

Six Scenarios. One Lesson: Location Data Wins.



Asset Management

15–30%

lower rental spend

Locate owned pumps before renting or buying. Winning play: a “find-before-rent” workflow that returned rentals early and rebalanced the fleet.



Patient Flow

50%

faster bed turnover

Epic-integrated auto-discharge + EVS alerts unclogged the ED. In clinics, milestone analytics lifted visits 10% and satisfaction 8%.



Staff Duress

\$250–400K+

combined annual value

The strongest business case was ALL of the above: retention, injury costs, satisfaction, liability — plus 30–70% faster response.



Infant Protection

Zero

successful abductions

Alarms only matter if staff respond at the point of the event. Immediate verification detained the abductor before exiting the unit.



Hand Hygiene

~30%

compliance gain in 2 yrs

Electronic monitoring beat more signage and audits — objective 24/7 data, individual coaching, and leadership accountability.



Environmental Monitoring

85%

less product loss

24/7 centralized monitoring and alerting catches excursions early — preventing the next \$100K weekend vaccine loss.

The Pattern Behind Every Winning Answer

1. Technology + Workflow + Governance: Point fixes — more staff, more audits, bigger refrigerators — treat symptoms. Every winning answer paired RTLS data with a redesigned workflow and leadership ownership.

3. Value Extends Beyond the Obvious Metric: Staff Duress started as a security project; its real return spans retention, injuries, liability, and workforce resilience. Build the whole case, not one line item.

2. Baseline Before You Deploy: 50% faster turnover and 30% compliance gains were provable only because current-state metrics were documented first. No baseline, no defensible ROA.

4. Sustain It — or Lose It: Scorecards, monthly data reviews, and QBRs turn early wins into quarter-after-quarter value. Adoption and continuous measurement are the value multipliers.

DISCOVER BASELINE → MEASURE → SUSTAIN

Better workflows. Happier staff. Measurable ROA — quarter after quarter.

Hand Hygiene

The Situation

A 500-bed urban academic medical center had a strong culture of infection prevention and ongoing hand hygiene education. Compliance monitoring relied on direct observations. Reported compliance rates appeared favorable, but only a few hundred were collected each month on each unit and primarily during daytime hours. Leadership recognized that observation bias and the Hawthorne Effect likely limited their ability to accurately measure hand hygiene performance and identify opportunities for improvement. Plus, healthcare-associated infections remained an ongoing concern and the organization needed a reliable way to obtain objective hand hygiene data across all shifts, units, and roles without disrupting workflows. Our facility implemented an electronic hand hygiene monitoring solution integrated with its Centrak RTLS staff-locating technology. The hand hygiene system captured opportunities and events throughout the facility, providing objective compliance reporting at the hospital, unit, and individual caregiver level, with staff receiving individualized feedback. Compliance improved approximately 30% over two years, and leadership gained visibility into performance trends, workflow barriers, and high-priority intervention opportunities.

CDC materials identify reducing HAI rates, identifying improvement opportunities, and meeting regulatory needs as reasons to monitor hand hygiene adherence. They also describe direct observation as time- and resource-intensive and potentially subject to performance influence

Illustrative Financial Scenario - Assume the hospital:

- Prevents **10 HAIs annually**
 - Uses an illustrative avoided cost of **\$25,000 per infection**
 - Reduces manual audit and reporting labor by **\$50,000 annually**
- Avoids **five excess bed-days** per prevented infection
 - Assigns an illustrative value of **\$1,500 per recovered bed-day**

The financial value is not the hand hygiene system itself. The value comes from reducing healthcare-associated infections (HAIs), which are among the most expensive adverse events in healthcare.

Assume:

- Hospital experiences 50 preventable HAIs annually
 - Average cost per HAI = \$15,000 to \$45,000+
- Automated monitoring drives sustained compliance improvement of 30%
 - Resulting in a modest 10-20% reduction in HAIs

HAI Reduction	Cost per HAI	Annual Financial Impact
5 infections prevented	\$15,000	\$75,000
10 infections prevented	\$25,000	\$250,000
15 infections prevented	\$45,000	\$675,000

“How do we measure compliance” to “How do we create measurable patient safety and financial value.”

