and take off mask** when required, and how/when to perform hand hygiene. As needed, visitors should be instructed on when and how to perform hand hygiene and put on and take off the necessary PPE.
	☐ For patients with rubella or mumps, inform susceptible visitors that they should not enter the room unless it is absolutely necessary, and if they enter the room they should wear facial protection*. Facial protection* is not needed if the visitor is immune.
	☐ For patients with an acute viral respiratory infection, household members may not need to wear facial protection* (as they may have already been exposed). On a case-by-case basis, other visitors should be instructed in the appropriate use of facial protection* and other precautions.
	☐ For patients with suspected or confirmed *Haemophilus influenzae* type B infection, inform visitors that they need to wear facial protection* only if they will have extensive close contact with susceptible infants.
	☐ Keep the number of visitors to a minimum.

NOTES:
Routine practices including hand hygiene recommendations still apply.
*Facial protection = Masks and eye protection, face shields, or masks with visor attachment.
**The term ‘mask’ refers to surgical or procedure mask.

ADDITIONAL PRECAUTIONS CHECKLIST: APPLICATION OF AIRBORNE PRECAUTIONS FOR ADMITTED PATIENTS IN HEALTHCARE FACILITIES

Patient Accommodation and Placement	☐	Place patient in an airborne infection isolation room (AIIR) with the door closed. The room should have an in-room toilet, sink and bathing facility for the patient, and designated hand washing sink for healthcare workers (HCWs).
	☐	Patients known to be infected with the same virus (measles or varicella) may share a room. Patients with tuberculosis (TB) may **not** share a room.
	☐	Verify the pressure differential of the AIIR using a visual indicator or portable manometer.
	☐	If an AIIR is not available, have patient put on a mask (if tolerated), place patient in a single room with door closed and arrange for patient transfer to a facility that has an available AIIR as soon as medically stable for transport. If long-term care facility, see note at bottom of page.
Personnel Restrictions	☐	Do not enter the room, unless unavoidable, if susceptible to disease/condition (i.e., varicella, measles) for which the patient is on precautions. If must enter, wear appropriate personal protective equipment (PPE).
Personal Protective Equipment (PPE)	☐	Put on a fit-tested respirator***** before entering room of patient with confirmed or suspected TB or other airborne infection to which susceptible. Put on gloves as well if patient has varicella or zoster and HCW is susceptible.
Signs, Supplies and Equipment	☐	Post an airborne precautions sign in a manner so that it is clearly visible to all prior to entering the room. A contact precautions sign is also required for patients with varicella or zoster (disseminated or localized in immunocompromised host).
	☐	Ensure respirators* in use within facility are available in all sizes and sufficient quantities outside the patient's room.
Handling of Waste and Linen	☐	Ensure that no-touch waste receptacle and linen basket are available where needed and are ready for use.
Patient Leaving Room	☐	Restrict patient to room, unless leaving for medically essential procedures. Patient should be accompanied by a HCW whenever outside of the room.
	☐	Direct patient to put on a mask** (if tolerated). Skin lesions should be covered.
	☐	Ensure that the patient performs hand hygiene before leaving room.
	☐	Inform transport and other personnel in receiving area/unit/facility that the patient is on airborne precautions.
Patient, Family and Visitor Teaching	☐	Explain to patient, his/her family and visitors that the patient is on airborne precautions and what these precautions entail.
	☐	Teach patient respiratory hygiene and ensure tissues are available near patient.
	☐	Instruct patient on when and how to put on and take off mask**; when and how to perform hand hygiene; and if applicable, how to cover skin lesions.
	☐	Instruct visitors to wear the same PPE as HCWs unless determined to already have had prolonged exposure to that patient or if immune to the specific disease/condition the patient is on precautions for. Visitors should be instructed on how to perform a seal check if wearing a respirator* before entering room.
	☐	For TB, restrict visitors to immediate family or guardian. For other airborne infections, restrict visitors if susceptible to the specific infection for which the patient is on precautions, unless the patient is terminally ill or the visit is essential (e.g., parent, guardian or primary caretaker).

NOTES:
Routine practices including hand hygiene recommendations still apply.
In long-term care facilities, for patients with varicella, disseminated herpes zoster (shingles), localized herpes zoster (shingles) which cannot be covered, or measles: If all personnel and all other residents in the facility are immune and if non-immune visitors can be excluded, transfer to a facility with an AIIR may not be necessary.
*The most common respirator used in the healthcare setting is a disposable N95 half-face piece filtering respirator (N95 respirator).
**The term ‘mask’ refers to surgical or procedure mask

ADDITIONAL PRECAUTIONS CHECKLIST: APPLICATION OF CONTACT AND DROPLET PRECAUTIONS FOR ADMITTED PATIENTS IN HEALTHCARE FACILITIES WITH A SUSPECTED OR CONFIRMED VIRAL RESPIRATORY INFECTION*

Patient Accommodation and Placement	☐ Place patient in a single-patient room with in-room designated toilet (or commode chair) and sink and if possible, a designated staff hand washing sink. The room door may remain open.
	☐ Consider cohorting patients with confirmed diagnosis of same microorganism/pathogen and who are suitable roommates in consultation with infection prevention and control professional or designate.
	☐ If a single-patient room is not available and cohorting is not possible, ensure that patients are physically separated (at least 2 metres apart) from each other and draw the privacy curtain between beds to minimize opportunities for droplet spread and direct contact with roommate(s). In a shared room, a patient with diarrhea should not share a toilet with another patient.
Personal Protective Equipment (PPE)	☐ **In acute care**, wear gloves when entering the room or designated bedspace in shared room. **In long-term care**, wear gloves if direct personal care contact with the patient is required or if direct contact with frequently touched environmental surfaces is anticipated.
	☐ Wear facial protection****** within 2 metres of patient.
	☐ Wear a long-sleeved gown if skin or clothing will have direct contact with patient and/or environment.
Signs, Supplies and Equipment	☐ Post contact and droplet precautions sign(s) in a manner so that it is/they are clearly visible to all prior to entering the room or designated bedspace.
	☐ Dedicate non-critical patient-care equipment (e.g., patient's blood pressure cuff, thermometer) to the use of patient. Toys, electronic games and personal effects should not be shared among patients.
Handling of Waste and Linen	☐ Ensure a no-touch waste receptacle and linen basket, are available where needed and are ready for use.
Patient Leaving Room	☐ Allow patient out of his/her room as required for their care plan. Provide supervision of patient if compliance with precautions is inadequate as listed in next bullet.
	☐ Ensure that the patient is wearing a mask† (if tolerated) and explain that he/she needs to follow respiratory hygiene when outside room or designated bedspace.
	☐ Ensure that patient performs hand hygiene before leaving room or designated bedspace.
	☐ Inform transport and other personnel in receiving area/unit/facility that the patient is on contact and droplet precautions.
Patient and Visitor Teaching	☐ Explain to patient and visitors that the patient is on contact and droplet precautions and what these precautions entail.
	☐ Teach patient respiratory hygiene and ensure tissues are available near patient.
	☐ Instruct patient on how to put on and take off mask† when required, and how/when to perform hand hygiene. As needed, visitors should be instructed on when and how to perform hand hygiene and put on and take off the necessary PPE.
	☐ For patients with an acute viral respiratory infection*, household members may not need to wear a facial protection** (as they may have already been exposed). On a case-by-case basis, other visitors should be instructed in the appropriate use of facial protection** and other precautions.
	☐ Keep the number of visitors to a minimum.

NOTES:
Routine practices including hand hygiene recommendations still apply.
*Febrile asthma, bronchiolitis, colds, croup, influenza-like illness, pneumonia, pharyngitis (precautions may vary for adult versus paediatric patients)
**Facial protection = Masks and eye protection, face shields, or masks with visor attachment.
†The term ‘mask’ refers to surgical or procedure mask.

WHICH MICROBE/WHICH ADDITIONAL PRECAUTIONS TABLE

Clinical presentation	Microorganism	Additional precautions			Duration of additional precautions
		Contact	Droplet	Airborne	
Diarrhea (gastroenteritis)	Bacterial gastroenteritis	√ [1]			Duration of symptoms.
	Clostridium difficile	√			Duration of symptoms.
	Escherichia coli (enteropathogenic and enterohemorrhagic strains)	√ [1]			Duration of symptoms. If hemolytic uremic syndrome present, until two stools negative for *Escherichia coli* O157:H7 or 10 days from onset of diarrhea.
	Giardia (*Giardia lamblia)*	√ [1]			Duration of symptoms.
	Hepatitis A, E	√ [1]			1 week after onset of jaundice; duration of hospitalization if newborn.
	Viral gastroenteritis				
	Rotavirus	√			Duration of symptoms.
	Noroviruses (Norwalk-like agents, Calciviruses)	√			Until 48 hours after resolution of illness.
Respiratory illness (e.g., febrile respiratory illness, cold, croup, etc.)	Coronavirus (other than SARS-CoV)	√	√		Duration of symptoms.
	Human metapneumovirus	√	√		Duration of symptoms.
	Influenza – seasonal	√	√		Duration of symptoms.
	Methicillin-resistant *Staphylococcus aureus* (MRSA) – pneumonia	√	√ [3]		As directed by infection prevention and control professional.
	Mumps		√ [2]		Until 5 days after onset of parotitis.
	Mycobacterium tuberculosis (also *M. africanum*, *M. bovis*)			√	Until deemed no longer infectious. See *Routine Practices and Additional Precautions for Preventing the Transmission of Infection in Healthcare Settings* (RPAP) guideline for details.
	Mycoplasma pneumoniae		√		Duration of symptoms.
	Parainfluenza virus	√	√		Duration of symptoms.
	Pertussis (*Bordetella pertussis, B. parapertussis)*		√		See RPAP guideline for details.
	Respiratory syncytial virus	√	√		Duration of symptoms.
	Rhinovirus	√	√		Duration of symptoms.
	Staphylococcus aureus – pneumonia		√ [3]		Until 24 hours of appropriate antimicrobial therapy received.
	Streptococcus, Group A – pharyngitis	√ [3]	√ [3]		Until 24 hours of appropriate antimicrobial therapy received.
	Streptococcus, Group A – pneumonia	√	√		Until 24 hours of appropriate antimicrobial therapy received.
Other	Antimicrobial-resistant organisms (AROs) – colonization (i.e., asymptomatic) or infection	√			As directed by infection prevention and control professional.

Footnotes on next page

Clinical presentation	Microorganism	Additional precautions			Duration of additional precautions
		Contact	Droplet	Airborne	
Conjunctivitis	Adenovirus	√			Duration of symptoms, up to 14 days.
Acute neurological syndrome (e.g., meningitis, encephalitis, etc.)	Enteroviral infections (Echovirus, Coxsackievirus A, Coxsackievirus B)	√ [3]			Duration of symptoms
	Haemophilus influenzae type B – invasive infections		√ [3]		Until 24 hours of appropriate antimicrobial therapy has been received.
	Meningococcus (*Neisseria meningitidis*)		√		Until 24 hours of effective antimicrobial therapy has been received.
Draining wound/soft tissue infection (e.g., abscess, cellulitis, etc.)	*Mycobacterium tuberculosis* (also *M. africanum*, *M. bovis*) – If procedures which may aerosolize drainage are being performed			√	See RPAP guideline for details.
	Staphylococcus aureus – (if MRSA, also see ARO) – If drainage cannot be contained	√			Until drainage resolved or contained by dressing.
	Streptococcus, Group A – Toxic shock, invasive disease (including necrotizing fasciitis, myositis) with drainage and without drainage	√	√		Until 24 hours of appropriate antimicrobial therapy received.
Rash (e.g., lesions, vesicles, erythematous maculopapular rash, etc.)	Enteroviral infections (Echovirus, Coxsackievirus A, Coxsackievirus B) – Hand, foot and mouth disease	√ [3]			Duration of symptoms.
	Herpes simplex virus – neonatal	√			Duration of symptoms.
	Measles (Rubeola)			√ [2]	4 days after start of rash; duration of symptoms in immunocompromised patients.
	Rubella – Acquired		√ [2]		Until 7 days after onset of rash.
	Rubella – Congenital	√ [2]	√ [2]		Until one year of age, unless nasopharyngeal and urine cultures done after 3 months of age are negative.
	Scabies (*Sarcoptes scabiei*)	√			Until 24 hours after initiation of appropriate therapy.
	Streptococcus, Group A – Invasive disease (e.g., necrotizing fasciitis and myositis) without drainage	√	√		Until 24 hours of appropriate antimicrobial therapy received.
	Streptococcus, Group A – Scarlet fever	√ [3]	√ [3]		Until 24 hours of appropriate antimicrobial therapy received.
	Varicella-zoster virus				
	Varicella (chickenpox)	√ [2]		√ [2]	Until all lesions have crusted and dried.
	Herpes zoster (shingles), disseminated	√ [2]		√ [2]	Until all lesions have crusted and dried.
	Herpes zoster (shingles), localized, immunocompromised host	√ [2]		√ [2]	Until 24 hours of effective therapy received; then as for localized herpes zoster (shingles) in a normal host. [4]

1. Apply to children who are incontinent or unable to comply with hygiene and consider for incontinent adults if stool cannot be contained or for adults with poor hygiene who contaminate their environment.
2. Only immune healthcare workers, caretakers and visitors should enter the room.
3. Paediatric population only (children who are incontinent or unable to comply with hygiene).
4. If localized in normal host, routine practices are sufficient however consider airborne precautions for cases of extensive (that cannot be covered) localized herpes zoster (shingles), in situations where there are varicella susceptible patients and/or healthcare workers.

ADDITIONAL PRECAUTIONS CASE SCENARIO #1 – PATIENT WITH A COUGH: QUESTIONS

Instructions:

- Individually or in small groups, answer the questions associated with the practice case using the algorithms, point of care risk assessment, explaining rationales for decisions, and linking routine practices and additional precautions to the chain of infection and problem solving.
- Answers may vary, depending on assumptions made about the individuals, environment and context in each scenario.
- The first section includes a case scenario and associated questions; the second section includes the same case scenario and questions but answers have been provided along with discussion points to highlight additional learning opportunities.

Mr. Martin, an 84-year-old man, is a patient on an acute-care ward. On December 26th, during his morning round, Sacha, the licensed practical nurse, finds him lethargic and complaining about chills and a new cough.

Question 1: Should Sacha initiate any precautions? Explain your reasoning by stating your decision at each decision point in the *Respiratory Illness Algorithm*.

ADDITIONAL PRECAUTIONS CASE SCENARIO #1 – PATIENT WITH A COUGH: QUESTIONS

Question 2: Would your answer to question 1 differ if this scenario were about an 8-month-old baby?

Question 3: Would your answer to question 1 differ if Mr. Martin had received an influenza vaccine?

ADDITIONAL PRECAUTIONS CASE SCENARIO #1 – PATIENT WITH A COUGH: QUESTIONS

Question 4: What are key aspects to implement or points to consider when placing a patient on the type of additional precautions identified in question 1?

Question 5: Mr. Martin's condition has deteriorated and he needs to be suctioned. Given the need for droplet and contact precautions, what personal protective equipment are required in each of the following situations? Explain your reasoning.
a. Suctioning with an open system.

ADDITIONAL PRECAUTIONS CASE SCENARIO #1 – PATIENT WITH A COUGH: QUESTIONS

b. Administering medication via nebulizer.
c. Self-administering medication via a metered-dose inhaler.
d. Starting an IV.
e. Mr. Martin wants to leave the room to attend a service at the chapel.

ADDITIONAL PRECAUTIONS CASE SCENARIO #1 – PATIENT WITH A COUGH: QUESTIONS

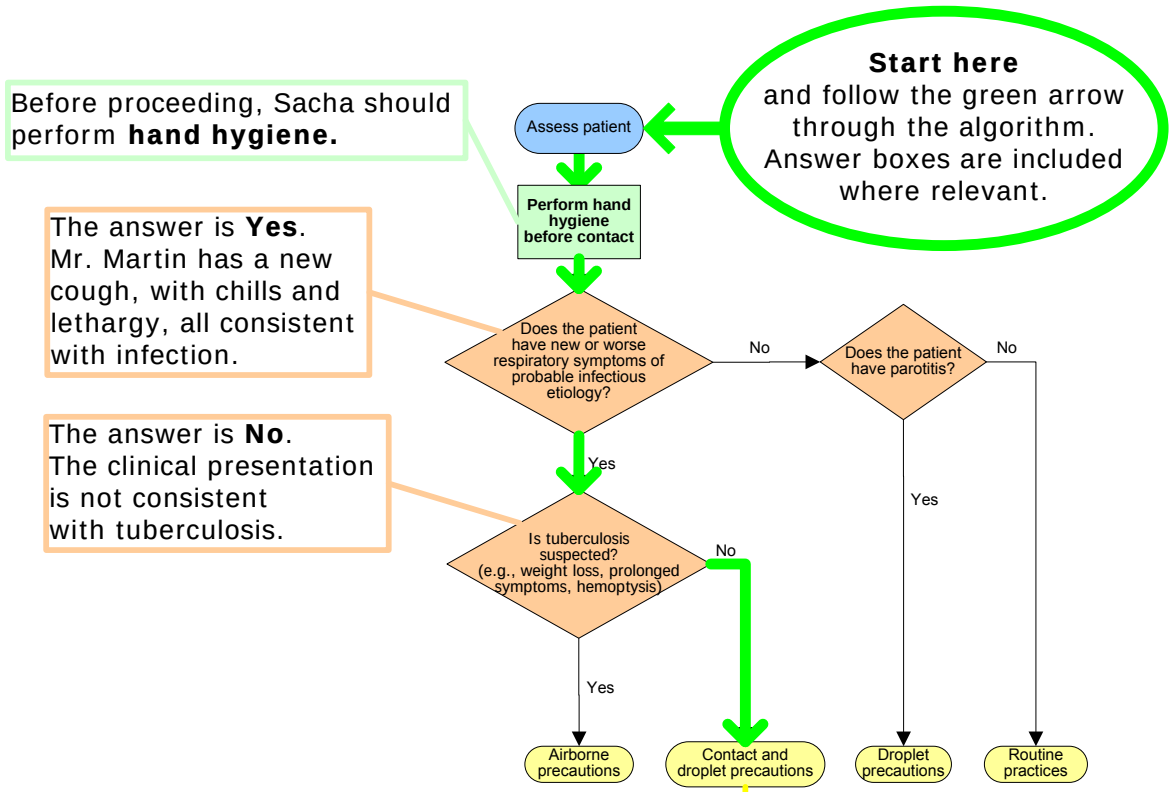
Question 6: Identify, using the *Elements of Routine Practices Summary*, what elements of routine practices, besides Hand Hygiene and Personal Protective Equipment, are most relevant to this scenario?

Question 7: Two days after admission, the rapid test for influenza is negative and the sputum culture results reveal *Streptococcus pneumoniae*. Do the additional precautions need to change? Explain your reasoning by stating your decision at each decision point in the *Stopping or Changing Additional Precautions Algorithm*.

ADDITIONAL PRECAUTIONS CASE SCENARIO #1 – PATIENT WITH A COUGH: QUESTIONS & ANSWERS

Mr. Martin, an 84-year-old man, is a patient on an acute-care ward. On December 26th, during his morning round, Sacha, the licensed practical nurse, finds him lethargic and complaining about chills and a new cough.

