



## Getting Right With The Joint Commission:

### Improve Patient Safety By Ramping Up Emergency Communications

#### Executive Summary

This white paper is intended for readers who want to learn more about the Joint Commission standards in regard to communications technology. The paper will offer a case for improved communications, strategies for crisis communications plans, an emergency preparedness checklist, and technology solutions for automated event notification and response. The failure of healthcare providers during Katrina and other disasters can be traced to, in many instances, a lack of communications and the failure of healthcare centers to contact management and staff to respond in a timely manner. The final section of the paper takes an in-depth look at sophisticated two-way communications systems that offer clients the remarkable ability to contact staff members all at once with targeted, intelligent messaging through multiple devices, from wireless phones to PDAs to pagers. These software tools tailor messages for better coordination and allow clients to forego archaic phone trees and other relatively unsophisticated approaches to disaster management communication and situational awareness.

- The Joint Commission requires healthcare providers to have an emergency communications plan.
- An important part of every communications plan is employee notification and response.
- The Joint Commission's "environment of care" chapter deals greatly with effective communications strategies and their importance in disaster mitigation.
- The Joint Commission has pointed out in one of its newsletters that "a lack of

critical information" was the number one flaw in emergency management plans. Communications came up on the list several times, and the Joint Commission's book on emergency planning spends an entire chapter on the issue.

- Creating Incident Command Centers (ICS's) is one approach to emergencies deployed by many hospitals. Having ICSs that are able to disperse information readily to different parties through different messaging is important in a crisis.
- Avoiding the overtaxing of hospital phone lines is a good strategy, according to the Joint Commission's suggested approach to communications planning.
- A separate communications plan within a general emergency plan is key to a successful response to a crisis.
- The Joint Commission does not require a technological solution to employee notification and response. But the regulations suggest emergency notification and response fulfills some of the accrediting agency's mandates.
- With automated notification and real-time response processing, there are many advantages. The technology allows for different messages to be sent to groups of employees, all at once, and via any technology a staff member prefers—phone, email, cell, pager. It also allows for fully interactive responses wherein employees answer questions, confirm they received the message and act on it. Configurable escalation beyond the primary means of contact and response team members, along with real-time monitoring and reporting, provides complete situational awareness of an event situation.

- Automation integrates with many applications, such as security systems and data sources. A triggered alarm also automatically alerts a predesignated group of people responsible for managing alarms.

## An Introduction

For more than 30 years, the nation's most powerful hospital accrediting group, the Joint Commission, has required that healthcare providers have a strong emergency management plan. Most hospitals have plans offering a strategy for handling the many challenges of tornadoes, hurricanes, fires, plane crashes and infant abductions. The bar was raised by the events of September 11, 2001, and hospitals have been asked by the Joint Commission to upgrade their planning and training to meet a growing number of potential emergencies, among them terrorism and the avian flu.

Found within the "Environment of Care" (EC) chapter of the Joint Commission accreditation manuals, the requirements for emergency management plans fall into four categories in the Standard EC4.10 section. These include: mitigation (reduce severity of emergency); preparedness (improving healthcare organizations' ability to respond); response (to emergencies); and recovery (post-emergency restoration of functions). Arguably, the key to

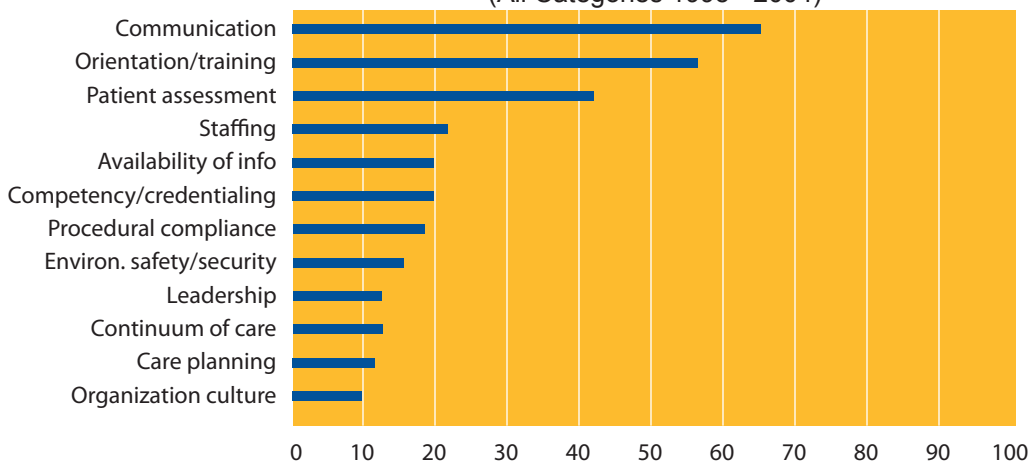
all four categories found in the standards is communication. Good communication between emergency managers and first responders will mitigate a tragedy. Preparedness starts with good communications. Response to emergencies demands good communications. Recovery requires good communications. Situational awareness requires access to accurate information and current status reports.

