

EC News

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Are You Planning Construction or Renovation Projects in 2020?

THE JOINT COMMISSION NOW SURVEYS TO THE FGI'S 2018 *GUIDELINES* (AS WELL AS STATE RULES AND REGULATIONS)

Instead of referencing the 2014 edition of the Facility Guidelines Institute (FGI) *Guidelines for Design and Construction of Health Care Facilities*, The Joint Commission now references the FGI's 2018 *Guidelines* in Standard EC.02.06.05: The [organization] manages its environment during demolition, renovation, or new construction to reduce risk to those in the organization.

A set of three independent documents, the 2018 *Guidelines* differs in a number of respects from the 2014 edition. Most important, the guidelines for ambulatory health care facilities and hospitals have been divided into two separate documents: *Guidelines for Design and Construction of Hospitals* and *Guidelines for Design and Construction of Outpatient Facilities*.

“The primary goal of this change was to make the new outpatient facility document flexible enough to address the wide variety of outpatient project types, which is expected to continue to evolve as the U.S. health care industry adjusts to changing needs over the next decade,” explains the FGI in the “Major Additions and Revisions” section of both the hospital and outpatient documents. The outpatient *Guidelines* addresses the design and construction of everything from small clinics to large medical office buildings and outpatient surgical facilities.

Effective January 1, The Joint Commission references the 2018 *Guidelines* for hospitals in the *Comprehensive Accreditation Manuals (CAMs)* and corresponding E-ditions for accredited hospitals, critical access hospitals, and laboratories. The CAMs and E-ditions for ambulatory health care and office-based surgery programs reference the 2018 *Guidelines* for outpatient facilities.

A separate volume since 2014, the 2018 edition of the FGI *Guidelines for Design and Construction of Residential Health, Care, and Support Facilities* has also been adopted by The Joint Commission for new construction only, as of January 1. This will be reflected in the July 1 update of the manuals (and corresponding E-ditions) for nursing care centers and behavioral health care programs.

It was important for The Joint Commission to move from the 2014 edition to the 2018 *Guidelines*, notes Herman A. McKenzie, MBA, CHSP, The Joint Commission's director of engineering. “We want to ensure that the reference we promote is based on the latest edition of the *Guidelines*,” he says. “Technology, building, and construction systems and techniques evolve rapidly, and we need to stay on the cutting edge.”

Key changes

Some of the changes in the 2018 FGI *Guidelines* apply to all three documents, while many are specific to particular facility types. Here are a few examples of these changes:


- The *Guidelines* documents for both hospitals and outpatient facilities incorporate more stringent criteria for acoustic design, adding new requirements for vibration control and isolation. When deciding where to locate a health care facility, an organization must now consider exterior sources of ground vibration such as road and rail traffic. Vibration from these sources, as well as from construction projects, can have an adverse impact on sensitive biomedical equipment, staff well-being, and patient comfort and satisfaction.
- In all three documents, the term *bariatrics* has been replaced with *patients of size*, except when referring to bariatric surgery. Patients who are not clinically obese (consider professional football players) may still require expanded-capacity lifting equipment and larger door openings. Health care organizations must address accommodations and special equipment needed for this patient segment during the planning stage of facility design and construction.
- The hospital and outpatient documents include more rigorous design requirements for sterile processing areas and satellite facilities to ensure dirty-to-clean workflow. This workflow requires a one-way traffic pattern, in which instruments or devices move from a contaminated to a decontaminated state.
- The FGI also amped up its emergency preparedness and management guidance for both hospitals and outpatient facilities. Health care organizations should plan for resiliency (in case of a natural disaster such as a tornado or an earthquake) and predict space needs in the event of an emergency. For example, will your facility have enough space to receive and isolate patients who've been involved in a mass-casualty incident? How many decontamination shower units should you incorporate into the design of a new hospital?
- The *Guidelines for Design and Construction of Residential Health, Care, and Support Facilities* includes new chapters on long-term residential substance-abuse treatment facilities and on intermediate care facilities for individuals with intellectual or developmental disabilities. This document also enhanced its guidance regarding grab bars, handrails and lean rails, accessible showers, and other measures to assist those with limited mobility and to prevent falls. (See the article on page 5 for more information on fall prevention in health care facilities.)