Question 1: Should Sacha initiate any precautions? Explain your reasoning by stating your decision at each decision point in the *Respiratory Illness Algorithm*.



ADDITIONAL PRECAUTIONS CASE SCENARIO #1 – PATIENT WITH A COUGH: QUESTIONS & ANSWERS

Question 2: Would your answer to question 1 differ if this scenario were about an 8-month-old baby?

Answer: The answer would not change. According to the *Respiratory Illness Algorithm*, if tuberculosis is not suggested by history and clinical presentation and airborne precautions are not necessary, then droplet and contact precautions are to be applied. This is true regardless of the patient's age. If the causative agent is later identified, the precautions may be modified accordingly, as specified in the *Which Microbe/Which Additional Precautions Table*.

Question 3: Would your answer to question 1 differ if Mr. Martin had received an influenza vaccine?

Answer: No, Mr. Martin should still be placed on droplet and contact precautions. If he did not get vaccinated, the causative agent could be influenza virus or another respiratory virus. If he had been vaccinated, the causative agent could still be influenza virus because the vaccine may not have covered that particular strain of influenza virus, and given his age he may not have developed an adequate immune response. Therefore, one cannot assume he developed immunity and cannot rule out the possibility of a diagnosis of influenza based solely on vaccination history. Both droplet and contact precautions should be applied until a diagnosis is made and the need for additional precautions reassessed.

Question 4: What are key aspects to implement or points to consider when placing a patient on the type of additional precautions identified in question 1?

Answer: Mr. Martin should be placed in a private room as soon as one becomes available. Healthcare workers should wear gloves upon entering the room to care for Mr. Martin and should wear facial protection (e.g., a mask and eye protection, face shield, or mask with visor attachment) when they are within a 2-metre radius of him. In addition, a gown should be worn if contact is anticipated between the healthcare worker's uniform or skin and the environment (e.g., bed rails). The healthcare worker should perform appropriate hand hygiene after glove removal or after glove and gown removal if gowns are worn. Sign(s) for contact precautions and droplet precautions should be placed so that it is/they are visible to all who need to see it/them before entering the room or bed space, and personal protective equipment supplies need to be accessible. Non-critical patient care equipment should be dedicated for use with Mr. Martin. See the checklist *Application of Contact and Droplet Precautions for Admitted Patients in Healthcare Facilities Suspected or Confirmed to Have an Acute Viral Respiratory Infection* for other measures to be implemented.

ADDITIONAL PRECAUTIONS CASE SCENARIO #1 – PATIENT WITH A COUGH: QUESTIONS & ANSWERS

Discussion points:

- Discuss how to set up isolation rooms, e.g., placement of clean supplies versus receptacles for waste and linen disposal, implication of the size of the room on ability to accommodate supplies and receptacles, presence of a dedicated hand washing sink.
- Discuss the potential for contamination of the healthcare worker's skin or uniform, and the circumstances under which a gown should be worn.
- Discuss what should be done if unable to provide a single-patient room.

Question 5: Mr. Martin's condition has deteriorated and he needs to be suctioned. Given the need for droplet and contact precautions, what personal protective equipment are required in each of the following situations? Explain your reasoning.

a. Suctioning with an open system.

Answer: Droplet precautions specify the need for the healthcare worker to wear facial protection (a mask and eye protection, face shield, or mask with visor attachment) when within 2 metres of the patient, which would be the case when suctioning. In addition, gloves are to be worn on entry to the room when a patient is on contact precautions, because of the high likelihood of exposure to a contaminated environment. The healthcare worker should perform appropriate hand hygiene after glove removal, on leaving the patient environment. A gown is only necessary if the healthcare worker anticipates splashing/spraying or direct contact between his or her skin or uniform and the environment, e.g., touching the bed rail with the uniform.

Discussion points:

- Discuss why similar personal protective equipment is required by routine practices for open suctioning and by additional precautions for the healthcare worker when within 2 metres of a patient on droplet precautions.
- Discuss why patients who require suctioning but do not have an acute respiratory infection do not need to be placed on droplet precautions.

b. Administering medication via nebulizer.

Answer: Droplet precautions specify the need for the healthcare worker to wear facial protection (a mask and eye protection, face shield, or mask with visor attachment) when within 2 metres of the patient, which would be the case when administering medication via nebulizer. In addition, gloves are to be worn on entry to the room when a patient is on contact precautions. The nurse should perform appropriate hand hygiene after glove removal, on leaving the patient environment. The nurse should also discourage use of nebulizers, which can easily become contaminated and have been associated with generation of aerosols; a metered-dose inhaler is the preferred delivery method.

ADDITIONAL PRECAUTIONS CASE SCENARIO #1 – PATIENT WITH A COUGH: QUESTIONS & ANSWERS

c. Self-administering medication via a metered-dose inhaler.

Answer: Droplet precautions specify the need for the healthcare worker to wear facial protection (a mask and eye protection, face shield, or mask with visor attachment) when within 2 metres of the patient, which would be the case when administering medication via a metered-dose inhaler. In addition, gloves are to be worn on entry to the room when a patient is on contact precautions. The nurse should perform appropriate hand hygiene after glove removal, on leaving the patient environment.

d. Starting an IV.

Answer: Droplet precautions specify the need for the healthcare worker to wear facial protection (a mask and eye protection, face shield, or mask with visor attachment) when within 2 metres of the patient, which would be the case when starting an IV. In addition, gloves are to be worn on entry to the room when a patient is on contact precautions. Routine practices also specify that gloves should be worn for starting an IV because of the potential exposure to blood. The nurse should perform appropriate hand hygiene after glove removal, on leaving the patient environment.

In addition, routine practices specify that there should be a sharps container at point of use and the nurse should implement proper handling and disposal of sharps to prevent a needlestick injury.

e. Mr. Martin wants to leave the room to attend a service at the chapel.

Answer: Mr. Martin should be asked to not go to the chapel until his symptoms have improved. If he insists, then he should be instructed to perform hand hygiene and respiratory hygiene. He should wear a mask to protect others around him and should be seated in the chapel so as to maintain a distance of 2 metres from others.

Discussion points:

- Discuss the rights of individual patients and the risk to others if patients on droplet and/or contact precautions leave the room.
- Discuss the role of staff in confining patients to their rooms.
- Discuss what strategies can be employed to minimize risk to others if patients on additional precautions refuse to stay in their rooms.

ADDITIONAL PRECAUTIONS CASE SCENARIO #1 – PATIENT WITH A COUGH: QUESTIONS & ANSWERS

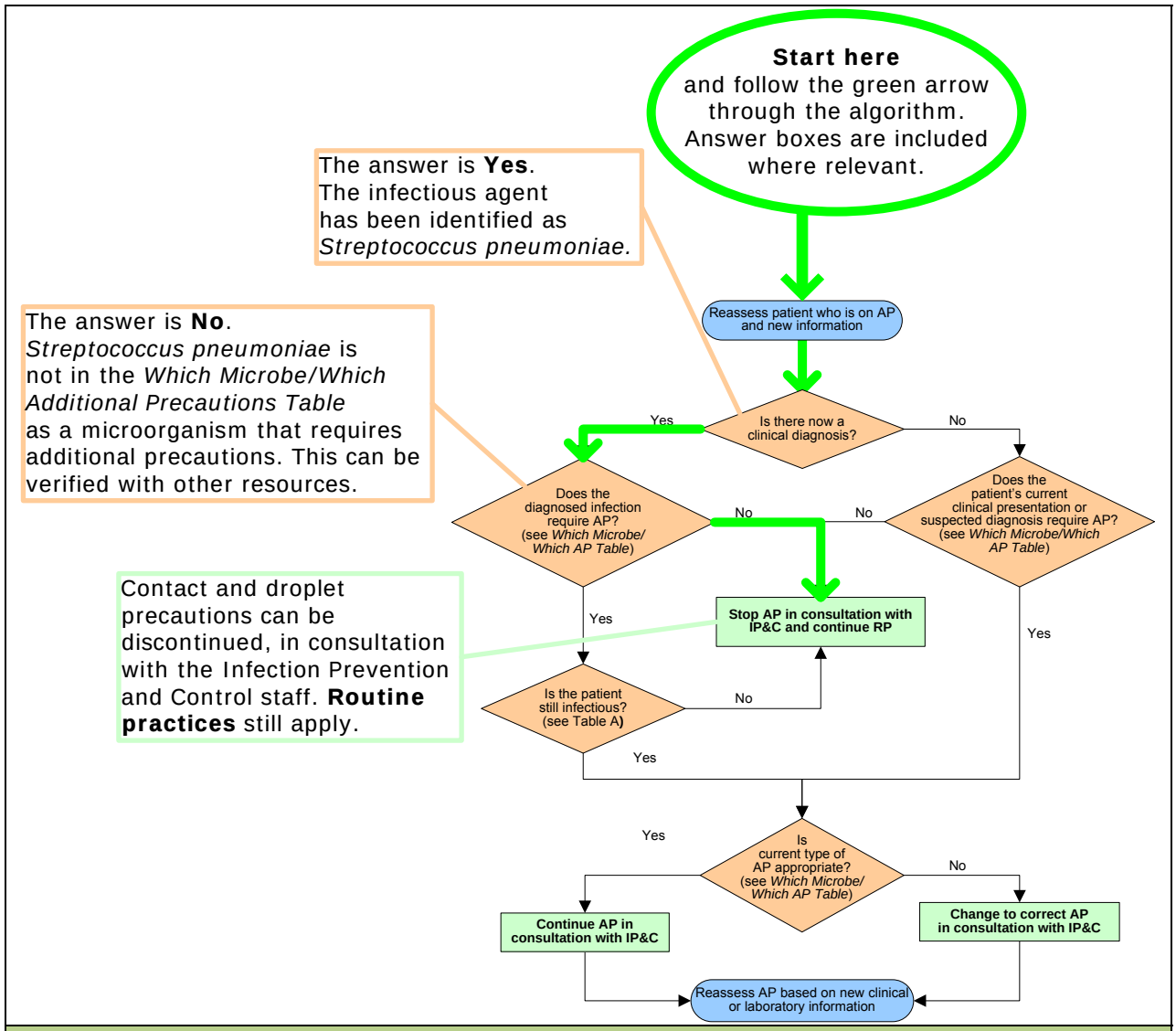
Question 6: Identify, using the *Elements of Routine Practices Summary*, what elements of routine practices, besides Hand Hygiene and Personal Protective Equipment, are most relevant to this scenario?

Answer: Regardless of the type of additional precautions that are initiated, routine practices still apply.

Many of the elements of routine practices have been addressed with droplet and contact precautions, as described in the answers to question 4 and the additional precautions checklist *Application of Contact and Droplet Precautions for Admitted Patients in Healthcare Facilities Suspected or Confirmed to Have an Acute Viral Respiratory Infection*, e.g., Patient Accommodation, Placement and Flow; Visitor Management; Patient and Visitor Education, Patient Care Environment and Equipment. Source control is important, so Mr. Martin should be taught respiratory hygiene, and healthcare workers should ensure he has the necessary supplies (e.g., tissues, waste receptacle, alcohol-based hand rub). Other elements that apply will depend on the activities of the healthcare worker. For example, Sharps Safety and Aseptic Technique will apply if the nurse starts an IV or gives an injection.

Question 7: Two days after admission, the rapid test for influenza is negative and the sputum culture results reveal *Streptococcus pneumoniae*. Do the additional precautions need to change? Explain your reasoning by stating your decision at each decision point in the *Stopping or Changing Additional Precautions Algorithm*.

ADDITIONAL PRECAUTIONS CASE SCENARIO #1 – PATIENT WITH A COUGH: QUESTIONS & ANSWERS



Discussion point:

- Discuss the process for discontinuing droplet and contact precautions, e.g., terminal cleaning required, documentation, communication to those who need to know..

ADDITIONAL PRECAUTIONS CASE SCENARIO #2 – PATIENT WITH DIARRHEA: QUESTIONS

Instructions:

- Individually or in small groups, answer the questions associated with the practice case using the algorithms, point of care risk assessment, explaining rationales for decisions, and linking routine practices and additional precautions to the chain of infection and problem solving.
- Answers may vary, depending on assumptions made about the individuals, environment and context in each scenario.
- The first section includes a case scenario and associated questions; the second section includes the same case scenario and questions but answers have been provided along with discussion points to highlight additional learning opportunities.

Mr. Richards, age 75, is brought to the Emergency Department from a nursing home with fever and dehydration secondary to diarrhea. He has been incontinent of liquid stool several times in the past 24 hours. Erin, the triage nurse, begins the assessment.

Question 1: Should Erin initiate any precautions? Explain your reasoning by stating your decision at each decision point in the *Diarrhea Algorithm.*

ADDITIONAL PRECAUTIONS CASE SCENARIO #2 – PATIENT WITH DIARRHEA: QUESTIONS

Question 2: How would your answer to question 1 differ if there were a norovirus outbreak at the nursing home where Mr. Richards lives? Explain your reasoning.

Question 3: What are key aspects to implement or points to consider when placing a patient on the type of additional precautions identified in question 1?

ADDITIONAL PRECAUTIONS CASE SCENARIO #2 – PATIENT WITH DIARRHEA: QUESTIONS

Question 4: Identify, using the *Elements of Routine Practices Summary*, what elements of routine practices, besides Hand Hygiene and Personal Protective Equipment, are most relevant in this scenario?

Question 5: Given that contact precautions are required as identified in question 1, what personal protective equipment is required in each of the following situations? Explain your reasoning.
a. At 02:00 the night nurse Amy, making rounds, steps into the room with a flashlight to check on the patient and the state of the IV.

ADDITIONAL PRECAUTIONS CASE SCENARIO #2 – PATIENT WITH DIARRHEA: QUESTIONS

b. At 04:00 Amy changes the IV bag.
c. At 05:30 Amy helps Mr. Richards sit in the chair and changes his bed as he has been incontinent.
d. The housekeeper Jack empties the garbage from the waste paper basket by the bed early in the day.

ADDITIONAL PRECAUTIONS CASE SCENARIO #2 – PATIENT WITH DIARRHEA: QUESTIONS

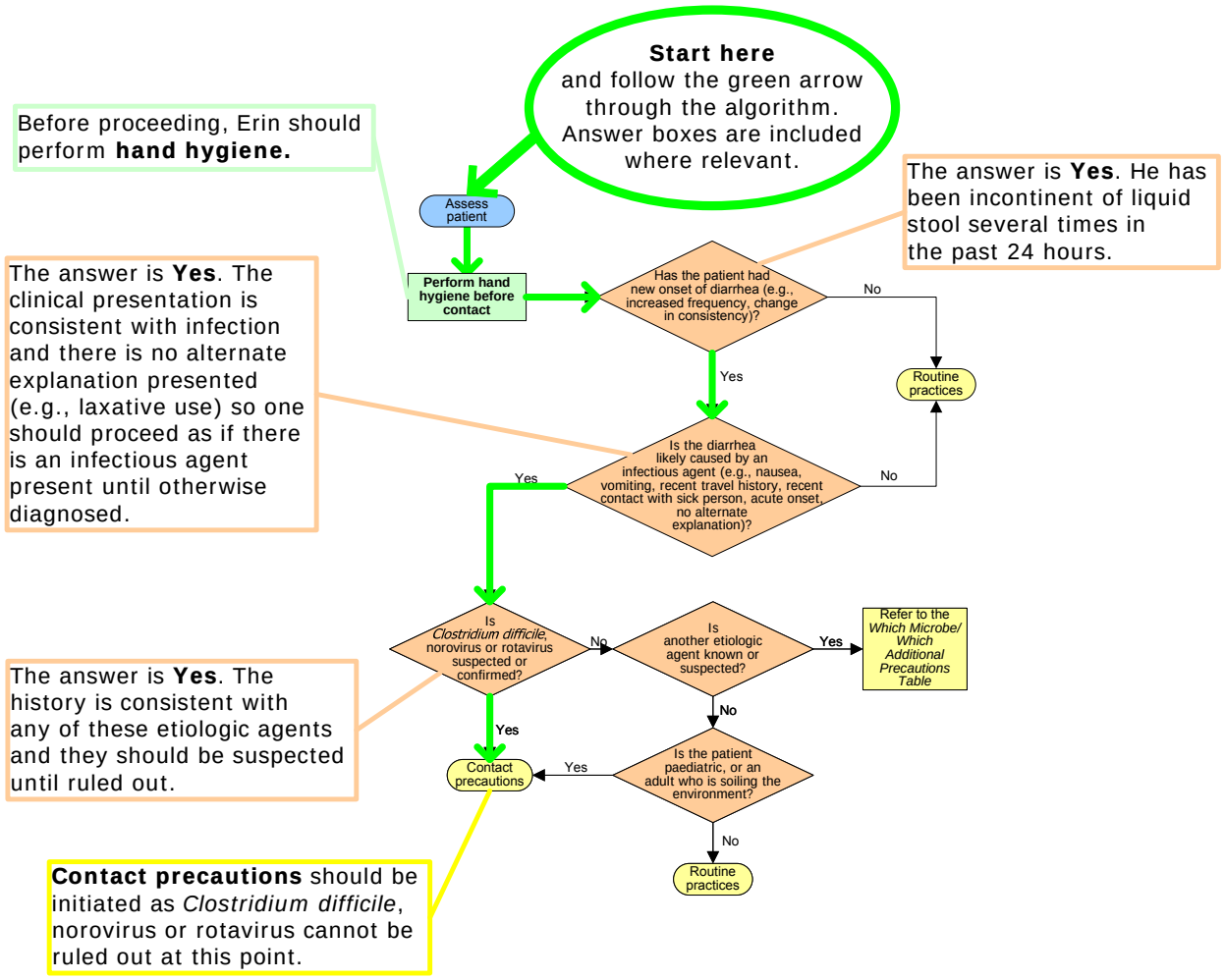
Question 6: Once care of Mr. Richards is completed and Amy has removed her gloves, should she perform hand hygiene with soap and water at a designated hand washing sink or should she use alcohol-based hand rub at the point of care?

Question 7: Forty-eight hours later, Mr. Richards now has loose stool, but is no longer incontinent. He is afebrile and *Clostridium difficile* has been ruled out. Do the additional precautions need to change? Explain your reasoning by stating your decision at each decision point in the *Stopping or Changing Additional Precautions Algorithm*.

ADDITIONAL PRECAUTIONS CASE SCENARIO #2 – PATIENT WITH DIARRHEA: QUESTIONS & ANSWERS

Mr. Richards, age 75, is brought to the Emergency Department from a nursing home with fever and dehydration secondary to diarrhea. He has been incontinent of liquid stool several times in the past 24 hours. Erin, the triage nurse, begins the assessment.

Question 1: Should Erin initiate any precautions? Explain your reasoning by stating your decision at each decision point in the *Diarrhea Algorithm.*



ADDITIONAL PRECAUTIONS CASE SCENARIO #2 – PATIENT WITH DIARRHEA: QUESTIONS & ANSWERS

Question 2: How would your answer to question 1 differ if there were a norovirus outbreak at the nursing home where Mr. Richards lives? Explain your reasoning.

Answer: The original decision to place Mr. Richards on contact precautions would have been the same, because contact precautions are indicated whenever *Clostridium difficile*, norovirus or rotavirus is suspected. Until norovirus was ruled out, one would have assumed it could be the causative microorganism, given there was an outbreak at his nursing home.