## The Case for Improved Communications

An Environment of Care newsletter published in 2000 by the Joint Commission focused on the 10 weaknesses in emergency management plans, many of them dealing with communication. The list notes a "lack of critical information" as the number one flaw. Others include not addressing communications issues "broadly or in enough detail" and not having adaptable forms for managing information. No other component was mentioned as often as a weakness as poor communications.

In fact, the Joint Commission's "checklist for creating an emergency plan" points to the need for a strategy to overcome common communications challenges in disasters. The accrediting agency suggests hospitals should include in their planning alternative communications systems such as two-way radios, cell phones and satellite phones. Also,

ROOT CAUSES OF SENTINEL EVENTS  
(All Categories 1995 - 2004)



*Communication flaws are the number one cause of serious injury or death.*

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it's important to create a local communication network with other regional hospitals, government agencies and the media. Hospitals, Joint Commission recommends, should design a runner service or organized messenger network, have a system to ensure medical records stay with patients and, importantly, maintain an on-call roster of employees.

In the Joint Commission's own "Guide to Emergency Management Planning in Healthcare" the importance of communications is stressed continuously and targeted in chapter four. "Effective communication both within the organization and with external agencies during an emergency helps to ensure the smooth implementation of the organization's emergency management plan," the report states. "Success or failure of an emergency management plan is often determined by the timely flow of critical information."

## Strategies for an Emergency Communications Plan

Reaching your executives and staff will be the key to successfully handling future disasters and in marshalling the ground forces for anything from a surge in patients due to a terrorist attack or a hurricane or some other disaster. Generally, the information on an emergency comes via the media, a report from public health agencies, or from the police and intelligence agencies. It is after a formal notification—an advisory, an alert or an activation—that a hospital jumpstarts the Hospital Incident Command System (HICS). (Sometimes it is known as HEICS.) The systematic approach to emergency planning was first developed in the 1980s by the California Medical Authority.

Part of the incident command approach has always focused on communications. The California Hospital Incident Command System guideline says the following: "This information-sharing strategy should take into account an incident happening either during or after normal business hours and avoid using a

single communications infrastructure. Persons' pagers (including two-way pagers allowing for text messaging back and forth), cell phones, e-mail/personal digital assistants (PDAs), and home-phone contact information should be kept secure but readily available for on-duty supervisory personnel and telecommunication specialists to access when needed. This contact information should be continuously updated so these notification methods will work when an incident occurs. After-hours contact procedures should take into account the need to telephone

## An Emergency Preparedness Checklist

The Joint Commission's emergency management guide suggests the following checklist healthcare organizations should follow prior to a crisis:

- Have a commitment to effective communications.
- Have a separate crisis communication plan, in addition to an overall emergency response plan.
- Be able to initiate the plan in 30 to 60 minutes. The faster, the better.
- Make certain the plan contains a vulnerability analysis and crisis categories.
- Predetermine the composition of your crisis team.
- Have a policy for open, central information

personnel because many persons will not hear their pagers while asleep."

The incident command system is a framework or a foundation and is not a fixed model. Still, healthcare officials have gained a wealth of information from previous emergencies and suggest the command system must be able to name a leader in case of disaster (usually the CEO), to quickly notify staff members and to

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assign areas of responsibility. It is suggested that cell and land-line phones not be the only methods of contacting staff since incoming calls in an emergency may trigger an internal and citywide communications system meltdown.

Hospitals should establish a command post prior to an emergency and have its location fairly well known to staff. An alternate location should also be chosen, in case the primary one is hit by a disaster. A good plan designates who will move equipment into the command post and from where those supplies will be gathered. The command post should have a collection of flashlights, cell phones, battery-operated lamps, computers, radios, building blueprints and other necessary equipment. In addition, phone, fax and cell numbers of staff should be readily available, as well as maps describing where employees should go during the emergency.

The command post is where the CEO and directors of the medical staff, nursing, media, plant operations, security and marketing will carry out assignments predetermined by an emergency preparedness plan. This group will decide when to add or relieve staff during longer-term emergencies, how to mobilize and use volunteers, and how employees will reach their own families during a crisis. Child and elder care solutions for nurses and doctors called to treat patients must be planned so that those individuals can attend to patients. The command post staff may also have to make certain, if necessary, that police escort specially trained employees to some potentially dangerous locations.

