DEFINITION

To provide instructions on the monitoring and maintenance of the negative pressure rooms to Nursing, Utilities and Maintenance (U&M) departments, and the Infection Control Practitioner (ICP).

REFERENCES

1. Association for Professionals in Infection Control (APIC) and Epidemiology, Inc. (2009). Chapter 18: Isolation precautions. In APIC Text of infection control and epidemiology (3rd ed.)

COMMENTS

1. Maintenance Log: Used for keeping records of all malfunctions of negative pressure room monitors. The log should be kept on the ward and be accessible to all staff. Forms must be completed whenever the alarm system is activated (See attachment 1).
2. Activation of the alarm system when negative pressure ventilation fails: Visible red flashing lights and/or audible sound comes from the monitor.
3. For the safety of healthcare workers, patients, and visitors, negative pressure rooms occupied by patients requiring airborne isolation must be checked daily (refer to step A.3).

PROCEDURE

A. Routine monitoring of negative pressure rooms:
   1. Negative pressure room and ventilation requirements
      a. Conduct and document monthly checks on all negative pressure rooms.
      b. Conduct visual checks for the direction of air flow (using smoke trails or flutter strips) on all rooms where patients are in airborne isolation for query or confirmed airborne transmissible diseases (e.g., pulmonary TB, chicken pox, measles or hemorrhagic fever) on weekends.
      c. Follow the procedure of this IPP if any room fails inspection.
      d. All documentation must be forwarded to the Environmental Health and Occupational Health Safety (EHOHS) section of the IP&C department.
   2. Negative pressure rooms in use
      a. Conduct daily visual checks for the direction of air flow on all rooms where patients are in airborne isolation for query or confirmed airborne transmissible diseases (e.g., pulmonary TB, chicken pox, measles or hemorrhagic fever).
      b. Follow the procedure of this IPP if any room that fails inspection.
      c. All documentation must be sent to the Infection Control department.
B. Negative pressure ventilation failure:

1. Unit staff must respond to negative pressure failure.
2. Nursing staff will:
   a. Place a surgical mask on the patient in airborne isolation.
   b. Keep the door closed at all times.
   c. Notify the Utilities & Maintenance (U&M) department of the location and problem.
   d. Notify IP&C during the regular work week by paging the ICP that is covering the unit/area.
      i. If an event occurs at night or on the weekend, IP&C will be notified on the next working day.
      ii. Follow steps listed in section 3 below.
   e. Document all information on the Negative Pressure Room Maintenance Log form.
   f. Notify IP&C regarding the findings and required follow-up.
3. U&M staff must respond immediately to the area and
   a. Assess whether the room(s) is/are maintaining negative pressure.
   b. Communicate their findings to the Nurse Manager or designee.
   c. Document their findings on the Negative Pressure Room Maintenance Log form.
4. Nursing staff
   If U&M declares the occupied room is no longer maintaining negative pressure, follow these steps:
   a. For patients who are in airborne isolation (for pulmonary TB, chicken pox, measles or hemorrhagic fever), contact IP&C immediately.
      i. The patient must be transferred to another negative pressure room immediately.
      ii. Put a surgical mask on the patient before transporting. Refer to policy ICM-III-09 Transporting Patients on Isolation Precautions.
      iii. U&M can then proceed with repairs.
   b. If the patient is not in isolation:
      i. The patient can be moved to another room.
      ii. U&M can proceed with repairs.
   c. If the room is unoccupied, then U&M can proceed with repairs immediately.
5. The IP&C department will
   a. Assess the patient/situation with regard to infectious risk.
   b. Provide infection control recommendations based on the risk assessment to minimize transmission of the disease.
   c. Document all information on the Negative Pressure Room Maintenance Log form and patient chart (as required).
   d. Complete any follow-up with the unit staff and the maintenance log form is kept in the Infection Prevention and Control Department.
NEGATIVE PRESSURE ROOM MAINTENANCE LOG

DEPARTMENT: _______________________________

<table>
<thead>
<tr>
<th>DATE</th>
<th>TIME</th>
<th>ROOM</th>
<th>DESCRIBE PROBLEM</th>
<th>UTILITIES AND MAINTENANCE</th>
<th>INFECTION CONTROL</th>
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INSTRUCTIONS:
1. The initiating department must document all information clearly, including initials and badge number.
   b. Notify the Infection Prevention and Control Department.
2. U&M staff must respond and troubleshoot the problem.
   a. Assess whether the room is maintaining negative pressure.
   b. Findings must be explained to department staff and documented on this form, including initials and badge number.
3. Department staff must notify Infection Prevention and Control.
   a. IP&C will assess any infectious risk.
   b. Findings (i.e., whether there is a transmission risk) must be explained to department staff and documented, including initials and badge number.