Question 3: What are key aspects to implement or points to consider when placing a patient on the type of additional precautions identified in question 1?

Answer: Mr. Richards should be placed in a private room as soon as one becomes available. Healthcare workers should wear gloves upon entering the room to care for Mr. Richards. In addition, a gown should be worn if contact is anticipated between the healthcare worker's uniform or skin and the environment (e.g., bed rails). The healthcare worker should perform appropriate hand hygiene after glove removal or after glove and gown removal if gowns are worn. A contact precautions sign should be placed so that it is visible to all who need to see it before entering the room or bed space, and personal protective equipment supplies need to be accessible. Non-critical patient care equipment should be dedicated to use for Mr. Richards. See the additional precautions checklist *Application of Contact Precautions for Admitted Patients in Healthcare Facilities* for other measures to be implemented.

Discussion point:

- Discuss how to set up isolation rooms, e.g., placement of clean supplies versus receptacles for waste and linen disposal, implication of the size of the room on ability to accommodate supplies and receptacles, and presence of a dedicated hand washing sink.

Question 4: Identify, using the *Elements of Routine Practices Summary*, what elements of routine practices, besides Hand Hygiene and Personal Protective Equipment, are most relevant in this scenario?

Answer: Regardless of the type of additional precautions that are initiated, routine practices still apply.

Many of the elements of routine practices have been addressed with the implementation of contact precautions, as described in the answer to question 3 and the additional precautions checklist *Application of Contact Precautions for Admitted Patients in Healthcare Facilities*, e.g., Patient Accommodation; Placement and Flow; Visitor Management; Patient and Visitor Education; Patient Care Environment and Equipment. Other elements of routine practices that apply will depend on the activities of the healthcare worker. For example, Sharps Safety and Aseptic Technique will apply if the nurse starts an IV or gives an injection, and Source Control (e.g., strategies to decrease soiling of the environment) needs to be considered.

ADDITIONAL PRECAUTIONS CASE SCENARIO #2 – PATIENT WITH DIARRHEA: QUESTIONS & ANSWERS

Question 5: Given that contact precautions are required as identified in question 1, what personal protective equipment is required in each of the following situations? Explain your reasoning.

a. At 02:00 the night nurse Amy, making rounds, steps into the room with a flashlight to check on the patient and the state of the IV.

Answer: Amy should put on gloves to enter the room, regardless of whether she expects to touch anything or not. She would not need to put on a gown unless she anticipated contact between her uniform or skin and the environment (e.g., bed rails).

b. At 04:00 Amy changes the IV bag.

Answer: With contact precautions, glove use is required on entry to the room so Amy should wear gloves. Amy will have direct contact with the IV bag and tubing, and other items in the environment, which is considered contaminated. A gown is only necessary if she anticipates direct contact between her skin or uniform and the environment, e.g., touching the bed rail or IV tubing with the uniform. The amount of crowding in the patient room/bed space, as well as her activity, should be considered in making her decision about the need for a gown. Amy should perform appropriate hand hygiene after glove removal or after gown and glove removal if she chooses to wear a gown, on leaving the patient environment.

Discussion point:

- Discuss the potential for contamination of the healthcare worker's skin or uniform from the environment. Some items to consider are: the size of the room, crowding, particular activities, likelihood of patient vomiting, and patient's cognitive impairment.

c. At 05:30 Amy helps Mr. Richards sit in the chair and changes his bed as he has been incontinent.

Answer: With contact precautions, glove use is required on entry to the room so Amy should wear gloves; she will have direct contact with the soiled linen, patient and the contaminated patient environment. Amy should wear a gown to protect her uniform from being contaminated when she assists him and handles the soiled linen. She should be sure a linen hamper is available in the room for immediate disposal of the soiled linen. Amy should perform appropriate hand hygiene after glove and gown removal, on leaving the patient environment.

d. The housekeeper Jack empties the garbage from the waste paper basket by the bed early in the day.

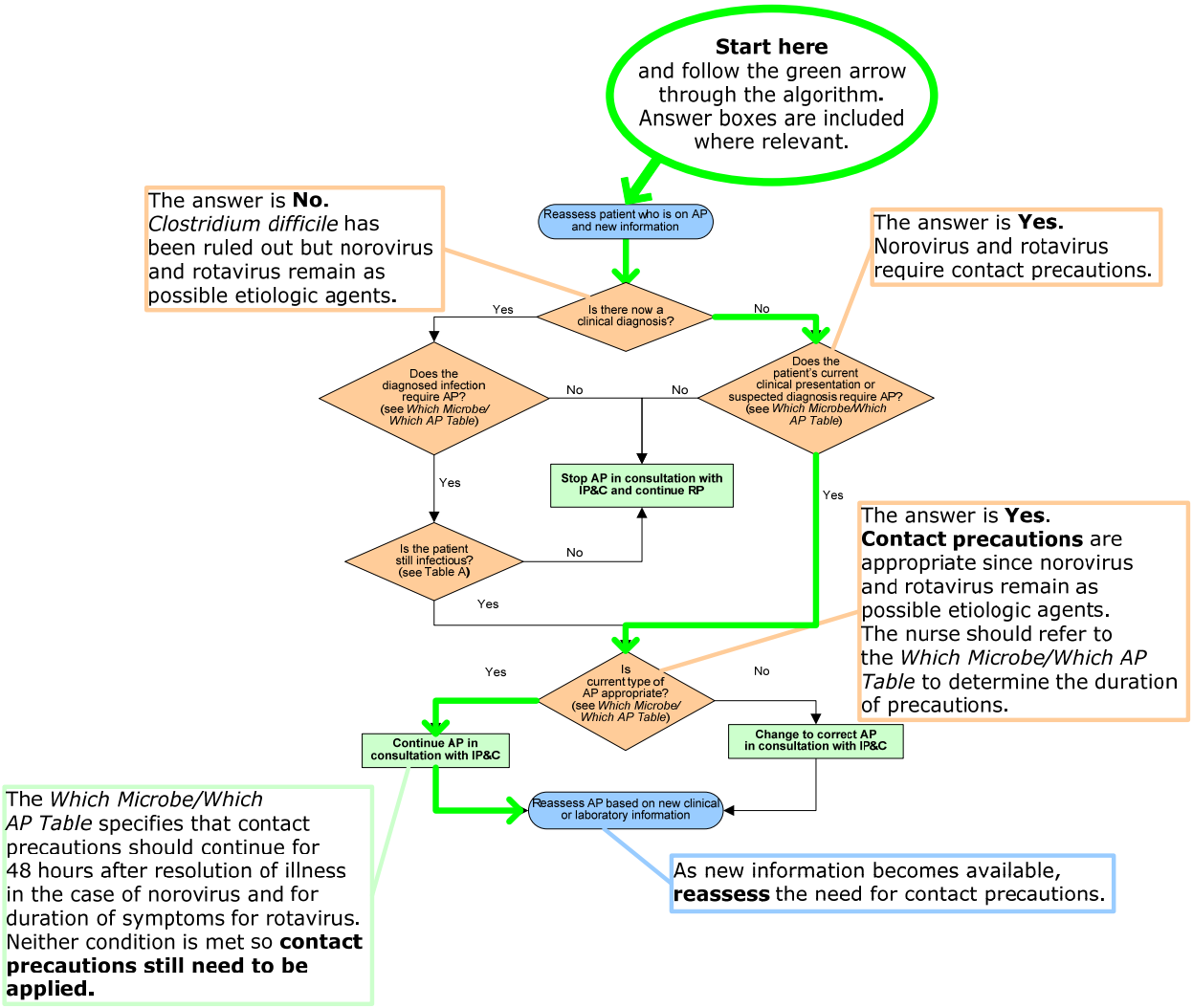
Answer: With contact precautions, glove use is required on entry to the room so Jack should wear gloves; he will have direct contact with the patient environment. He should wear a gown only if he anticipates his skin or uniform will also be in direct contact with the environment, e.g., leaning against the bed rail. Jack should perform appropriate hand hygiene after glove removal or after gown and glove removal if he wears a gown, on leaving the patient environment.

ADDITIONAL PRECAUTIONS CASE SCENARIO #2 – PATIENT WITH DIARRHEA: QUESTIONS & ANSWERS

Question 6: Once care of Mr. Richards is completed and Amy has removed her gloves, should she perform hand hygiene with soap and water at a designated hand washing sink or should she use alcohol-based hand rub at the point of care?

Answer: Once care of Mr. Richards is completed, Amy should perform hand hygiene using soap and water at a designated hand washing sink as *Clostridium difficile* infection is still suspected as a cause of his diarrhea. If a designated hand washing sink is not available at the point of care, she should use alcohol-based hand rub and wash her hands with soap and water as soon as she can get to a designated hand wash sink.

Question 7: Forty-eight hours later, Mr. Richards now has loose stool, but is no longer incontinent. He is afebrile and *Clostridium difficile* has been ruled out. Do the additional precautions need to change? Explain your reasoning by stating your decision at each decision point in the *Stopping or Changing Additional Precautions Algorithm*.



Discussion point:

- Discuss the process for discontinuing contact precautions, e.g., terminal cleaning required, documentation, communication to those who need to know.

ADDITIONAL PRECAUTIONS CASE SCENARIO #3 – PATIENT WITH ACUTE NEUROLOGICAL SYMPTOMS: QUESTIONS

Instructions:

- Individually or in small groups, answer the questions associated with the practice case using the algorithms, point of care risk assessment, explaining rationales for decisions, and linking routine practices and additional precautions to the chain of infection and problem solving.
- Answers may vary, depending on assumptions made about the individuals, environment and context in each scenario.
- The first section includes a case scenario and associated questions; the second section includes the same case scenario and questions but answers have been provided along with discussion points to highlight additional learning opportunities.

Rebekah is a paramedic responding to an emergency call for a 22-year-old male patient, Fred, with a decreased level of consciousness. When she arrives on scene, she finds he is lethargic and appears very confused; she also notices some petechial hemorrhages on his extremities. The family states that Fred had been complaining of a fever, headache and sore neck since yesterday and remained in a dark room because the light bothered him. Rebekah suspects meningitis.

Question 1: Should Rebekah initiate any precautions? Explain your reasoning by stating your decision at each decision point in the *Acute Neurological Syndrome Algorithm*.

ADDITIONAL PRECAUTIONS CASE SCENARIO #3 – PATIENT WITH ACUTE NEUROLOGICAL SYMPTOMS: QUESTIONS

Question 2: How would your answer to question 1 differ if the patient were a 4-year-old female?

Question 3: Should the patient wear a mask for transport to the hospital? Explain your reasoning.

ADDITIONAL PRECAUTIONS CASE SCENARIO #3 – PATIENT WITH ACUTE NEUROLOGICAL SYMPTOMS: QUESTIONS

Question 4: In addition to personal protective equipment, what other precautions should be taken at the scene and during transport?

Question 5: Fred has been admitted from the Emergency Department to the medical unit with a diagnosis of meningococcal meningitis. Are the additional precautions initiated by Rebekah still required? Explain your reasoning by stating your decision at each decision point in the *Stopping or Changing Additional Precautions Algorithm*. How long should the precautions be in place?

ADDITIONAL PRECAUTIONS CASE SCENARIO #3 – PATIENT WITH ACUTE NEUROLOGICAL SYMPTOMS: QUESTIONS

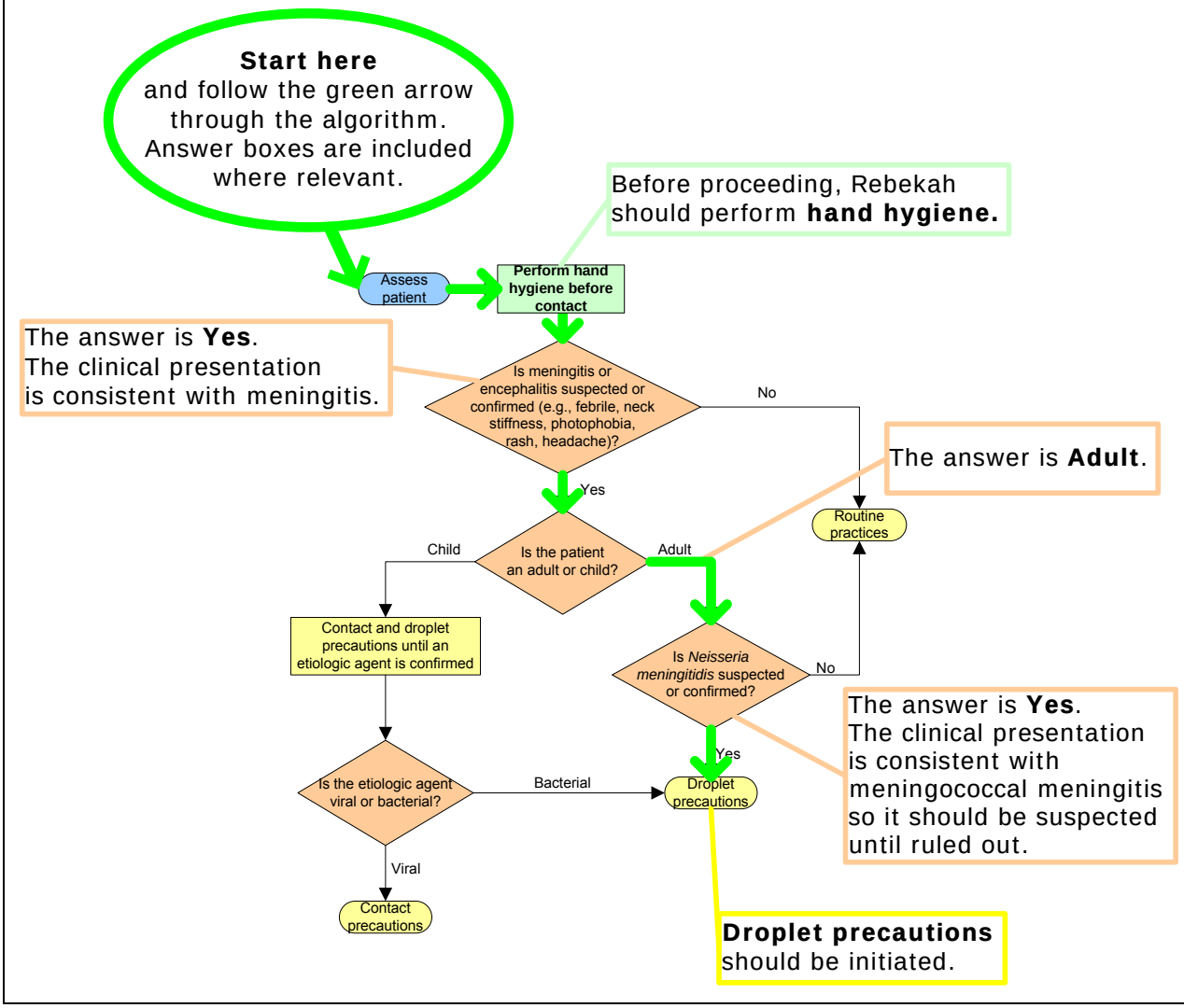
Question 6: What are the key points to implement or consider when placing a patient on the type of additional precautions identified in question 1?

Question 7: What elements of routine practices, besides Hand Hygiene and Personal Protective Equipment, are most relevant in this scenario?

ADDITIONAL PRECAUTIONS CASE SCENARIO #3 – PATIENT WITH ACUTE NEUROLOGICAL SYMPTOMS: QUESTIONS & ANSWERS

Rebekah is a paramedic responding to an emergency call for a 22-year-old male patient, Fred, with a decreased level of consciousness. When she arrives on scene, she finds he is lethargic and appears very confused; she also notices some petechial hemorrhages on his extremities. The family states that Fred had been complaining of a fever, headache and sore neck since yesterday and remained in a dark room because the light bothered him. Rebekah suspects meningitis.

Question 1: Should Rebekah initiate any precautions? Explain your reasoning by stating your decision at each decision point in the *Acute Neurological Syndrome Algorithm*.



ADDITIONAL PRECAUTIONS CASE SCENARIO #3 – PATIENT WITH ACUTE NEUROLOGICAL SYMPTOMS: QUESTIONS & ANSWERS

Question 2: How would your answer to question 1 differ if the patient were a 4-year-old female?

Answer: One of the decision points in the *Acute Neurological Syndrome Algorithm* is whether the patient is an adult or child. If the patient is a child, one initiates droplet and contact precautions until the presumed causative microorganism has been confirmed or a preliminary determination made, based on lumbar puncture tests and/or physician assessment as to whether it is bacterial or viral. If the meningitis is determined to be bacterial in origin, then only droplet precautions need to be implemented/continued, whereas only contact precautions are required if the presumed cause is viral.

Question 3: Should the patient wear a mask for transport to the hospital? Explain your reasoning.

Answer: Fred is not coughing therefore a mask is not necessary for him. As meningitis is suspected and the causative agent could be *Neiserria meningitidis* and Rebekah is within two metres of Fred, she should wear facial protection (e.g., mask and eye protection, face shield or mask with visor attachment).

Question 4: In addition to personal protective equipment, what other precautions should be taken at the scene and during transport?

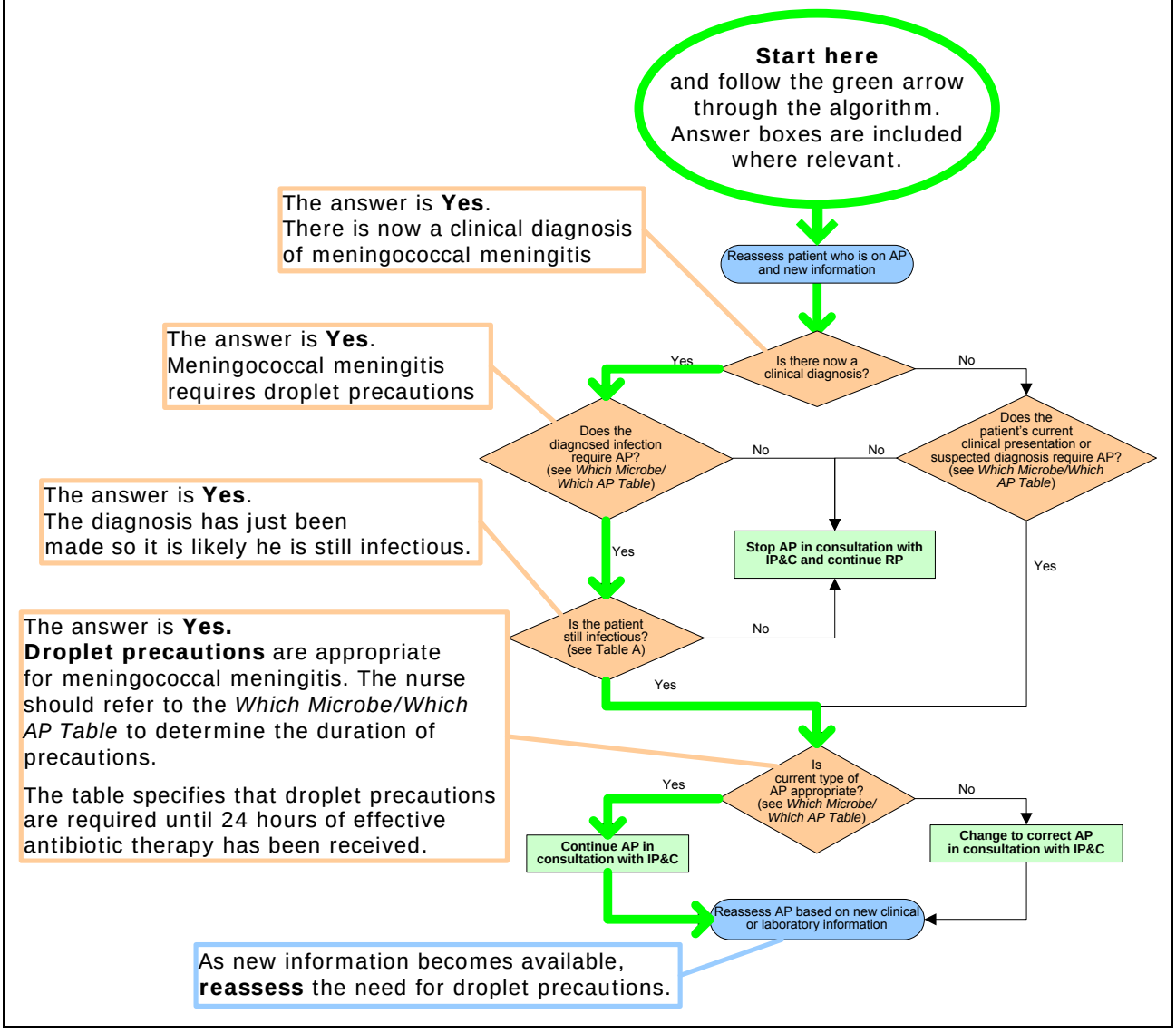
Answer: The paramedic should limit the number of people on the scene. The paramedic would only transport one patient in this case and only essential people would come in the ambulance to minimize exposure of susceptible individuals. If it is essential for a family member or another emergency worker to ride in the ambulance, then the paramedic would ensure a mask is worn by the person, should the patient be unable to tolerate a mask. The hospital should also be notified of the paramedic's suspicion of meningitis prior to arrival. All of these strategies minimize exposure of susceptible individuals.