Evolving ventilation requirements

The 2018 FGI *Guidelines* references the 2017 edition of Standard 170 *Ventilation of Health Care Facilities*, co-developed by the American National Standards Institute (ANSI), the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE), and the American Society for Health Care Engineering (ASHE). However, ANSI/ASHRAE/ASHE Standard 170-2017 is a work in progress. ASHE and ASHRAE are working to separate the outpatient and

hospital categories to make Standard 170 more user-friendly. (Official changes can be made at any point during the document's life cycle.) FGI states that any addenda to Standard 170-2017, such as the [addendum](#) approved in late 2019, will automatically be considered part of the 2018 *Guidelines*.

However, Joint Commission–accredited hospitals are required to follow the 2008 edition of Standard 170 (or state requirements if more stringent)—referenced in the 2012 edition of the National Fire Protection Association (NFPA) *Health Care Facilities Code*—for construction or plans approved on or after July 5, 2016. This requirement became effective January 1, 2020, per the new Element of Performance (EP) 15 (for hospitals only) of Joint Commission Standard EC.02.05.01: The [organization] manages risks associated with its utility systems.

The latest edition of a standards document isn't necessarily more stringent than earlier versions. When faced with apparently conflicting requirements, whether for ventilation or other building features, compliance professionals need to conduct a gap analysis, comparing codes and standards across every pertinent measure. By meeting the most stringent of the minimum requirement variables, health care organizations can make sure that they are compliant with Joint Commission standards, federal regulations, and state and local codes. 

*To learn more about the FGI's 2018 Guidelines and other aspects of health care design and construction, read the new JCR book *Planning, Design, and Construction of Health Care Facilities, 4th edition*, co-published with the American Institute of Architects Academy of Architecture for Health. The book can be ordered from the JCR webstore at <https://www.jointcommissioninternational.org/planning-design-and-construction-of-health-care-facilities-4th-edition/>.*

NEXT ↓

Standing Up for Safety

HELP PREVENT SLIPS, TRIPS, AND FALLS—ONE OF THE MOST COMMON CAUSES OF INJURY AMONG HEALTH CARE WORKERS—BY IMPLEMENTING PRECAUTIONARY MEASURES FROM TOP TO BOTTOM IN YOUR FACILITY

This article is part of a series sponsored by the OSHA Alliance, a collaboration of Joint Commission Resources, The Joint Commission, and the Occupational Safety and Health Administration (OSHA).

Facilities management, safety engineering, environmental services, and other environment of care staff play a major role in preventing slips, trips, and falls—a significant cause of injury that spurred The Joint Commission to issue a *Sentinel Event Alert* on this topic a few years ago. Deficiencies in the physical environment are a key reason for falls, noted the *Alert*, titled “Preventing Falls and Fall-Related Injuries in Health Care Facilities.”¹ Preventing falls is also addressed under National Patient Safety Goal 9 (applicable to Joint Commission–accredited nursing care centers), as well as Provision of Care, Treatment, and Services (PC) Standard PC.01.02.08 (applicable to hospitals).

While the aforementioned focus on patient safety, health care workers (including clinicians, licensed independent practitioners, and front-line staff) are also highly susceptible to slip, trip, and fall (STF) injuries. Indeed, hospitals and other health care facilities are some of the likeliest workplaces for slips, trips, and falls—second only to accommodation and food service facilities.²

Health care and social assistance facilities account for 20.1% of all same-level falls in private industry that result in days away from work, according to the Bureau of



Labor Statistics (BLS).³ In fact, the Occupational Safety and Health Administration (OSHA) has made slips, trips and falls one of its five focus hazards in all its programmed and unprogrammed inspections in both hospitals and nursing and residential care facilities.⁴

Nurses, nursing assistants, and non-patient-care staff are the most likely to experience STF injuries, which account for 25% of all injuries involving days away from work at hospitals (second only to overexertion and bodily reaction, which cause nearly half of injuries).⁵

Although daytime falls are greater in sheer number because that is when more health care employees are at work, the percentage of fall injuries during the night shift (12:01 a.m. to 8 a.m.) is much higher than the national average—20.1% compared with 14.6%.⁶ Falls may be more likely to occur at night because that's when environmental services departments use big floor scrubbers to clean the corridors and common areas, potentially leaving wide swaths of slippery surfaces, observes Lisa Hardesty, MA, CFI-1, CHSP, HEM, a principal consultant for Joint Commission Resources.

