

# Smart Hand Hygiene and Infection Prevention Solutions

Helping Each Other Save Lives™



  
HYGIENIC ECHO INC.

# Transforming Hand Hygiene and Infection Prevention



Backed by over 20 years of scientific research and clinical validation, **Hygienic Echo's Smart Hand Hygiene and Infection Prevention Solutions** feature intelligent, wearable badges that prompt hand hygiene **only when necessary**—increasing compliance without adding to the workload.

These smart reminders can **more than double hand hygiene compliance**, while our automated, unbiased 24/7 auditing system replaces traditional manual methods.

Data collection, detailed reporting, and actionable insights empower IPAC teams and clinical managers to proactively prevent infections and improve care quality. With flexible configurations and a scalable design, our solutions are tailored to meet the unique needs of various industries and organizations.

## Hospitals

**Buddy Badge** is a smart, wearable hand hygiene solution designed specifically for **hospitals**. It focuses on improving hand hygiene compliance with **Moments 1 and 4** by prompting before entering and after exiting the patient room. By **capturing nearly all hand hygiene opportunities** around the clock, it replaces manual observation with an **automated auditing system**. The system delivers accurate, unbiased data and actionable insights, **enabling IPAC managers to make informed decisions**, strengthen infection prevention strategies, and improve overall patient safety without disrupting clinical workflows.



## Congregate Settings

**Green Badge** is a new way of raising the level of hand hygiene in almost any **congregate settings**, including: retirement homes, restaurants, hotels, child care centres and cruise lines. Using **interval-based prompting**, it encourages staff to maintain consistent hand hygiene throughout their shifts. By reducing the risk of cross-contamination, Green Badge helps create a safer, cleaner environment for both staff and the public — reinforcing hygiene standards without disrupting workflow.



## Long-Term Care

**Care Badge** is a specialized hand hygiene solution designed for the unique needs of **long-term care**. In addition to prompting hand hygiene for **Moments 1 and 4** before entering and after exiting resident rooms, it uses **interval-based prompting** in **congregate areas** to reinforce overall hand hygiene and support consistent, lasting habits. By **capturing nearly all hand hygiene opportunities**, it replaces manual observation with an **automated auditing system**. Care Badge provides actionable data, **enabling IPAC managers to support data-driven decisions**. The system enhances resident protection while respecting the pace and flow of daily care.






# System Overview: Smart Hand Hygiene in Action

## Zone Marker

-  **Defines virtual zones** with location-based rules for hand hygiene.
-  **Pins hand hygiene events and exposure data** to specific zones.

## Self-Service Badge Station Kiosk

-  **QR code sign-in/sign-out** for quick and easy daily badge activation.
-  **Reports daily hand hygiene performance** at the unit level.
-  **Displays the Hand Hygiene Hero**, recognizing top-performing staff each day.

## Wearable Badge

-  **Prompts for hand hygiene when needed** and **automatically registers compliant events**, crediting each user.

## Dispenser Counter

-  **Compatible with any dispenser**, including manual and automatic models.

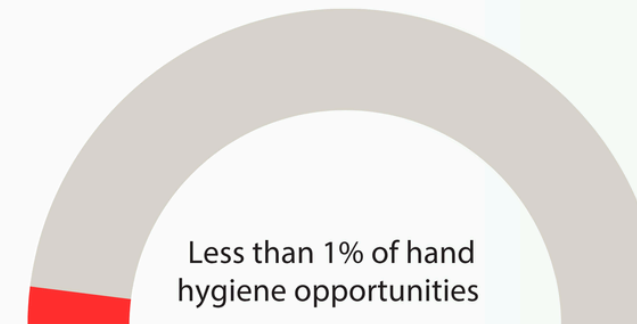
# Replacing Manual Hand Hygiene Audits with 24/7 Automated Smart Auditing



Accurately measuring hand hygiene compliance has always been a challenge, as **traditional manual audits capture less than 1% of opportunities** [1]. Hygienic Echo smart solutions have proven to be a game-changer, **automatically capturing nearly all hand hygiene events** for far more accurate and continuous measurement. Beyond improving auditing, **our system actively improves compliance and strengthens hand hygiene practices through smart reminders** that prompt staff only when needed.

