

OR design & construction

What's new in AIA facilities guidelines

Aligning design requirements between inpatient ORs and ambulatory surgery centers is one of the changes in the 2006 *Guidelines for Design and Construction of Health Care Facilities* from the Facilities Guidelines Institute and the American Institute of Architects, Washington, DC.

"We expanded the guidelines to provide the same kind of environmental design features for outpatient surgical facilities as we have for inpatient facilities," says Joseph Sprague, chair of AIA's Health Guidelines Revision Committee. "The committee believes outpatients should be cared for and treated no differently than inpatients in terms of safety."

Private rooms now required

In a major change, the guidelines shift to single-patient, private rooms as a minimum standard for new hospital construction. In new construction, there shall be a maximum of 1 bed per room unless the functional program demonstrates the need for a 2-bed arrangement, which must be approved by the licensing authority.

When facilities are renovated, and present room capacity is more than 1 patient, new capacity shall be no more than the present capacity, with a maximum of 4 patients.

The rationale is that private rooms are quieter, reduce risk of infection, and provide greater privacy, Sprague says.

Highlights of the guidelines that affect surgery:

OR minimum size unchanged

The committee decided not to increase the minimum square footage requirement of 400 sq ft for new general inpatient ORs. The guidelines continue to recommend that rooms for cardiovascular, orthopedic, neurological, and other specialized procedures be at least 600 sq ft.

"We did not increase any of the OR sizes," says Sprague. "There was a lot of debate, but you need two-thirds of the committee to agree, and that wasn't possible."

The committee was reluctant to increase the minimum because not every hospital can afford larger ORs. For renovations, hospitals may seek approval from local authorities for a minimum of 360 sq ft, the guidelines say. Most hospitals build new ORs between 550 sq ft and 650 sq ft, he says.

PACU size clarified

Another change clarified the size of postanesthesia care units (PACUs) to a minimum of 80 sq ft, excluding circulation space, says Kurt Rockstroh, chair of the subcommittee on hospital chapters.

"Some people may consider it an increase, but it is more a clarification of the 80 sq ft previously defined," Rockstroh says. "People had argued that clearance at the foot of the bed—the circulation corridor—could be counted as part of the 80 sq ft. You can't count the circulation corridor now."

Sprague says increases in equipment, infrastructure, and staff in PACUs convinced the committee to clarify the language essentially to require more space.

Phase 2 recovery rooms

For single-bed, phase 2 recovery rooms, the new guidelines now require mini-

mum 100-sq-ft rooms, Rockstroh says. "Before we had language that required 80 sq ft for cubicle curtain rooms. We needed to clarify this for single-bed rooms."

Minor outpatient rooms

A change for ambulatory surgery centers is to increase the Class A minor surgery rooms to 150 sq ft from 120 sq ft. "Types of procedures and the amount of equipment are increasing in ASCs, and we needed to increase the minimum size," Rockstroh says.

OR storage space

The committee decided to leave the minimum requirements for OR storage space. The 2001 guidelines specified minimum requirements of not less than 150 sq ft, or 50 sq ft per OR, for storage space.

"You never have enough storage space," Sprague says. "We debated it. It is true the amount of equipment in the OR has increased dramatically, but it is very costly square footage." The committee did not receive any proposals to increase storage space, he noted.

Infection control enhancements

The guidelines emphasize infection control in design of new ORs.

"We added several provisions and clarifications to improve infection control," Sprague says. Some measures include:

- Walls, ceilings, and floors must be sealed. For example, the 2006 guidelines have a new definition of monolithic ceilings, Rockstroh says. "Some hospitals use lay-in ceilings, but we found maintenance is substandard." Lay-in ceilings essentially are acoustical tile ceilings with metal tracks. Monolithic ceilings have to be free of cracks and fissures, and all openings (for lights and booms) have to be gasketed.
- For HVAC (heating, ventilating, and air conditioning) systems, new language says air flow must have a "face velocity of 25 to 35 ft/min," Rockstroh says, to improve air circulation.
- OR rooms are now permitted to have air returns high on the wall and near the floors, giving engineers flexibility in design.
- ORs are required to maintain minimum air circulation except for maintenance and other shutdowns in HVAC systems. "You can't do surgery when systems are shut down," Rockstroh says. "This clarification says that in times when the OR is not in use, you must maintain systems at a minimum operating level." ❖

The Guidelines for Design and Construction of Health Care Facilities can be ordered from the American Institute of Architects at www.aia.org/aaah. Or call 202/626-7541 or 800/AIA-3837, and select option 4. E-mail bookstore@aia.org. Tentative price is \$110.