Incidents in which a worker falls on the same level, such as a flat floor, are by far the most common type. In any industry, these incidents can lead to damage to the lower extremities such as knees, feet, and toes (30.7%), followed by the trunk, including both shoulders and back (25.6%); 21.8% of fall victims experience injuries to multiple body parts.²

Number of nonfatal occupational falls, slips, and trips involving days away from work, 2018³

	Total	Fall to lower level	Fall on same level	Slips, trips without falls
Hospitals	12,320	830	9,700	1,730
Nursing and residential care facilities	12,370	790	9,880	1,650

Source: US Bureau of Labor Statistics

Safety on the level

Joint Commission surveyors cite most fall hazards in the environment of care under EC.02.06.01: The [organization] establishes and maintains a safe, functional environment. (See “Related Joint Commission Environment of Care Requirements” on page 7.) Falls often occur on the grounds of a health care facility, such as in the parking lot in winter, notes Herman A. McKenzie, MBA, CHSP, The Joint Commission’s director of engineering.

In addition, staff may sometimes trip and fall in construction zones that are not maintained properly or on sidewalk curbs that need to be navigated, points out James Kendig, MS, CHSP, CHCM, CHEM, field director—surveyor management and development for The Joint Commission.

Related Joint Commission Environment of Care Requirements

Standard EC 02.06.01

The [organization] maintains a safe, functional environment.

Element of Performance (EP) 1: Interior spaces meet the needs of the patient population and are safe and suitable to the care, treatment, and services provided.

EP 11: Lighting is suitable for care, treatment, and services.

EP20: Areas used by patients are clean and free of offensive odors.

EP 26: The [organization] keeps furnishings and equipment safe and in good repair.

OSHA standard [29 CFR 1910.22](#) requires that all walking-working surfaces in a place of employment be “maintained free of hazards such as sharp or protruding objects, loose boards, corrosion, leaks, spills, snow, and ice.”

In the interior of a health care facility, maintaining safe flooring surfaces is the first and most basic step in preventing STF incidents because wet floors, spills, and clutter all contribute to fall hazards. OSHA requires that health care organizations identify and evaluate potential hazards, such as clutter or poor lighting, and then develop and implement a safety and health program to prevent or control the hazards.

OSHA also requires the following fall-prevention safety measures:

- Train staff members to keep walking-working surfaces dry and free of hazards, such as slush from people’s boots and shoes tracked inside during winter weather and objects that have fallen on the floor.
- Train staff members to report and clean up spills immediately.
- Where wet processes are performed, provide drainage and false floors, platforms, mats, or other dry standing places.
- Provide warning signs for wet floor areas.
- Create non-slip surfaces in slippery areas, such as toilet and shower areas, with no-skid wax.
- In carpeted areas, have carpets re-laid or stretched if they bulge or have become bunched.
- Provide floor outlets for equipment so that power cords do not need to run across pathways.
- When temporary electrical cords cross floors, tape or anchor them to the floor.
- Perform regular inspections to ensure floor surfaces are safe.
- Encourage employees to wear properly fitted, waterproof footwear to reduce slip and fall hazards.

Ups and downs

Slips, trips, and falls to a lower level, such as those from ladders or on stairs, occur much less frequently than falls on level surfaces, according to BLS data. However, safety precautions to prevent these types of incidents are no less important because there is always the potential for severe or even fatal injuries when staff members fall from a height.

OSHA requires that health care organizations keep stairways safe by ensuring that they are well-lit and that landings and steps are free of materials that could cause slipperiness. Coating step treads and landings with a slip-resistant material can also help health care staff stay on their feet while ascending and descending stairs.