Discussion point:

- Discuss who is responsible for notifying the local public health unit if a patient with suspected meningococcal meningitis is admitted to the hospital.

ADDITIONAL PRECAUTIONS CASE SCENARIO #3 – PATIENT WITH ACUTE NEUROLOGICAL SYMPTOMS: QUESTIONS & ANSWERS

Question 5: Fred has been admitted from the Emergency Department to the medical unit with a diagnosis of meningococcal meningitis. Are the additional precautions initiated by Rebekah still required? Explain your reasoning by stating your decision at each decision point in the *Stopping or Changing Additional Precautions Algorithm*. How long should the precautions be in place?



ADDITIONAL PRECAUTIONS CASE SCENARIO #3 – PATIENT WITH ACUTE NEUROLOGICAL SYMPTOMS: QUESTIONS & ANSWERS

Question 6: What are the key points to implement or consider when placing a patient on the type of additional precautions identified in question 1?

Answer: Fred should be placed in a private room as soon as one becomes available. Healthcare workers and others should wear facial protection (e.g., a mask and eye protection, face shield, or mask with visor attachment) when they are within a 2-metre radius of Fred, and perform appropriate hand hygiene on leaving the patient environment. A droplet precautions sign should be placed so that it is visible to all before entering the room or bed space, and personal protective equipment supplies need to be accessible. See the checklist *Application of Droplet Precautions for Admitted Patients in Healthcare Facilities* for other measures to be implemented.

Discussion point:

- Discuss how to set up isolation rooms, e.g., placement of clean supplies versus receptacles for waste and linen disposal, implication of the size of the room on ability to accommodate supplies and receptacles, presence of a dedicated hand washing sink.

Question 7: What elements of routine practices, besides Hand Hygiene and Personal Protective Equipment, are most relevant in this scenario?

Answer: Regardless of the type of additional precautions that are initiated, routine practices still apply.
Many of the elements of routine practices have been addressed with droplet precautions, as described in the answer to question 6 and the additional precautions checklist *Application of Droplet Precautions for Admitted Patients in Healthcare Facilities*, e.g., Patient Accommodation, Placement and Flow; Patient and Visitor Education, Supplies and Equipment. Other elements that apply will depend on the activities of the healthcare worker. For example, Sharps Safety and Aseptic Technique will apply if the nurse starts an IV or gives an injection, and Source Control needs to be considered, e.g., teach and support respiratory hygiene if Fred has a cough.

ADDITIONAL PRECAUTIONS CASE SCENARIO #4 – PATIENT WITH HERPES ZOSTER (SHINGLES): QUESTIONS

Instructions:

- Individually or in small groups, answer the questions associated with the practice case using the algorithms, point of care risk assessment, explaining rationales for decisions, and linking routine practices and additional precautions to the chain of infection and problem solving.
- Answers may vary, depending on assumptions made about the individuals, environment and context in each scenario.
- The first section includes a case scenario and associated questions; the second section includes the same case scenario and questions but answers have been provided along with discussion points to highlight additional learning opportunities.

Mrs. Rogers, a 56-year-old woman, has been undergoing chemotherapy treatment for breast cancer and is now immunocompromised. On Monday, she comes to the outpatient clinic for treatment and complains to the nurse about burning lesions that have appeared on her abdomen over the weekend. Cedric, the nurse assessing Mrs. Rogers, notices the lesions are vesicular, red and distributed in a linear fashion along the dermatome and suspects herpes zoster (shingles). The lesions are coverable. Mrs. Rogers has no fever. A decision is made to admit her for antiviral therapy.

Question 1: Should Cedric initiate any precautions? Explain your reasoning by stating your decision at each decision point in the *Rash Algorithm*.

ADDITIONAL PRECAUTIONS CASE SCENARIO #4 – PATIENT WITH HERPES ZOSTER (SHINGLES): QUESTIONS

Question 2: How would your answer to question 1 differ if she were not immunocompromised? How would your answer to question 1 differ if she had disseminated herpes zoster (shingles)?

Question 3: What should Cedric teach her about reducing the risk of transmission of disease to others?

ADDITIONAL PRECAUTIONS CASE SCENARIO #4 – PATIENT WITH HERPES ZOSTER (SHINGLES): QUESTIONS

Question 4: How would your answers to questions 1 and 2 differ if the lesions were around the eye? Explain your reasoning.

Question 5: What are key aspects to implement or points to consider when placing a patient on the type of additional precautions identified in question 1?

ADDITIONAL PRECAUTIONS CASE SCENARIO #4 – PATIENT WITH HERPES ZOSTER (SHINGLES): QUESTIONS

Question 6: The housekeeper, Denis, asks the head nurse if he has to put on personal protective equipment to go in to clean the floor. What should be the head nurse's response?

Question 7: Identify, using the *Elements of Routine Practices Summary*, what elements of routine practices, besides Hand Hygiene and Personal Protective Equipment, are most relevant in this scenario?

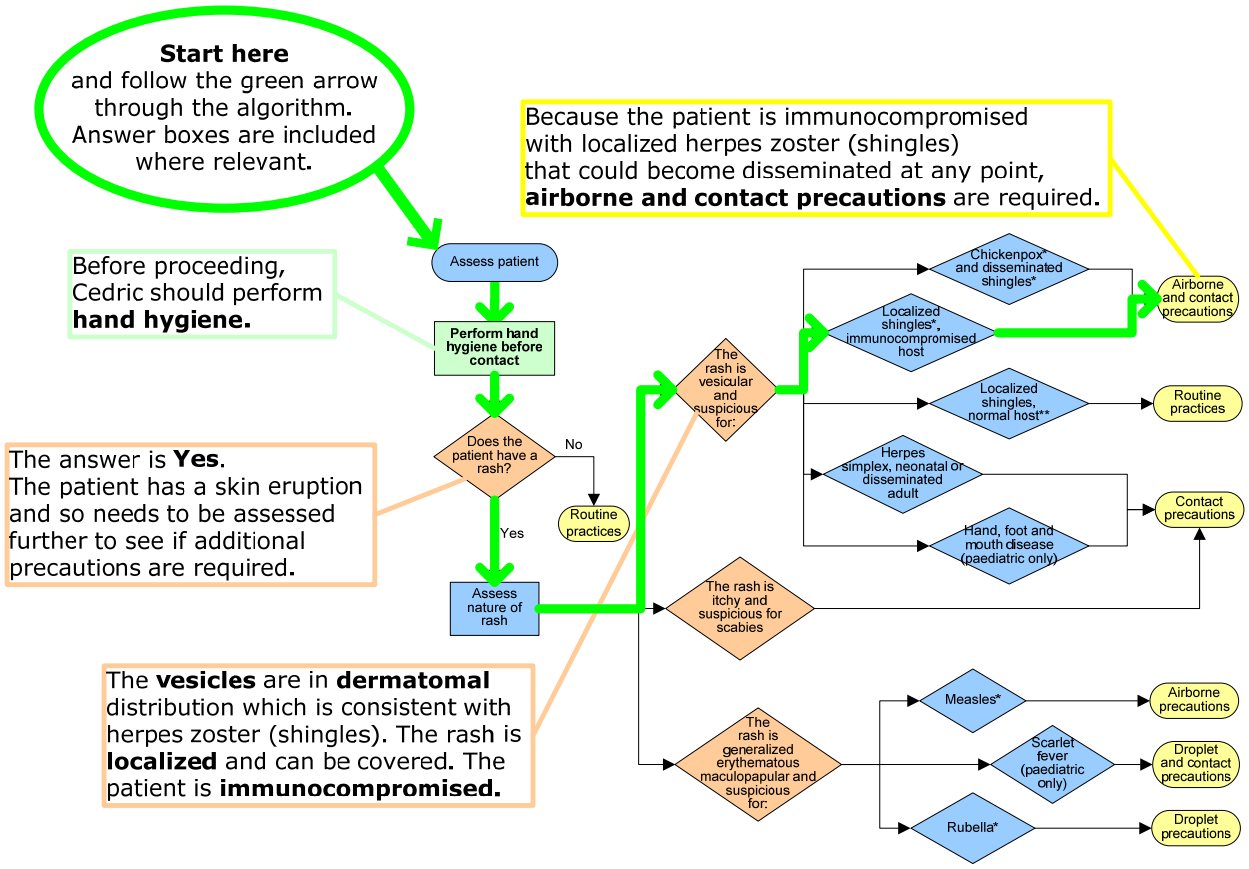
ADDITIONAL PRECAUTIONS CASE SCENARIO #4 – PATIENT WITH HERPES ZOSTER (SHINGLES): QUESTIONS

Question 8: How long do the additional precautions identified in question 1 need to remain in effect? Explain your reasoning by stating your decision at each decision point in the *Stopping or Changing Additional Precautions Algorithm*.

ADDITIONAL PRECAUTIONS CASE SCENARIO #4 – PATIENT WITH HERPES ZOSTER (SHINGLES): QUESTIONS & ANSWERS

Mrs. Rogers, a 56-year-old woman, has been undergoing chemotherapy treatment for breast cancer and is now immunocompromised. On Monday, she comes to the outpatient clinic for treatment and complains to the nurse about burning lesions that have appeared on her abdomen over the weekend. Cedric, the nurse assessing Mrs. Rogers, notices the lesions are vesicular, red and distributed in a linear fashion along the dermatome and suspects herpes zoster (shingles). The lesions are coverable. Mrs. Rogers has no fever. A decision is made to admit her for antiviral therapy.

Question 1: Should Cedric initiate any precautions? Explain your reasoning by stating your decision at each decision point in the *Rash Algorithm*.



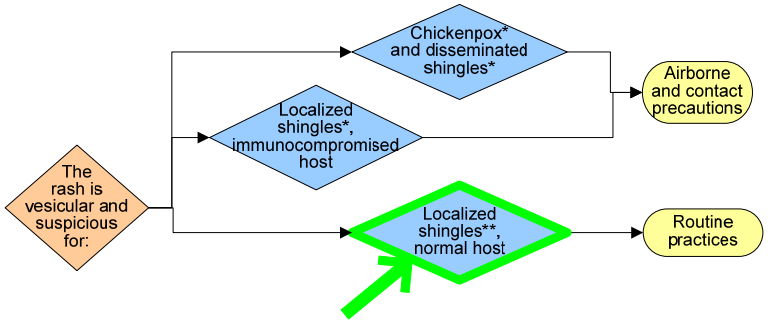
Discussion points:

- Discuss what constitutes an airborne infection isolation room and what do you do if one is not available.
- Discuss the relationship between varicella (chickenpox) and herpes zoster (shingles).
- Discuss the differences between the various types of rashes.

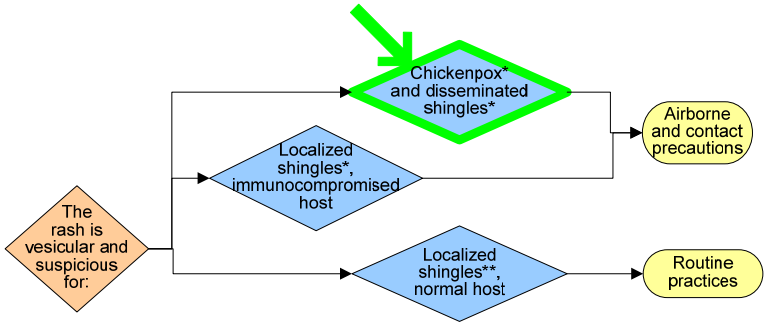
ADDITIONAL PRECAUTIONS CASE SCENARIO #4 – PATIENT WITH HERPES ZOSTER (SHINGLES): QUESTIONS & ANSWERS

Question 2: a) How would your answer to question 1 differ if she were not immunocompromised? b) How would your answer to question 1 differ if she had disseminated herpes zoster (shingles)?

Answer: a) If she were not immunocompromised, then the algorithm specifies that routine practices are sufficient as long as the lesions remain localized, preferably covered by a dressing. She would not need to be placed in a private cubicle, but should not be in contact with patients or staff who have not had varicella. According to routine practices, staff will need to perform hand hygiene after contact with her and her environment and wear gloves when in contact with non-intact skin (i.e., rash).



b) If she had disseminated herpes zoster (shingles), then the algorithm specifies that airborne and contact precautions are required regardless of whether the host is immunocompromised or not. Mrs. Rogers should be placed in an airborne infection isolation room and only staff immune to varicella should enter the room. See the additional precautions checklist *Application of Airborne Precautions for Admitted Patients in Healthcare Facilities* for other measures to be implemented.



Discussion point:

- Discuss what is meant by “immunocompromised” and how it increases the risk of infection. How would this apply in your setting?

ADDITIONAL PRECAUTIONS CASE SCENARIO #4 – PATIENT WITH HERPES ZOSTER (SHINGLES): QUESTIONS & ANSWERS

Question 3: What should Cedric teach her about reducing the risk of transmission of disease to others?

Answer: Cedric should teach Mrs. Rogers to stay away from other individuals who have not had varicella. She should be instructed how and when to perform hand hygiene, to not touch her lesions, and to keep them covered with a dressing. She should also notify staff if the dressing becomes loose or no longer covers the lesions, or if the vesicles become more widespread. If the lesions are itchy, an appropriate cream can be applied to reduce the itch and stop her from touching the lesions.

Question 4: How would your answers to questions 1 and 2 differ if the lesions were around the eye? Explain your reasoning.

Answer: Lesions around the eye, while localized, can be difficult to cover. However, if the patient were not immunocompromised, routine practices would be sufficient, along with the other measures described in questions 2 and 3. If the patient were immunocompromised, the answer to question 1 applies.

Question 5: What are key aspects to implement or points to consider when placing a patient on the type of additional precautions identified in question 1?

Answer: Mrs. Rogers should be placed in an airborne infection isolation room as soon as one becomes available. Until that time, Mrs. Rogers should be placed in a single room and, if she can tolerate it, she should wear a mask. Only healthcare workers immune to varicella should enter the room. If a susceptible healthcare worker must enter the room, he/she should wear a fit-tested respirator and gloves prior to entering the room to care for Mrs. Rogers. In addition, a gown should be worn if contact is anticipated between the healthcare worker's uniform or skin and the environment (e.g., bed rails). The healthcare worker should perform appropriate hand hygiene after glove removal or after glove and gown removal if gowns are worn. Sign(s) for airborne and contact precautions should be placed so that it is/they are visible to all who need to see it/them before entering the room and personal protective equipment supplies need to be accessible. Non-critical patient care equipment should be dedicated for use with Mrs. Rogers. See the additional precautions checklists *Application of Airborne Precautions for Admitted Patients in Healthcare Facilities* and *Application of Contact Precautions for Admitted Patients in Healthcare Facilities* for other measures to be implemented.

Discussion points:

- Discuss how to set up isolation rooms, e.g., placement of clean supplies versus receptacles for waste and linen disposal, implication of the size of the room on ability to accommodate supplies and receptacles, presence of a dedicated hand washing sink.
- Discuss the potential for contamination of the healthcare worker's skin or uniform, and the circumstances under which a gown should be worn.

ADDITIONAL PRECAUTIONS CASE SCENARIO #4 – PATIENT WITH HERPES ZOSTER (SHINGLES): QUESTIONS & ANSWERS

- Discuss the importance of healthcare workers knowing their immune status to measles and varicella, and getting the varicella vaccine if they are susceptible and there are no contraindications.
- Discuss why healthcare workers, when caring for a patient with measles or varicella, do not need to wear a respirator if they are immune to the particular disease. Discuss the need to wear gloves, as per routine practices, if they are immune.
- Discuss what to do if a patient on airborne precautions needs to be transported for medically essential purposes and cannot wear a mask.

Question 6: The housekeeper, Denis, asks the head nurse if he has to put on personal protective equipment to go in to clean the floor. What should be the head nurse's response?

Answer: In response to his question, the head nurse asks if Denis is immune to chickenpox and discusses the importance of being appropriately immunized. If he is immune, he does not need to wear personal protective equipment to enter the room but should perform hand hygiene on entering and leaving the room. If he is not immune, or does not know his immune status, he should not go in the room. He should also follow up with his family doctor or with the occupational health service to determine his immune status and get vaccinated if required.

Discussion points:

- Discuss the importance of healthcare workers being aware of their immune status to varicella and measles, and being appropriately immunized.
- Discuss the potential for breaching patient confidentiality when identifying a visitor's or healthcare worker's immune status.

