INFORMATION MANAGEMENT

Introduction

Adequate, accurate information management underpins an effective, efficient incident response. Information management should be thought of as a cycle as illustrated in Figure 1, originating from many sources and funneled through channels to be useful. Hospital personnel should understand information flow during an incident – who to contact with information, who they usually receive information from, and what authorities they have to make decisions and initiate communications (e.g., on their unit vs. for all employees, in an emergency or during routine operations). Information management sometimes requires expertise and always requires a degree of analysis to inform decisions. Additional information may need to be obtained prior to decision-making. Decisions often require additional communication development and distribution. The Incident Command System (ICS) should document decisions as well as preserve and retain incident information as a record of the incident and for analysis.

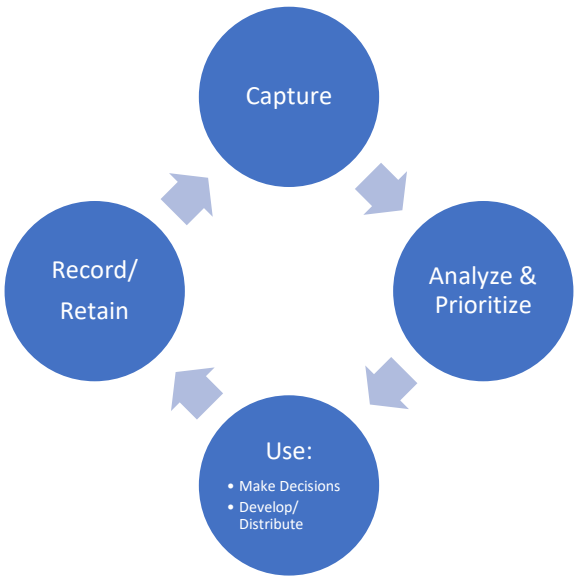

Figure 1. Cycle of Information Management

At the onset of an incident, information is often limited and fragmented, with the scope of the incident becoming clearer over time. Having multiple sources of information – including public safety radio, coordinated communications with emergency medical services (EMS) and dispatch centers, and monitored social and traditional media – early in the incident can help inform initial hospital-level mobilization decisions. EMS units arriving with patients provide additional critical knowledge about the number of remaining patients and their injuries, though this information often arrives too late to inform the initial decision to activate a mass casualty incident (MCI) response.

Related Resources
Additional information is available in ASPR TRACIE's Information Sharing, Risk Communications/Emergency Public Information and Warning, and Social Media in Emergency Response Topic Collections.

Because of the incomplete initial information available and the need for rapid action, alert messages should be developed ahead of an incident, limited in nature, and initiated automatically. Initial incident alerts and notifications, as well as discussion of standard communication systems, are addressed in the Alerting and Communications chapter. This chapter will focus on ***unscripted*** communications specific to the incident that are developed or directed by leadership to shape situational awareness, enhance trust, and inform staff, patient, and public actions.

Conveying information successfully requires defining the:

- **Members** – the audience or specific members of the notification group.
- **Method** – the system used to convey the information and its timing/urgency.
- **Message** – the information provided.

Members

Who will receive the message affects both the content and the delivery methods. Generally, audiences can be grouped as employee messaging (internal) or public messaging (external). However, in some cases, there is an overlap that should be considered. For example, members of the public can hear overhead pages and, in some cases, see message boards or alert banners on in-room computers, which may affect the content of some messages.

Members receiving internal communications and the types of messages they receive include:

- Staff – safety information, incident updates, support options, staffing needs, policies for relief of duties or temporary reassignment/alternate duties due to fatigue or psychological impact (including moral distress and acute or cumulative stressors)
- Patients – information about the incident, impact, and acknowledgement of any service disruption or delays
- Loved Ones – information about the incident, acknowledgement of any service disruption or delays, and information about victim support services and family resources

External communications are directed to the general public, patients, and their loved ones. The types of messages by members include:

- General public (via traditional and social media) – general information about the effects of the incident on the hospital, current status, and acknowledgement of the community/facility response
- Patients and their loved ones – information about the incident, family reunification and other resources, current status, and any anticipated delays (e.g., clinic or surgical scheduling)

Method

Messages may need to be sent via multiple channels depending on the members, time sensitivity, and importance (e.g., a safety message to staff should be communicated via multiple modalities to ensure it reaches everyone rapidly). The hospital emergency manager should understand the methods available, as discussed in the Alerting and Communications chapter, and determine which methods are best suited or complementary to different types of messages. For example, distributing situational awareness information requires a different strategy than sharing information about available staff grief support. Critical safety and operational messages should not rely on a single delivery method.

