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STRONGER

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Equipment Found! Using an RTLS to Track Moveable Medical Equipment

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Learning Objectives

- Discuss which equipment categories commonly incur loss and what causes these losses.
- Define what an RTLS is and how it works.
- Identify the multiple benefits of an RTLS.



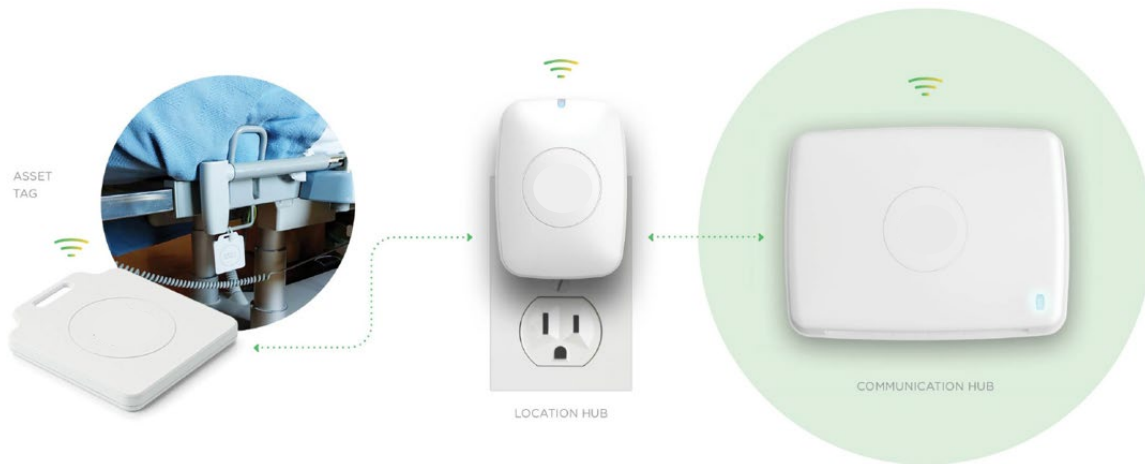
Equipment Found! Using an RTLS to Track Moveable Medical Equipment

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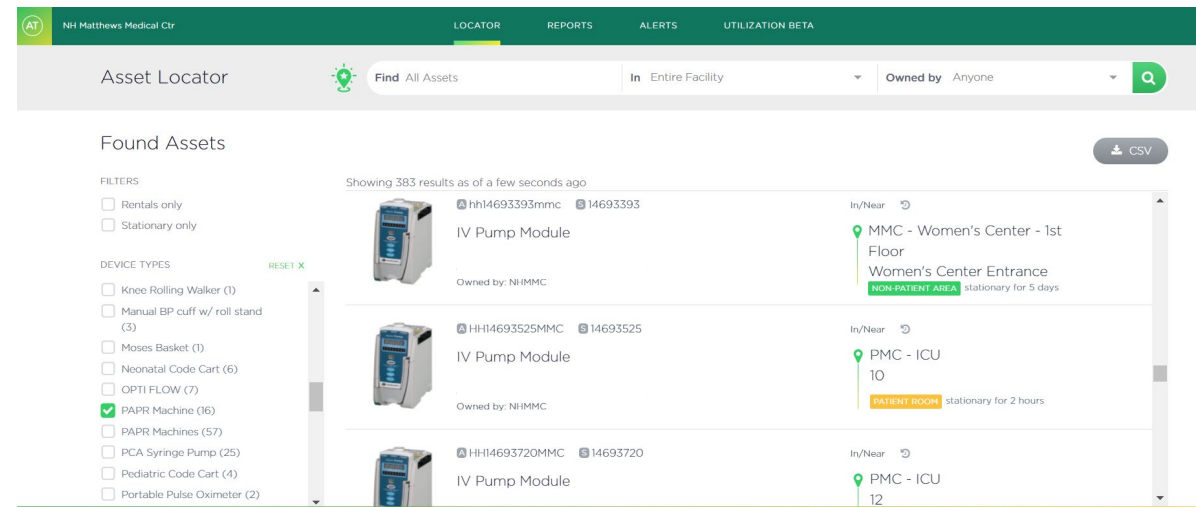
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What is a Real Time Location System (RTLS)

System that allows user to locate tagged equipment within a facility. Typically using RFID or Bluetooth technology and a web-based dashboard and reporting system.



