

CASE STUDY

Ankara City Hospital

The Third Largest Hospital Globally

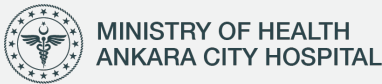
3,704 bed capacity

PRODUCTS IMPLEMENTED

Asset Inventory Management, Asset Safety, Patient Flow

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MINISTRY OF HEALTH
ANKARA CITY HOSPITAL

Ankara City Hospital —the third-largest hospital globally— was opened in 2019 by the Ministry of Health as part of the public-private partnership projects. The Campus covers an area of 14,126,104 square feet. It has nine principal buildings with 131 operating rooms (OR), 904 polyclinics, and 3,704 hospital beds. The Campus will receive 30,000 patients and treat 8,000 emergencies per day at full capacity.



We wouldn't be able to manage our operations efficiently in this 3,704 bed capacity hospital without the operational awareness we are getting from Borda IoT products.

Dr. Aziz Ahmet Surel
Coordinator Chief Medical Officer,
Ankara Integrated Health Campus

Requirement

In such a massive healthcare complex, it was not possible to manage labor-intensive asset operations and operating room processes with conventional methods. The main goal was to maximize the efficiency of 143,000 assets and increase operating room (OR) utilization.

Key objectives

- Preventing assets taken out of the hospital without authorization.
- Shorten the asset counting time
- Receive up-to-date and accurate asset inventory lists
- Prevent asset theft and loss
- Increase the time spent with patients
- Reveal bottlenecks in the OR process
- Decrease the length of stay
- Measure and reduce the waiting times of patients in the OR process
- Improve patient satisfaction
- Increase staff satisfaction and loyalty

Solution

Ankara City Hospital adopted Borda Asset Management, Borda Asset Safety, and Borda Patient Flow products.

The Asset Inventory Management was deployed to count all hospital assets in the most accurate & fastest way and instantly detect which assets are missing/relocated. Since asset counts save time and labor, the hospital would perform asset counts more frequently and receive up-to-date inventory levels. Being informed about missing and relocated medical assets would increase asset efficiency, decrease over-purchase and rentals.

Asset Safety product was also implemented to provide real-time alerts to the security in case of any theft or unauthorized movements of assets from the exit doors of the hospital.

Patient Flow was the best fit product to increase the OR utilization by tracking the OR process of roughly 2,000 operations per month and identifying any bottlenecks at any point of the OR process.

BENEFITS

Asset Inventory Management & Asset Safety

- ✓ Increase in efficiency of more than 160,000 assets
- ✓ 6X increase in asset counting speed
- ✓ %94 reductions in time waste for searching a mobile asset in the hospital.
- ✓ Prevent theft and loss of assets
- ✓ Increase asset availability for patient care

Patient Flow

- ✓ Monitor roughly 20,000 OR processes
- ✓ Accurately forecast operation durations
- ✓ Detect bottlenecks causing delay
- ✓ Reduce patient waiting times, improve patient satisfaction
- ✓ Assure patient-OR match

Analysis

Before implementations, Borda Project Management Team analyzed operational processes to define the best rules and key performance indicators to maximize the benefit. The team divided the hospital into zones considering the architecture and departments to efficiently track assets, patients, and staff. The architecture was analyzed, and hardware installation areas were determined to achieve maximum coverage with minimum hardware. Hospital assets (such as infusion pumps, wheelchairs, beds, pyrometers, et cetera) were analyzed to decide what type of tag to use and which part of the assets to be tagged.

Implementation

Asset Inventory Management & Asset Safety

All fixed assets were tagged with passive radio frequency identification (RFID) tags for asset counting operation. All critical mobile and valuable assets were tagged with active RFID tags for being tracked with real-time locations across the hospital. Locators were placed in various services and on exit doors so that asset movements across could be detected instantly.

Patient Flow

Locators were placed in pre-opt. and post-opt to get the real-time location information of each patient's tag. In addition to managerial reports, OR phases are shown through dashboards in the waiting zone to inform patient relatives.

Training

On-site training was provided to the hospital staff as part of the onboarding. The main goal was to secure the quick adaptation of the staff, to help them understand all guidelines, best practices for system usage, and to take ownership.