The automated event notification system is a valuable tool in managing personnel and their response procedures as outlined in emergency plans. Organization-wide and targeted communications vehicles should include multiple devices from pagers to cell phones to faxes to PDAs. In the event of a crisis, email and text messaging may be preferable since phone lines will be swamped with other calls.

Using the media is another strategy for staff communication since reporters and announcers

will, in a crisis, ask viewers and listeners who work for specific healthcare providers to call their employers or direct these audience members to return to their respective workplaces.

## Technology Solutions

Today, many progressive healthcare providers employ automation through technology for staff notification and response. By letting highly secure, sophisticated computer systems that are scaleable, flexible and redundant manage the notification of personnel, gather responses to critical questions and assemble staffing, emergency planners can move forward to the real work of managing a crisis—treating escalating numbers of patients, handling the fears of loved ones, dealing with government agencies and law enforcement departments, and directing employees to alternate sites, along with assignments guiding these employees' duties. Automation helps reduce liability and the debilitating disruption an emergency can cause in a healthcare organization, while making notification one of the simpler tasks in a small- or full-scale crisis. Technology solutions also offer the ability to capture and report on all communications, enabling critical decision-making and reporting during and after an event.

The Joint Commission does not require healthcare providers to buy or lease emergency notification systems. The commission's emergency management guide suggests, however, that hospitals have a written plan for contacting employees. "No matter how the call-in procedure is arranged, the details should be included in the emergency plan itself," says the guide. "Telephone, fax, and pager numbers should be noted and updated on a regular basis."

Emergency notification systems vary from vendor to vendor. In general, they provide an organized approach to notification that can be modified based on the size, nature and substance of an emergency. Not every crisis requires all staff to report for work. And longer-term emergencies will demand greater planning to avoid early, up-front staff burnout. Modulating call-ups for a more

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encompassing disaster, say the avian flu, can be achieved through mission-critical automation.

Technology has several advantages over the common calling trees. The first is consistent and targeted messaging. Calling trees require everyone making the calls to get and transmit the information correctly, not always an easy task in the heat of full-scale crisis. A consistency of messaging makes for a more efficient and effective response. The messages also can be tailored to the employees' departments or job titles, depending on how the emergency planners want to manage communications. For example, a doctor in pediatrics receives a different message than a physician in the emergency room. A nurse in intensive care receives a different message than one in a cancer ward. Those messages can include how long the emergency is expected to last and if they should bring along personal supplies, food and other materials. Messages can also include one or more questions that may need to be answered by a specific individual in order to proceed.

Second, using operators and hospital personnel means gathering data later on regarding who responded to the calls and will be coming to help out, and who could not be reached. Automation allows that data to be known in seconds, not aggregated hours later by emergency planners. Within minutes, a planner will understand who has responded and when they will likely arrive.

Third, automation provides a quick way to escalate the notification beyond the first point of contact. No response or timed expiration on a cell phone, for instance, can be followed by sending the message to an alternate individual or team, or simply forwarding it on to a pager, an email account and/or a home phone. No operator has to even pick up a phone to move toward secondary and tertiary devices for notification.

Several key aspects of emergency response and notification include the following:

- **Notification process definition.** Different

technology vendors may have varying terms for this process which, in essence, enables healthcare providers to design notification systems in advance through creation of lists of people, devices and notification sequences based on potential scenarios. The notification system might first contact executives—the CEO, the head of nursing, plant operations manager and so forth—through an automated message to their cell and land-line phones, as well as email. The same message would be sent at the same time to several people. The message might call for them to proceed to an emergency command center. Following that message minutes later—or, more likely, at the same time—would be another message specifically directed toward on-call nurses, requesting that they come in to the hospital immediately. A third message, to on-call doctors, would ask that they call their supervisor upon receiving the message or meet via a conference bridge. The messages can be delivered verbally, through automated phone messaging, as well as in text form through pagers and email.

- **Message delivery.** Automation allows to be tailored to particular messages to particular devices—Dr. X always has his cell on and will prefer a text message be sent to him in a crisis. Nurse Y wants to be paged. Email works best with a member of the plant operations staff, who keeps his BlackBerry on constantly. Message delivery uses templates that can be configured prior to an emergency and then activated by selected personnel through voice-recognition software, interactive voice response, an operator or through a secure website.
- **Processing responses.** Whenever an emergency response and notification system receives responses from individuals—Dr. X is on his way—it can aggregate those numbers and create a report designed to inform emergency planners as to who is coming in and who cannot be reached through the primary contact vehicle, such as a pager or wireless phone. Therefore, they will be made aware if there is a

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need to notify additional team members.

