

The Hospital of Tomorrow



With rapid advancement in technology, it is expected that hospital structure and function are likely to change as well. Here are 10 possible changes that are envisioned for hospitals in developed countries as they continue to evolve:

1. Smaller and More Specialised Hospitals - Hospitals are expected to become smaller with fewer hospital beds. In addition, hospitals will tend to focus more on disease prevention, rapid patient work-ups, diagnostic tests and treatments that should result in shorter hospital stays. Hospitals will also increase use of non-invasive interventions and implement improvement outpatient strategies and home management. Primary care centres will be better staffed and more well-equipped so that more patients could be treated without hospital admission. Only patients with acute illness will be hospitalised. In other words, the concept of general hospital will cease to exist and specialty hospitals will take their place.

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- 2. More User-Friendly Hospitals A time will soon come when hospitals will be more like four or five star hotels with large admission/reception areas, shops and restaurants, landscaped gardens, all-day visiting hours and rooms that are equipped for families to stay with patients. Hospital rooms will also have interactive screens on which patients would be able to see their results and progress as well as request consultation with their doctor or therapist.
- 3. Lower Hospital Staff Routine hospital administration will be conducted via touchscreens and electronic medical records will update automatically if a test is ordered or when results come in. Many aspects of patient management will be managed automatically thus reducing the need for doctors on the hospital floor. Even with fewer staff though, patients will not be neglected and nursing assistants will be there for routine aspects of patient management.
- 4. Wider Use of Telemedicine: Telemedicine/teleconsultations will be everywhere. This technology is easily applicable in several areas such as dermatology, radiology and cardiology. But in time, surgical technique will also be enhanced and remote telesurgery will be used widely while performing surgical interventions. Surgeons will be able to use remote robotic arms without any need of actually visiting the hospital.
- **5.** Use of Robots Will Increase Robots will be used more frequently to deliver food and other supplies, to move patients from one part of the hospital to another for tests or interventions. Robots may even replace physiotherapists for exercise and may one day become more lifelike to converse and provide company to patients.
- **6. Non-Invasive Monitoring** The use of non-invasive multimodal probes or sensors will increase to assess patient heart rate, oxygen saturation, arterial pressure, temperature, respiratory rate, adequacy of skin perfusion, blood glucose levels, fluid balance etc. Data will be transmitted electronically and further tests and/or treatment will be determined accordingly.
- 7. No Separate ICU While there may be still be a department of intensive care, it may become subsepecialised as per the nature of patients admitted to the hospitals. It might be a possibility that instead of having a separate ICU, patients may be provided intensive care on their beds by bringing in a respirator and monitoring equipment. The number of intensive care beds may increase regardless of their physical placement within the hospital.
- **8. Early Patient Mobilisation** Patients may be ambulated early, maybe with the help of robots. Even those required to remain in bed may be helped to exercise passively and actively whenever possible. Since hospitals will be more user-friendly, patients may be more inclined to walk around and not be confined to their rooms.
- **9. Continuity Between Hospital and Home Care** Discharged patients may be managed remotely by the same team they had in the hospital. Follow-up systems are likely to improve and mobile teams may be used to intervene whenever necessary.
- 10. Improved End-of-Life Care There may be more open discussion about end-of-life choices in and out of hospitals. Patients may have their wishes recorded early and in cases where patient condition is likely to lead to death and where further treatment offers no benefit, end-of-life process may be started sooner aided by earlier open discussions.
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