



# Five ways to maximize the efficiency of medical response teams: advancing critical care with smart communications

## Evolution Of Response Teams In Healthcare

*Historically, hospitals have dispatched response teams to react to serious medical emergencies such as cardiac arrest, obstetric interventions or traumatic events, providing critical care expertise to patients outside a critical care unit. Commonly known as Rapid Response Teams (RRTs) or Medical Response Teams (MRTs), these groups of specialized clinicians have become an increasingly important part of patient care in hospitals.*

In the past decade, however, the role of response teams has expanded from reacting strictly to critical patient events to proactively responding to patients with high-risk characteristics. The aim of this deployment is to identify patients at risk sooner so as to prevent a catastrophic medical event.

To do this, some hospitals establish physiological measurements and observational indices to help identify those patients potentially at risk<sup>1</sup>. For example, a significant rise or drop in blood pressure or heart or respiratory rate could trigger the dispatch of an RRT. Some studies have indicated that such accelerated responses by specialized clinical resources can result in improved patient health and safety.

Expanding the role of response teams for at-risk patients, of course, means an increase in the frequency of their dispatch. Since these responders are specialized personnel, efficient management of these teams is vital in order to make appropriate use of their time and expertise.



### Automation of RRT dispatch

- Reduces risk of error and time required to assemble teams.
- Utilizes emergency resources more efficiently.
- Enhances patient safety through faster response to critical events.
- Enables hospitals to better document and improve emergency response performance.

### Five approaches for optimal response

The key to that effective use is communication – both to the teams and among their members. This paper looks at communication from the point of view of dispatch, focusing on five simple approaches hospitals can put in place to ensure they are doing their utmost to maximize the positive impact of RRTs in their facilities.

#### 1. Automate response team dispatching

The fact is that many emergency notification systems fall short of superior service, as they are limited to one-way mobile alerts or depend entirely on a manual escalation process.

Emergency response is a complex task, involving communication with multiple team members acting under extreme time pressure. In such an atmosphere, the risk of error always is present, particularly if manual intervention is required to assemble RRTs. Thus, in these situations, traditional notifications systems with one-way notification and call lists can result in confusion and inefficiency.

The key to improving response time and team coordination during a fast-moving crisis is an automated approach that



delivers alert messages with clear instructions, sent directly to the clinician's mobile handset, greatly increasing the likelihood of an effective and timely response.

Automating dispatch of RRTs is an important element in mission-critical communication, and specially designed software can help deliver the right resources quickly to a specific location.

The process begins with the advance creation of RRTs, based on the clinical skills needed to address specific situations. This eliminates any guesswork and ensures appropriate resources are summoned. Predefined teams then can be dispatched much more quickly than with a call list, where team members must be contacted sequentially. With an automated system, response team members can be contacted immediately via predefined messaging through their preferred mobile device. Or, if desired, an operator easily can create a new team message from scratch.

Not only can specific events and team members be predefined, but also locations. As an example, a trauma team can be predefined for the Emergency Department (ED). If an incoming patient is being transported to the ED by ambulance, a trauma RRT can be notified and ready to go when the patient arrives. Automating the dispatch of RRTs saves time and makes certain specialized resources available when and where they are needed.

## **2. Utilization of two-way, interactive communication**

Not only is it important to contact response team members quickly, it is essential that team members have the ability to respond with their availability. Two-way communication allows team members to reply to an alert message on their mobile devices. Receiving timely acknowledgements is crucial, especially if escalation is required. An automated system should quickly interpret responses and accurately determine the next step. When a clinician is busy or unable to respond in a predetermined time frame, an alert message sent promptly to a predefined backup keeps the process moving forward.

Many on-site wireless and smart devices and some pagers support two-way communication, and hospitals should ensure that mobile devices used by team members support intelligent information exchange.