- **Escalation.** After receiving those responses, the emergency team can forward unanswered notifications to other designated contacts. If Dr. X has not answered the page, Dr. Y is first in line to receive a notification based on the principles of escalation the healthcare provider designs and updates in the system.
- **Monitoring and reports.** The notification software offers real-time logs and historical reports showcasing who responded and who did not, when, and how fast they responded.
- **Alarms integration.** Notification systems can be incorporated into existing hospital alarm programs. Whenever an alarm is triggered, the notification software goes into action, calling a predesignated group of people to respond to the alarm.
- **On-call calendar integration.** It's critical to communicate with the right staff. In the event of an emergency, tapping all available resources to include on-call staff is a necessity for proper event management.

## Summary

The World Trade Center. The Pentagon. Hurricane Katrina. Winter storms. Tornadoes. Mudslides. Bombings. Avian influenza. All emergencies. All requiring healthcare facilities to initiate their emergency communications plans. A good plan can make the difference between lives saved and lives lost, between recognition for life-saving competence and stinging public rebukes for incoherence and sloppiness that could result in endless litigation and a public relations crisis.

The cornerstone of all emergency communications plans starts with the notification of management and

employees. The more efficiently that process can occur, the more likely staff can begin responding to and managing an emergency. The less staff time spent on contacting employees, the more those callers can be deployed to organize other activities, such as maintaining communications with external departments, the media and the families of those affected by a crisis. Just as automation has offered strides in other areas of medicine and medical research, so, too, has it begun to change the way emergency directors and business continuity managers confront crises.

Successfully managing an emergency often comes down to how well the communications structure held up and how well employees responded to the call for help. Automation of notification is just one element in the communications' arsenal of hospitals. However, it is a crucially important advantage. In the chaos of an emergency, when harried employees and managers begin to invoke the training they have practiced for years in preparation for a catastrophic event, the automation of a key portion of the communications plan could be the difference between an outstanding success and a complete disaster.



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## Emergency Preparedness and the Joint Commission on Accreditation of Healthcare Organizations (JCAHO)

### Addressing JCAHO Requirements with *e.Notify* from Amcom Software

For more than 30 years, the Joint Commission on Accreditation of Healthcare Organizations has required healthcare providers to have strong emergency management protocols and a record of practicing those through drills, exercises and scenario-based training.

JCAHO's most recent batch of standards is contained in "Elements of Performance for EC.4.10," in a document referred to as "2006 Hospital Accreditation Standards for Emergency Management Planning, Emergency Management Drills, Infection Control and Disaster Management."

While the standards may seem daunting, new automation technology makes certification easier while improving your emergency preparedness. Amcom Software, Inc., offers two products that have several key applications for fulfilling JCAHO's standards.

Below, a chart describes JCAHO's requirements and how Amcom Software's sophisticated automation of emergency notification helps you and your organization meet the JCAHO's standards.

JCAHO Requirements	Amcom Solutions
The plan provides for a process of notifying staff when emergency measures get started.	In real time, <i>e.Notify</i> sends different messages to recipients based on their organizational role. The software uses a predetermined hierarchy to reach multiple contacts through multiple devices. <i>e.On-Call</i> contacts employees based on their availability.
The plan provides a process for response and recovery, including a description of how, when, and by whom the phases are activated.	<i>e.Notify</i> can notify all staff and authorities and direct them through messaging to assigned tasks. <i>e.On-Call</i> contacts employees based on their availability.
The plan has a process for notifying external authorities about emergencies.	<i>e.Notify</i> has the ability to notify important responders beyond your immediate hospital community.
The plan provides a process for identifying and managing staff to cover all essential staff functions during an emergency.	<i>e.On-Call</i> Scheduling and <i>e.Notify</i> allows you to contact people and assign them to departments, tasks and so forth through communications based on phone calls, emails, text messaging and wireless systems.
The plan has a strategy for evacuating buildings.	Amcom Software's "Alarms Monitoring" software enables automation of emergency notifications when alarms are triggered.
The plan provides a process for identifying care providers and other personnel.	Both <i>e.Notify</i> and <i>e.On-Call</i> Calendaring give healthcare providers a global look at where their staff is and how to best reach them.
The plan identifies backup internal and external communications systems in event of failure during emergencies.	<i>e.Notify</i> and <i>e.On-Call</i> Calendaring can operate from off-site locations and manage communications through wireless communications systems.
The Incident Command System (ICS) standard requires alternate roles be outlined for staff during emergencies, among them whom they report to in the command structure.	Users of <i>e.Notify</i> can modify messaging based on where employees work within the hospital. It can segment specific employee groups, directing half the nurses to return to work while moving 10 percent of them to an alternate location.
The plan requires communicating with alternate care sites.	<i>e.Notify</i> can contact alternate sites such as clinics, public health facilities and other institutions.
Channels should be available for the exchange of information.	Two-way communication is important in an emergency. Employees contacted through <i>e.Notify</i> have the ability to respond to messaging through phone calling or emailing.