



DRAFT #6

The Ottawa Hospital  
OPERATING ROOM

NURSING POLICY, PROCEDURE, PROTOCOL MANUAL

<b>TITLE:</b> Surgical Procedures for Patients on Respiratory and Contact precautions (enhanced) or RCP(e).	
<b>NO. NSG-I-##</b>	<b>PAGE:</b> 1 of 8
<b>SOURCE:</b> Operating Room Policy and Procedure Manuals at the General, Civic and Riverside Campus' of the Ottawa Hospital	<b>DATE ISSUED:</b>
<b>APPROVED BY:</b>	<b>LAST REVISION:</b> O-00-00-00 R-00-00-00

**POLICY STATEMENT:** Respiratory and Contact precautions (enhanced) are used in the Operating Room to reduce the risk of transmission of infectious agents while patients on these restrictions have surgical procedures.

**DEFINITIONS:** Respiratory and Contact precautions (enhanced) includes Airborne, Droplet, and Contact Precautions with eye protection.

**Airborne Precautions:** Transmission occurs by dissemination of either droplet nuclei (small-particles: 5 microns or smaller in size) of evaporated droplets containing microorganisms that remain suspended in the air for long periods of time or dust particles containing the infectious agent. Microorganisms carried in this manner can be widely dispersed by air currents and may become inhaled by a susceptible host within the same room or over a long distance depending on the environmental factors.

**Contact Precautions:**

- **Direct Contact** transmission involves hand or skin-to-skin contact between the infected/colonized source patient and the susceptible host. This occurs when performing patient care activities that require physical contact.
- **Indirect Contact** transmission involves transfer of microorganisms to the susceptible host via contaminated environmental surfaces, soiled patient care items in the patient's environment or contaminated hands.

### **Droplet Precautions:**

Droplet transmission involves contact of the conjunctivae, or the mucous membranes of the nose or mouth of a susceptible host with large-particle droplets (larger than 5 microns in size). These droplets are generated from the respiratory tract of the source person primarily during coughing, sneezing, or talking, and during the performance of certain procedures such as suctioning and bronchoscopy. Droplets do not remain suspended in the air and generally travel only short distances, usually 3 feet or less, through the air.

### **NURSING ALERTS:**

The ventilation in the operating room should be maintained as per usual under positive pressure.

Essential staff only in the operating room. Minimize the staff that are not required, and no visitors/observers in the room.

The operating room doors should be kept closed for the entire case.

The patient **must not be** intubated or extubated in the operating room. These procedures shall occur in a negative pressure room under airborne precautions.

An antimicrobial filter must be placed on the Disposable Ambu bag for patient transport to and from the Operating Room.

The patient's chart must not come in the operating room. All pertinent information for charting must be communicated to the clean staff member outside the room for documentation. Essential paperwork that is required in the room such as the anesthetic record, perioperative records and count record must be completed during the case, and then passed outside the room to a clean staff member who will hold a ziplock bag open to receive it. The clean staff member will close the ziplock bags and photocopy the perioperative records and place them on the patient's chart. The contaminated paperwork will be disposed of in the operating room garbage, ensuring that any item with patient identification labels has been shredded to protect confidentiality.

### **EQUIPMENT:**

Outside the room: (Outer Core)

1. Respiratory and Contact precautions (enhanced) dedicated case cart which includes:
  - Airborne Precautions, Droplet Precautions and Contact Precautions sign with a note to include eye protection

- Operating room case cart for the required patient surgery
- Enter/Exit document x 3
- Disposable gowns #222230 x 15 or yellow cover gowns x 15
- Barrier gowns x 7
- Gloves variety of sizes
- Hair covers #790145
- Eye protection: Face shield #790175 x 7 Goggles #260130 x 7
- N95 masks: 3M N95 small mask #22240, Kimberly-Clark N95 mask #222220, N95 #220350 , 3M 1870 surgical masks ( 1 box each of these products). Other mask sizes may be needed depending on the sizes that perioperative staff have been fit-tested with
- Disinfectant wipes (Virox #220940)
- Alcohol Hand gel bottles x 4 #612010
- Disposable operating room booties
- Garbage container
- Linen Hamper

Inside the room:

- Enter/Exit document posted on the inside of room on the door.
- Alcohol hand gel bottles at each door from the dedicated case cart.
- Gloves
- Disinfectant wipes
- Anaesthesia temporary drug cart.

**PROCEDURE:**

1. Bring the Respiratory and Contact Precautions (enhanced) Cart to the operating room in which the surgical procedure will be performed.
2. Remove unnecessary items/supplies from the operating room and cover items that cannot be removed.
3. Place Airborne, Droplet and Contact Precautions signs with a note stating eye protection must be worn on the outside of each door.
4. Bring case cart with surgical supplies into the operating room, remove the supplies and place this case cart outside the room with the Respiratory and Contact Precautions (enhanced) Cart.
5. Remove anesthesia drug cart to the inner corridor and replace it with the temporary anesthesia cart.
6. Place alcohol hand gel inside and outside of the dedicated enter/exit door of the operating room.
7. Limit the number of staff in the room to the minimum necessary to complete the case.
8. All staff in the operating room **must wear** : Barrier surgical gowns, disposable gowns

or yellow isolation cover gowns, Surgical gloves (those who have contact with body fluids must double glove), disposable booties, N95 mask, hair cover and face shield. If you are wearing an N95 mask **with a valve**, you will need to wear a surgical mask on top of the N95 mask.