[1] J. A. Leis et al., "Introduction of Group Electronic Monitoring of Hand Hygiene on Inpatient Units: A Multicentre Cluster Randomized Quality Improvement Study," Clin. Infect. Dis., vol. 71, no. 10, pp. E680–E685, Nov. 2020, doi: 10.1093/CID/CIAA412.

## Traditional Manual Audits



## Hygienic Echo Solutions



<p>Extremely limited sample size. Captures only a small sample of hand hygiene opportunities, typically fewer than 100 events per month in a nursing unit.</p>	<p>Sample Size</p>	<p>Comprehensive and continuous auditing. Often captures over 30,000 hand hygiene events per month in a nursing unit, delivering complete, reliable data.</p>
<p>Human resource-intensive and person-dependent. Requires on-site auditors to observe staff, increasing costs, introducing human bias, and limiting scalability.</p>	<p>Human Bias &amp; Effort</p>	<p>Fully automated and hands-free. Eliminates the need for in-person observation, reducing operational burden while improving accuracy and consistency.</p>
<p>Generic or infrequent reporting. Lacks customization by discipline, role, shift, or room. Often limited to static files, requiring manual data entry and minimal visualization.</p>	<p>Reporting Detail</p>	<p>Provides role-based, shift-specific, and room-level insights. Delivers interactive dashboards, graphs, exportable in multiple formats, and any time range, with no manual work required.</p>
<p>Delayed and manual. Depends on interviews and memory; data access is often paper-based.</p>	<p>Outbreak Contact Tracing</p>	<p>Instant and digital. Traces staff and patient interactions with a single click for any customizable time range. Full access via web dashboard, mobile app, or email.</p>

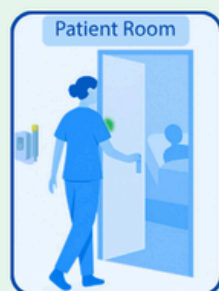
# Improving Hand Hygiene Practice Through Smart Technology

## Building a Sustainable Culture of Prevention

Our intelligent wearable badge delivers **real-time prompts only when needed**, using **smart biofeedback to reinforce good habits**. Over time, these smart reminders **help staff naturally integrate hand hygiene** into their daily routines.



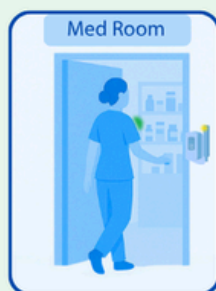
### Intelligent, Context-Aware Reminders



Entering and exiting patient rooms



Exiting dirty zones like bathrooms and utility rooms



Entering clean zones like medication or clean supply rooms

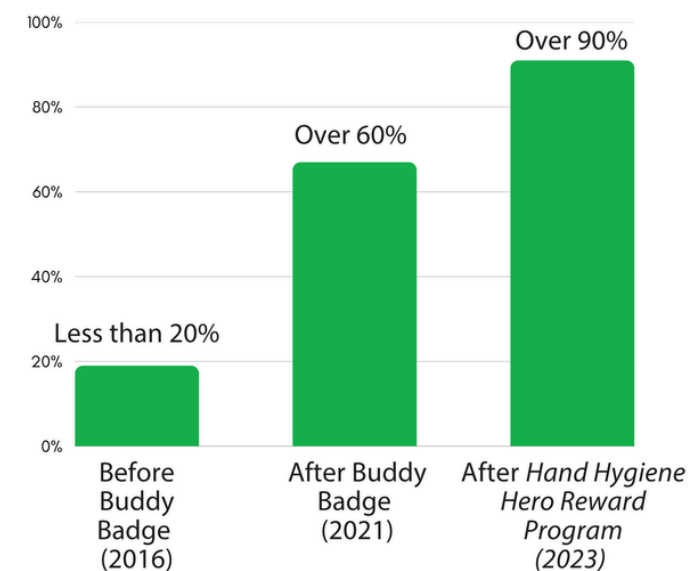


Interval-based prompts for serving and shared spaces

## Building a Culture of Prevention Through Social Innovation and Smart Technology

To keep hand hygiene performance consistently high, we pair our intelligent reminders with a proven reward system. This program has helped a partner hospital maintain over 90% compliance for more than three years.