Hardware



Software / web-based dashboard

RTLS Business Case

- Why Sourcing / Supply Chain led the charge for this capability
- Prior failed attempts at getting RTLS system (cost prohibitive)
- Bluetooth technology and Hand Hygiene initiatives changed the game

RTLS Business Case (cont'd)

- Projected and confirmed that savings from reduction of lost equipment would pay for the annual subscription for both Hand Hygiene and Asset Tracking tool
- Benchmarks and corroboration through annual purchases for replacement (vs. growth), we are replacing 8-11%
 - IV Pumps, SCD Pumps, Telemetry Boxes alone we projected an annualized savings ~\$200k per year at a ~130 bed facility
- Once we have a handle on loss reduction, we then right size fleets - avoid further replacement due to excess equipment with ability to locate equipment in real time (10-20% quantity reduction)

Implementation



A 13928311 S 14677852

IV Pump Brain

Owned by: NHMMC



A 13926457 S TR302N+006835

PAPR Machines

Owned by: NHMMC

In/Near ↻

MMC - Women's Center
210 - 215 Hallway

NON-PATIENT AREA stationary for 4 hours

In/Near ↻

MMC - ICU
Break Room ICU

NON-PATIENT AREA stationary for 3 days

“Big 5” Primary Asset Categories

- IV Pumps
- IV Pump Modules
- SCD (Sequential Compression Devices) Machines
- PAPR (Power Air-Purifying Respirator) Machines
- Telemetry Boxes



Hospital-Specific Categories

- Code-Blue Carts
- Bladder Scanners
- Defibrillators
- T-Pumps
- Linen Tablets
- Epidural Pumps
- Floor Scales
- Patient Lifts
- ENT Carts
- Urology Carts
- Specialty Beds
- Ventilators
- Rehab Supplies
- Wound Vacs
- Portable Pulse Oximeters
- PCA Pumps
- EKG Machines


Lost Assets Report Page

INVENTORY LOST
10% (139/1454)

- Able to keep track of assets that are “lost” via their last known location

 Telemetry Box A 31505715-64... S SEZ18240058SA	NHMMC NHMMC - Clinical Decision Unit	MMC - Material Management Loading Dock	11 days
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- Provides data on low or dead batteries

ASSET	OWNERSHIP	LAST LOCATION	LAST SEEN	BATTERY STATUS ?
 SCD Pump A PM5300 S 903917	NHMMC	MMC - Emergency Department Exam 29-31 Hallway	a year	Out of battery

Asset Alerts

- Certain location hubs send alerts out when an asset is detected nearby
- An email and text is sent to a user who can find the equipment
- Real time notification prevents equipment loss
- Placed in locations near exits, loading docks, and garbage collection areas
- Identifies staff oversight and corrects mishandling of hospital equipment
- Deters theft when used in conjunction with hospital public safety

Dec 2, 2021 - 5:20 PM

A **Telemetry Box** has entered:

**MMC - Material Management
Loading Dock**

ASSET INFO

Asset ID: 31505685-60655

Owned by: MMC - Med/Surg-4th Floor, MMC

Locate Device

Pandemic Experience

- Real time tracking of assets important to Covid-19 response team
- PAPR machines, ventilators, and beds had largest impact
- Saved time tracking equipment
- Focused equipment responsibility

Showing 57 results as of 2 minutes ago



A I3929116 S TR302N+006843

PAPR Machines

Owned by: NHMMC

In/Near

MMC - 3rd Floor Med-Surg
Comm. Center In Core

NON-PATIENT AREA stationary for 2 months



A NLC PAPR 003 S 2D022395

PAPR Machines

Owned by: NHMMC

In/Near

MMC - 3rd Floor Med-Surg
Comm. Center In Core

NON-PATIENT AREA stationary for a day



A NLC PAPR 420 S TR302N+1E03554778815110123

PAPR Machines

Owned by: NHMMC

In/Near

MMC - Endoscopy
Endo 2

NON-PATIENT AREA stationary for 3 months



A NLC PAPR 421 S TR302N+1E03549578815110123

PAPR Machines

Owned by: NHMMC

In/Near

MMC - OR
Hallway between Endo and
OR

NON-PATIENT AREA stationary for 3 months

Driving Utilization

- Continual End-User Education
- Creating Accessibility
- Real Time Knowledge Examples
- Equipment “Ownership”
- Understanding the flow of enterprise equipment data
- Keep nurses by the bedside instead of searching for equipment

Lessons Learned

- IV Pumps move with patients from lower to higher acuity facilities
- System emphasized the need for dedicated equipment supply personnel
- Utilize log in and searches report as initial metric of success, then reduction of lost equipment, then right-sizing efficiencies
- Resources must be dedicated for day-to-day upkeep of system
- Be mindful of tagging request proliferation (don't want all equipment tagged)

Key Takeaways

- Use RTLS for both Hand Hygiene and Equipment Tracking for best ROI
- Equipment is rarely ever stolen
- SCD Pumps don't leave the building / they are just hard to find
- Tele boxes are put in laundry chutes or trash and once they leave are not recovered
- Knowing where equipment is in real time creates additional capacity

Questions?



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