The National Fire Protection Association (NFPA) addresses stairway safety in the *Life Safety Code*^{®*} (NFPA 101-2012), which The Joint Commission references. Health care organizations must make sure that all stairways are equipped with stair rail systems and handrails, a requirement of OSHA, NFPA 101-2012, and Joint Commission Life Safety (LS) Standard LS.02.01.20 (integrity of means of egress), Element of Performance (EP) 9 (handrails for stairs and ramps).

Ladders are another potential source of employee falls from one level to another, especially for facilities and maintenance personnel. Health care organizations must meet the requirements in OSHA's ladder standard ([29 CFR 1910.23](#)), which include inspecting ladders for damage prior to each use and keeping ladders away from doorways or passageways where other activities or traffic may displace them. Organizations must train workers to properly set up ladders and use them on stable, level, and non-slippery surfaces, and to climb with hands free of bulky objects, facing the ladder. Of course, ladders must *never* be moved while workers are on them.

“Health care facilities can implement a ladder management program as a best practice,” suggests Hardesty, who has seen such flagrantly hazardous practices as maintenance staff or contractors standing on the top of step ladders instead of on a rung. Organizations can encourage staff to report unsafe incidents by offering small incentives such as a free lunch or a coffee gift card.

Cart Safeguards

Health care staff using medical carts in unsafe ways can lead to slips, trips, and falls—even when optimal flooring measures are in place.

To help keep cart usage from contributing to fall injuries, OSHA recommends the following precautions:

- ▶ Provide carts that have large low-rolling-resistance wheels.
- ▶ Keep carts maintained to minimize the amount of force needed to push them.
- ▶ Remove malfunctioning carts.
- ▶ Train staff to push rather than pull when possible.
- ▶ Train workers to ask for help with heavy or bulky loads and to make sure they are always able to see around and over a cart.


^{*}*Life Safety Code*[®] is a registered trademark of the National Fire Protection Association, Quincy, MA.



Staying on top

The health care workplace can present many different kinds of danger, but most injuries stem from just a few hazards. These hazards can be specific to an organization or facility. “One best practice is to have a team that reviews all employee incident reports—and I mean every single one—and looks for trends,” Hardesty advises. “It’s important to conduct a root cause analysis on why people are falling: talk to staff involved, visit the site where the injury occurred, understand the workflow, and so on.”

Executing a comprehensive health and safety program that includes measures to help prevent slips, trips, and falls can reduce the number of work-related injuries overall and the number of days employees must be away from work or on modified duty. Fewer incidents can also mean lower workers’ compensation costs.

In 2016, the average hospital had 74 cents in workers’ compensation losses for every \$100 of payroll, and the average workers’ compensation claim for a hospital injury in 2015 was \$22,600.⁷ Everyone benefits when those costs go down and health care organizations can apply their resources to their top priority—excellent patient care. 

Additional Resources

Learn more about steps to take to prevent slips, trips, and falls by reviewing the following standards, guidelines, and tools from the Occupational Safety and Health Administration (OSHA) and the National Institute for Occupational Safety and Health (NIOSH):

- ▶ [Healthcare Wide Hazards: Slips, Trips, and Falls](#) (OSHA e-tool)
- ▶ [Walking-Working Surfaces: General Requirements](#) (OSHA regulations)
- ▶ [Duty to Have Fall Protection and Falling Object Protection](#) (OSHA regulations)
- ▶ [Ladders](#) (OSHA regulations)
- ▶ [Slip, Trip, and Fall Prevention for Healthcare Workers](#) (NIOSH guidelines)

In addition, OSHA offers no-cost and confidential occupational safety and health services to small- and medium-sized organizations, with priority given to high-hazard worksites. Learn more about OSHA’s consultation program [here](#).

