

NURSE CALL BUYING GUIDE



A step by step guide to purchasing a new nurse call system
from creating a committee to installation.

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Organize a committee - Nurse call systems today are more flexible than ever. Interfaces to systems like pocket pagers, wireless telephones, ADT, medical equipment, etc. are now common. Because of these interface options, you will need to put together a group made up of many departments including nursing, information systems, biomed, telecom, your architect, facility planning and others.

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Evaluate your needs - Whether you are replacing your nurse call due to new construction or your existing system may be outdated, you will need to identify your requirements for the new system.

Some common requirements:

- Reduce noise - This has been at the top of patient satisfaction surveys. Overhead paging is not the answer.
- Decrease call light response times - We see too often calls going unanswered at the nurse station. Unit secretaries have more to do now than ever. Calls need to be answered quickly and response times decreased. All of which improve patient satisfaction.
- Eliminate unnecessary steps for staff - Provide staff with more information and empower them to communicate with each other and with support areas of the facility, i.e. Pharmacy, lab, dietary.
- Flexibility - The nurse call system must be able to adapt to the facility's way of patient care as your care models change. The system must also adapt to emerging technology. This adaptability will protect your investment.

Other considerations when evaluating your needs should be geography. If this is a new construction project, you should walk through the layout with your architect to ensure that you have the correct call devices in the correct locations.

- Do you need Code Call stations, Staff Assist stations, Code Pink Stations?
- Where are staff/duty station going to be located? Single or dual patient stations? TV and/or lighting control?

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Explore Technology - Modern nurse call systems have come a long way since the "push a button and light a light" systems of the 70's and 80's.

Here is a list of common interfaces to call systems:

- Pocket Page - Indication of calls can be routed to staff pocket pagers. Calls will appear in plain English (i.e. Patient Normal Room 1011). The system can route these calls to the specific caregiver assigned to a patient. If a call goes unanswered, it can alert alternate caregivers via pager. The system can be setup to route calls automatically if there is no unit secretary on duty or calls can be answered at the nurse station and then a pager message can be sent out.

- Wireless Telephones - Several companies (SpectraLink, Nortel, NEC & Ascom) make in-building wireless telephones. Unlike cell phones, these in-building wireless telephones don't charge for airtime (you own the system) and don't interfere with medical equipment. They are safe for hospitals and they connect to your hospital's telephone system (you will need to get your Telecom department involved). The telephones can be restricted just like any other phone and have the same features as the standard wall you use today. These telephones have LCD displays and can integrate with the nurse call system like a pager to display calls. In addition to the pager-like features, these telephones allow staff to answer patient call lights. Here's how it works: A patient places a call, the dome light above the door illuminates, the call appears at the nurses' station, the call automatically rings the telephone of the caregiver(s) assigned to that room. The caregiver reads the display and presses a key(s) and is connected through the nurse call system to the patient.
- HL7 ADT Interface - Thanks to a new medical data language standard called HL7 (Health Level 7), nurse call systems can access patient demographic information such as patient name, medical record #, physician name, etc. When patient calls appear at the nurses station, the patient's name and other information will also appear. This provides more information to the unit secretary and allows for a more personal level of communications.
- Infrared Location - To aide in the location of and communication with staff, nurse call suppliers have developed a system that uses small infrared badges that send a unique infrared signal to sensors in each room. The system knows which badge is in which room and displays the information on the nurse call system. As staff walk in and out of patient rooms, the system will automatically light colored dome lights above the door to indicate the level of staff present. The system can even automatically clear a normal patient call when the appropriate staff member enters the room.
- Management Reports - Each event that occurs in a nurse call system can be logged into a management report system. This information can be displayed in a detailed report showing call activity for an individual patient, unit, or the whole facility. This information can be archived for access at a later date.
- Auxiliary Inputs - Most nurse call systems have the ability to take alarm outputs from some medical equipment such as IV drip monitors, bed exit devices, pulse oxymeters, etc. The medical equipment must have an auxiliary alarm output (looks like a phono plug) that is plugged into an auxiliary nurse call device. When the equipment alarms, the nurse call also alarms. The alarm can alert caregivers via the nurse call master station, wireless telephone and/or pager. Alarms are logged and archived if management reports are installed.