## **3. Automation of escalation**

When a patient is at risk, every second counts. Assuring consistent response to emergencies requires close coordination and well-timed communication. Escalation automation enables a repeatable process, thereby reducing the risk of error and time required to assemble teams. It eliminates reliance on manual intervention and dependency on individual actions.

Premier systems provide conditional response options allowing escalation to proceed swiftly. Conditional responses can be tailored to specific events, each generating differing actions based on the specific situation.

Backups should be predefined for each specific RRT. If a team member is unavailable, a new alert message should automatically be directed to a backup. Situational awareness is an important element in managing the process. Thus, today's leading software solutions enable the operator initiating an event to follow progress start to finish on his or her desktop client. All alert message responses are tracked and shown as the event progresses. As a safeguard, an operator also has the option to intervene if the process is not proceeding as expected.

## **4. Intelligent communication for events**

Sending out alert messages for an emergency event is just the start of effectively managing the entire notification process. Intelligent communication conveys all the information necessary to ensure team readiness. Team members need to know not only where to go but what to bring with them, such as a crash cart for a cardiac arrest. Thus, an alert message should include detailed instructions on what equipment is required.

A robust emergency notification system enables response teams to be more productive by helping them better understand event requirements. This saves time and shortens the response interval.

That's why more and more facilities are turning to systems that help them build predefined response teams for specific events and locations. This process includes predefined text messages with location information and, if desired, precise instructions. An operator has the option to send a predefined event message as is or to customize the message content based on circumstances. An operator also can follow up the original alert message with additional event details or requirements, as they become known.

## **5. Flexible administration**

Operational flexibility is a key component of any automated system that dispatches and manages rapid response teams. The ability to centralize or decentralize dispatching operations is essential to efficiency.

In a multi-facility environment, for example, it may be appropriate to centralize operations rather than have multiple locations that perform overlapping functions. During peak hours, a decentralized dispatching approach might be needed to accommodate demand.

A notification system should fit how the organization works and accommodate fluctuating demand on-the-fly. This flexibility ideally can free up resources and result in greater productivity.



Maximum flexibility is needed in assigning resources as appropriate – and changing them quickly as needed.

### About ascom unite alarm agent

Unite Alarm Agent is a software application for managing and dispatching emergency response teams in hospitals. The Ascom solution is built with advanced functionality including automated alert messaging, response team tracking and pre-defined escalation chains. When an emergency occurs, Unite Alarm Agent sends out alert messages to the relevant emergency team members, quickly mobilizing resources. Alert messages are sent directly to the team member's mobile device, providing them precise instructions on where to go and what to bring along. Once alert messages are directed to the proper response team members, automated response tracking ensures a quick reaction or escalation. If an alert message times-out due to no response or a team member indicates their inability to respond, Unite Alarm Agent quickly generates a new alert message to an appropriate back up. Pre-defined escalation procedures help minimize latency and the risk of human error.

### Summary

*Building a dependable emergency notification system requires automating the notification process, ensuring escalation occurs swiftly and providing flexible operational options. Immediate and precise communication is crucial to reducing risk and responding appropriately to life-critical situations.*

*Today's healthcare facilities require software solutions that enable reliable and efficient coordination while automating communication flow – getting the right information to the right people within seconds.*

### Rapid response team communication should provide an easy response capability

*The key to improving response time and team coordination during a fast-moving crisis is an automated approach that delivers alert messages with clear instructions, sent directly to the clinician's mobile handset, greatly increasing the likelihood of an effective and timely response.*



00921-02 ENX 2016.12 © Ascom. All rights reserved.

### Reference:

1. Duncan, Kathy D.; McMullan, Christine; Mills, Barbara M.; Early Warning Systems: The Next Level Of Rapid Response, Nursing2014, published February 2012, Volume 42, Number 2, Pages 38 – 44.

### Ascom Wireless Solutions

Grimbodalen 2  
402 76 Gothenburg  
Sweden  
Phone: +46 31 55 93 00  
[www.ascom.com/ws](http://www.ascom.com/ws)