References

1. The Joint Commission. [Preventing Falls and Fall-Related Injuries in Health Care Facilities](#). *Sentinel Event Alert*. Sep 28, 2015. Accessed Jan 13, 2020.
2. Yeoh HT, Lockhart TE, Wu X. [Non-fatal occupational falls on the same level](#). *Ergonomics*. 2013;56(2):153–165. Accessed Jan 9, 2020.
3. U.S. Department of Labor, Bureau of Labor Statistics. [Number of Nonfatal Occupational Injuries and Illnesses Involving Days Away from Work by Industry and Selected Events or Exposures Leading to Injury or Illness, Private Industry, 2018](#). Nov 7, 2019. Accessed Jan 9, 2020.
4. Occupational Safety and Health Administration. [OSHA Memo—Inspection Guidance for Inpatient Healthcare Settings](#). Jun 25, 2015. Accessed Jan 9, 2020.
5. Occupational Safety and Health Administration. [Caring for Our Caregivers: Facts About Hospital Worker Safety](#). Sep 2013. Accessed Jan 9, 2020.
6. Yeoh HT, Lockhart TE, Wu X. [Nonfatal occupational falls among U.S. health care workers, 2008-2010](#). *Workplace Health & Safety*. 2013;61(1):3–8. Accessed Jan 9, 2020.
7. Aon Risk Solutions. [2016 Health Care Workers Compensation Barometer Report](#). Accessed Jan 9, 2020.

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EC News Customer Advisory Board Adds New Members

FOUR HEALTH CARE FACILITIES, SAFETY, AND EMERGENCY MANAGEMENT EXPERTS JOIN THE BOARD, WHILE SEVEN CONTINUING MEMBERS WILL SERVE THROUGHOUT 2020.

The *Environment of Care*® News Customer Advisory Board—which suggests article ideas, shares best practice solutions, and critiques content—has been updated for 2020. A thank-you to our retiring board members from 2019. Joining the board are the following individuals, who have expertise in health care facilities management and operations, safety, emergency preparedness, risk management, and environmental health:

Michael Angeline, CHSP, CHCM, HEM, CAM

Director, Safety/Environmental Health & Emergency Management
Mount Carmel Health System
Dayton, Ohio

Bobby L. Baird, SASHE

Director of Facility Operations
University of Florida Health
Gainesville, Florida

Kurt Martz, CHFM, CHSP

Director of Plant Operations
(Hinsdale and LaGrange, Illinois, campuses)
AMITA Health Adventist Medical Center
Hinsdale, Illinois

David M. Sine, DrBE, MA, CSP, ARM, CPHRM

Risk Management Fellow
American Hospital Association
Chicago

The continuing board members listed below will serve throughout the remainder of the year:

Eric R. Alberts, BS, CEM, FPEM, FPEM-HC, CHPP, CHEP, SEM

Corporate Manager, Emergency Preparedness
Orlando Health
Orlando, Florida

Gail Burke, MLS (ASCP)

Accreditation Specialist
Box Butte General Hospital
Alliance, Nebraska

Tina M. Hernandez, CHSP

Environment of Care/Life Safety Specialist
Bronson Methodist Hospital
Kalamazoo, Michigan

Nacian (Shan) A. Largoza

Founder, and owner
MILSpec Logistics LLC
San Antonio, Texas

Edmund Lydon, MS, CHFM, FASHE

Senior Director, Support Services for several facilities
Beth Israel Lahey Health
Boston

John O'Brien, CHFM, MBA, LEED AP

Administrative Director
SSM Health
St. Louis

Bryan Warren, MBA, CHPA, CPO-I

Director of Corporate Security
Atrium Health
Charlotte, North Carolina

New board members will be added in 2021. Anyone interested in serving should contact the editor no later than December of this year. Around that time, an announcement will be placed in *EC News*.

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What's Your **Question?** What's Your **Solution?**

Readers Are Invited to Share Their Solutions to Common Compliance Challenges

The Joint Commission sets standards with which organizations must comply, but it's up to Joint Commission–accredited facilities to determine the best way to comply with them and to identify their own solutions. *EC News* debuted the “What's Your Question? What's Your Solution?” feature with the idea of encouraging readers to submit their questions as well as suggestions and successes.

This month, we are asking a new question:

How do you obtain and keep track of documentation for equipment inspection, testing, and maintenance when outside contractors perform these services?

