

# The SAFEST Children's Hospital

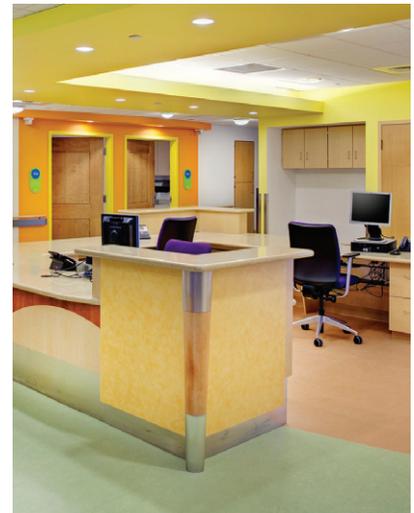
Keeping our patients and their families safe and healthy was a top priority in developing the new Children's Hospital of Pittsburgh of UPMC. It was our goal to deliver the safest, most efficient care through outstanding building design and state-of-the-art technology.

From enhancements such as separate garages and elevators for patients, to more subtle improvements including pass-through nurse servers between corridors and patient rooms to restock supplies or dispose of dirty linens and dietary trays, our new hospital was designed to positively impact infection rates, patient privacy, and noise levels. Quality advances included the following:

1. Aggregated inpatient and outpatient care into same building, though developed separation of services for access purposes by designing separate garages and elevators
2. Private rooms that will enhance high-quality care, positively impacting infection rates, patient privacy, and noise levels
3. Room design was perfected through the use of room mock-ups (acute, PICU, ED, ambulatory) — taking caregivers and families through several rounds of mock-ups (design, building, redesign, rebuild) in order to get spatial dimensions correct and provide proper room for equipment, caregiving, and family living.
4. Integration of life support systems to enhance patient safety in a decentralized care model.
  - Integrating nurse call and wireless phones and integrating physiological monitoring and wireless phones allow caregivers to keep in close touch with the patient's activities.
5. Comprehensive security planning and design created different zones for access privileges
  - Very few public areas (without passing through some security)
  - Secured access into building (physical controls inherent in design)
  - Segregation of staff areas and patient/family areas
  - Dedicated public elevators; restricted access to staff elevators
6. New, state-of-the-art physiological monitoring systems
  - Central stations and slave monitors to support decentralized model
7. Nearly half of OR suites are minimally invasive
8. Development of a hybrid cath lab, which integrates the OR environment within the Cardiac Cath Lab
  - Imaging is used to verify successful surgery or as a precursor to surgery
  - Staged procedure area where minimally invasive techniques are tried first with more invasive procedures being the last resort
  - Limits transporting patients between both venues
9. CICU located in close proximity to Cath Lab and Cardiovascular ORs
10. Decentralized medication dispensing model/process in support of private rooms
  - Nurses with med carts
  - Addition of many medication dispensing towers for narcotics
11. Pass-through nurse servers between corridor and patient rooms so that stocking of supplies and clearing of dirty linens and dietary trays can be done without interruption



12. Inclusion of linear accelerator and PET/CT to facilitate seamless delivery of care on campus (no need to transport patients elsewhere for services)
13. Aggregation of cancer care services on one floor
14. Separate ED entrance for ambulances
15. Integration of operative services onto one floor, including ORs, cath lab, interventional radiology, a procedure center, and an infusion center
  - Shared pre-op and recovery
16. More beds and an expanded ED, which improved throughput and facilitated better aggregation of patients
17. Plentiful isolation rooms and isolation playrooms
18. Because a quiet hospital environment enhances patient healing and satisfaction among health care providers, we have implemented more than 30 measures to reduce noise in patient areas, public spaces, conference rooms, lounges, and consultation rooms
  - Masonry exterior walls at most patient rooms
  - Floor-to-deck full-height partitions, sealed and insulated
  - Multi-layer drywall partitions at patient rooms
  - Acoustic ceiling tile in lieu of hard ceilings
  - Extensive use of carpeting and door seals
  - Remote locations for staff work areas and consult rooms
  - Sound-deadened elevator cab enclosures
  - Extensive use of vibration isolators
  - Remote central plant location, eliminating boilers, chillers, and generators
  - Cast iron piping for storm and sanitary stacks
  - Strict adherence to sound mitigation requirements
  - Use of personal communication devices in lieu of overhead paging
  - Silent notification of nurse call through integration of wireless communication devices
  - Silent notification of alarms from monitoring equipment through integration to wireless communication devices
  - "Soft" wheels on mobile carts
19. Observation stations with windows into patient rooms to facilitate caregivers staying in close contact with their patients
20. Several nurse care stations per unit to keep caregivers in close proximity to patient rooms
21. PICU patient rooms were designed identical to one another to facilitate consistency between rooms and caregiving processes
  - Every room is the same
22. PICU patient rooms designed with glass, break-away doors that will facilitate visibility and flow of patients and equipment into and out of the room
23. Family pantries on patient units provide separation of family nourishment from patients and staff
24. Remote monitoring of cardiac and encephalography status provides immediate access to caregivers for emergent patient conditions
25. Standardization of the location of patient care supplies and par leveling in supply rooms decreases time spent by caregivers locating necessary supplies
26. Intensive care rooms are equipped with all needed provisions, including heliox, to expedite availability to caregivers when needed
27. In-wall medical gases in respiratory storage rooms provides immediate access when preparing ventilators for use



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