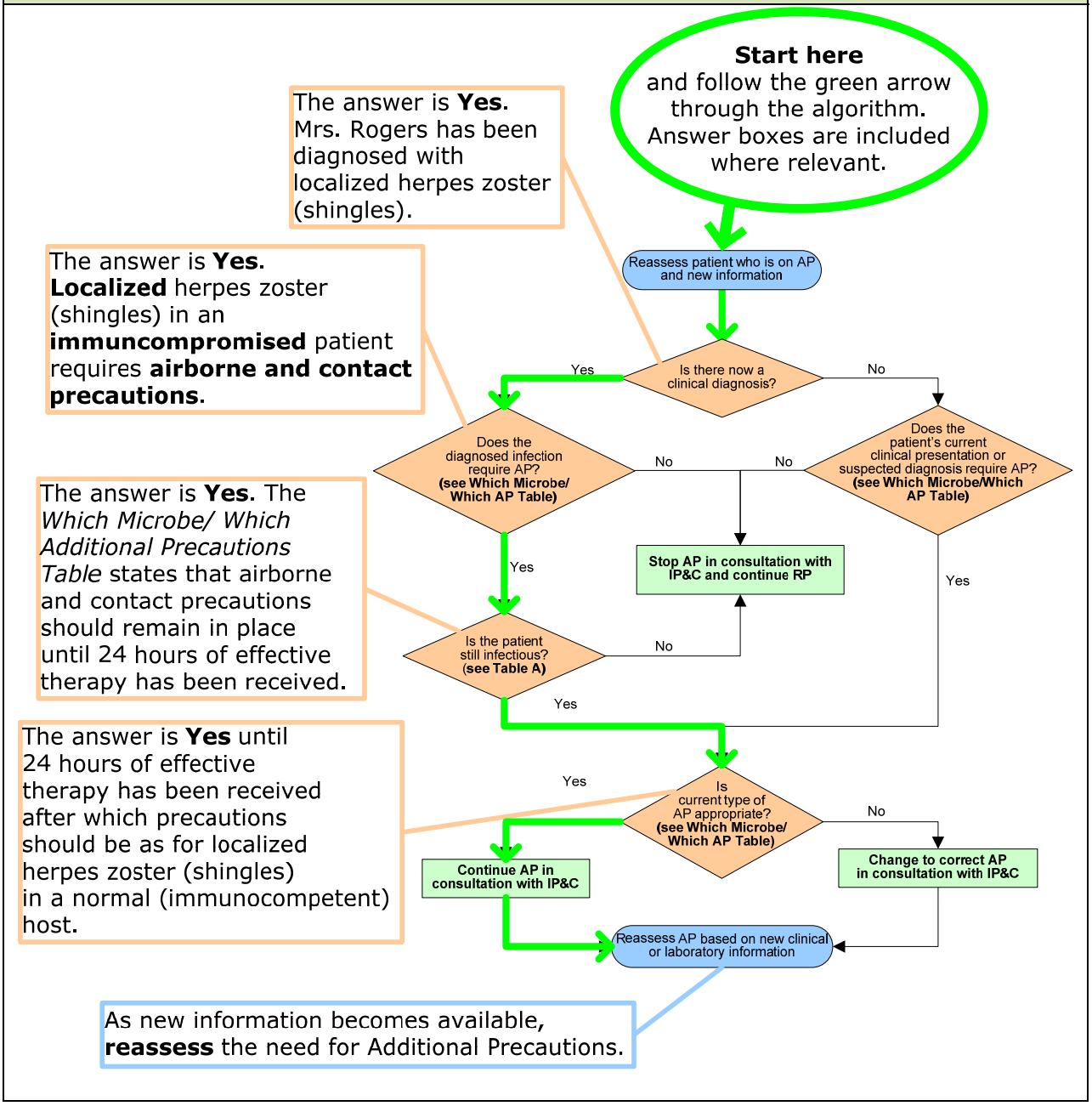
Question 7: Identify, using the *Elements of Routine Practices Summary*, what elements of routine practices, besides Hand Hygiene and Personal Protective Equipment, are most relevant in this scenario?

Answer: Regardless of the type of additional precautions that are initiated, routine practices still apply.

Many of the elements of routine practices have been addressed with airborne and contact precautions, as described in the answer to question 5 and the additional precautions checklists *Application of Airborne Precautions for Admitted Patients in Healthcare Facilities*, and *Application of Contact Precautions for Admitted Patients in Healthcare Facilities* (e.g., Patient Accommodation, Placement and Flow; Visitor Management; Patient and Visitor Education, Patient Care Environment and Equipment). Source Control is important, so Mrs. Rogers should be taught respiratory hygiene, and healthcare workers should ensure she has the necessary supplies (e.g., tissues, waste receptacle, alcohol-based hand rub). Other elements that apply will depend on the activities of the healthcare worker. For example, Sharps Safety and Aseptic Technique will apply if the nurse starts an IV or gives an injection.

ADDITIONAL PRECAUTIONS CASE SCENARIO #4 – PATIENT WITH HERPES ZOSTER (SHINGLES): QUESTIONS & ANSWERS

Question 8: How long do the additional precautions identified in question 1 need to remain in effect? Explain your reasoning by stating your decision at each decision point in the *Stopping or Changing Additional Precautions Algorithm*.



ADDITIONAL PRECAUTIONS CASE SCENARIO #5 – PATIENT WITH A DRAINING WOUND: QUESTIONS

Instructions:

- Individually or in small groups, answer the questions associated with the practice case using the algorithms, point of care risk assessment, explaining rationales for decisions, and linking routine practices and additional precautions to the chain of infection and problem solving.
- Answers may vary, depending on assumptions made about the individuals, environment and context in each scenario.
- The first section includes a case scenario and associated questions; the second section includes the same case scenario and questions but answers have been provided along with discussion points to highlight additional learning opportunities.

Mrs. Day, age 89, a patient on an acute-care ward, has a draining sacral decubitus ulcer. The dressing has been changed three times in the last 24 hours because it has been draining large amounts of purulent material that are not being contained by the dressing. Margot, a nurse, is going to change the dressing.

Question 1: What precautions are required? Explain your reasoning by stating your decision at each decision point in the *Draining Wound/Soft Tissue Infection Algorithm.*

ADDITIONAL PRECAUTIONS CASE SCENARIO #5 – PATIENT WITH A DRAINING WOUND: QUESTIONS

Question 2: What are key aspects to implement or points to consider when placing a patient on the type of additional precautions identified in question 1?

Question 3: How would your answer to question 1 differ if Mrs. Day were uncooperative?

ADDITIONAL PRECAUTIONS CASE SCENARIO #5 – PATIENT WITH A DRAINING WOUND: QUESTIONS

Question 4: How would your answer to question 1 differ if Mrs. Day were obese?

Question 5: How would your answer to question 1 differ if the dressing adequately contained the drainage?

ADDITIONAL PRECAUTIONS CASE SCENARIO #5 – PATIENT WITH A DRAINING WOUND: QUESTIONS

Question 6: What microorganisms are of concern and to whom?

Question 7: How would your answer to question 1 differ if wound cultures confirmed the drainage was methicillin-sensitive *Staphylococcus aureus* (MSSA) positive?

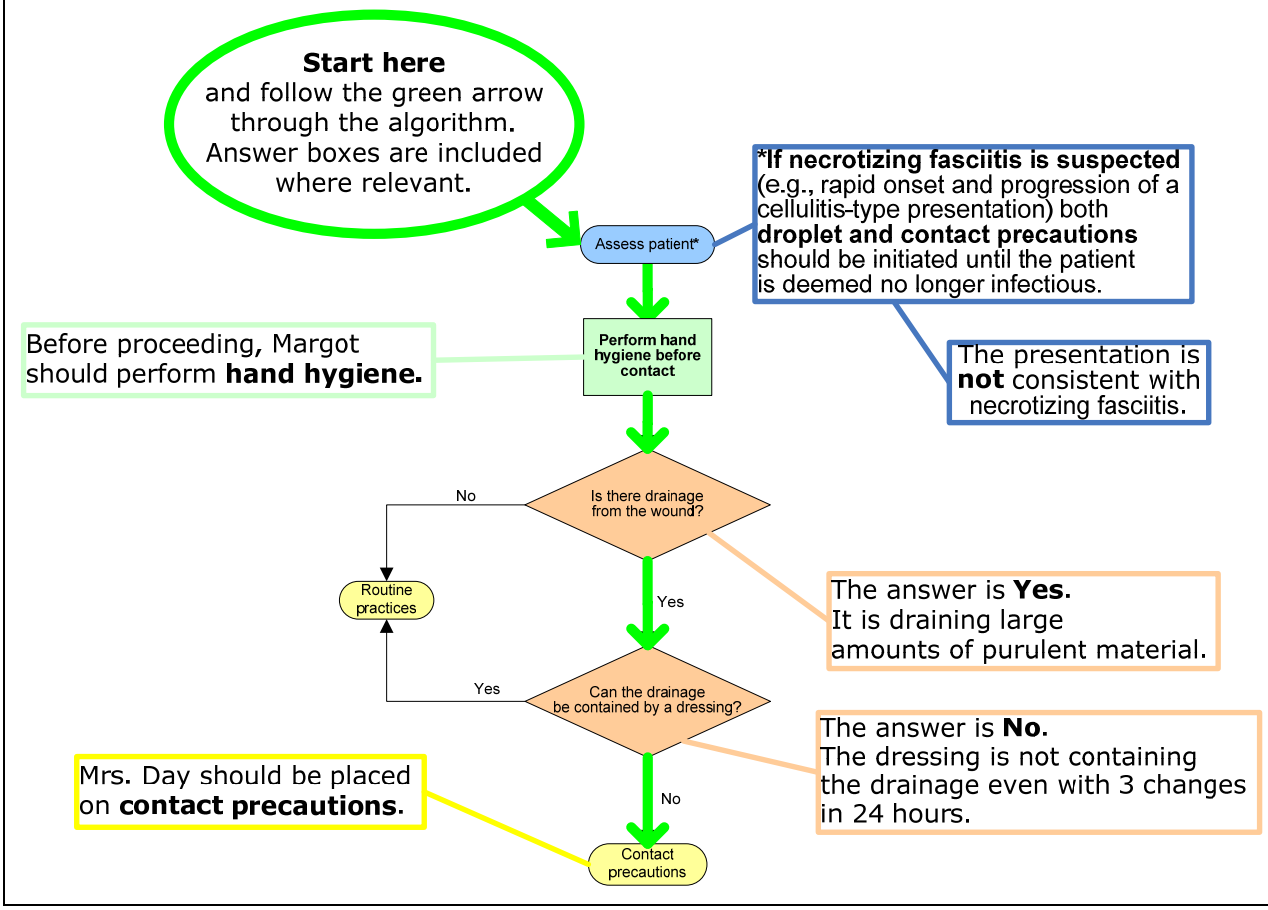
ADDITIONAL PRECAUTIONS CASE SCENARIO #5 – PATIENT WITH A DRAINING WOUND: QUESTIONS

Question 8: A few weeks have gone by and Mrs. Day's wound has healed and screening cultures have been negative for methicillin-resistant *Staphylococcus aureus* (MRSA). Does she still require additional precautions? Explain your reasoning by stating your decision at each decision point in the *Stopping or Changing Additional Precautions Algorithm*.

ADDITIONAL PRECAUTIONS CASE SCENARIO #5 – PATIENT WITH A DRAINING WOUND: QUESTIONS & ANSWERS

Mrs. Day, age 89, a patient on an acute-care ward, has a draining sacral decubitus ulcer. The dressing has been changed three times in the last 24 hours because it has been draining large amounts of purulent material that are not being contained by the dressing. Margot, a nurse, is going to change the dressing.

Question 1: What precautions are required? Explain your reasoning by stating your decision at each decision point in the *Draining Wound/Soft Tissue Infection Algorithm.*



ADDITIONAL PRECAUTIONS CASE SCENARIO #5 – PATIENT WITH A DRAINING WOUND: QUESTIONS & ANSWERS

Question 2: What are key aspects to implement or points to consider when placing a patient on the type of additional precautions identified in question 1?

Answer: Regardless of the type of additional precautions that are initiated, routine practices still apply. Mrs. Day should be placed in a private room as soon as one becomes available. Healthcare workers should wear gloves upon entering the room to care for Mrs. Day. In addition, a gown should be worn if contact is anticipated between the healthcare worker's uniform or skin and the environment (e.g., bed rails). The healthcare worker should perform appropriate hand hygiene before doing the dressing change, and after glove removal or after glove and gown removal if gowns are worn. A contact precautions sign should be placed so that it is visible to all who need to see it before entering the room or bed space, and personal protective equipment supplies need to be accessible. Non-critical patient care equipment should be dedicated for use with Mrs. Day. See the additional precautions checklist *Application of Contact Precautions for Admitted Patients in Healthcare Facilities* for other measures to be implemented.

Discussion point:

- Discuss how to set up isolation rooms, e.g., placement of clean supplies versus receptacles for waste and linen disposal, implication of the size of the room on ability to accommodate supplies and receptacles, presence of a dedicated hand washing sink.

Question 3: How would your answer to question 1 differ if Mrs. Day were uncooperative?

Answer: There would be no difference in terms of the need for contact precautions and the need to wear gloves. A gown should also be worn to protect Margot's skin or clothing from contact with drainage from the wound as such contact is likely. If the dressing change cannot be postponed to a time when Mrs. Day is cooperative, then Margot may require assistance from a fellow worker.

Question 4: How would your answer to question 1 differ if Mrs. Day were obese?

Answer: There would be no difference in terms of the need for contact precautions and the need to wear gloves. A gown should also be worn to protect Margot's skin or clothing from contact with drainage from the wound if such contact is likely. Patient's size has implications for likelihood of physical contact with Margot's clothing and delayed wound healing, not for need for precautions.

Discussion point:

- Discuss how Margot's clothing might become contaminated from material from the wound (e.g., contact with the contaminated dressing or contaminated bed linen) and how to decide whether a gown is necessary or not.

ADDITIONAL PRECAUTIONS CASE SCENARIO #5 – PATIENT WITH A DRAINING WOUND: QUESTIONS & ANSWERS

Question 5: How would your answer to question 1 differ if the dressing adequately contained the drainage?

Answer: If the dressing contained the drainage, then routine practices would apply and contact precautions would not be necessary. Margot would still need to wear gloves for changing the dressing as she would be having potential contact with body fluids and with non-intact skin. A gown should also be worn to protect her skin and clothing from contact with wound drainage if she anticipates such contact. Hand hygiene is performed prior to the dressing change and after glove removal, on leaving the patient environment.

Question 6: What microorganisms are of concern and to whom?

Answer: Microorganisms of concern are those colonizing and/or infecting the wound (e.g., *Staphylococcus aureus*, methicillin-resistant *Staphylococcus aureus*). These may be picked up by the healthcare worker, who could then carry the microorganisms to other patients, or inoculate himself/herself.

Question 7: How would your answer to question 1 differ if wound cultures confirmed the drainage was methicillin-sensitive *Staphylococcus aureus* (MSSA) positive?

Answer: The answer would remain unchanged. According to the *Draining Wound/Soft Tissue Infection Algorithm*, contact precautions are required when a wound has uncontained drainage regardless of the cause.

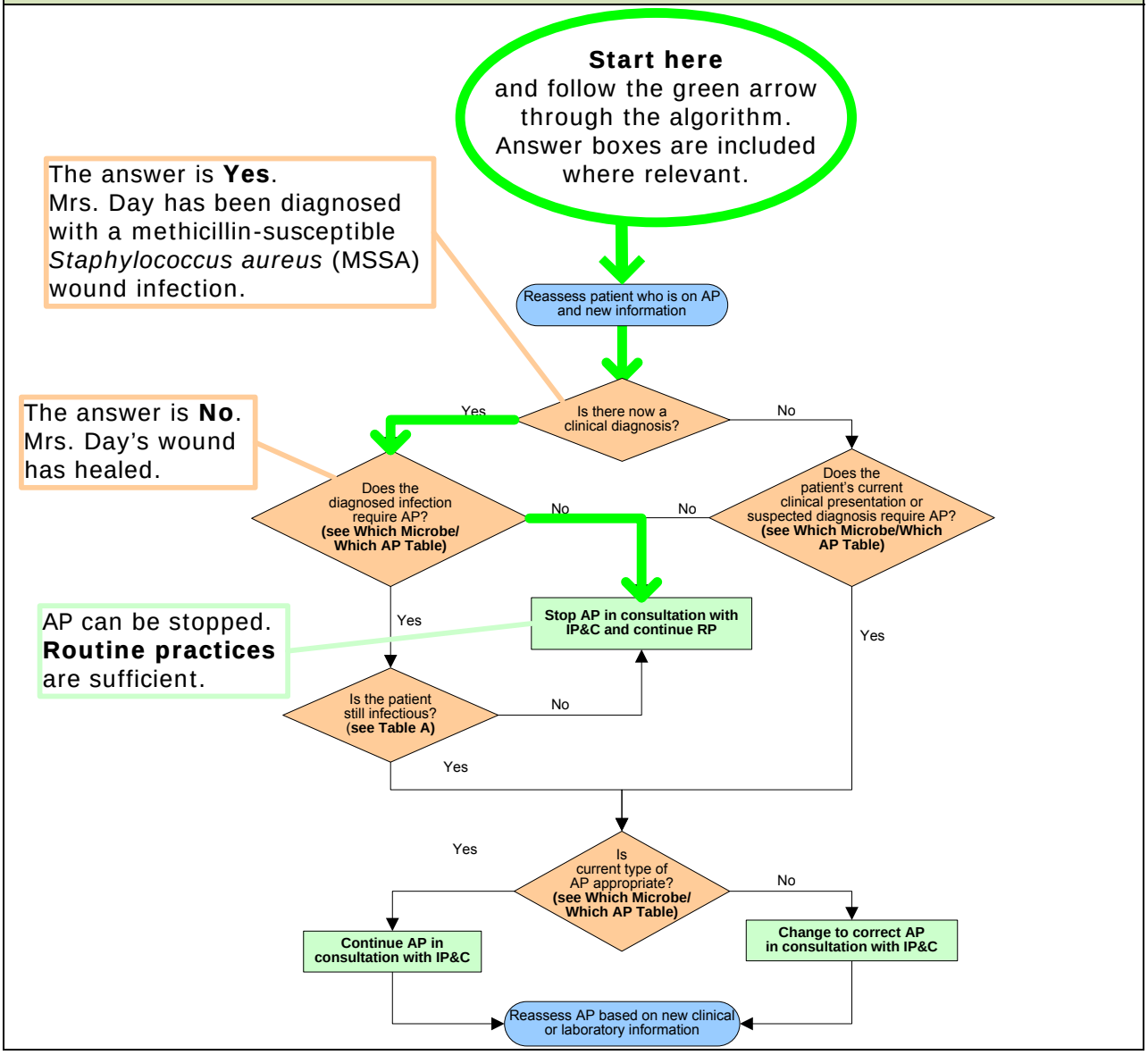
This is also confirmed in the *Which Microbe/Which Additional Precautions Table*, which says that patients with *Staphylococcus aureus*-infected draining wounds require contact precautions until drainage is resolved or contained by a dressing.

