Operating Theatre Utilization

> **"** Innovation distinghuishes leaders from the laggers **"**
>
> Jack Welch

IntelliStride

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Challenge

In hospitals the people who are in-charge of maintaining and monitoring the utilization of operation theatres are always are on their toes. It is because of the no. of OTs available are limited and should always be well maintained since we never know when the number of surgeries increase. Operation theatre readiness within a short period of time is another requirement to cope up with where cleanliness can't be compromised. In order to address these challenges a clear definition and usage of process using the latest technology is inevitable. In general, process enhancements using RFID is a must for the following reasons

- Track the history of the essential equipment
- To understand demand and supply of essential equipments
- To track lost stolen, misplaced equipment.
- To improve transparency in following the essential safety process.
- Timely and accurate information of the patients entering OT are not available, because of which delay in clearing & assigning the same requires more time & extra
- effort.
- Improve service delivery
- Efficient use of Operating Theatre
- Readily available real time patient information.
- Digitalize records and reduce manual effort

Background

Radio Frequency Identification (RFID) is a time tested & proven technology that utilizes radio waves for data collection and transfer. Historically, RFID technology has been used in supply chain management, primarily to track goods in warehouses. RFID has been found to improve cost-saving measures, enhanced traceability of inventories and increase efficiency in a range of enterprises.
In recent years, its usage and benefits have been explored in the healthcare sector. Implementing RFID has the following benefits.
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- RFID can capture asset data automatically without human intervention·
- Compared to manual barcode scanning, RFID does not require line-of-sight for readers to capture information from tags.
- An RFID system typically consists of a transponder (tag), a transponder reader, and a database software application.
- Transponders can be active or passive.
- An active transponder has its own energy source, while a passive transponder uses the transponder reader as its energy source .
- The transponder reader uses radio frequency signals to obtain data from the tag, including the identification values, information encrypted in the tag, and its location.
- Data collected from the transponder reader is then sent through a local area network (LAN) to a database installed on a server.
- Users can then retrieve the data using an application installed on the server.

Operating Theatre Utilization Monitoring using RFID

Result

- Increased visibility of patient flow to the management.
- Eliminate manual registers results in less manpower.
- Near real-time data capture on the patient in-flow.
- Effective management and monitoring.
- Automating and simplification of tasks.
- Setting a standard for the workflow.
- Improvement of safety and following standard procedures
- Increase the visibility of utilization and management of patient flow in operating rooms.
- Provides transparency of utilization of operating rooms.

ABOUT US

IntelliStride offers end-to-end IoT solutions to the automotive, manufacturing, retail, healthcare, transport and logistics sectors such as Asset Management, Supply Chain Automation, Work-in-Process / Kanban, Yard management, RLTS and object tracking, Track and trace, Fleet management, Maintenance, Electronic toll collect, Parking management, and more.

Our Solution Specialists are available to discussed your plans and realize your vision.

SOLUTION

Using passive RFID technology is recommended for capturing patient details. Each patient will be issued a wristband RFID tag which automatically records IN & OUT movements while passing through the RFID portals installed at the entry/exit points of operating rooms which enables:

- Automatic entry & exit
- Manage patient reporting accuracy.
- Near real time patient availability status.
- Plan for accurate shifting
- Improve overall operational service related to Operating Theatre
- Other details can be linked to the status as deemed necessary.
- In case needed the solution can also be extended to incorporate portable bed from patient room/ floor toOT. This will be dependent on the process followed in hospitals.