Visit nurse call suppliers web sites. A lot of preliminary information can be gathered via the web.

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Initial Presentations - Now that you have a good idea of what you're looking for, It's time to meet the nurse call suppliers and familiarize yourself with their systems. Bring them up to speed on your project and requirements. They should make you aware of their product line and suggest which product and options will best suit your needs. Don't expect them to bring in a live system at this point. This meeting should be a learning and information gathering session for the both of you.

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Live Presentations - The next step is to have the suppliers come to your facility and present the live product to you. You should give them adequate space and time for the presentation. Usually a conference room or classroom would be ideal for a presentation. Allowing 1 hour for setup, 2 hours for the presentation, and 1 hour to disassemble the equipment is reasonable. Having all the nurse call suppliers present at the same time in the same room (usually referred to as a "bake off") is not preferable. This type of presentation compromises confidentiality, it does not allow the level of interaction required to really get to know a company or a system and it can lead to information overload for the staff. It is better to space the presentations out over several days. This allows the staff a chance to process the information. Use a vendor evaluation form to score each vendor. This will help maintain a fair comparison of each vendors product.

Seeing is believing..... During the presentation ask the presenter to demonstrate the integration to wireless telephones and pagers so you can see how it functions with their system. Keep in mind that the level of integration varies from manufacturer to manufacturer. When considering wireless telephones and/or pagers, a critical function of the system is the assignment of staff to devices and staff to patients. Ask your presenter to fully describe this part of the system.

During the presentation you will see many features and options. Ask the presenter to keep clear what's "standard" and what's "optional". Keep good notes on the features and/or integrations that you think will work well for you.

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Writing a Request For Proposal (RFP) - Once you have identified what you are looking for and explored all the current technology, it's time to develop an RFP. This can be published by the facility or by the electrical engineer.

This is a good time to talk about contractors and construction. Your architect is responsible for designing the unit, and the location of doors, windows, etc. The electrical engineer designs all the electrical systems such as power, lighting, telephone outlets, data outlets, and the nurse call system. The electrical engineer will also write the specification for the nurse call system. If the staff have not had input to the electrical engineer there is a possibility that the electrical engineer will specify a system that does not meet the staff's requirements.

Once the plans and specifications have been produced the system will go out to bid (unless the hospital wants to have nurse call suppliers bid direct).

The nurse call manufacturer will bid to an electrical contractor, the electrical contractor will bid to a general contractor and the general contractor will bid to the hospital.

As you can see, it is very important that all involved completely understand the requirements of the facility so the staff will get the system they expect.

Your RFP should include:

- A scope of work (the areas of the facility that will be effected)
- A performance specification (how you expect the system to operate)
- Architectural plans with the nurse call system layout
- A reference list from the vendor
- Pricing based on the scope of work, specifications and the architectural plans
- Maintenance agreement for years one through five
- Include any and all training requirements including nursing staff, biomed staff and training staff.
- Warranty Requirements

You should allow one (1) month for a response.

Encourage the suppliers to provide you with “value engineering alternates” These are cost saving suggestions that may vary from the specification but still provide similar functionality.

A good example of this would be:

The plan shows a separate code blue station and patient station in a patient's room. Some suppliers have code blue button integrated in their patient station so a separate station would be redundant. The manufacturer would suggest removing the separate station as a valued engineered alternate to reduce cost.

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Reviewing the RFP response- - There are several thing to look for in a response:

- Completeness - How much time was spent on it? Were all the areas completed?
- Compliance - Did the manufacturer indicate that they comply with every aspect of the specification? If not, did they supply reason for non-compliance and an alternate is given.
- Clarity - Is the pricing easy to understand? Did they list all the line item components and quantities? Are the options clearly labeled?
- Accuracy - Does the manufacturer's equipment list match the bid drawings and specification? Are the quantities consistent vendor to vendor?

