

DESIGN AND MAINTENANCE

Table 3. Heating, Ventilating, and Air Conditioning Design Parameters¹⁻⁴

Area*	Minimum Total Air Changes per Hour	Minimum Total Outdoor Air Changes	Design Temperature ° F (° C)	Design Relative Humidity	Pressure Relationship to Adjacent Areas
Operating room	20	4	68° - 75° (20° - 24°)	20% - 60% ⁵	Positive
Sterile processing clean workroom	4	2	68° - 73° (20° - 23°)	Maximum 60%	Positive
Sterile processing decontamination room	6	2	60° - 73° (16° - 23°)	NR	Negative
Clean workroom	4	2	NR	NR	Positive
Soiled workroom	10	2	NR	NR	Negative
Sterile storage room	4	2	Maximum 75° (24°)	Maximum 60%	Positive
Gastrointestinal endoscopy procedure room	6	2	68° - 73° (20° - 23°)	20% - 60%	NR
Endoscope cleaning room	10	2	NR	NR	Negative
Postanesthesia care unit	6	2	70° - 75° (21° - 24°)	20% - 60%	NR
Procedure room	15	3	70° - 75° (21° - 24°)	20% - 60%	Positive

* For areas not listed, consult the *ANSI/ASHRAE/ASHE Standard 170-2017 Ventilation of Health Care Facilities*.¹ This is a dynamic document and the most current edition or addendum should be consulted at the time of design.

NR = No recommendation

References

1. ANSI/ASHRAE/ASHE Standard 170-2017: Ventilation of Health Care Facilities. New York, NY: American Society of Heating, Refrigerating and Air-Conditioning Engineers; 2017.
2. Facility Guidelines Institute, US Department of Health and Human Services, American Society for Healthcare Engineering. Guidelines for Design and Construction of Hospitals. Chicago, IL: American Society for Healthcare Engineering of the American Hospital Association; 2018.
3. Facility Guidelines Institute, US Department of Health and Human Services, American Society for Healthcare Engineering. Guidelines for Design and Construction of Outpatient Facilities. Chicago, IL: American Society for Healthcare Engineering of the American Hospital Association; 2018.
4. Berrios-Torres SI, Umscheid CA, Bratzler DW, et al. Centers for Disease Control and Prevention Guideline for the Prevention of Surgical Site Infection, 2017. JAMA Surg. 2017;152(8):784-791.
5. State Operations Manual Appendix I: Survey Procedures for Life Safety Code Surveys. Rev 159; 2016. https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/downloads/som107ap_i_lsc.pdf. Accessed June 7, 2018.

objects or working items due to low light levels and lighting disturbances).

The researchers found that 56% of the respondents reported eye tiredness related to the inadequate lighting conditions, 48% stated they had to change position to be able to see better, and 14% stated inadequate lighting increased the risk for slips or falls. The researchers concluded that light levels and light disturbances, such as unwanted shadows, were correlated with job performance.

2.9.1

Design the surgical suite lighting system to provide

- light for monitoring the patient and performance of other patient care tasks,
- dimmable lighting, and
- low operating and maintenance costs.

[Recommendation]

2.10

Select cabinets and countertops in the surgical suite that are made of nonabsorbent materials