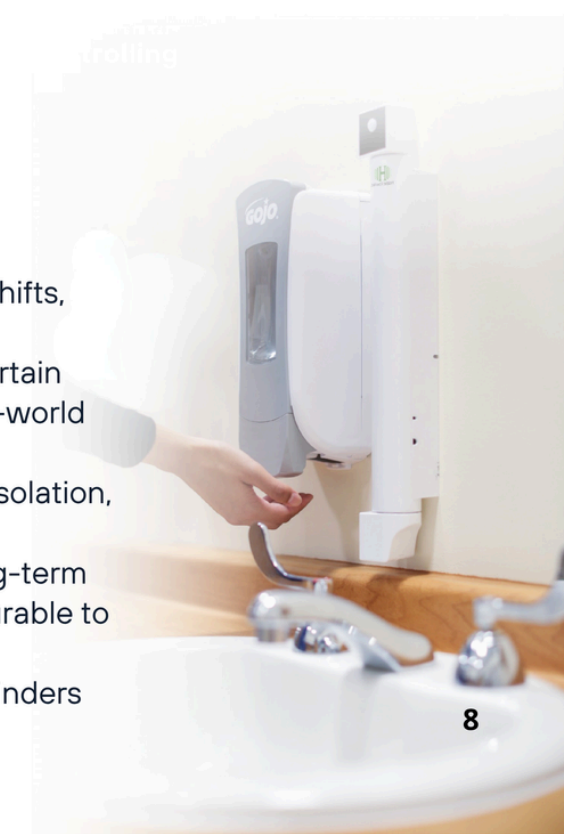
- **Automatic Recognition:** Our software identifies top-performing staff members based on badge usage and compliance.
- **Personalized Rewards:** Winners receive an email with a gift card, and they can choose from a wide selection of retailers.
- **Institution-Controlled Settings:** Our clients define the reward value and frequency.
- **Fair & Transparent Algorithm:** The system accounts for badge wear time and recent winners, ensuring fair distribution of rewards.
- **Public Recognition:** The names or chosen nicknames of recent winners are proudly displayed on badge station kiosks.



**Measured Impact: Hand Hygiene Compliance Growth in a Clinical Setting Using the Buddy Badge**

### Flexible and Human-Aware Design

- **Day/Night Modes:** Adjusts prompt sensitivity to fit different shifts, including quiet overnight operation.
- **Short Visit Logic:** Visits to patient/resident rooms under a certain time threshold may be exempt from prompting, reflecting real-world care scenarios.
- **Isolation Features:** Special logic is in place for rooms under isolation, adapting to user needs.
- **Customizable Across Facilities:** Whether it's a hospital, long-term care home, or food service operation, settings are fully configurable to match the environment and staff needs.
- **Adaptive Prompting:** If proper hygiene is completed, no reminders are issued—no disruption, no redundancy.



- Dashboard
- Notifications 0
- Reports
  - User Performance
  - Scope Performance
  - Room Performance
  - Discipline Performance
  - Contact Tracing
  - Reward Winners
  - Summary Report
  - Floor Layout/Exposure Risk
  - Badge Hours
  - Congregate Areas
  - Forensic Replay
    - User Opportunity Timeline
    - Scope Opportunity Timeline
    - Raw Opportunity Table
- Ministry
- User Management
  - Users
  - Access Rights
  - Disciplines
  - Community
  - Shift
  - Staff on Duty
- Guides
- Sign Out

**Hand Hygiene Performance Reports:** View and compare hand hygiene performance generated by **user, discipline, organizational scope (from building to unit), zone, or room**. Reports are available for **any selected time period** and include **advanced features and filters** for deeper analysis.

