What Is Healthcare Facility Design?

Worksheet

Healthcare facility design is the planning of medical buildings around patient flow, infection-control zoning, evidence-based design, and life-safety codes so that clinical care can be delivered safely and efficiently.

Questions

1. What is the primary goal of healthcare facility design?

A) Maximizing square footage
B) Safe, efficient clinical care through zoning and flow planning
C) Minimizing the number of exits
D) Using only open-plan layouts

2. What does 'restricted zone' mean in a surgical suite?

A) A public waiting area
B) An area requiring scrub-in and sterile protocol, like the OR
C) A staff break room
D) A visitor lounge

3. Why is positive air pressure used in an operating room?

A) To cool the room faster
B) To push air outward and prevent contaminants entering
C) To reduce noise
D) To save energy

4. What is evidence-based design used for in hospitals?

A) Choosing paint colors randomly
B) Applying research on layout/lighting/noise to improve patient outcomes
C) Reducing construction permits
D) Increasing bed count only

5. An emergency department must triage 40 patients per hour without crowding the waiting room. What should the layout include?

6. A surgical suite must prevent contamination between the operating room and the hallway. How is this zoned?

7. A hospital wants nurses to reach any patient room within 30 seconds. How should rooms be arranged?

8. Define: What is the main goal of healthcare facility design?

9. Define: What is infection-control zoning?

10. Define: Why does an OR use positive air pressure?

Answer Key

1. B) Safe, efficient clinical care through zoning and flow planning - It balances patient care, infection control, and code compliance.

2. B) An area requiring scrub-in and sterile protocol, like the OR - Restricted zones like the OR require sterile protocol and controlled access.

3. B) To push air outward and prevent contaminants entering - Positive pressure keeps unfiltered air from flowing into the sterile OR.

4. B) Applying research on layout/lighting/noise to improve patient outcomes - Evidence-based design uses research findings to improve healing environments.

5. Place triage immediately adjacent to the entrance for fast assessment Create parallel treatment pods so multiple patients are seen simultaneously Separate ambulance and walk-in entrances to avoid crossing critical and stable patients Provide a rapid-discharge exit so treated patients don't re-cross the waiting area

6. Classify the OR as a restricted zone, the scrub/prep area as semi-restricted Use positive air pressure in the OR so air flows outward, not in Route clean supplies through a separate clean corridor from soiled/waste corridor Require scrub-in at the semi-restricted boundary before entering the restricted zone

7. Cluster patient rooms around a centralized nurse station (radial or racetrack layout) Limit the distance from station to farthest room based on the 30-second target Place supply and medication rooms near the nurse station, not at the unit's far end Use sightlines or remote monitoring so nurses can observe multiple rooms at once

8. To deliver safe, efficient clinical care by planning patient flow, infection control, and code compliance together.

9. Dividing a facility into public, semi-restricted, and restricted zones based on contamination risk.

10. So air flows outward from the OR, keeping contaminants from entering the sterile field.