Discussion point:

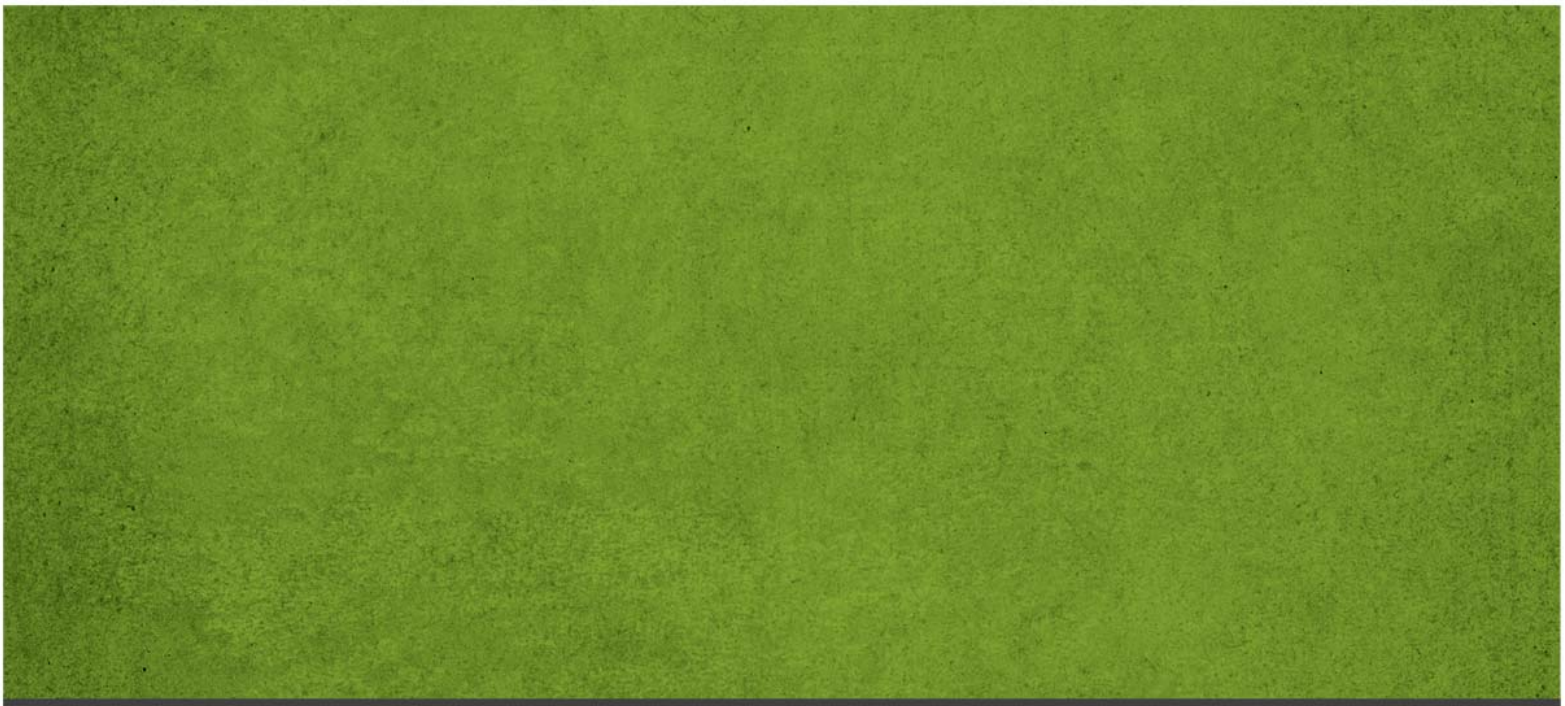
- Discuss how your answer would differ if the wound cultures confirmed methicillin-resistant *Staphylococcus aureus* (MRSA).

ADDITIONAL PRECAUTIONS CASE SCENARIO #5 – PATIENT WITH A DRAINING WOUND: QUESTIONS & ANSWERS

Question 8: A few weeks have gone by and Mrs. Day's wound has healed and screening cultures have been negative for methicillin-resistant *Staphylococcus aureus* (MRSA). Does she still require additional precautions? Explain your reasoning by stating your decision at each decision point in the *Stopping or Changing Additional Precautions Algorithm*.



PART III – PERFORMANCE CHECKLISTS TOOL SET



PART III. PERFORMANCE CHECKLISTS TOOL SET

INSTRUCTIONS

Description of the Tool Set

There are six performance checklists in the Performance Checklists Tool Set that can be used to evaluate healthcare workers when performing hand hygiene or putting on, wearing and removing personal protective equipment. The primary purpose of the first five tools is to measure performance competency after a training session. The last tool, *Appropriate Use of Personal Protective Equipment*, is used to assess whether a healthcare worker has used personal protective equipment when indicated, either in an artificial or a real-life clinical situation.

1. *Performance Checklist: Hand Hygiene*
2. *Performance Checklist: Appropriate Use of Gloves*
3. *Performance Checklist: Appropriate Use of an Isolation Gown*
4. *Performance Checklist: Appropriate Use of Facial Protection*
5. *Performance Checklist: Appropriate Use of a Respirator*
6. *Performance Checklist: Appropriate Use of Personal Protective Equipment*

The first five performance checklists include questions and answers to assess the healthcare worker's understanding of issues related to hand hygiene and personal protective equipment use.

How to Use the Tool Set

- Select the relevant checklist for the skill that is to be observed.
- As per the instructions at the top of each checklist, observe the healthcare worker performing the skill and indicate on the checklist if the specified criteria were performed correctly.
- Ask the healthcare worker the questions associated with the checklist.
- Provide feedback to the healthcare worker regarding his or her performance and answers.

Local Adaptation

This Performance Checklists Tool Set is based on PHAC's guidelines, *Routine Practices and Additional Precautions for Preventing the Transmission of Infection in Health Care and Hand Hygiene Practices in Health Care*. Each healthcare setting is encouraged to adapt and add to this tool set to accommodate local realities such as local legislation, regulations, occupational health and safety requirements, guidelines or evidence-informed practice.

- All of the performance checklists are relevant for all healthcare workers.

The Performance Checklists Tool Set was adapted from *The development of performance checklists assessing healthcare workers' knowledge and skills on the use of personal protective equipment in acute care settings* by Ozua, M.L., Moralejo, D.M. Unpublished Master's Practicum Report, 2009, Memorial University of Newfoundland.

PERFORMANCE CHECKLIST: HAND HYGIENE

Name of healthcare worker (HCW):_____ Date: _____

Instructions:

- In the **Indications for Hand Hygiene** section (next page), identify the relevant item.
- Observe the HCW from the beginning to the end of the procedure.
- Place a check mark next to the relevant item if performed correctly by HCW.
- Write in the **Comments** section of the table any questions, comments or suggestions.
- Provide feedback to the HCW at the end of the observation period.
- Refer to the **Questions** section to further assess the HCW's knowledge.

Hand Hygiene Using Alcohol-Based Hand Rub (ABHR)	
There is an appropriate indication for hand hygiene with ABHR.	☐
Explains correct rationale for performing hand hygiene with ABHR.	☐
Rolls up long sleeves and pushes up wrist watch.	☐
Ensures that hands are dry.	☐
Follows manufacturer's instructions for the amount of product to use and for the recommended contact time.	☐
Applies enough product to cover all surfaces: fingers, finger tips, between fingers, palms and backs of hands and thumbs, and base of thumb, and if a ring is worn, on and under the ring.	☐
Rubs all hand surfaces until the product has dried.	☐
Allows ABHR to dry prior to contact with an oxygen-rich environment, prior to putting gloves on, or prior to proceeding with patient care.	
Hand Washing Using Soap and Water	
There is an appropriate indication for hand washing with soap and water.	☐
Explains correct rationale for performing hand washing.	☐
Uses a designated staff hand washing sink.	☐
Rolls up long sleeves and pushes up wrist watch.	☐
Wets hands with warm running water.	☐
Applies enough soap to lather all surfaces of the hands, including fingers, finger tips, between fingers, palms and backs of hands and thumbs, and base of thumb, and if a ring is worn, on and under the ring.	☐
Vigorously rubs the palms and backs of each hand, interlocking and interfacing fingers to ensure fingers and thumbs are rubbed to remove visible soil and/or organic material; this will likely take 15-30 seconds.	☐
Rinses hands thoroughly, in a downward position under running water.	☐
Dries hands thoroughly by patting with a single-use towel.	☐
Turns manual faucets off with paper towels ensuring that hands are not recontaminated in the process.	☐
General	
Hand hygiene is done at point of care.	☐
Nails are well manicured and trimmed.	☐
Artificial nails or other nail enhancements are not worn.	☐
Comments:	

Indications for Hand Hygiene Identify the relevant hand hygiene indication(s) for the observed HCW	
Hands are contaminated. This includes:	
- Before and after contact with a patient, even if gloves were worn.	☐
- After contact with the patient environment (inanimate objects in the patient's vicinity including medical equipment, environmental surfaces such as bed tables or door handles) or after contact with items known or considered likely to be contaminated (e.g., bedpans, urinals, wound dressings), even if gloves were worn.	☐
- Before moving to a clean body-site from a contaminated body-site during care of the same patient.	☐
- After known or potential contact with blood, body fluids, respiratory and/or other secretions and excretions, exudates from wounds, mucous membranes, or non intact skin even if gloves were worn and regardless of whether source is patient or self.	☐
- Immediately after removing gloves to prevent contaminating other patients, patient care items or environmental surfaces.	☐
Before any procedure requiring aseptic technique.	☐
Before feeding patients or preparing food or oral medications.	☐
Use soap and water, instead of ABHR for the following indications:	
- To remove visible soil and/or organic material.	☐
- When a build-up of ABHR product feels uncomfortable on the hands following multiple applications (note: ABHR remains effective in this situation).	☐
- After caring for a patient with norovirus or *Clostridium difficile* infection, at the point of care and after glove removal.	☐
- During outbreaks of or in settings with high transmission of norovirus or *Clostridium difficile*.	☐
- Immediately after using toilet facilities.	☐

Questions
1. What is the purpose of hand hygiene? Who does hand hygiene protect? Explain how hand hygiene protects the individual(s).
2. Identify the indications for hand hygiene.
3. Are gloves a substitute for hand hygiene? Explain your rationale.
4. Explain the importance of good skin care for the hands.

PERFORMANCE CHECKLIST: HAND HYGIENE – QUESTIONS WITH ANSWERS

Question 1: What is the purpose of hand hygiene? Who does hand hygiene protect? Explain how hand hygiene protects the individual(s).

Answer: Hand hygiene removes microorganisms that are on the hands of the HCW. Hand washing physically removes microorganisms, and the use of alcohol-based hand rub kills them. This reduces transmission to the HCW (e.g., if he or she touches eyes, nose or mouth), and prevents transmission to other patients. Hand hygiene thus protects both the HCW and patients.

Question 2: Identify the indications for hand hygiene.

Answer:

1) Hands are contaminated. This includes:

- Before and after contact with a patient, even if gloves were worn.
- After contact with the patient environment (inanimate objects in the patient's vicinity including medical equipment, environmental surfaces such as bed tables or door handles) or after contact with items known or considered likely to be contaminated (e.g., bedpans, urinals, wound dressings), even if gloves were worn.
- Before moving to a clean body site from a contaminated body site during care of the same patient.
- Immediately after removing gloves to prevent contaminating other patients, patient care items or environmental surfaces.

2) Before any procedure requiring aseptic technique.

3) Before feeding patients or preparing food or oral medications.

Soap and water should be used, instead of ABHR for the following indications:

4) To remove visible soil and/or organic material.

5) When a build-up of ABHR product feels uncomfortable on the hands following multiple applications (note: ABHR remains effective in this situation).

6) After caring for a patient with norovirus or *Clostridium difficile* infection, at the point of care and after glove removal.

7) Immediately after using toilet facilities.

Notes:

- Hand hygiene with soap and water should be performed at a designated hand washing sink. If one is not easily accessible, perform hand hygiene with ABHR at point of care and wash hands with soap and water as soon as possible.
- Hand hygiene using soap and water, instead of ABHR, should be performed during outbreaks of or in settings with high transmission of norovirus or *Clostridium difficile*.

Question 3: Are gloves a substitute for hand hygiene? Explain your rationale.

Answer: Gloves are not a substitute for hand hygiene. Gloves do not completely eliminate hand contamination. Hands can become contaminated during the wearing of gloves through glove defects, or during their removal. Therefore, hand hygiene should be performed after removal of gloves.

Question 4: Explain the importance of good skin care for the hands.
Answer: Damaged skin is known to shed microorganisms and painful cracked hands negatively impact adherence to hand hygiene. Cracked or damaged skin can also provide a portal of entry for microorganisms and can lead to changes in skin flora. Chronic dermatitis may also put the HCW at risk of occupational acquisition of bloodborne pathogens. Moisturizing improves and maintains skin health and reduces harbouring and shedding of microorganisms.

PERFORMANCE CHECKLIST: APPROPRIATE USE OF GLOVES*

Name of healthcare worker (HCW):_____ Date: _____

Instructions:

- In the **Indications for Use of Gloves** section (next page), identify the relevant item.
- Observe the HCW from the beginning to the end of the procedure.
- Place a check mark next to the relevant item if performed correctly by HCW.
- Write in the **Comments** section of the table any questions, comments or suggestions.
- Provide feedback to the HCW at the end of the observation period.
- Refer to the **Questions** section to further assess the HCW's knowledge.

Appropriate Use of Gloves	
Performs adequate hand hygiene prior to putting on gloves. (see **Hand Hygiene: Criteria for Adequacy** section)	☐
There is an appropriate indication for the use of gloves.	☐
Explains correct rationale for using gloves.	☐
Puts gloves on directly before contact with the patient or just before task or procedure requiring gloves.	☐
Selects gloves with fit and durability appropriate to the task.	☐
Positions gloves properly. If a gown is worn, pulls gloves over gown cuffs or sleeve.	☐
Does not use the same pair of gloves for the care of more than one patient.	☐
Does not contaminate other items outside patient's immediate environment by touching with gloved hands.	☐
Removes gloves and performs hand hygiene: - Immediately after patient care activities that involve contact with materials that may contain microorganisms before continuing care of that patient; - Before leaving patient's environment; - Before touching clean environmental surfaces.	☐
Removes gloves without contaminating skin, e.g., using glove-to-glove/skin-to-skin technique: - Grasps outside edge near the wrist of first glove and peels it away, rolling the glove inside-out; - Reaches under the second glove and peels away, removing both gloves as a unit; - Discards immediately into a waste receptacle.	☐
Removes personal protective equipment and performs hand hygiene (HH) in correct order: gloves, gown, HH, eyewear, mask/respirator, HH (additional HH opportunities may be included).	☐
Demonstrates proper disposal of gloves into a no-touch waste receptacle immediately following their intended use. Does not reuse gloves.	☐
Comments:	

NOTE:

* Gloves: clean, single-use, non-sterile

Indications for Use of Gloves Identify the relevant glove-use indication(s) for the observed HCW	
Patient is on contact precautions (acute care).	☐
Patient is on contact precautions and direct personal care of patient is required or direct contact with frequently touched environmental surfaces is anticipated (long-term care).	☐
While providing direct care if HCW has open cuts or abrasions on the hands.	☐
Anticipates physical contact with blood, body fluids, secretions and excretions, mucous membranes, draining wounds, or non-intact skin (including skin lesions or rash). [Specify]	☐
Anticipates handling items or touching surfaces visibly or potentially soiled with blood, body fluids, secretions or excretions. [Specify]	☐
Artificial scenario: Demonstration of skill.	☐
Other. [Specify]	☐

Hand Hygiene: Criteria for Adequacy Natural nails are short, and if worn, nail polish is not chipped. Artificial nails, nail enhancements or extenders should not be worn.	
Hand Hygiene Using Alcohol-Based Hand Rub (ABHR)	**Hand Washing with Soap and Water**
Rolls up long sleeves and pushes up wrist watch.	Rolls up long sleeves and pushes up wrist watch.
Ensures hands are dry before using ABHR.	Wets hands with warm running water.
Follows manufacturer's instructions for the amount of product to use and for the recommended contact time.	Applies enough soap to lather all surfaces of the hands, including fingers, finger tips, between fingers, palms and backs of hands and thumbs, and base of thumb, and if a ring is worn, on and under the ring.
Applies enough product to wet fingers, finger tips, between fingers, palms and backs of hands and thumbs, and base of thumb, and if a ring is worn, on and under the ring.	Vigorously rubs the palms and backs of each hand, interlocking and interfacing fingers to ensure fingers and thumbs are rubbed to remove visible soil and/or organic material; this will likely take 15-30 seconds.
Rubs all hand surfaces until the product has dried.	Rinses hands thoroughly, in a downward position under running water.
Allows ABHR to dry prior to contact with an oxygen rich environment, prior to putting gloves on, or prior to proceeding with patient care.	Dries hands thoroughly by patting with a single-use towel.
	Turns manual faucets off with paper towels ensuring that hands are not recontaminated in the process.

Questions
1. What is the purpose of using gloves? Who do gloves protect (patient, HCW, both)? How do gloves protect these individuals?
2. When a HCW gives a bed bath to a bed-bound patient then takes the blood pressure, is it necessary to wear gloves? If yes, when should the HCW change or remove the gloves? Explain your rationale.
3. Is it appropriate to use the same gloves when providing care to all the patients in one room or unit? Explain your rationale.
4. Are disposable gloves an appropriate substitute for hand hygiene? Explain your rationale.
5. When gloves are worn with gown and facial protection (mask and eye protection, face shield, or mask with visor attachment), what is the rationale for removing gloves first and performing hand hygiene after removal of the gloves and gown, and before removal of facial protection?

PERFORMANCE CHECKLIST: APPROPRIATE USE OF GLOVES – QUESTIONS WITH ANSWERS

Question 1: What is the purpose of using gloves? Who do gloves protect (patient, HCW, both)? How do gloves protect these individuals?
Answer: The purpose of gloves is to prevent the HCW from contact with potentially contaminated items. Gloves serve as barriers against infectious microorganisms that may be present in patients' blood, body fluids, secretions, excretions, mucous membranes, non-intact skin, potentially contaminated intact skin and environmental surfaces. Gloves also protect the patients from microorganisms that may be carried on a HCW's hands. Gloves thus protect both patients and HCWs.
Question 2: When a HCW gives a bed bath to a bed-bound patient then takes the blood pressure, is it necessary to wear gloves? If yes, when should the HCW change or remove the gloves? Explain your rationale.
Answer: Gloves should be worn when there is contact with body fluids, secretions, non-intact skin and potentially contaminated intact skin; wearing gloves to give a bed-bath may not be necessary depending on the patient and situation. If gloves are worn while giving a bath to a bed-bound patient, the HCW should remove the gloves and perform hand hygiene before going on to the next task. This is based on the assumption that the gloves have become contaminated, even though the HCW may not be aware of the contamination. The HCW does not need to wear gloves when taking the blood pressure (which involves contact with intact skin) unless the patient is on contact precautions.
Question 3: Is it appropriate to use the same gloves when providing care to all the patients in one room or unit? Explain your rationale.
Answer: It is not appropriate to use the same gloves when providing care to all patients in one room or unit as doing so might cause cross-transmission of microorganisms. Gloves should be removed after providing care to one patient and hand hygiene performed before going on to the next patient or task.
Question 4: Are disposable gloves an appropriate substitute for hand hygiene? Explain your rationale.
Answer: Gloves are not an appropriate substitute for hand hygiene. Internal contamination may have occurred while wearing and removing gloves. Some disposable gloves have defects, e.g., presence of holes, thus leakage of fluid is possible that can lead to contamination of hands. Therefore, hand hygiene should be performed after removal of gloves.
Question 5: When gloves are worn with gown and facial protection, what is the rationale for removing gloves first and performing hand hygiene after removal of the gloves and gown, and before removal of facial protection?
Answer: After contact with the patient and contaminated items or surfaces in the patient's room, gloves are considered soiled or contaminated. Removing the gloves first reduces the opportunity of self-contamination when removing remaining personal protective equipment (PPE) and/or reduces transfer of microorganisms from the gloves to environmental surfaces or other PPE. Hand hygiene reduces, if not eliminates, microorganisms that are on the HCW's hands. Hands are considered contaminated after removal of gloves and gown. Therefore hand hygiene is indicated before removal of remaining PPE to avoid self-contamination at that time. Hand hygiene is needed again after the removal of the facial protection as contamination of the hands could have occurred during its removal.

