

Objectives

Today, while providing health services, it has become important to produce an efficient, quality and economical health service with concepts such as patient satisfaction, patient safety, cost. Benefiting from health technologies necessary for service production in health institutions adds value to the service provided. Information technologies are one of the most important resources that provide added value to health institutions. In particular, Radio Frequency Identification-RFID technology plays a major role in preventing mistakes that can be made in these areas and ensuring patient care standards, since ensuring that patients are in the right place at the right time and patient follow-up are of vital importance in terms of patient safety. The aim of this study is to emphasize the importance of RFID, one of the innovative technologies, in increasing patient safety.

Methods

In this study, the data of 2520 patients who were sent to the operating room from cardiovascular surgery and thoracic surgery using RFID technology during the operating room process of Ankara City Hospital Cardiovascular Hospital in January-November 2021 were examined.



Table 1: Transportation Times of the Patients to the Stations

CARDIOVASCULAR SURGERY	Destination stations	Target time	January	February	March	April	Mays	June	July	August	September	October	November
	Time to reach the elevator from the clinic exit door	10 sec	7 sec	6,2 sec	5,9 sec	6,1 sec	5,6 sec	5,5 sec	5,8 sec	5,4 sec	6,3 sec	6,2 sec	5,7 sec
	Elevator waiting time	2 min	4,2 min	3,7 min	3,9 min	3,5 min	3 min	2,4 min	3,2 min	3,3 min	3,6 min	3,8 min	3,1 min
	Length of stay in the elevator	60 sec	47 sn	60 sn	45 sn	55 sn	53 sn	44,2 sn	38,3 sn	58 sn	52 sn	48 sn	49 sn
	Transition time from elevator to landing and operating room	80 sec	60 sec	68 sec	72 sec	80 sec	60 sec	70 sec	58 sec	65 sec	58 sec	55 sec	75 sec
	Transition time from the pre-op area to the operating room	30 min	30 min	24 min	28 min	25 min	22 min	23 min	27 min	29 min	27 min	30 min	30 min

Results

As a result of monitoring and examining the data, it has been found that the use of RFID technology in the operating room process is effective and efficient. According to the target times determined in Ankara City Hospital Cardiovascular Hospital, patients can be followed at every step from the clinic exit door to the operating room entrance door and including their delivery to the operating room, and it is seen that the right patient is treated in the right operating room, thereby increasing patient safety.

Conculations

By using RFID technology, the patient's position is automatically updated and the need for human labor and data entry is completely eliminated, increasing efficiency. The data collected with this technology strengthens the system by creating a rich data network and plays an important role in detecting nonconformities. Real-time patient tracking system with RFID technology provides many benefits to the hospital, patients and employees. These; We can list these as reducing the waiting times of patients, ensuring the rapid and safe transition time of patients from the clinic to the surgery, ensuring that the relatives of the patients receive information about the whereabouts of their patients coming out of the surgery, monitoring, control and safety of the patients with identification, increasing the surgical safety and increasing the quality and accreditation in health institutions.