**Contact Tracing:** Instantly generate **backward-looking contact tracing reports** in the event of an **outbreak**. See **who was in the same space, when, and for how long**—making follow-up and isolation fast and accurate.

**Automated Summary Reports:** With one click, generate fully formatted PDF summaries of compliance data, ready to share, export, or review.

**Floor Layout/Exposure Risk:** Visualize hand hygiene activity directly on unit floor plans. Study staff movement between rooms, analyze location-based hand hygiene performance, and identify high-risk areas. These insights help teams quickly understand activity patterns and detect zones with higher exposure risk for patients and residents.

**Badge Hours Report:** View a list of all badge wearers with detailed activity hours within selected dates. Reports can be accessed on demand or sent automatically by email to help monitor and encourage consistent badge use.

**Congregate Areas:** A dedicated section for Care Badge and Green Badge provides hand hygiene compliance reports for congregate areas, including hand wash counts per hour.

**Forensic Reply:** Go back in time to review **detailed records of all hand hygiene activities** and events within any selected time window. Track hand hygiene behavior across specific nursing units and **access raw data** on users' hand hygiene activity for research, investigation, and custom analysis.

**Ministry Reports:** Quickly transform reports into formats required by ministries or regulatory bodies.

**User Management:** Add unlimited users with fully customizable access levels. **Individual badge users** can view their own performance. **Unit managers** can access only their unit's data, with the option to de-identify individual reports. **IPAC leads and executives** can view organization-wide performance, with flexible privacy controls.

**Shifts:** Define and monitor staff shifts across your organization. Gain insights and generate **performance reports specific to each shift**.

**Guides:** Built-in documentation and user guides help users get started quickly and ensure smooth operation at all levels.

# Powerful Software

## Your Control Centre for Smarter Infection Prevention

### From Group to Individual Insight

Move beyond aggregate data. Our system provides individual compliance visibility, critical for real behavioural change and targeted interventions.

### Workflow Optimization

Uncover inefficiencies in workflows that increase infection risk and provide data-backed solutions for improvement.

### Actionable Recommendations

Generate in-depth reports with actionable insights to support targeted training and infection control strategies.

### User Classification for Coaching

Identify specific staff based on performance and infection control standards. Pinpoint who needs coaching—not everyone—saving time and improving outcomes.

### Beyond Compliance

Go further than staff hygiene measurement. Assess patient and zone-level risk using heat maps and detailed exposure data.

### Built-In Anonymity and Privacy

Data access levels are tiered and anonymization options are built in—ensuring privacy and compliance with data security standards.