Keep in mind that all systems are not the same and may operate differently. It's OK if there are areas of non-compliance as long as they have provided a reasonable explanation.

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Narrowing the field - By now you should have a good idea of which systems and companies you are leaning towards. You should narrow the field to two vendors. If you want to visit the corporate headquarters and a facility with a system installed, now is the time to ask.

After your site visit(s) you should make your final choice.

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Planning and Installation- Now is also the time to leverage the experience of the nurse call supplier. Have the nurse call supplier review your plans and offer suggestions for changes and improvement if needed.

Identify which options you will be installing so the supplier has a clear understanding of your requirements.

Start project meetings which include your IS group, telecom, nursing, staff development (training), biomed, facilities, electrical contractors and anyone else that may be impacted by the system.

Develop a schedule with milestones and assign tasks with due dates.

Based on your purchased options, tailor an in-service and training program with your nursing staff, training staff and your nurse call supplier.

Make sure that there is a direct line of communication between the nurse call installation team, the facility's project manager, the electrical and general contractor.

NURSE COMMUNICATIONS VENDOR EVALUATION

FACILITY: _____
DATE: _____
VENDOR: _____
NAME: _____
DEPARTMENT: _____

Rate each of the following items on a scale of 1 (Poor) to 5 (Excellent).

NURSE CALL SYSTEM EVALUATION:

1. How user friendly are the patient stations, duty stations, staff stations, and other related system devices?

1	2	3	4	5
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2. How would you rate the features for the patient stations, duty stations, staff stations, and other related system devices?

1	2	3	4	5
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3. How user friendly is the basic nurse master station?

1	2	3	4	5
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4. How would you rate the features for the basic nurse master station?

1	2	3	4	5
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5. How user friendly is the video nurse master station?

1	2	3	4	5
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6. How would you rate the features for the video nurse master station?

1	2	3	4	5
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7. How well does the system maintain patient privacy and confidentiality?

1	2	3	4	5
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8. How would you rate the caregiver and bed assignment process?

1	2	3	4	5
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9. Would this system improve the productivity and efficiency of your staff?

1	2	3	4	5
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INTEGRATION SYSTEMS EVALUATION:

10. How user friendly is the integration to other systems?
 - a. Wireless Telephone System

1	2	3	4	5
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 - b. Hardwired Telephone System

1	2	3	4	5
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 - c. Pocket Page System

1	2	3	4	5
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 - d. Hospital Information System / HL7

1	2	3	4	5
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 - e. Report Management System

1	2	3	4	5
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 - f. Patient, Staff and Equipment Location System

1	2	3	4	5
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11. How would you rate the features relative to the integration to other systems?

a. Wireless Telephone System

1	2	3	4	5
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b. Hardwired Telephone System

1	2	3	4	5
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c. Pocket Page System

1	2	3	4	5
---	---	---	---	---

d. Hospital Information System / HL7

1	2	3	4	5
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e. Report Management System

1	2	3	4	5
---	---	---	---	---

f. Patient, Staff and Equipment Location System

1	2	3	4	5
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12. What is your perception of the overall quality and reliability of the proposed nurse communication system?

1	2	3	4	5
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SERVICE AND SUPPORT EVALUATION:

13. How would you rate the level of support you would get from the nurse communications manufacturer?

1	2	3	4	5
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14. To provide service to the facility, how would you rate the location and response time of the local nurse communications vendor?

1	2	3	4	5
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15. Does the local nurse communications vendor have sufficient experience in installing and servicing the proposed system?

1	2	3	4	5
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16. Does the local nurse communications vendor have sufficient service technicians who are certified on the proposed system?

1	2	3	4	5
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17. How would you rate the presentation and knowledge of the speaker?

1	2	3	4	5
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PRICE EVALUATION:

18. How does the proposed system's price compare to the competition?

1	2	3	4	5
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SCORING:

TOTAL

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A. TOTAL AVAILABLE POINTS = 28 X 5 = 140

B. TOTAL POINTS FROM EVALUATION: _____

C. AVERAGE EVALUATION SCORE: (B / 28 = C) _____

1	2	3	4	5
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