Readers with answers to these questions or previous questions or who have questions of their own can respond by emailing executive editor Carolyn Schierhorn at cschierhorn@jcrinc.com. Please put “What's Your Solution?” or “What's Your Question?” in the subject line of the email. The best questions and solutions will be published in future issues of *EC News*.

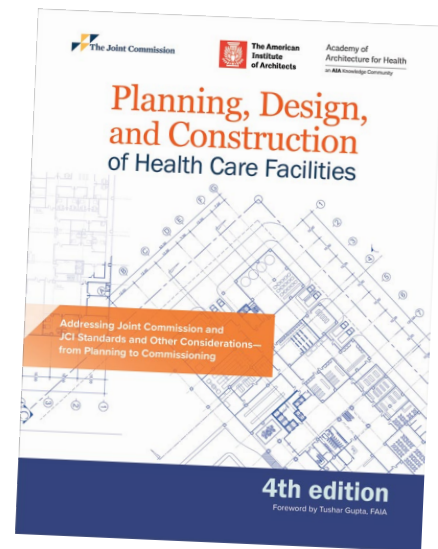
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Cultural Awareness Critical in Health Care Facility Design

THE PROJECT TEAM FOR A JCI-ACCREDITED WOMEN'S HOSPITAL IN THE MIDDLE EAST INCORPORATED FEMININE ARCHITECTURAL ELEMENTS AND THE NEED FOR PATIENT PRIVACY AND FAMILY HOSPITALITY INTO THE DESIGN

In planning the design for Joint Commission International–accredited Danat Al Emarat Women's and Children's Hospital in Abu Dhabi, United Arab Emirates (UAE), architectural firm HKS Inc. spent considerable time in on-site conversations with the client. As a result, the hospital's design is sensitive to local cultural traditions such as valuing both privacy for women and family hospitality. The design also incorporates curving feminine forms and pays homage to the UAE's geological and architectural landscape.

The following case study is excerpted from JCR's new book *Planning, Design, and Construction of Health Care Facilities*, 4th edition, which can be ordered from the JCR [webstore](#). Developed in partnership with the American Institute of Architects Academy of Architecture for Health (AIA/AAH), the book is a comprehensive guide for health care organizations around the world looking to build new facilities—or update current structures—in compliance with Joint Commission, Joint Commission International, and other recognized standards of health care design excellence. The new edition features a wealth of information, strategies, and solutions, as well as eight new case studies, that will help you understand core concepts for a successful construction or renovation project.



Case Study: Cultural Design for a Women's and Children's Hospital

Danat Al Emarat, Abu Dhabi, United Arab Emirates

About the Facility

Joint Commission International—accredited Danat Al Emarat Women's and Children's Hospital is a seven-story, two-tower, 60,000-square-meter (645,000-square-foot) facility in Abu Dhabi, United Arab Emirates (UAE). This private hospital of United Eastern Medical Services (UEMedical) has 257 beds and specializes in high-risk pregnancies of the most fragile newborns. The project was designed and built over two phases. The first tower and basement levels were constructed in 2010; the second tower began construction in 2019.

For most births, the hospital encourages well-baby mother-infant bonding by promoting the “rooming-in” concept, where all well babies stay in the patient room with the mother. For premature babies or those infants needing more care, up to 34 infants can be accommodated in special intensive nursery care settings. These include the following:

- A seven-bed, lower-acuity high dependency unit (HDU)
- A nine-bed Level I neonatal intensive care unit (NICU) or special care baby unit (SCBU)
- A 12-bed Level II NICU
- A 6-bed, highest-acuity Level III NICU

The two patient towers of the hospital have a variety of room types, including large royal suites, VIP and deluxe rooms, and regular-sized mother-baby patient rooms and pediatric patient rooms. Also located within the towers are women’s and pediatrics clinics.

With a specialty in high-risk pregnancies and care for fragile infants, the hospital has six operating suites; a labor evaluation unit; a high-risk pregnancy unit for expectant mothers needing hospitalization; labor/delivery/recovery rooms; intensive care units (ICUs) for infants, children, and adults; a NICU; and a post-partum mother-baby unit. In addition, Danat Al Emarat provides inpatient and outpatient surgical services, a 24-hour emergency department, and a fully integrated advanced imaging and diagnostics center.