PERFORMANCE CHECKLIST: APPROPRIATE USE OF AN ISOLATION GOWN

Name of healthcare worker (HCW):_____ Date: _____

Instructions:

- In the **Indications for Use of an Isolation Gown** section (next page), identify the relevant item.
- Observe the HCW from the beginning to the end of the procedure.
- Place a check mark next to the relevant item if performed correctly by HCW.
- Write in the **Comments** section of the table any questions, comments or suggestions.
- Provide feedback to the HCW at the end of the observation period.
- Refer to the **Questions** section to further assess the HCW's knowledge.

Appropriate Use of an Isolation Gown	
Performs adequate hand hygiene before gowning. (see **Hand Hygiene: Criteria for Adequacy** section)	☐
There is an appropriate indication for use of a gown. (see **Indications for Use of an Isolation Gown** section)	☐
Explains correct rationale for use of a gown.	☐
Ensures the gown is long enough to cover the clothes and the sleeves no shorter than just above the wrist.	☐
Puts on gown at an appropriate time, e.g., just before entering the patient's environment.	☐
Puts the gown on with the opening at the back, with edges overlapping thus covering as much clothing as possible.	☐
Ties the gown at the waist and neck.	☐
Ensures the cuffs of the gown are covered by gloves.	☐
Removes the gown by undoing the neck and waist ties, and removes the gown without touching skin/clothing or agitating the gown unnecessarily, then turns the gown inside out on itself, and rolls it up.	☐
Removes the wet gown immediately to prevent wicking action that facilitates the passage of microorganisms through the fabric.	☐
Removes the gown immediately after the indication for use and places it in a no-touch receptacle and performs hand hygiene (HH) before leaving the patient's environment.	☐
Removes personal protective equipment and performs HH in correct order: gloves, gown, HH, eye protection, mask/respirator, HH (additional HH opportunities may be included).	☐
Does not reuse the gown once removed, even for repeated contacts with the same patient.	☐
Does not wear the same gown for successive patients.	☐
Comments:	

Indications for Use of an Isolation Gown Identify the relevant indication for gown use for the observed HCW	
Patient is on contact precautions and it is anticipated that clothing or forearms will be in direct contact with the patient or with environmental surfaces or objects in the patient care environment.	☐
Anticipates splashes or sprays or contact with blood, body fluids, secretions or excretions, or contact with contaminated surfaces, with possible soiling of clothing and exposed skin.	☐
Artificial scenario: Demonstration of skill.	☐
Other. [Specify]	☐

Hand Hygiene: Criteria for Adequacy Natural nails are short, and if worn, nail polish is not chipped. Artificial nails, nail enhancements or extenders should not be worn.	
Hand Hygiene Using Alcohol-Based Hand Rub (ABHR)	**Hand Washing with Soap and Water**
Rolls up long sleeves and pushes up wrist watch.	Rolls up long sleeves and pushes up wrist watch.
Ensures hands are dry before using ABHR.	Wets hands with warm running water.
Follows manufacturer's instructions for the amount of product to use and for the recommended contact time.	Applies enough soap to lather all surfaces of the hands, including fingers, finger tips, between fingers, palms and backs of hands and thumbs, and base of thumb, and if a ring is worn, on and under the ring.
Applies enough product to wet fingers, finger tips, between fingers, palms and backs of hands and thumbs, and base of thumb, and if a ring is worn, on and under the ring.	Vigorously rubs the palms and backs of each hand, interlocking and interfacing fingers to ensure fingers and thumbs are rubbed to remove visible soil and/or organic material; this will likely take 15-30 seconds.
Rubs all hand surfaces until the product has dried.	Rinses hands thoroughly, in a downward position under running water.
Allows ABHR to dry prior to contact with an oxygen rich environment, prior to putting gloves on, or prior to proceeding with patient care.	Dries hands thoroughly by patting with a single-use towel.
	Turns manual faucets off with paper towels ensuring that hands are not recontaminated in the process.

Questions
1. What is the purpose of using an isolation gown? Who does the gown protect (patient, HCW, both)? How does the gown protect these individuals?
2. Is it always necessary to put on an isolation gown when entering the room of patients who are on contact precautions? Explain your reasoning.
3. For patients not on contact precautions, when should a gown be put on? Explain your reasoning.
4. Why should the isolation gown be removed prior to leaving the patient's environment?
5. When putting on an isolation gown, what is the rationale for wearing it with the opening at the back, wrapping it around you and tying it at both the neck and waist?
6. How do you remove an isolation gown? How do you fold it before disposing of it? Why?

PERFORMANCE CHECKLIST: APPROPRIATE USE OF AN ISOLATION GOWN – QUESTIONS WITH ANSWERS

Question 1: What is the purpose of using an isolation gown? Who does the gown protect (patient, HCW, both)? How does the gown protect these individuals?
Answer: The purpose of an isolation gown is to protect the HCW's skin and clothing from splashes of blood and/or body fluids. The gown also serves as a barrier between the HCW and the patient or infected contaminated items or surfaces. This in turn will prevent the transfer of microorganisms to other patients who may come in direct contact with the HCW's contaminated uniform. The gown thus protects both the HCW and patients.
Question 2: Is it always necessary to put on an isolation gown when entering the room of patients who are on contact precautions? Explain your reasoning.
Answer: When anticipating contact with the patient, patient's bed and other equipment inside the patient's room, all of which are considered contaminated, it is necessary to put on a gown. Otherwise, a gown is required as per point of care risk assessment.
Question 3: For patients not on contact precautions, when should a gown be put on? Explain your reasoning.
Answer: When anticipating blood and/or body fluids splashes, a gown should be put on to protect the HCW's skin and clothing. If splashing with dirty (used) water is anticipated when giving a patient a bed bath, a gown should be worn.
Question 4: Why should the isolation gown be removed prior to leaving the patient's environment?
Answer: A used gown is considered contaminated. It should not be worn outside of the patient's environment to prevent the transfer of microorganisms from the used gown to environmental surfaces outside of the patient's environment.
Question 5: When putting on an isolation gown, what is the rationale for wearing it with the opening at the back, edges overlapping and tying it at both the neck and waist?
Answer: Keeping the opening of the gown in the back protects the front body part of the wearer. The purpose for overlapping the edges is to cover or protect the HCW's uniform or clothing from contact with fluids and environmental surfaces. The purpose for tying it at the neck area is to prevent the top of the gown from falling off the shoulder. Ties are tied around the waist to prevent unnecessary contamination of the uniform.
Question 6: How do you remove an isolation gown? How do you fold it before disposing of it? Why?
Answer: When removing a gown, the HCW should remember the principle that the front part of the gown is considered contaminated. The gown should be folded in such a way that the contaminated part of the gown is inside and the inside part is out. This is to prevent touching the contaminated part of the gown.

PERFORMANCE CHECKLIST: APPROPRIATE USE OF FACIAL PROTECTION*

Name of healthcare worker (HCW):_____ Date: _____

Instructions:

- In the **Indications for Facial Protection** section (next page), identify the relevant item.
- Observe the HCW from the beginning to the end of the procedure.
- Place a check mark next to the relevant item if performed correctly by HCW.
- Write in the **Comments** section of the table any questions, comments or suggestions.
- Provide feedback to the HCW at the end of the observation period.
- Refer to the **Questions** section to further assess the HCW's knowledge.

Appropriate Use of Facial Protection	
Performs adequate hand hygiene prior to putting on facial protection. (see **Hand Hygiene: Criteria for Adequacy** section)	☐
There is an appropriate indication for use of facial protection.	☐
Explains correct rationale for use of facial protection.	☐
Puts on facial protection at an appropriate time, e.g., before entering patient room/area.	☐
Wears facial protection as instructed by manufacturer, e.g., secured appropriately: if mask worn, correctly tied on top of head and at neck, nose bar bent so secure over bridge of nose, minimal gap between the mask and the face.	☐
Ensures eyes, nose, mouth and chin are covered when wearing facial protection.	☐
Wears eye or facial protection over prescription eye glasses if applicable.	☐
Avoids touching facial protection during activity and prevents self-contamination during wearing and disposal.	☐
Handles fogging correctly: e.g., hand hygiene (HH) before removal, clears fog, replaces with a better fit.	☐
Removes facial protection carefully by the straps or ties without contaminating self (skin, hands or clothes).	☐
Discards the facial protection immediately after the intended use into a no-touch waste receptacle and performs HH.	☐
If eye protection or face shield are reusable, cleans and disinfects as per organizational policy.	☐
Does not dangle facial protection around the neck or position on head when not in use.	☐
Does not reuse the facial protection or wear in the care of successive patients unless in a cohort setting.	☐
If a mask is worn, changes the mask if it becomes wet or soiled (from the wearer's breathing or due to an external splash).	☐
Changes the mask if breathing becomes difficult.	☐
Removes personal protective equipment and performs HH in correct order: gloves, gown, HH, eye protection, mask/respirator, HH (additional HH opportunities may be included).	☐
Comments:	

NOTE:

* Facial protection: masks and eye protection, face shields, or masks with visor attachment.

Indications for Facial Protection Identify the relevant facial-protection indication(s) for the observed HCW.	
Anticipates splashes or sprays of blood, body fluids, secretions or excretions including respiratory secretions with possible exposure of mucous membranes of the eyes, nose and mouth. [Specify]	☐
Within 2 metres of and providing care to a patient with symptoms of acute respiratory viral infection who is coughing at the time of interaction or if performing procedures that may result in coughing.	☐
Care of a patient with rubella or mumps, if HCW is susceptible.	☐
Patient is on droplet precautions.	☐
To perform epidural/spinal procedure/central line insertion (mask only required unless splash or spray of blood or body fluids/secretions anticipated).	☐
Artificial scenario: Demonstration of skill.	☐
Other. [Specify]	☐

Hand Hygiene: Criteria for Adequacy Natural nails are short, and if worn, nail polish is not chipped. Artificial nails, nail enhancements or extenders should not be worn.	
Hand Hygiene Using Alcohol-Based Hand Rub (ABHR)	**Hand Washing with Soap and Water**
Rolls up long sleeves and pushes up wrist watch.	Rolls up long sleeves and pushes up wrist watch.
Ensures hands are dry before using ABHR.	Wets hands with warm running water.
Follows manufacturer's instructions for the amount of product to use and for the recommended contact time.	Applies enough soap to lather all surfaces of the hands, including fingers, finger tips, between fingers, palms and backs of hands and thumbs, and base of thumb, and if a ring is worn, on and under the ring.
Applies enough product to wet fingers, finger tips, between fingers, palms and backs of hands and thumbs, and base of thumb, and if a ring is worn, on and under the ring.	Vigorously rubs the palms and backs of each hand, interlocking and interfacing fingers to ensure fingers and thumbs are rubbed to remove visible soil and/or organic material; this will likely take 15-30 seconds.
Rubs all hand surfaces until the product has dried.	Rinses hands thoroughly, in a downward position under running water.
Allows ABHR to dry prior to contact with an oxygen rich environment, prior to putting gloves on, or prior to proceeding with patient care.	Dries hands thoroughly by patting with a single-use towel.
	Turns manual faucets off with paper towels ensuring that hands are not recontaminated in the process.

Questions
1. What is the purpose of using facial protection? Who is protected (HCW, patient, both)? Explain how they help protect the individuals.
2. Why is wearing eyeglasses considered to be insufficient eye protection?
3. Why can't the wearer place the facial protection around the neck area or inside the pocket?
4. If wearing a mask, what is the rationale for not touching the front of the mask during use and when removing it? Is the risk of self-contamination the same if wearing a face shield?
5. How does a HCW avoid contaminating himself/herself while wearing facial protection?
6. What is the rationale for removing the facial protection before exiting the patient's room?
7. If you only use the mask for less than 5 minutes, can you reuse it? Why or why not?

PERFORMANCE CHECKLIST: APPROPRIATE USE OF FACIAL PROTECTION – QUESTIONS WITH ANSWERS

Question 1: What is the purpose of using facial protection? Who is protected (HCW, patient, both)? Explain how they help protect the individuals.
Answer: Eye protection (e.g., goggles), face shields and mask visor attachments serve as barriers against splashes of blood or body fluids. The purpose of these items is to protect the mucous membranes of the eyes from splashing of blood or body fluids while performing patient care activities and thus from microorganisms found in these body fluids. Note that face shields also protect the nose and mouth, as described in the next paragraph. Therefore, they protect the wearer/HCW. The purpose of the mask and face shield is to protect the mucous membranes of the nose and the mouth of the wearer/HCW from contact with microorganisms that are present in respiratory secretions of others who are coughing or sneezing. The mask and face shield are also used when anticipating sprays or splashes of blood, body fluids, secretions, and excretions during patient care activity. They prevent any microorganisms contained in body fluids from coming in contact with the mucous membranes of the nose and mouth of the wearer/HCW. The mask and face shield therefore protect the wearer/HCW when used for these reasons. The mask also protects the wearer/HCW from spreading his/her own respiratory secretions that may contain infectious microorganisms to others. This protects others, who could be HCWs or patients or others, and protects the environment from contamination by the droplets of respiratory secretions.
Question 2: Why is wearing eyeglasses considered to be insufficient eye protection?
Answer: Eyeglasses do not have protective guards around their frame. Body fluids, when splashed, can enter the eyes through the gaps.
Question 3: Why can't the wearer place the facial protection around the neck area or inside the pocket?
Answer: Once the facial protection has been worn, it is considered contaminated. Placing contaminated facial protection around the neck area or inside the pocket will contaminate the wearer/HCW.
Question 4: If wearing a mask, what is the rationale for not touching the front of the mask during use and when removing it? Is the risk of self-contamination the same if wearing a face shield?
Answer: After being worn, the front part of the mask is considered contaminated. Therefore, when a HCW touches the front of the mask during care, the HCW contaminates his or her hands and can transmit the microorganisms to others or to the environment. Conversely, if the hands became contaminated during care and touch the front of the mask, the mask may become contaminated. Because masks are porous and become damp with wearing, a wicking action may occur that facilitates the passage of microorganisms through the mask. After being worn, the front part of the face shield is considered contaminated. Therefore, when a HCW touches the front of the face shield during care, the HCW contaminates his or her hands and can transmit the microorganisms to others or to the environment. However, face shields are non-porous so there is no wicking action during wearing.

Question 5: How does a HCW avoid contaminating himself/herself while wearing facial protection?
Answer: The HCW should avoid touching the front of the facial protection regardless whether it is a mask, face shield, visor or goggles. Facial protection should be removed upon completion of the task and not be allowed to contaminate clothing. For example, the HCW should not allow the front of the mask to fall on the chest and should not place the mask on the neck area. The HCW needs to consciously make the effort to avoid self-contamination and be aware of his/her own movements and actions.
Question 6: What is the rationale for removing the facial protection before exiting the patient's room?
Answer: After facial protection is worn, it is considered soiled or contaminated. Removing the facial protection before exiting the patient's room prevents the spread of microorganisms outside the room.
Question 7: If you only use the mask for less than 5 minutes, can you reuse it? Why or why not?
Answer: Once a mask is worn, it is considered soiled or contaminated. It is not possible to remove it, store it and put it on again without contaminating oneself or the environment. As a mask is designed to be disposable and for single usage, it should never be reused regardless of duration of use.

PERFORMANCE CHECKLIST: APPROPRIATE USE OF A RESPIRATOR*

Name of healthcare worker (HCW):_____ Date: _____

Instructions:

- In the **Indications for Use of a Respirator** section (next page), identify the relevant item.
- Observe the HCW from the beginning to the end of the procedure.
- Place a check mark next to the relevant item if performed correctly by HCW.
- Write in the **Comments** section of the table any questions, comments or suggestions.
- Provide feedback to the HCW at the end of the observation period.
- Refer to the **Questions** section to further assess the HCW's knowledge.

Appropriate Use of a Respirator	
Performs adequate hand hygiene prior to putting on respirator. (See **Hand Hygiene: Criteria for Adequacy** section)	☐
There is an appropriate indication for use of a respirator.	☐
Explains correct rationale for using a respirator.	☐
Selects a respirator for which has been fit tested.	☐
Ties the respirator or places elastic bands correctly to hold it in place.	☐
Performs a seal check and ensures adequate fit.	☐
Avoids self-contamination by not touching the respirator on its external surface during use or disposal.	☐
Removes respirator carefully by straps without touching its front and contaminating hands.	☐
Does not dangle respirator around the neck when not in use.	☐
Does not reuse disposable respirator.	☐
Changes respirator if it becomes wet or soiled (from the wearer's breathing or due to an external splash).	☐
Changes the respirator if breathing becomes difficult.	☐
Removes personal protective equipment and performs hand hygiene (HH) in correct order: gloves, gown, HH, eyewear, mask/respirator, HH (additional HH opportunities may be included).	☐
Discards the disposable respirator immediately after its use, outside patient's room, into a no-touch waste receptacle and performs hand hygiene.	☐
As per organizational policy, places reusable respirator into appropriate receptacle for reprocessing.	☐
Does not use respirator for successive patients unless in a cohort setting.	☐
Comments:	

NOTE:

* Respirator: The most common respirator used in the healthcare setting is a disposable N95 half-face piece filtering respirator (N95 respirator).

Indications for Use of a Respirator Identify the relevant indication for use of a respirator by the observed HCW	
Patient is on airborne precautions for suspect or confirmed tuberculosis.	☐
Patient is on airborne precautions for other airborne infections (varicella, measles, disseminated zoster, localized zoster in immunocompromised host) to which HCW is susceptible.	☐
Draining infectious tuberculosis skin lesions are present and procedures that would aerosolize viable organisms (e.g., irrigation, incision and drainage) are performed.	☐
Artificial scenario: Demonstration of skill.	☐
Other. [Specify]	☐

Hand Hygiene: Criteria for Adequacy Natural nails are short, and if worn, nail polish is not chipped. Artificial nails, nail enhancements or extenders should not be worn.	
Hand Hygiene Using Alcohol-Based Hand Rub (ABHR)	**Hand Washing with Soap and Water**
Rolls up long sleeves and pushes up wrist watch.	Rolls up long sleeves and pushes up wrist watch.
Ensures hands are dry before using ABHR.	Wets hands with warm running water.
Follows manufacturer's instructions for the amount of product to use and for the recommended contact time.	Applies enough soap to lather all surfaces of the hands, including fingers, finger tips, between fingers, palms and backs of hands and thumbs, and base of thumb, and if a ring is worn, on and under the ring.
Applies enough product to wet fingers, finger tips, between fingers, palms and backs of hands and thumbs, and base of thumb, and if a ring is worn, on and under the ring.	Vigorously rubs the palms and backs of each hand, interlocking and interfacing fingers to ensure fingers and thumbs are rubbed to remove visible soil and/or organic material; this will likely take 15-30 seconds.
Rubs all hand surfaces until the product has dried.	Rinses hands thoroughly, in a downward position under running water.
Allows ABHR to dry prior to contact with an oxygen rich environment, prior to putting gloves on, or prior to proceeding with patient care.	Dries hands thoroughly by patting with a single-use towel.
	Turns manual faucets off with paper towels ensuring that hands are not recontaminated in the process.