# Empowering Safety Through Our Patented Light-Based Communication Technology

## Patent-Protected Innovation for Interference-Free, Infrastructure-Free Performance

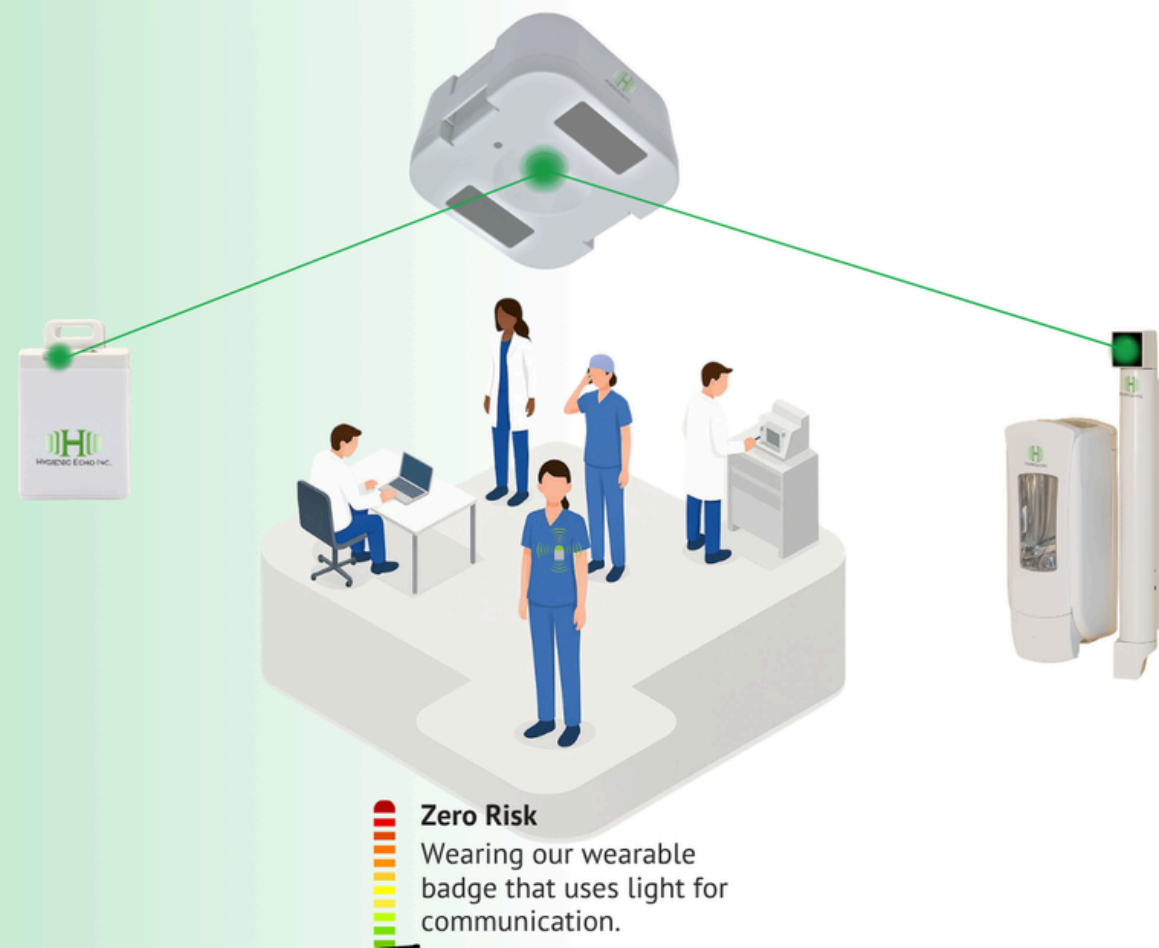
Our wearable badges use infrared light to communicate, a 100% safe, invisible signal that belongs to the same gentle part of the light spectrum emitted by the sun, but at an ultra-low, harmless level. It's similar to how a TV remote works: non-invasive, low-energy, and completely safe for skin and eyes.

This light-based system is what makes our technology fundamentally different from all competitors.

Unlike radio or Wi-Fi-based systems, our solution:

- Does not interfere with existing building networks or medical equipment
- Requires no wiring or dependency on your facility's IT infrastructure
- Enables precise zone definition within walls and rooms without external calibration
- Creates a safer, cleaner environment for staff, patients, residents and customers

This innovation is protected by multiple patents worldwide, reflecting our commitment to delivering truly safe, smart, and reliable infection prevention technology.

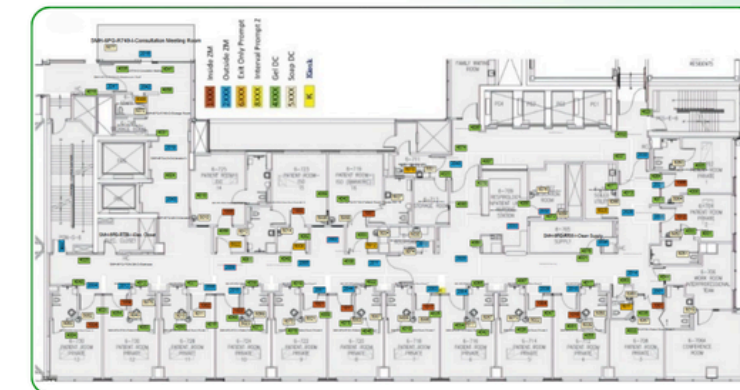


# Beyond Core Features

Our solutions are fully developed in-house, giving us the flexibility to adapt the system to your infection control needs and beyond. We can also add custom features tailored to your organization's specific requirements.