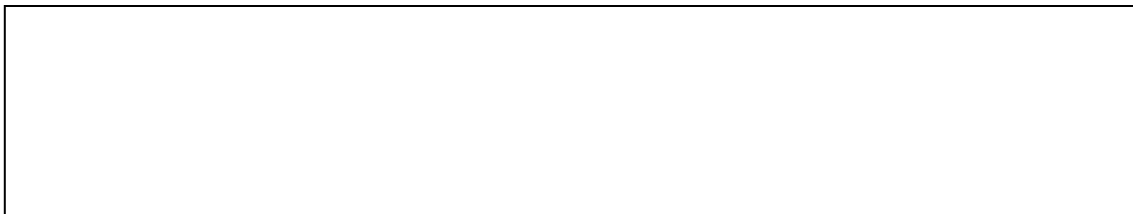
9. Perform a fit check each time you wear a N95 mask according to the instructions on the box.
10. The patient breathing circuit and soda lime should be disposable. When the soda lime is discarded at the end of the case, the soda lime cannister is wiped with disinfectant.
11. The oropharyngeal suction should be secured on a mayo stand covered with a plastic bag to prevent any inadvertent contamination of the environment from dripping/leaking.
12. Designate two "Clean" staff members to act as runners. These staff members will **not enter** the operating room but will maintain contact to the room via the phone or window instructions and monitor traffic. One staff member will look after anesthesia requirements and the other staff member will look after the surgical team.
13. The patient is brought directly to the specific operating room when the operating room team members are ready to start the surgical procedure.
14. The patient is transported to/and from the negative pressure room to/and from the operating room in the following manner:
  - a. Phone the receiving department and ensure they are aware that a patient on Respiratory and Contact Precautions (enhanced) is coming for a surgical procedure.
  - b. Confirm the exact time the surgical team will be ready to receive the patient. The patient will bypass the perioperative holding area and go directly into the operating room.
  - c. Dedicate a patient elevator and block it for transport. Call security to assist with this task.
  - d. Take the least traveled and fastest route to the operating room.
  - e. A minimum of 2 health care workers will be required on the patient transferring unit for patient transportation: one inside the room to assist the patient on the stretcher, and one who will remain outside the room to transport the patient to the operating room.
  - f. The patient will be transported promptly using the designated elevator and route accompanied by anesthesia staff person and/or resident.
  - g. Once the patient is brought into the theatre and transferred onto the OR table, the sheets are disposed of in the room, and the stretcher is thoroughly cleaned twice with disinfectant, and then returned to the hallway outside the theatre. Ensure that the stretcher is not touched with contaminated hands after cleaning. The stretcher is made up with clean sheets in the hallway.
  - h. When the transfer is completed, exit the room according to the exiting the room protocol.
15. After the surgery is completed, remove the first pair of gloves, then the gown

(which is untied by another person who has also removed their first pair of gloves), then the booties, then the second pair of gloves. Sanitize hands using the alcohol gel. Exit the operating room put on clean gloves and remove face shield or eye protection, using the back strap, remove hair cover as described in the attached entry/exit protocol. Remove gloves and sanitize hands with alcohol gel. Remove the N95 mask using the straps and discard. Sanitize hands using alcohol hand gel.

16. The patient is transferred to their isolation room for recovery and extubation. Patients cannot be nursed in an open area in PACU. Ensure that the necessary nursing personnel are ready to receive the patient in their isolation room for recovery.
17. Specimens obtained from the surgical case are placed in the required containers. The containers are wiped with disinfectant and then passed to the clean staff member outside the room who will hold a ziplock bag for the specimen to be passed into. The appropriate paperwork is completed and the specimen labeled. All specimens are labeled with Respiratory and Contact Precautions (enhanced).
18. The perioperative instrumentation including instrument strings are placed back in their appropriate containers and covered with their appropriate lids. The lids are locked and these instrument sets are handed outside the room to the clean staff member who is holding a plastic bag. The instrument sets are all bagged and then placed on the respective case carts. Any other instrumentation left in the room is also bagged in this manner and the clean staff member will place it on the case cart.
19. The case cart is then covered with the dust cover/sheet.
20. The case cart is transferred to SPD as per campus routine.
21. The housekeeping staff will clean the room according to the instructions below.
22. The breathing circuit and soda lime is thrown out.

**POST-OPERATIVE CLEANING INSTRUCTIONS FOR THE RESPIRATORY AND CONTACT PRECAUTIONS (ENHANCED) OPERATING ROOM:**

Thorough and meticulous cleaning is required to minimize environmental contamination. A two-step cleaning method with hospital disinfectant is required. This involves a thorough cleaning of all surfaces as described below, followed by a second cleaning using a cloth saturated with disinfectant. The surface must be left wet for a minimum of 10 minutes in the second step.