Questions
1. What is the purpose of using a respirator? Who does it protect (HCW, patient, both)? Explain how it helps protect the individual(s).
2. When should a respirator be worn?
3. What is the purpose for respirator fit-testing?
4. What is the purpose of a seal check? How is it done? When is it done?
5. How does one prevent contaminating oneself while wearing a respirator?
6. What is the rationale for not touching the front of the respirator during care and removal?
7. Why does a HCW who is immune to varicella or measles not need to wear a respirator when caring for patients with varicella or measles, respectively?

PERFORMANCE CHECKLIST: APPROPRIATE USE OF A RESPIRATOR – QUESTIONS WITH ANSWERS

Question 1: What is the purpose of using a respirator? Who does it protect (HCW, patient, both)? Explain how it helps protect the individual(s).
Answer: The purpose of using a respirator is to protect the HCW from inhalation of microorganisms that are transmitted by the airborne route. If a proper seal is achieved, particulate respirators filter out the airborne particles so they cannot be inhaled or land on the mucous membranes of the nose or mouth. A respirator therefore protects the wearer/HCW.
Question 2: When should a respirator be worn?
Answer: A respirator should be worn: 1) before entering the room of a patient with confirmed or suspected *Mycobacterium tuberculosis*; 2) before entering the room of a patient with confirmed or suspected chickenpox, disseminated herpes zoster, or measles, if not immune; and 3) during procedures that would aerosolize specific microorganisms.
Question 3: What is the purpose for respirator fit-testing?
Answer: The purpose of fit-testing is to select the correct size and type of respirator for each HCW and also to ensure that a HCW knows how to use it correctly.
Question 4: What is the purpose of a seal check? How is it done? When is it done?
Answer: The seal check is an action performed by the wearer/HCW to determine that the respirator is properly fitted to the face. This is done by pressing the sides of the respirator to the face particularly on the nose bridge, cheeks, and chin areas to ensure a tight seal. The wearer then tests the fit by taking a quick, forceful inspiration to determine if the respirator seals tightly to the face. A seal check should be done each time a respirator is worn.
Question 5: How does one prevent contaminating oneself while wearing a respirator?
Answer: Self-contamination can be prevented by not touching the front of the respirator when it is being worn.
Question 6: What is the rationale for not touching the front of the respirator during care and removal?
Answer: The front of the respirator should not be touched to avoid self-contamination or transfer of microorganisms from the respirator to bare hands or gloves.
Question 7: Why does a HCW who is immune to varicella or measles not need to wear a respirator when caring for patients with varicella or measles, respectively?
Answer: Because the HCW already has immunity to varicella or measles, he or she will not contract the infectious disease if exposed to the microorganism. Wearing a respirator to reduce exposure is therefore not necessary.

PERFORMANCE CHECKLIST: APPROPRIATE USE OF PERSONAL PROTECTIVE EQUIPMENT

Name of healthcare worker (HCW):_____ Date: _____

Instructions:
In Table 1, identify the indication(s) for the appropriate use of personal protective equipment (PPE) in patient/HCW interaction. Refer to relevant Performance Checklist for observing competence in putting on and taking off PPE.

Table 1. Indications for Appropriate Use of PPE	
Gloves	
Patient is on contact precautions (acute care).	☐
Patient is on contact precautions and direct personal care of patient is required or direct contact with frequently touched environmental surfaces is anticipated (long-term care).	☐
While providing direct care if HCW has open cuts or abrasions on the hands.	☐
Anticipates physical contact with blood, body fluids, secretions and excretions, mucous membranes, draining wounds, or non-intact skin (including skin lesions or rash). [Specify]	☐
Anticipates handling items or touching surfaces visibly or potentially soiled with blood, body fluids, secretions or excretions. [Specify]	☐
Isolation Gown	
Patient is on contact precautions and it is anticipated that clothing or forearms will be in direct contact with the patient or with environmental surfaces or objects in the patient care environment.	☐
Anticipates splashes or sprays or contact with blood, body fluids, secretions or excretions, or contact with contaminated surfaces, with possible soiling of clothing and exposed skin.	☐
Facial Protection*	
Anticipates splashes or sprays of blood, body fluids, secretions or excretions including respiratory secretions with possible exposure of mucous membranes of the eyes, nose and mouth. [Specify]	☐
Within 2 metres of and providing care to a patient with symptoms of acute respiratory viral infection who is coughing at the time of interaction or if performing procedures that may result in coughing.	☐
Care of a patient with rubella or mumps, if HCW is susceptible.	☐
Patient is on droplet precautions.	☐
To perform epidural/spinal procedure/central line insertion (mask only required unless splash or spray of blood or body fluids/secretions anticipated).	☐
Respirator**	
Patient is on airborne precautions for suspected or confirmed tuberculosis.	☐
Patient is on airborne precautions for other known or suspected airborne infections (varicella, measles, disseminated zoster, localized zoster in immunocompromised host) to which HCW is susceptible.	☐
Draining infectious tuberculosis skin lesions are present and procedures that would aerosolize viable organisms (e.g., irrigation, incision and drainage) are performed.	☐
Other	
Artificial scenario: Demonstration of skill.	☐
Other. [Specify]	☐

Instructions:

- In Table 2, select the PPE items required for interaction. In the **Required** column, select **Yes** if required; **No** if not required. In the **Worn** column, select **Yes** if it was worn and **No** if it was not worn.
- If an item was required and not worn, ask the HCW to explain his/her rationale.
- If an item was not required and was worn, ask the HCW to explain his/her rationale.
- Write in the **Comments** column or section any questions, comments or suggestions.
- Provide feedback to the HCW at the end of the observation period.

Table 2. List of PPE Items

PPE items	Required		Worn		Comments
Gloves	☐ Yes	☐ No	☐ Yes	☐ No	
Gown	☐ Yes	☐ No	☐ Yes	☐ No	
Facial protection*	☐ Yes	☐ No	☐ Yes	☐ No	
Respirator**	☐ Yes	☐ No	☐ Yes	☐ No	

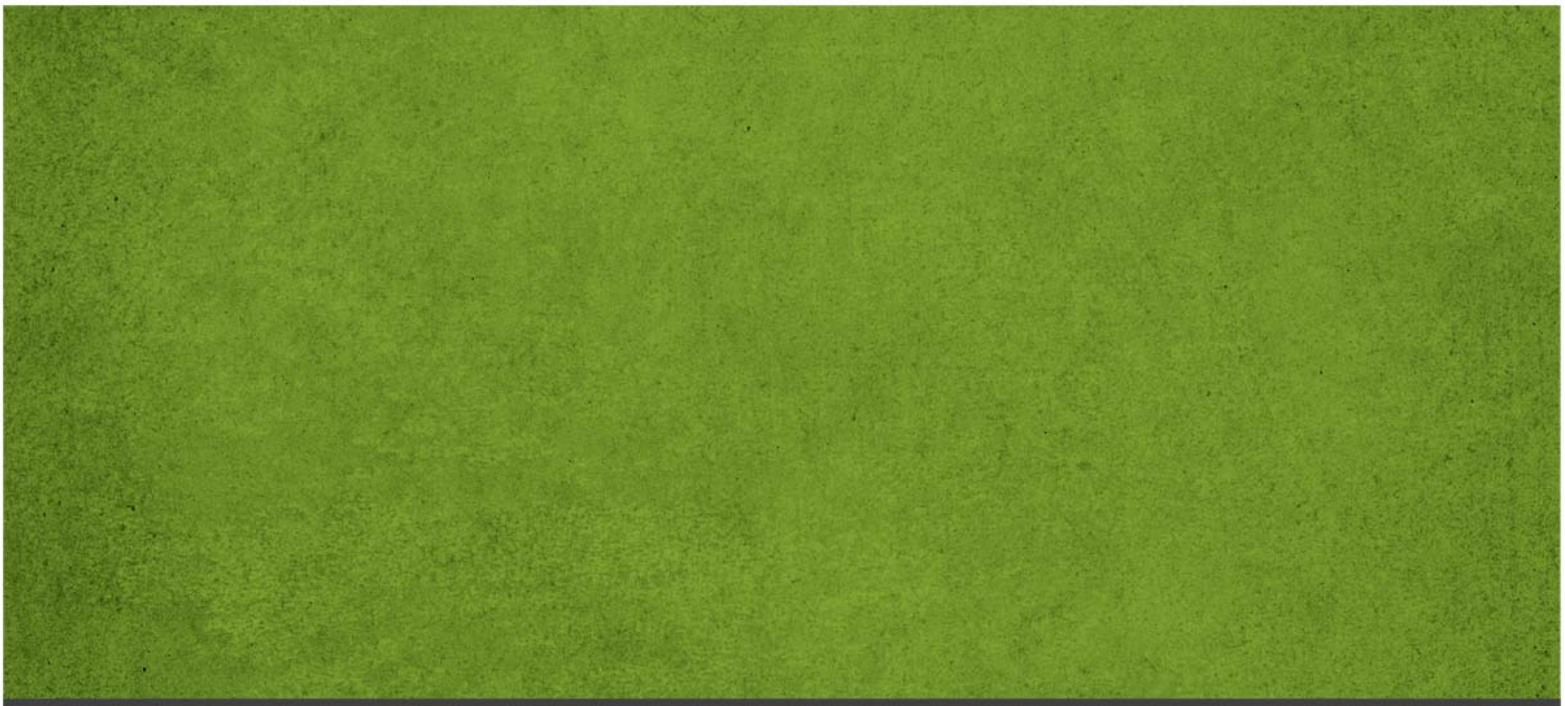
Additional Comments:

NOTES:

*Facial protection: masks and eye protection, face shields, or masks with visor attachment.

** The most common respirator used in the healthcare setting is a disposable N95 half-face piece filtering respirator (N95 respirator).

PART IV – SAMPLE SESSION TOOL SET



PART IV. SAMPLE SESSION TOOL SET

INSTRUCTIONS

Description of the Tool Set

There are two tools in the Sample Session Tool Set to assist in developing educational sessions of varying duration and for different groups of healthcare workers (HCWs).

1. ***Sample Session Agendas***: Sample agendas are provided for 30- and 60-minute sessions and for half-day and full-day workshops. Each sample session agenda provides time for an introduction and review of relevant tools.
2. ***Summary of Adaptations for Different Groups of Healthcare Workers****:* This summary identifies critical aspects to consider when choosing tools to review with different groups of HCWs.

How to Use the Tool Set

A series of sessions that are 30 minutes to one hour in length is suggested with some sessions focusing on the routine practices tools and others focusing on different additional precautions tools. Once HCWs are familiar with the background of the tools, sessions can be shortened and more time devoted to review of and practice with tools and cases, or practice and demonstrations of use of PPE and hand hygiene.

The general approach to using the tool set is as follows:

- Identify target group: Determining level of responsibility regarding infection prevention and control will assist with the choice of tools to be covered. See the tool *Summary of Adaptations for Different Groups of Healthcare Workers*.
- Determine learning priorities: Priorities for review should be based on the types of health conditions normally encountered in the practice setting, time limitations and target group. The sample session agendas presented here offer suggestions to get started, but should be adapted as appropriate.
- Select relevant tools for sessions: Algorithms, case scenarios and other tools selected for review should be appropriate for the target group and practice setting. It is not necessary that every HCW review all tools or case scenarios.
- Choose a presentation format: While the tools can be presented in a lecture format with slides, the tools were designed to be used in practice sessions with small groups. There should be an opportunity for discussion and sharing learning points amongst the participants to generate lively discussions.

Local Adaptation

This Sample Session Tool Set is based on PHAC's guidelines, *Routine Practices and Additional Precautions for Preventing the Transmission of Infection in Healthcare Settings* and *Hand Hygiene Practices in Healthcare Settings*. Each healthcare setting is encouraged to adapt and add to this tool set to accommodate local realities such as local legislation, regulations, occupational health and safety requirements, guidelines or evidence-informed practice.

SAMPLE SESSION AGENDAS

Thirty-Minute Session

5 min	Introduction
15 min	**Review of routine practices tools:** • *Elements of Routine Practices Summary* • *Point of Care Risk Assessment for Routine Practices Algorithm: Appropriate Use of Personal Protective Equipment* • One routine practices case scenario **OR** **Review of one set of additional precautions tools:** • One additional precautions algorithm • Related additional precautions case scenario • *Which Microbe/Which Additional Precautions Table*
5 min	**Overview of the remaining tools, what they are and key purpose**: • Additional precautions checklists • *Stopping or Changing Additional Precautions Algorithm* • Performance checklists
5 min	Wrap-up and discuss follow-up on unit

One-Hour Session

5 min	Introduction and background to the tools
35 min	**Review and practice of routine practices tools**: • *Elements of Routine Practices Summary* • *Point of Care Risk Assessment for Routine Practices Algorithm: Appropriate Use of Personal Protective Equipment* • One routine practices case scenario **OR** **Review and practice of one set of additional precautions tools**: • One additional precautions algorithm • Related additional precautions case scenario • *Stopping or Changing Additional Precautions Algorithm* • *Which Microbe/Which Additional Precautions Table* • Related additional precautions checklist
10 min	**Overview of the performance checklists, what they are and key purpose**: • *Hand Hygiene* • *Appropriate Use of Gloves* • *Appropriate Use of an Isolation Gown* • *Appropriate Use of Facial Protection* • *Appropriate Use of a Respirator* • *Appropriate Use of Personal Protective Equipment*
10 min	Wrap-up and discuss follow-up on unit

Half-Day Session

10 min	Welcome, administrative announcements
15 min	Introduction and background to the tools
105 min	**Review and practice of routine practices tools:** • *Elements of Routine Practices Summary* • *Point of Care Risk Assessment for Routine Practices Algorithm: Appropriate Use of Personal Protective Equipment* • Three routine practices case scenarios
20 min	**Refreshment Break**
55 min	**Review and practice of additional precautions tools (e.g., diarrhea):** • *Diarrhea Algorithm* • *Additional Precautions Case Scenario #2—Patient with Diarrhea* • *Additional Precautions Checklist: Application of Contact Precautions for Admitted Patients in Healthcare Facilities* • *Stopping or Changing Additional Precautions Algorithm* • *Which Microbe/Which Additional Precautions Table*
25 min	**Review of the performance checklists:** • *Hand Hygiene* • *Appropriate Use of Gloves* • *Appropriate Use of an Isolation Gown* • *Appropriate Use of Facial Protection* • *Appropriate Use of a Respirator* • *Appropriate Use of Personal Protective Equipment*
10 min	Wrap-up and discuss follow-up on unit

Full-Day Session

15 min	Welcome, administrative announcements
15 min	Introduction and background to the tools
90 min	**Review and practice of routine practices tools:** • *Elements of Routine Practices Summary* • *Point of Care Risk Assessment for Routine Practices Algorithm: Appropriate Use of Personal Protective Equipment* • Two routine practices case scenarios
30 min	**Refreshment Break**
90 min	**Review additional precautions tools (e.g., diarrhea)**: • *Diarrhea Algorithm* • *Additional Precautions Case Scenario #2—Patient with Diarrhea* • *Additional Precautions Checklist: Application of Contact Precautions for Admitted Patients in Healthcare Facilities* • *Stopping or Changing Additional Precautions Algorithm* • *Which Microbe/Which Additional Precautions Table*
45 min	**Lunch**
45 min	**Review additional precautions tools for respiratory illness and rash:** • Related algorithms • Related case scenarios • Related additional precautions checklists (if not already reviewed)
60 min	**Review remaining additional precautions tools (acute neurological syndrome, draining wound/soft tissue infection):** • Related algorithms • Related case scenarios • Related additional precautions checklists (if not already reviewed)
15 min	**Refreshment Break**
60 min	**Review, practice and demonstrations using the performance checklists for:** • *Hand Hygiene* • *Appropriate Use of Gloves* • *Appropriate Use of an Isolation Gown* • *Appropriate Use of Facial Protection* • *Appropriate Use of a Respirator* • *Appropriate Use of Personal Protective Equipment*
15 min	Wrap-up and discuss follow-up on unit

SUMMARY OF ADAPTATIONS FOR DIFFERENT GROUPS OF HCWs

All HCWs should have sufficient knowledge of the principles of a point of care risk assessment (PCRA) to protect patients and themselves from the transmission of microorganisms in the healthcare setting. They also need to know how to protect themselves when faced with the possibility of exposure to a splash or spray of blood or body fluids/secretions or to contact with a patient's mucous membranes, non-intact skin, blood, body fluids, or soiled or likely soiled item/surface.

The choice of tools to include in the session will depend on the HCW's professional responsibilities and the type of interactions they have with patients in the course of their work.

HCWs responsible for educating other HCWs on infection prevention and control (IPC) for health care

This group of HCWs (e.g., infection prevention and control professionals, educators, nurses, infectious disease physicians) needs to know all tools well enough to teach and support other HCWs in the understanding and application of routine practices and additional precautions in their work setting.

A full-day session or a series of shorter sessions are recommended to ensure they cover all tools.

HCWs responsible for the initiation and discontinuation of additional precautions or patient placement

This group of HCWs (e.g., nurses, physicians, paramedics) needs to have a thorough understanding of the principles and concepts behind routine practices and additional precautions in their day-to-day work. This group often has the responsibility to decide whether or not additional precautions should be started or stopped, either on their own or in consultation with an infection prevention and control professional. They may also be called upon to decide which patients are suitable roommates. They should be comfortable with the application of the concepts and principles behind routine practices and additional precautions.

A full-day session or a series of shorter sessions are recommended to cover all tools with a focus on cases and algorithms relevant to the types of health conditions seen in their practice area (e.g., respiratory illness, diarrhea, rash).

HCWs not responsible for the initiation and discontinuation of additional precautions or patient placement

This group of HCWs (e.g., physiotherapists, radiology technicians, patient care attendants, housekeepers) needs to have an understanding of the chain of infection and how to prevent the spread of microorganisms to the patient and the patient's environment during the course of their work. Even though this group of HCWs is not responsible for the initiation and discontinuation of additional precautions, they need to comply with their local policies on the requirements for patients on any type of additional precautions and therefore need the knowledge and skills to do so.

A half-day session or a series of shorter sessions are recommended to cover the routine practices tools with a focus on cases relevant to the type of patient interactions they will have in their day-to-day work. For example, patient care attendants can review and practice with either the morning care or diaper change cases; and respiratory therapists can review and practice with the suctioning case.

Recommended Tools for Sessions

The table below lists the suggested content for sessions targeting different groups of HCWs.

Recommended tools for sessions	HCWs responsible for IPC education	Responsible for initiation and discontinuation of additional precautions or patient placement?	
		Yes	No
Elements of Routine Practices Summary	√	√	√
Point of Care Risk Assessment for Routine Practices Algorithm: Appropriate Use of Personal Protective Equipment	√	√	√
Routine practices case scenarios with questions and answers and discussion points	All	Relevant*	Relevant*
Additional precautions case scenarios with questions and answers and discussion points	All	Relevant*	Relevant**
Additional precautions algorithms	All	Relevant*	
Stopping or Changing Additional Precautions Algorithm	√	√	
Additional precautions checklists	All	All	
Which Microbe/Which Additional Precautions Table	√	√	
Performance checklists	All	All	All

NOTES:
*Relevant tools with a focus on the types of health conditions seen in their practice/work area.
**Although this content is primarily for HCWs responsible for initiation and discontinuation of additional precautions or patient placement, the case scenarios may contain questions, answers and/or discussion points that could be useful to this group of HCWs.