- Potential Value Metrics:
- Hand Hygiene Compliance Improvement: Percentage increase in compliance over baseline
 - Measurement Accuracy: Number of hand hygiene events captured vs. direct observations
 - Staff Engagement: Individual and unit-level participation in coaching and improvement initiatives
 - 24/7 Visibility: Compliance performance across all shifts and roles
 - Patient Safety Impact: Reduction in healthcare-associated infection risk
 - Financial Value: Cost avoidance associated with prevented infections and adverse events
 - Sustainability: Ability to maintain improvement over time through objective performance data

Patient Flow

The Situation

We have a busy Emergency Department that is experiencing severe overcrowding, with admitted patients boarding in the ED for 12–36 hours while awaiting inpatient beds. As many as 40% of ED beds are occupied by holds, resulting in 8–10 hour wait times for incoming patients. An operational review identified a significant delay between patient discharge and bed availability as a major contributor to the bottleneck. The hospital recently deployed RTLS with CGL coverage hospital-wide for nurse call cancellation and staff duress. The crisis response team has engaged the hospital's RTLS Steering Committee to determine how the existing RTLS infrastructure could be leveraged to reduce discharge-to-bed turnaround times and improve patient flow. Working together, we discovered this.

Patient Flow RTLS Opportunities

Ambulatory Care/Surgical Services/ Procedural Care

- Pre-Registration
- Post-Registration/
Waiting for Care
- Staff & Patient
Workflow-data
analytics
- 2-Way Patient Texting
- Family View Board
- Contact Tracing
- Family Messaging

Emergency Service

- Patient/Family View
Board & Messaging
- Staff & Patient
Workflow
- Contact Tracing
- Analytics to predict
demand for services
- First provider contact
(Epic)

Inpatient Visibility

- Automated discharge/
EVS Notification (Epic)
- Admissions Waiting
- Discharge Lounge
- Patient Flow
Command Center
- Patient Visibility
- Mobile application for
providers & ancillary
(Epic)
- Patient Mobility
- Staff & Patient
Workflow
- Contact Tracing
- Family Messaging

Illustrative Annual Capacity and Financial Opportunity

Illustrative assumptions:

- 30 inpatient discharges per day
- 60-minute current discharge-to-bed-ready time
- 50% reduction after RTLS workflow automation
- 30 minutes of capacity recovered per discharge
- \$3,000 illustrative net contribution per incremental admission

Measure	Current State	RTLS-Enabled State	Potential Impact
Bed turnover time	60 minutes	30 minutes	50% reduction
Capacity recovered daily	0 hours	15 hours	15 additional bed-hours
Capacity recovered annually	0 hours	5,475 hours	228 bed-days
Equivalent admission capacity	Baseline	Up to 228 additional admissions	Without adding beds
Illustrative annual financial opportunity	Baseline	\$684,000	228 × \$3,000

