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| Subject/Title: | <b>Clinical Management Guidelines for<br/>Pandemic (H1N1) 2009</b><br><br>Surgical Suite Management | Reference: 01-005<br><br>Effective Date:<br>FROM: 31 Aug 09<br>TO: UNTIL FURTHER NOTICE |
| Authorized by: | EXECUTIVE MANAGEMENT  | Revised: 06 Oct 2009  |

## PURPOSE

This document is drafted as an initial guideline for patients requiring surgery who are suspected or confirmed to be Pandemic (H1N1) 2009 positive. A patient is considered to be a suspect case if they present with the following symptoms:

**ADULT:** Acute onset of NEW cough or change in existing cough

PLUS one or more of the following:

- Fever ( $\geq 38^{\circ}\text{C}$  on arrival or by history)
- Sore throat
- Joint pain
- Muscle aches
- Severe exhaustion

**PEDIATRIC:** Acute onset of any of the following symptoms; runny nose, cough, sneezing, +/- fever.

Literature suggests that patients presenting with an acute upper respiratory tract infection at time of surgery are at higher risk for perioperative respiratory complications (Malviya, 2003). When surgery can be postponed on a patient that is suspect or confirmed to be Pandemic (H1N1) 2009 positive, it is recommended to do so. Elective surgery patients must be encouraged to self-report symptoms of influenza-like-illness (ILI). This is accomplished pre-op (e.g., via literature distributed in Pre-Admission Clinics) and confirmed on the day of surgery.

It is recognized that, with the evolution of viral disease and new scientific evidence, modifications to these recommendations may be required in the future.

This document is based on the information about **Pandemic (H1N1) 2009** available on the Alberta Health Services website, current Operating Room Nurses Association of Canada (ORNAC) and Canadian Standards Association (CSA) standards and current literature, and must be considered a 'living' document. Please contact Infection Prevention and Control Services at your site for further clarification.

## DIRECTIVE

This document is designed to provide staff with the tools to protect patients and staff from exposure and to manage patients that are suspect or confirmed Pandemic (H1N1) 2009 positive. Attached as an appendix is a Quick Reference Guide: Pandemic (H1N1) 2009 in the Operating Room which is suitable for posting in the OR suite for staff and physician reference.

## PERSONAL PROTECTIVE EQUIPMENT (PPE)

Scrubbed personnel in the OR theatre are expected to wear routine scrub attire including eye protection, with the exception that they are to wear a N95 respirator rather than a surgical mask.

Circulating staff in the OR theatre are required to wear the following Personal Protective Equipment when in the operating theatre of a patient suspected or confirmed to be Pandemic (H1N1) 2009:

- Isolation Gown
- Eye Protection
- Gloves
- N95 Respirator

The use of a N95 respirator is required for all healthcare workers participating in a procedure performed on a suspect or confirmed case in the operating room, as aerosol generating procedures may be required. Aerosol generating medical procedures (AGMP) include:

- endotracheal intubation
- emergent resuscitation efforts, including CPR
- respiratory or airway suctioning when using an open system

For further information on PPE for Pandemic (H1N1) 2009, please refer to the Alberta Health Services website: <http://www.albertahealthservices.ca/13060.htm>

## PREOPERATIVE MANAGEMENT

1. The need for isolation precautions will be communicated via the surgeon at the time of surgical booking and noted on the Operating Room Schedule. The patient's isolation status must also be communicated via the nursing unit, patient chart or Infection Prevention and Control.
2. The Operating Room must notify the Post Anesthetic Care Unit in advance of all patients requiring isolation precautions.
3. Ensure all staff involved are aware of the precautions needed and that staff in the theatre are ready to receive the patient before sending for the patient. This ensures a direct route into the theatre, minimizing wait time in public areas.
4. Place a Contact and Modified Droplet Precautions sign on all the access doors to the theatre. <http://www.albertahealthservices.ca/files/ns-contact-and-modified-droplet-precautions-poster.pdf>
5. The theatre is to be maintained on regular positive air pressure (CSA Standards, 2001, 6.11.4.2).
6. Anesthetic circuits will consist of the regular re-usable airway tubing with an airborne particle filter (HME) attached at the "Y" connected to the endotracheal tube.
7. Have adequate isolation supplies at the door into the theatre, including gowns, eye protection, non-sterile gloves and N95 respirators in a variety of sizes. Staff must wear the Personal Protective Equipment while in the theatre with a patient suspected or confirmed to have Pandemic (H1N1) 2009. All staff must perform a fit-check before coming into the theatre (blow and inhale air to check for leaks around the mask). Any piece of Personal Protective Equipment must be changed when wet or soiled.

8. A “runner” may be required for these cases to reduce requirements to remove and replace the PPE.
9. Ensure all anticipated supplies are in the theatre to reduce traffic in and out of the theatre and/or entry into anesthetic carts and storage cupboards.