Message

More detailed and targeted communications follow initial, scripted notifications as multidirectional information flow occurs between affected areas of the hospital, unaffected (but potentially impacted) areas, the Hospital Command Center, community partners, and parent health systems (if the hospital is part of a larger enterprise). This information flow results in situational awareness that must be maintained over time to provide the basis for changes to the incident action plan.

Following an initial flurry of communications, the Hospital Command Center becomes more central to information management. It should maintain and communicate a common operating picture of the incident to internal and external partners as the response transitions from reactive to proactive. Historically, Incident Command produces a structured situation report each operational period. These are highly valuable for ICS use, but not for general communication. Situational updates for broad circulation should avoid lengthy text that repeats prior information and focus on:

- Changes since the last update
- Current situation – what is known and what is still unknown
- Current and expected actions
- Contact mechanism for questions or to provide input. Some hospitals maintain an incident email box (e.g., HICS@yourhospital.org) for non-emergent queries and input.

All emergency managers should be familiar with principles of risk and crisis communication. Many online and in-person classes and resources exist that summarize these techniques. Briefly, the six principles of crisis communication are:[1]

- **Be First** – Get information out rapidly before competing messages have a chance to gain traction.
- **Be Right** – Provide accurate information or acknowledge uncertainty.
- **Be Credible** – Improve trust through honesty and transparency.
- **Express Empathy** – Acknowledge the impact of the situation.
- **Promote Action** – Include actions the recipients can take to increase empowerment.
- **Show Respect** – Respect the messengers and the audience, particularly when they are vulnerable and mistrust may be high.

The ICS Operations Section may identify information needs for the Incident Commander and/or Public Information Officer (PIO) based on the response actions occurring and the incident conditions recognized (e.g., the need to communicate traffic congestion or road closures to arriving staff). The Planning Section should proactively anticipate information needs for a few subsequent operational periods based on the expected trajectory and effects of the incident.

Depending on the incident command configuration, the PIO may be responsible for developing both internal and external messages (as well as media monitoring) or the Planning Section may designate a unit leader for internal communications. Regardless, the information management leader responsible should work with affected areas to ensure timely, effective messages and to monitor the incident objectives and strategies to address additional communication needs. Ensuring a single lead for messaging to specific internal or external audiences is important for accountability and approvals of messages, consistency, and formatting.

In general, the incident command team and communications lead/PIO need to agree on key communications, including:

- Safety-related messages
- Incident updates
- "All clear" notifications (which do *not* mean the incident command work is over, just that the care areas may resume normal operations)
- Staff messages, including available support, defusings, debriefs, and time off policies
- Patient and family messages
- Public messages

Each of these domains should have a development and approval process (e.g., who develops the message, who approves dissemination, and to what audience). Urgent internal safety messages should require minimal or no approval prior to release, whereas public-facing information may require input from multiple leaders before release.

[1] Centers for Disease Control and Prevention. (2018). Crisis + Emergency Risk Communication: Introduction. U.S. Department of Health and Human Services.

Message development should focus on brief, simple updates tailored to the audience. Developing and maintaining key messages for common incident types, including messages that reassure and acknowledge staff, can reduce workload of message development early in an incident. Audiences will be stressed and unable to process complex material. Messages should adhere to the seven general principles of communication: clear, concise, concrete, correct, coherent, complete, and courteous.[2] As the incident progresses, the demand for more information will increase. Always consider placing a few key summary bullets and requested actions at the top of any messages with additional information following for those that desire additional background.

In some cases, information changes rapidly. For example, a novel influenza virus outbreak may generate multiple health alerts and updates to infection prevention recommendations in a short period of time. Employees expect to be kept informed of changes and will be dismayed if they see media coverage reflecting updates the hospital has not yet communicated. At the same time, maintaining awareness of rapidly changing information can be exhausting, and new information may not lead to changes in operations.