Infant Protection

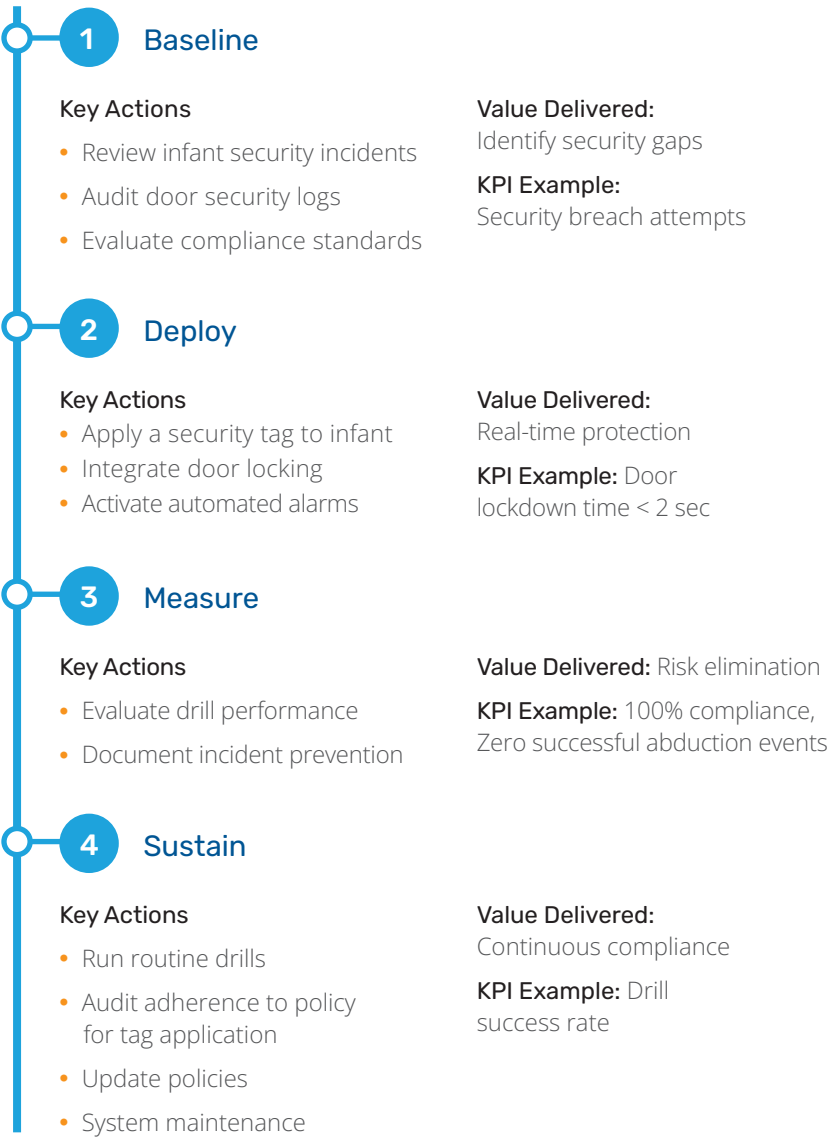
The Situation

A baby that physically cannot be abducted is the outcome of an Infant Protection system you can **never** put a price on, and it's the one that most completely justifies having deployed it. One prevented infant security event protects patients, preserves community trust, safeguards the emotional well-being of caregivers involved, and helps avoid potentially millions in organizational, legal, and reputational exposure.

- Zero infant abduction events
 - Lockdown automation < 2 seconds
 - Regulatory compliance protection
- Brand and community trust preservation
 - Reduced legal and liability exposure

Return on Adoption Valuation

Strategic Objective:
Prevent infant abduction and ensure unit security compliance.



Conservative Valuation Model

Avoided Organizational Risk Exposure	
Impact Category	Illustrative Range
Internal investigation and response	\$50,000 - \$250,000
Regulatory review and corrective actions	\$100,000 - \$500,000
Legal defense and settlement exposure	\$250,000 - \$2,000,000+
Crisis communications and brand recovery	\$50,000 - \$500,000
Patient confidence and birth-volume impact	\$250,000 - \$2,000,000+
Staff turnover and recruiting costs	\$25,000 - \$250,000

Proven Value Impact

- ✓ Immediate lockdown automation
- ✓ Regulatory compliance
- ✓ Institutional reputation protection

Environmental Monitoring

The Situation

A rural hospital reached out. They had recently received their annual flu vaccine shipment, which was placed in a refrigerator and logged by Employee Health staff. Before leaving early on a Friday, the staff did not notice the refrigerator door had not fully closed. Over the weekend, the refrigerator temperature rose beyond acceptable limits. Although a thermometer and basic data logger recorded the temperature increase, they could not determine how long the vaccines were exposed to out-of-range conditions. When it was discovered on Monday, the vaccines had already reached room temperature. Without documented evidence of the excursion's duration and extent, the distributor required that the entire inventory of newly received vaccine be discarded, resulting in an estimated \$100,000 loss. Hospital leadership has prioritized preventing similar losses in the future. How could an environmental monitoring solution, response, and outcome help protect temperature-sensitive inventory and reduce risk going forward?

Baseline

Metric	Value
Vaccine inventory lost	\$100,000
Excursion detected after weekend	Yes
Documented excursion duration	No
Inventory salvageable	No
Financial loss	\$100,000

Expanded Hospital-Wide Impact

Protected Asset Type	Typical Financial Risk
Vaccines	High
Blood products	High
Medications	High
Laboratory specimens	Moderate to High
Tissue and biologics	High
Nutrition refrigerators/freezers	Moderate

After RTLS

Metric	Before RTLS	After RTLS
Annual product loss	\$100,000	\$15,000
Reduction in loss	-	85%
Product value protected	-	\$85,000 annually
Real-time alerts	No	Yes
24/7 monitoring	No	Yes
Escalation notifications	No	Yes
Excursion documentation	Limited	Continuous

Illustrative Enterprise Impact

Annual temperature excursion losses	85% Reduction	Potential Savings
\$100,000	85%	\$85,000
\$250,000	85%	\$212,500
\$500,000	85%	\$425,000

By leveraging RTLS-enabled environmental monitoring with 24/7 centralized alerting, Waters Edge Hospital transformed temperature excursions from a retrospective discovery into a proactive intervention process. An 85% reduction in product loss could protect approximately \$85,000 annually from a single vaccine storage scenario and potentially hundreds of thousands of dollars when extended to medications, blood products, laboratory specimens, and other temperature-sensitive inventory throughout the organization.