



## Buyer's Guide: Nurse Call Systems

A nurse call system is the communication backbone of patient care environments — enabling patients or residents to alert caregivers and ensuring staff can respond quickly and efficiently. Modern systems also integrate with workflow management, electronic health records (EHR), and real-time location systems (RTLS) to improve care delivery and accountability.

### 1. Key Considerations Before Buying

#### A. Purpose and Facility Type

- Environment: Acute care hospital, assisted living, rehab, or skilled nursing facility.
- Care model: Centralized nursing station vs. decentralized care pods.
- Patient needs: Cognitive, mobility, and medical acuity influence system complexity.

#### B. System Architecture

- Wired vs. Wireless:
  - *Wired*: More reliable, often used in permanent facilities.
  - *Wireless*: Flexible and easier to retrofit or expand.
- Hybrid systems: Combine wired rooms with wireless mobile integrations.
- Scalability: Can the system expand as the facility grows?

#### C. Core Features

- Patient call buttons: Bedside, bathroom, chair, or wearable pendants.
- Two-way communication: Audio intercom between patient and nurse station.
- Call priority levels: Emergency, assistance, routine.
- Staff alerting: Paging, smartphone apps, or overhead displays.



- Integration options: With EHR, RTLS, fire alarms, or building management systems.
- Event logging: For audit trails and response time reporting.

#### **D. Connectivity and Integration**

- Network compatibility: IP-based systems are more flexible for integration and monitoring.
- Mobile integration: Push notifications or alerts to smartphones or wearable devices.
- RTLS (Real-Time Location System): Automatically cancel calls when staff enters the patient room.
- Third-party system integration: Telephony, building systems, or analytics dashboards.

#### **E. Compliance & Standards**

- Healthcare regulations: Meet local and national healthcare communication standards (e.g., UL 1069 in the U.S., HTM 08-03 in the U.K.).
- Patient privacy: Ensure compliance with HIPAA, GDPR, or relevant data protection laws.
- Safety standards: Infection control, low-voltage requirements, and fail-safe operation.

#### **F. Maintenance & Lifecycle**

- Ease of servicing: Replaceable parts, firmware updates, vendor maintenance contracts.
- Longevity: Typical lifespan of 8–12 years; ensure availability of parts and support.
- Downtime resilience: Redundancy and failover options in case of network or power loss.



## 2. Critical Questions to Ask Vendors

- A. What standards does the system comply with?  
(e.g., UL 1069, HTM 08-03, ISO standards for medical systems)
- B. Is the system IP-based or legacy analogue?  
How easily can it integrate with existing IT infrastructure?
- C. How are alerts delivered and prioritized?  
Can they be customized by location or urgency?
- D. Can the system integrate with EHR, RTLS, or mobile communication tools?
- E. What is the average call response time tracking and reporting capability?
- F. What happens during network or power failure?  
Is there battery backup or redundancy?
- G. Can staff cancel or escalate calls directly from their mobile devices?
- H. How is patient privacy maintained during audio or video calls?
- I. What type of analytics or reporting dashboard is included?
- J. What is included in the warranty and service agreement?  
(Spare parts, software updates, 24/7 support, on-site repairs?)
- K. Is the system modular?  
Can components be added, replaced, or upgraded without full replacement?
- L. What is the total cost of ownership (TCO)?  
Include installation, licensing, training, and annual maintenance.



### **3. Best Practices for Selection and Deployment**

#### **A. Planning & Needs Assessment**

- Conduct a workflow analysis: Identify how caregivers respond, escalate, and document alerts.
- Map facility zones: Patient rooms, common areas, isolation rooms, and nurse stations.
- Involve end-users (nurses, aides, administrators) in design to ensure practicality.

#### **B. System Design**

- Ensure redundant connectivity for mission-critical alerts.
- Label and color-coded alerts for easy visual identification (routine, emergency, code blue, etc.).
- Plan for quiet or visual-only alerts in noise-sensitive areas (NICU, hospice).

#### **C. Implementation**

- Pilot the system in one ward before full rollout.
- Provide hands-on staff training with scenarios and simulations.
- Develop clear SOPs (Standard Operating Procedures) for call response and escalation.

#### **D. Integration & Data**

- Integrate nurse call data with performance dashboards.
- Use analytics to track response times, staffing patterns, and patient satisfaction.
- Sync with EHR systems for automatic documentation of critical events.

#### **E. Maintenance & Support**

- Schedule routine testing and maintenance.
- Keep firmware and software up to date.
- Establish a vendor SLA for response and repair times.



- Maintain spare call units and batteries on-site for quick replacement.

## 4. Common Challenges and How to Overcome Them

Challenge	Impact	Solution / Mitigation
Aging or analogue infrastructure	Limits features and integration	Choose IP-based or hybrid systems for modernization
False or missed calls	Staff frustration, reduced efficiency	Use priority alerts, audio verification, and RTLS automation
Network interruptions	Delayed response, safety risk	Add network redundancy, UPS, and failover protocols
Staff alert fatigue	Decreased responsiveness	Configure escalation hierarchies and filter low-priority notifications
Training gaps	Misuse of system, delayed response	Conduct recurring training and competency refreshers
Data privacy concerns	Regulatory noncompliance	Encrypt data, anonymize reports, and restrict access levels
Integration complexity	High setup cost and downtime	Choose vendors with proven interoperability and open APIs

## 5. Summary Recommendations

Facility Type	Recommended Setup
Small clinic or outpatient centre	Wireless nurse call + mobile notifications + basic reporting
Medium-sized hospital	Hybrid IP system + two-way audio + RTLS integration
Large acute-care facility	Fully IP-based system + centralized management + mobile + EHR integration
Long-term care or senior living	Wireless pendants + zoned alerts + staff paging integration



## 6. Key Takeaways

- Safety, speed, and reliability are the top priorities — not just technology features.
- Choose a system that aligns with clinical workflow and staff availability.
- Ensure scalability and integration with other healthcare IT systems.
- Maintain strong vendor relationships for support, compliance, and future upgrades.
- Use data-driven insights from call logs to improve care quality and staff performance.