## **INTRAOPERATIVE MANAGEMENT**

1. Minimize all traffic in the theatre to those essential for the case (AORN, 2003).
2. All doors (entry and cupboard) remain closed during the case. Before accessing supplies always remove gloves, and gown (if contaminated) and clean hands with alcohol hand rinse. If hands are visibly soiled, clean hands with soap and water outside the theatre.
3. Ensure all staff in the theatre are aware of the designated “clean” surfaces (i.e., the charting station, top of case cart, computer, etc.). The chart must only be handled with clean hands.
4. The stretcher must be stripped of linen and linen placed in the laundry hamper in the theatre and cleaned with hospital approved disinfectant before being removed from the theatre.
5. When leaving the room, personal protective equipment is removed in the following order:
  - a. Remove gloves, clean hands with alcohol hand rinse
  - b. Remove gown, carefully rolling gown away from the body and place in laundry hamper, clean hands with alcohol hand rinse
  - c. Leave the theatre, and
  - d. Remove eye protection and respirator, handling the respirator only by the ties, and clean hands with alcohol hand rinse or with soap and water.

<http://www.albertahealthservices.ca/files/ns-ppe-doffing.pdf>

## **AFTER THE CASE/POST-OPERATIVE CARE/CLEAN UP**

1. Recover the patient in the operating theatre unless there is a designated isolation room in the Post Anesthetic Care Unit.
2. Cleaning is a regular change-over (end of case) clean with hospital approved disinfectant. Staff performing the clean must wear Personal Protective Equipment for guard against splashes of blood or body fluids. All horizontal surfaces and high touch areas are to be wiped with a hospital approved disinfectant working from cleanest area (room periphery) toward the dirtiest areas (OR bed). Ensure that the anesthetic cart, machine and any other electronic equipment is cleaned. Laundry, garbage, and biohazardous material can be handled as routine.
3. Cleaning/disinfection and sterilization of scopes and equipment as routine.

## CODE BLUE

1. In the even of a Code Blue, responding staff must apply the appropriate Personal Protective Equipment (gown, gloves, eye protection, and a N95 respirator) before entering the theatre.
2. Crash cart can be brought into the room.
3. The cart must be appropriately decontaminated according to equipment cleaning guidelines before it is removed from the theatre.

## APPLICABILITY

This document is intended to serve as a guideline for AHS staff and physicians managing care of patients who are suspected or confirmed to be Pandemic (H1N1) 2009 virus positive. This includes but is not limited to Surgical Units, Operating Rooms, Labor and Delivery Operating Rooms, and Post Anesthetic Care Units.

## REFERENCES

Alberta Health Services Website:

Infection prevention and control directive for healthcare workers in acute care facilities (June 23, 2009).

<http://www.albertahealthservices.ca/files/ns-ipc-bulletin-4-revised.pdf>

Contact and Modified Droplet Precautions Poster (June 26, 2009).

<http://www.albertahealthservices.ca/files/ns-contact-and-modified-droplet-precautions-poster.pdf>

Interim Guidance: Infection prevention and control measures for health care workers in acute care facilities (July 28, 2009).

[http://www.phac-aspc.gc.ca/alert-alerte/swine-porcine/hp-ps/ig\\_acf-ld\\_esa-eng.php](http://www.phac-aspc.gc.ca/alert-alerte/swine-porcine/hp-ps/ig_acf-ld_esa-eng.php)

Malviya, S., Voepel-Lewis, T., Siewert, M., et al. (2003). Risk Factors for Adverse Postoperative Outcomes in Children Presenting for Cardiac Surgery with Upper Respiratory Tract Infections. *Anesthesiology*; 98(3), pp.628-632.

Operating Room Nurses Association of Canada (ORNAC). (2006). Routine practices and additional precautions. Infection Prevention and Control. Recommended standards, guidelines, and position statements for Perioperative Registered Nursing Practice (7th Ed.).

Association of Perioperative Registered Nurses. (2003). Recommended practices for environmental cleaning in the surgical practice setting. Standards, Recommended Practices, and Guidelines. Denver: CO.

Canadian Standards Association. (2001). Special requirements for heating, ventilation, and air conditioning (HVAC) systems in health care facilities. CSA Standard. Mississauga, ON.

## CONTACT

For further information on this Directive, please contact your facility's Infection Prevention and Control Professional or Designate.

# QUICK REFERENCE GUIDE

## PANDEMIC (H1N1) 2009 IN THE OPERATING ROOM

This content is from the directive, Clinical Management Guidelines for Pandemic (H1N1) 2009: Surgical Suite Management. Further related information is available on the Alberta Health Services website at: <http://www.albertahealthservices.ca/13039.htm>

**Please note:** It is recommended that surgery be postponed on a patient suspected or confirmed as Pandemic (H1N1) 2009 positive, until such time that their testing comes back negative or they are asymptomatic.

For surgical cases which must proceed on persons with suspect or confirmed H1N1, the following is required:

- Scrubbed staff are to wear routine scrub attire including eye protection, with the exception of wearing a N95 respirator instead of a surgical mask.
- Personal Protective Equipment required for all circulating staff when in the theatre of a patient that is suspected or confirmed to be Pandemic (H1N1) 2009 positive:
  - Isolation Gown
  - Gloves
  - Eye Protection
  - N95 Respirator
- Maintain regular positive air pressure inside the theatre.
- Anesthetic circuits will consist of the regular re-usable airway tubing with an airborne particle filter (HME) attached at the “Y” connected to the endotracheal tube.
- Recover the patient in the theatre, unless the Post Anesthetic Care Unit (PACU) has a separate isolation area.
- Routine (change-over) end of case cleaning. Routine handling of all equipment, garbage, linen, and specimens.