

**Interpretation IC 170-2017-7 of
ANSI/ASHRAE/ASHE Standard 170-2017
Ventilation of Health Care Facilities**

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Reference: This request for interpretation refers to the requirements in ANSI/ASHRAE/ASHE Standard 170-2013, Table 7.1 (repeated in Tables 8.1 and 9.1), regarding patient corridors.

Background: The single most common spaces in hospitals are hallways and corridors. Circulation spaces can make up 15%-20% or more of a hospital's occupiable area (sq.ft.). In general, hospitals have a full quarter mile of hallways for every 100,000 sq.ft of space.

ASHRAE 170 includes a 2 ACH (0.3 cfm/ft²) minimum air requirement for "*Patient Corridors*". Relative to corridor minimum ventilation, this is a high ventilation rate. A typical corridor or circulation space outdoor air requirement in standard 62.1 is 0.06 cfm/ft² (0.5 ACH). An unoccupied corridor, interior to the conditioned building, with no equipment load and only lighting at 0.5 w/sf would only need 0.05 cfm/sf to maintain temperature.

Therefore, corridors which must follow the "*Patient Corridor*" definition require significantly more annual energy.

- The annual HVAC energy demand of a corridor ventilated 24/7 according to the Standard 62.1 is ~50 kBTU/ft²-yr in Los Angeles and ~55 kBTU/ft²-yr in Atlanta.
- The annual HVAC energy demand of a corridor ventilated 24/7 according to the Standard 170 minimum is ~100 kBTU/ft²-yr in Los Angeles and 120 kBTU/ft²-yr in Atlanta.

There is no definition of "*patient corridors*". The space description occurs in the section "*Inpatient Spaces*" of Table 7.1, and nowhere else, which could be read to mean patient corridors only occur in the inpatient wards or departments.

I think the traditional understanding of a "*Patient Corridor*" is "*that corridor which directly connects to a patient room*". However, in a typical hospital, those "*Patient Corridors*" which directly connect to patient rooms are only a fraction of the total circulation area. There are many different circulation spaces, hallways, and corridors.

This RFI will clarify the different types. Its aim is to understand where a "*normal hallway*" minimum ventilation rate is appropriate, and where the larger "*Patient Corridor*" ventilation requirement should be used.

Example 1: A patient room floor, where the corridor directly connects to the patient room.

Interpretation No.1: A corridor into which inpatient rooms or wards directly open must be considered a "*Patient Corridor*".

Question No.1: Is this interpretation correct?

Answer No.1: Yes

Example 2: on the same patient room floor, or throughout the rest of the hospital, where the corridor goes from the med/surge ward out to the elevator lobby.

Interpretation No.2: A general circulation space, hallway, or corridor, which is not directly connected to an inpatient room, is normally travelled by staff and visitors, but also could be used to transport patients in or out of departments or the facility is not considered a "*Patient Corridor*".

Question No.2: Is this interpretation correct?

Answer No.2: No

Example 3: in the basement of the hospital, where a corridor connects the loading dock, laundry, materials management, and laboratory spaces.

Interpretation No.3: A corridor which connects areas that will normally only be occupied by hospital staff is not considered a "*Patient Corridor*".

Question No.3: Is this interpretation correct?

Answer No.3: Yes

Comments: A corridor which is not intended for patient use would not be considered a patient corridor.

Example 4: The interior of an outpatient clinic located within the hospital.

Interpretation No.4: A circulation space, hallway, or corridor not directly connected to an inpatient room, and leading to and from a day use space, exam room, or treatment room is not considered a "*Patient Corridor*".

Question No.4: Is this interpretation correct?

Answer No.4: No

Example 5: Within the operating room suite, the corridor which is directly connected to an operating room and is used to transport patients into and out of surgery.

Interpretation No.5: The corridor leading to and from operating rooms, which FGI would refer to as a "*semi-restricted*" space or "*restricted*" space, where perioperative staff will be present, and patients will be present in the anesthetized state, is considered a "*Patient Corridor*".

Question No.5: Is this interpretation correct?

Answer No.5: Yes