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Designed by HKS Inc. and accredited by Joint Commission International, Danat Al Emarat Women's and Children's Hospital in Abu Dhabi, United Arab Emirates (UAE), has become a busy regional hub for the care of women with high-risk pregnancies and deliveries and for neonatal care.

Background on the Project

Danat Al Emarat was designed to deliver cutting-edge, world-class health care using the latest technology to provide advanced diagnostic and surgical procedures. Many of its goals were the same as those of any Western hospital: to provide exceptional patient care using the latest technology in an environment that incorporates sustainability and evidence-based design concepts to support healing for patients and their families.

At the same time, the hospital needed to accommodate local traditions, customs, and the cultural needs of its patients. The design had to incorporate concepts such as hospitality and privacy. “We spent a lot of time engaging in on-site conversations with the client,” says Matthew Guinta, AIA, NCARB, WELL AP, a project architect for HKS Inc. “It was important to learn their needs and expectations first-hand.”

In addition, the design needed to be appropriate to the iconic architectural landscape of the UAE, conveying a unique identity among many other architecturally striking structures. To do this, the design team took inspiration from the fluid forms of wind-sculpted sand in the surrounding desert. The shape of the tower also echoes feminine forms, like the niqab veil and flowing water. This carries over into the patient rooms, which feature similarly soft, curving lines.

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The patient rooms at Danat Al Emarat Women's and Children's Hospital feature high-end finishes and decorative furnishings to promote hospitality and comfort while also maximizing clinical safety.

Hospitality

Hospitality is deeply rooted in Middle Eastern culture, particularly in the UAE. This goes beyond customer service; it is a matter of duty and honor to provide gracious, generous hospitality. A protocol officer employed by the hospital was involved during the design phases, to ensure patient and family satisfaction. To this end, the UEMedical wanted Danat Al Emarat to provide a setting, design, furnishings, and services on par with a luxury hotel, without compromising the exceptional clinical care it provides.

“Because this is a private hospital,” Guinta explains, “the budget was able to provide the desired room sizes and high-end finishes to create a hospitality experience.”

Patient rooms required the design team to balance clinical needs with the desired atmosphere. The materials, finishes, furniture, and fabrics were carefully selected to provide appropriate clinical safety in a room that does not feel clinical. For example, in the first phase of the project, panels on the wall behind the patient bed disguised medical gas fixtures and other necessary equipment. Staff can keep the panels closed when equipment is not in use and quickly slide them open when necessary for patient care.

Hospitality involves more than simple physical luxuries. In the UAE, accommodating family is a fundamental component of maternal and pediatric health care. Many patients have large families accompany them to the hospital. This necessitates extra space in patient rooms and waiting areas. In the first phase, Danat Al Emarat provided space for fathers, children, and other family members, as well as childcare providers and personal staff. Family rooms were attached to, yet separate from, the patient room. Depending on the type of room, this space could include a sleeping area, private bath, work area, and kitchen facilities. Royal suites incorporate a reception area as well.

Even utilities underscore the importance of hospitality. The air handling systems, for example, rely heavily on individual units to provide cooling in patient rooms—a significant divergence from Western health care facilities. Also, meal service is individualized, with families being able to custom order meals around the clock from trained chefs.

Privacy and Security

One of the fundamental concepts addressed by the design of Danat Al Emarat is privacy. This can be difficult to balance against the desire for an open, welcoming environment. However, the design team accomplished this through careful transitioning between public and private spaces. The lobby areas, for example, are airy and inviting to patients, families, and visitors. But this space is separated from private care areas by doorways, screens, and other design elements that are subtle, yet effective.

Another feature is the provision of private areas within the public spaces to accommodate cultural expectations. For example, the design includes women-only seating areas in the waiting rooms. These are separated by screens to afford

privacy without sacrificing continuity and access. Another example is the outpatient pharmacy, which has a dedicated women’s seating area.

“This facility provides care for patients from a variety of cultures,” says Steven Stroman, NCIDQ, an interior designer with HKS. The waiting areas in particular needed to provide options so all patients, families, and visitors can feel comfortable and respected.”