## Visual Maintenance Management System

- Displays **device locations and statuses** on unit floorplans
- **Monitors battery levels** and notifies staff before replacements are required
- Helps maintenance quickly **identify issues and reduce downtime**



## Staff Workflow Management

- **Badge-based sign-in and sign-out** for seamless staff time tracking
- **Location-based reports** showing time spent on-site, in direct patient or resident care, and in shared/common areas
- Actionable insights to **identify inefficient workflows or protocol gaps** that may increase infection risk and impact care quality



# Trusted by Healthcare Leaders

## What Our Clients Say

**Heather Candon**  
Director, Infection  
Prevention and Control



" At Sunnybrook, we recently rolled out the Buddy Badge system with Hygienic Echo, and the experience has been excellent. As a Canadian company, Hygienic Echo has been incredibly responsive, and the implementation was smooth. The dashboards and customizable data have been especially helpful in supporting our infection prevention and control efforts. We highly recommend them as a partner in advancing hand hygiene initiatives."

" Our experience with Buddy Badge has demonstrated that, with the reminders and incentives that Buddy Badge uses to promote, improve and sustain hand hygiene practices, it is possible for most healthcare providers to achieve near 100% performance for prolonged periods of time. "

**Shelley Schmidt**  
Director Infection  
Prevention and Control



" The Buddy Badge system electronically captures data on hand hygiene compliance and also provides prompts and reminders to modify hand hygiene behaviour at the same time!  
Just like seatbelts sometimes we need the reminder to prompt us to put it on, the Buddy Badge does the exact same thing using vibration and/or a red light which has resulted in amazing improvement in hand hygiene behaviours and compliance! "

" Through the early stages of implementation, we have greatly appreciated the support provided by the Hygienic Echo team to everyone in our home — including our residents, team members, and union partners. Their team's collaboration and responsiveness have helped our staff become comfortable with the system. We look forward to seeing continued improvements in sustaining strong hand hygiene practices and further strengthening our IPAC safety. "

**Lauren Doiron**  
Executive Director

**Extendicare**



"Care badge is exactly what infection prevention and control was missing in long-term care, and from the moment we implemented it, the impact was clear. The team has been exceptionally dedicated, compassionate, and responsive. Their genuine care for residents and staff is evident in every interaction. They're not only highly supportive and proactive, but also incredibly easy to collaborate with making the entire process seamless, efficient, and genuinely enjoyable."

"Buddy Badge helps the staff to be mindful of hand hygiene. The prompt avoids missing critical opportunities to keep our patients safe."

**MARIE OJHA**  
Owner and Nurse Practitioner



" Infection can spread in high traffic areas like the dining room during meal service. Serving staff wear Green Badges during meal/serving times. The badge will be green to show that hands are clean. Servers are then encouraged to sanitize their hands every 15 minutes for the green light to stay on. The staff and residents are having fun with it! Residents are quick to point out when a badge is green and if a staff member has forgotten to put it on. "

**Dr. Matthew Muller**  
Medical Director of Infection  
Prevention and Control



**Alicja Bidzinska**  
Vice President of Clinical  
Services



**Sylvie Robinson**  
Unit Manager



## Contact Us

- Want to boost hand hygiene compliance?
- book free consultation?
- book a site assessment?

Let's connect and explore how we can strengthen infection prevention at your organization.



Scan the QR Code to Schedule Your Consultation Instantly.

## Get in touch with our Business Development Team

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