1. Put on full protective apparel as outlined on signs posted on the door.
2. Bring the following supplies to the room:
  - a. Mop saturated with hospital grade disinfectant
  - b. Disposable cloths and bucket filled with appropriate dilution of disinfectant
  - c. Clear plastic bag
  - d. Garbage bags
  - e. Linen bags
  - f. Biohazard pails
  - g. Alcohol gel
3. Remove linen from the operating room bed carefully to prevent aerosolization and gently place in the linen hamper.
4. Close garbage bags and place beside the door (leave one open to put gloves and rags in when exiting the room).
5. Place linen bag beside the door (leave partially open so you can put gown in when exiting the room).
6. Cleaning: Each cloth must be saturated with the hospital disinfectant (but not dripping wet). Surfaces must be cleaned with friction, and allowed to air dry.
7. Clean walls and doors head high, paying particular attention to areas coming in contact with hands such as door handles, and light switches.
8. Wash push plates and handles, and light switches.
9. Clean surgical lights and arms.
10. Clean all fixed and ceiling mounted equipment.
11. Clean suction equipment, electrosurgical unit, patient rollers and transfer devices.
12. Wash anaesthetic cart, perfusion equipment, X-ray equipment.
13. Wipe O2 saturation monitor and probe, Blood Pressure cuffs, ECG leads.
14. Wash all furniture. Dismantle the Operating Room Table/Bed and clean thoroughly including arm boards and accessories.
15. Wash all garbage receptacles inside and out.
16. Repeat steps 8 through 16.
17. Suction cleaning solution at this point into suction liners. Place in the biohazard pails. Place the cleaning rags in the garbage bag.
18. Wash the entire floor surface. Wet the floor thoroughly with the disinfectant solution and allow to air dry. While floor is wet, move all equipment on wheels to allow wheel contact with the disinfectant. Place mop head in clear plastic bag. Wipe handle of mop with a disinfectant wipe.
19. Remove gloves then sanitize hands. Remove booties and place in garbage bag. Remove gown and place in linen bag. Sanitize hands. Open the door and place all the bags outside the door. Sanitize your hands as you exit the room.
20. Put on gloves. Remove eye protection and hair cover, discard. Remove gloves then sanitize hands. Remove N95 mask and sanitize hands.
21. Bring equipment that has been cleaned to the clean utility room.
22. Put on clean gloves. Empty garbage cans located outside the operating room. Bring the

garbage bags to the dirty utility room. Bring the closed linen bags to the soiled utility room. Place bagged mop heads, cleaning bucket and return to the housekeeping department. Bring biohazard pails to the dirty utility room for pick-up. Remove gloves and wash hands or use the alcohol gel.

23. Line garbage cans with bags and make up the operating room bed.

24. Wash the floor again using a clean mop head and fresh disinfectant solution.

25. Remove all precaution signs from the door.

#### **DOCUMENTATION:**

Document that Respiratory and Contact precautions (enhanced) were followed in the Operating Room on the Perioperative Record.

#### **REFERENCES:**

The Ottawa Hospital, Infection Prevention and Control Manual, Total Precautions Procedures includes Airborne and Contact Precautions with eye protection.

Directive to All Ontario Acute Care Facilities Under Outbreak Conditions, Directive October 22, 2003, <http://www.health.gov.on.ca>.

Directive Regarding the Application of Respiratory and Contact Precautions (Enhanced) with Patients with Febrile Respiratory Illness and a SARS Contact History: Persons under Investigation; SARS Patients; and SARS Units, Directive RCPE03-01, October 22, 2003, <http://www.health.gov.on.ca>.

Roth, Virginia, Recommendations for performing surgical procedures on SARS patients, June 2003.

Sars Provincial Operations Center. Directive 03-05 (R) April 24, 2003.

## **ENTERING THE ROOM:**

Sanitize hands with alcohol gel. Put on protective equipment in the following order:

- long-sleeved gown,
- N95 mask
- hair cover
- eye protection
- gloves.

\*Gloves should go over gown cuffs.

***Perform a fit check*** each time you wear a mask according to instructions on the box.

## **EXITING THE ROOM:**

- In the patient room, remove gloves and discard.
- Sanitize hand with alcohol hand gel. Do NOT use patient bathroom to wash hands.
- Remove (rip back if disposal gown) and discard gown in a manner that minimizes air disturbance.
- Before opening the door take the alcohol gel to sanitize hands as you exit.
- Put on clean gloves.
- Remove eye protection using the back strap. If face shield – discard. If goggles – place in clear plastic bag and send for decontamination.
- Remove hair cover and discard.
- Remove gloves.
- Sanitize hands using alcohol hand gel.
- Remove N95 mask using the straps and discard.
- Sanitize hands using alcohol hand gel (or wash with soap and water if hands are sticky).