This carries over into the clinical areas as well. There are no communal waiting rooms after a woman is gowned. Private individual gowned waiting rooms are in

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Both the lobby and atrium of the first tower of Danat Al Emarat Women’s and Children’s Hospital reflect curving feminine forms and the UAE’s local geological and architectural landscape.

diagnostic and treatment rooms whenever clinically possible. Anterooms between treatment and diagnostic rooms were designed to never allow direct access onto a clinical corridor. Patient room entryways are made less prominent for privacy and security while accommodating safety and accessible medical care.

Curtains artistically provide privacy within the room, but maintain a view into the room, as necessitated by clinical standards. The curtains run on a curved track that mirrors the fluid forms used throughout the facility, maintaining a consistent design and atmosphere.


Privacy and security are of particular concern at Danat Al Emarat because its patients include members of the royal family, diplomats, celebrities, and others in the public eye. To address these concerns, the design team created a separate VIP entrance with its own elevator. This allows the security staff to focus its efforts efficiently and effectively.

Outcomes

The completed first tower of the Danat Al Emarat Women's and Children's Hospital quickly became one of the busiest hospitals in the region for maternity and delivery services. Patients with high-risk pregnancies or deliveries from across the region are referred there due to the high levels of specialized care it can provide. It also attracts a larger than average number of patients who receive in vitro fertilization.

The design and clinical excellence of the first phase increased occupancy and allowed the hospital to kick off the second patient tower, which is scheduled for completion in 2020. According to Anne Cox, AIA, this second phase will incorporate lessons learned from the first tower and include some renovation of the first tower. For example, some patient rooms will be made larger to accommodate multiple births, which are more common with in vitro fertilization. Also, the NICU will be expanded in size and scope to meet the needs of its patient population.

Another difference will be the arrangement of family space and patient rooms. Rather than having distinct patient and family rooms, the second tower will connect two patient rooms with a door. If the patient needs additional space for family, the door can be opened and furniture switched out for more appropriate items. "This system will give the hospital more flexibility for long term use," says Cox.

In 2010 Danat al Emarat Women's and Children's Hospital (Phase 1 of the project), designed by HKS Inc., received the Best Public Service Architecture Award in the Arabian Commercial Property Awards/International Property Awards annual competition. 

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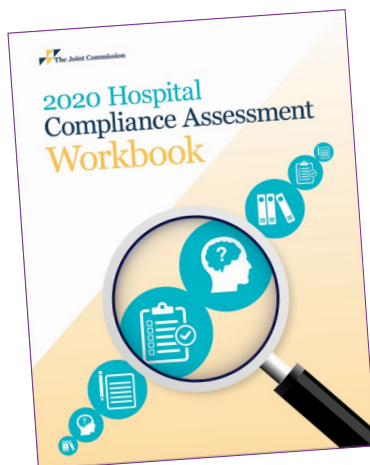
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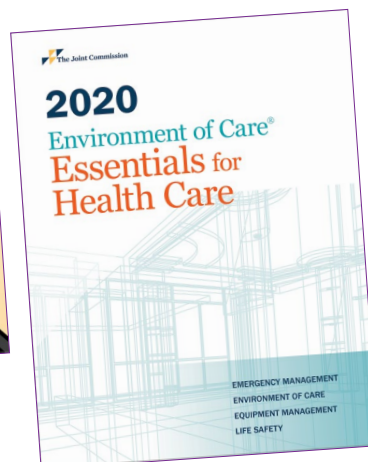
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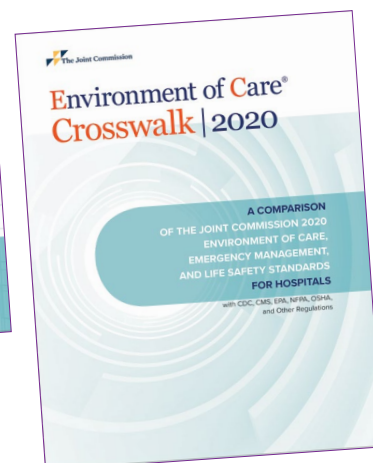
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