PATIENT CARE & EXPERIENCE

OSIRIS
TECHNICAL SYSTEMS

Compassion, Streamlined: The RFID Connection in Patient Care

A nurse enters a patient's room at 3 AM to administer medication. The patient is asleep with their wristband hidden. Traditionally, the nurse must wake them for confirmation, disrupting crucial sleep. With RFID, verification is silent, allowing uninterrupted rest.

An elderly patient with dementia wanders off. Without real-time location systems, staff notice the absence during routine rounds - potentially hours later. RFID alerts trigger immediately, locating the patient before danger, providing reassurance to the family.

A mother in a maternity ward wakes at 2 AM, panicked about her newborn. She pressed the call button but hasn't heard back. With RFID infant tracking, she checks her bedside monitor and sees her baby is safely in the nursery. Her heart rate settles, she doesn't need the call button. The system already provided peace.

These aren't just efficiency metrics. They highlight technology serving dignity, safety, and healthcare's fundamental goal: healing without additional burden.

What Impinj's Platform Actually Does

Gen2v3 represents the foundation - proven, reliable identification that works in the demanding healthcare environment. It handles the fundamental need to know where something is and verify what it is, with certainty.

Gen2x extends this capability significantly by enabling tags to carry encrypted, authenticated data that travels with the patient or specimen. This means critical information stays attached to what matters, even when systems go down or when items move between facilities.

Getting It Right Every Time - Medication Administration

A nurse scans a patient's wristband, then scans the medication. Within seconds, the system confirms: right patient, right medication, right dose, right time, right route. This "five rights" verification happens in real-time, catching errors before they reach the patient.

Gen2x takes this further by embedding encrypted medication histories directly on patient wristbands. When a patient moves from the emergency department to a surgical unit, their allergy information, current medications, and contraindications move with them - no database queries needed, no risk of outdated records.

> Every second matters in patient care. RFID brings clarity where confusion once lived. Because in healthcare, confidence is the greatest comfort.

Certainty When It Matters Most - Patient Identification

In maternity wards, RFID wristbands on mothers and infants create an instant verification system. When a baby is brought to a mother, both bands are scanned. If there's a mismatch, alerts trigger immediately. The system doesn't assume - it knows.

For patients with cognitive impairments, dementia, or those who are unconscious, Gen2v3 wristbands provide instant, accurate identification without requiring the patient to communicate. Emergency responders, nurses, and physicians get immediate access to who the patient is, eliminating dangerous delays in treatment.

Reducing Waits, Improving Care - Patient Flow

Emergency departments use RFID to track patient movement through triage, examination rooms, imaging, and discharge. Staff can see in real-time where bottlenecks form, which patients have been waiting longest, and which rooms are genuinely available versus occupied but not documented.

The result isn't just operational efficiency - it's a patient in chest pain getting to a cardiac suite eight minutes faster. It's an anxious family receiving updates because the system knows exactly where their loved one is in the surgical process.

Patient Location & Family Communication

Emergency room anxiety is a unique challenge. Families often worry and imagine worst-case scenarios due to lack of information. A daughter paces, uncertain if her father is still in radiology or if something went wrong.

RFID Solutions for Transparency and Peace of Mind:

- Real-time patient location updates
- Automated family notifications via text
- Digital tracking boards in waiting areas
- Accurate estimated wait times
- Notifications for family reunions
- Alerts for wandering patients
- Optimized code response with instant patient location

Technical Foundation: Patient wristbands with RFID tags are read by fixed readers at key facility points. Impinj xArray gateways provide coverage, while the integrated data platform tracks patient movements. Integration with hospital systems enables secure, de-identified notifications to families. Geofencing defines safe zones and sends alerts for at-risk patients. Analytics dashboards display real-time capacity and patient flow data.

> A nurse scanning your wristband reveals not just your name but your story. The RFID Gen 2x chip remembers life-saving details - your allergies, medications, and even your preferred name. This technology fosters care by easing administrative burdens, allowing caregivers to focus on what matters: being there for you.

Safety Through Verification - Blood Product Management

Blood transfusions carry inherent risk. RFID creates multiple verification checkpoints: the blood unit is matched to the patient order, temperature monitoring ensures proper storage throughout transport, and final bedside verification confirms compatibility before transfusion begins.

Gen2x encrypted tags on blood products maintain an unbroken chain of custody and authenticity. The system knows if a unit has been compromised, if it's expired, or if it's been stored improperly - and it knows this regardless of whether it's connected to the central network.

The Gen2x Advantage in Disconnected Scenarios

Healthcare facilities can't afford single points of failure. Gen2x's cryptographic authentication and data storage capabilities mean that critical patient safety functions continue even during network outages or system failures.

A patient wristband can carry encrypted allergy information, blood type, and medication contraindications directly on the tag itself. When a crash cart is brought to a bedside, staff can access this life-critical information immediately, without waiting for database access or relying on a conscious patient's recall during a medical emergency.

What This Actually Means for Patients

Shorter wait times because staff spend less time searching and more time providing care. Fewer errors because verification happens automatically at every step. Faster responses in emergencies because critical information is immediately accessible. Greater confidence that the person caring for you knows exactly who you are and what you need.

This isn't about technology for technology's sake. It's about creating an environment where healthcare professionals can focus on patient care because the system handles verification, tracking, and alerting automatically and reliably.

The difference between a good healthcare experience and a dangerous one often comes down to having the right information at the right moment. RFID, implemented thoughtfully with Impinj's Gen2x and Gen2v3 platforms, ensures that happens consistently.

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