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POLICY INTENT NOTICE (PIN)

SUBJECT

Review of Existing Facilities for Airborne Infection Isolation Rooms and Projects Related to Isolation of TB Patients

PIN: **4**

Effective: **2/14/1996**
Revised: **6/09/2011**

BACKGROUND

Because of the expense of building new Airborne Infection Isolation Rooms, the increasing number of suspected and confirmed tuberculosis (TB) cases requiring isolation at public hospitals, the need to admit TB patients to different areas of the hospital at different times, and the need to use "TB rooms" for non-isolation patients some of the time, many hospitals are turning to a variety of methods to isolate TB patients that are generally consistent with publications of the Centers for Disease Control and Prevention (CDC).

POLICY

- Portable high efficiency particulate air (HEPA) filtration units not hard-wired, plumbed or structurally affixed to floors, walls, windows or ceilings installed in existing isolation rooms or in existing medical/surgical patient rooms, that are exhausted through windows either directly by installation in the window or via flexible duct through a fixed window panel, will **not** be reviewed by the Office.

- Upon written request, alterations to existing isolation rooms or patient rooms for the use of isolating TB patients will be accepted for review by the Office as an Alternate Method of Compliance.

- Existing licensed isolation rooms, constructed to OSHPD standards in existence prior to October 26, 1993, are **not** required to be upgraded to meet the requirements for Airborne Infection Isolation Rooms in the applicable edition of the California Building Code (CBC).

For the purpose of implementing this PIN, the attached guidelines "Review Procedures for Rooms used to Isolate TB Patients," shall be utilized.

Original Signed — 12/09/11
Paul Coleman — Date

REVIEW PROCEDURE FOR ROOMS USED TO ISOLATE TB PATIENTS

Portable HEPA (minimum 99.97% DOP efficiency or a minimum efficiency value (MERV) of 17) units that are not hard-wired, plumbed or structurally affixed to floors, walls, windows or ceilings installed in existing isolation rooms or in existing medical/surgical patient rooms, that are exhausted through windows either directly by installation in the window or via a duct through a fixed window panel will **not** be reviewed by the Office. It is **recommended** that the facility:

- Monitor, by means of a smoke tube or other local air flow or pressure monitor or gauge in the wall adjacent to the door to the room, the air balance and pressurization within the space so that it complies with recommendations in the Centers for Disease Control and Prevention, Guidelines for Preventing the Transmission of *Mycobacterium tuberculosis* in Health-Care Settings, 2005, MMWR 2005;54 (No. RR-17). If gauges are used, the gauge should be readable from the corridor, and annunciate locally at the door when the air balance is disrupted (except for time delays for normal opening of the door).

- Close windows and doors and seal, as far as practicable, all air penetration leaks into the room being negatively pressurized, e.g., at windows, doors, electrical outlets, lighting fixtures, etc. This can often be accomplished with caulking and fire stop material.

- Insure that alterations do not compromise or alter any fire protection assembly / system (i.e., fire sprinklers, fire alarm, and smoke detection).

- Verify that the exhaust outlet of any portable unit exhausted to the building exterior is not less than 10 feet (3048 mm) from any building opening or air intake and is not located to discharge near an area that may be populated.

Upon written request, alterations to existing isolation or existing patient rooms used to isolate TB patients will be accepted for review by the Office under a Program Flexibility as an Alternate Method of Construction. Existing licensed isolation rooms, constructed to OSHPD standards in existence prior to October 26, 1993, are **not** required to be upgraded to meet the requirements for Airborne Infection Isolation Rooms in the applicable edition of the California Building Code (CBC).

1. Non-portable HEPA (minimum 99.97% DOP efficiency or a MERV of 17) and/or ultraviolet light (U.V.) units mounted on or within ceilings, floors or walls will be reviewed as follows:

    a. Any ceiling, floor, wall or window-mounted device or any installation affecting structural (including anchorage) will be reviewed to the requirements of the applicable edition of the CBC.

    b. Any hard-wired electrical installation will be reviewed to the requirements of the applicable edition of the California Electrical Code (CEC).

c. Any fixed mechanical connections of a fan, duct or filtration unit that attach directly into an existing ventilation duct system will be reviewed to the requirements of the California Mechanical Code (CMC). HEPA (minimum 99.97% DOP efficiency or a MERV of 17) filtered air shall not be returned directly into the general hospital circulation. HEPA (minimum 99.97% DOP efficiency or MERV of 17) filtered air may be exhausted through the general hospital exhaust system subject to OSHPD review.

d. Any fixed plumbing connection will be reviewed to the requirements of the applicable edition of the California Plumbing Code (CPC).

e. No alteration shall compromise or alter any fire protection assembly / system.

2. Changes to the existing mechanical system will be reviewed as follows:

   a. A negative air balance relative to the corridor shall be created. Maximum airflow rates from the corridor into the room shall be 75 cubic feet per minute (35.4 L/s). (Note: Rebalancing of the corridor may be necessary to maintain equal air balance in the corridor.)

      i. An alarm system based on static pressure control, volumetric control or directional flow measurement shall be provided for each room used to isolate TB patients. The alarm system shall consist of a display monitor located on the corridor wall near the patient room door and a visual and/or audible alarm which annunciates at the door when the air balance is interrupted (except for time delays for normal opening of the door).

   b. Air from rooms modified for the isolation of TB patients shall not be returned to general hospital ventilation. Ventilation rates shall be enhanced as follows:

      i. Increased air changes shall conform to the applicable edition of the CMC.

      ii. Air may be recirculated within the patient room if the minimum ventilation rate is increased to greater than or equal to 12 air changes per hour and as much of the air in the room as possible is filtered through a HEPA (minimum 99.97% DOP efficiency) filter unit. Not less than 2 air changes of the total ventilation shall be outdoor air.

3. New ante rooms are not required for alterations to existing isolation or patient rooms for the isolation of TB patients.

4. Medical/surgical patient rooms that are not presently licensed as isolation rooms shall not be identified as an “isolation room” or an “Airborne Infection Isolation Room” unless they comply with all requirements for new construction.

5. Projects for the permanent conversion of any room to an Airborne Infection Isolation Room as described in the applicable edition of the CBC must comply with all requirements for new construction of an Airborne Infection Isolation Room.

NOTE: Please refer to Code Application Notice 1-0 to determine the applicable edition of code.