Key Pitfalls in Information Management

- Overload – Too much information is provided to be effectively processed and used. On the upstream end, this means having a filter for information and ensuring prioritized information reaches leaders.
- Redundancy – Although some repetition of key safety actions is helpful, redundant material makes missing new information or changes more likely.
- Loss of important information – Information must reach leaders to be useful. Important safety information that is not conveyed vertically and horizontally can place providers at risk.
- Ineffective coordination – If information processing and message development is not coordinated, particularly between the hospital and public agencies (but also between departments in the hospital), this can create inconsistencies and contradictions that can disrupt the response and destroy trust.
- Information gaps – Leaders should always consider what is known and what is not known but may be necessary inputs for decision-making. The most dangerous information gap is one that is not recognized prior to a decision being made.

While passing every single update on to staff in real time will create message fatigue and confusion, some key updates must be communicated rapidly to maintain credibility and transparency. The Planning Section and PIO will need to work with technical experts to determine what information can be summarized in a daily (or less frequent) communication and what needs to be circulated immediately.

[2] Cutlip, S. and Center, A. (1952). Effective Public Relations: Pathways to Public Favor.

When operational policies are changed (e.g., infection prevention policies) an explanation as to *why* the changes are being made is required to enhance trust. In some situations, the hospital may decide *not* to make changes that other hospitals are adopting or are recommended based on their specific resources and situation. Inconsistency between hospitals breeds suspicion among employees and often requires communication even in the *absence* of any facility actions. Adding specific hospital context (e.g., "Due to the layout of our triage area, we have decided to adapt the Centers for Disease Control and Prevention (CDC) recommendations to minimize exposure potential by…") can help staff understand the rationale behind certain decisions.

Particularly when an event is novel or has health implications for hospital staff, the hospital should expect rumors and inaccurate information to circulate. Soliciting supervisor reports, enhancing face-to-face employee contact by leaders, hosting question and answer sessions, and monitoring social media can help identify issues and develop accurate information to reassure staff (and, in some cases, the public). Failure to address these issues systematically will result in crucial loss of trust, increased stress, and response degradation.

During long-term incidents or those with rapidly evolving information, the hospital should clearly communicate to employees:

- Types of information that will result in rapid, unscheduled distribution.
- When summarized updates will be delivered on a regular cadence.
- How employees can receive information (some information may be opt-in).
- Outside sources of information that can be helpful based on the incident (e.g., CDC, local sources of traffic and weather news).

Developing common formatting/infographics standards for incident communications can be helpful so that employees always know the order in which information is communicated and where to find specific information in the communications.

From the Field
During the COVID 19 pandemic a hospital used different graphics to distinguish types of communications. A flashing red light symbol and headers at the top of the page indicated critical infection prevention policy or procedure changes, yellow indicated other time sensitive information, and green was used for scheduled updates. All communications summarized the action issue/item in one sentence at the top with more in depth information and links below the first paragraph.

Soliciting input from leadership and line employees during and after incidents about the content, formatting, frequency, and delivery of information can improve efficiency and

effectiveness. Input can also help identify misconceptions and questions that can be addressed in subsequent updates.

From the Field
During the COVID 19 pandemic, messages in some jurisdictions reflected only calling 911 during life threatening emergencies despite the local EMS system having capacity to respond most of the time. Decreased call volumes were noted in multiple cities, suggesting some patients may have avoided calling 911 when they should have. Advice on when to seek care often requires calibration with available resources, necessitating close coordination between health care and public health/emergency management.

Communications Coordination

The hospital has key partnerships with multiple public sector agencies and responders. During incidents, communications coordination with these partners is critical to ensure:

- Law enforcement and other partners have the information needed to support family reunification.
- The jurisdiction has information about the hospital's situation for incorporation in press releases, press conferences, and other products. If a Joint Information System/Joint Information Center (JIS/JIC) is established to create a formal nexus for information management, the hospital may participate directly to create unified messages. The hospital occupies a somewhat unique position in the JIS; they are usually free to create and distribute their own messaging unlike a public agency. They benefit both from receiving information and key talking points from the JIS to supplement hospital communications and from creating health care-related content for JIS distribution to improve response throughout the community. This helps create message consistency and can integrate health care and jurisdictional talking points.
- If more than one hospital is in the area, joint messages are coordinated for release or common talking points are circulated.
- Hospitals coordinate public information with community partners (particularly during a longer incident or public health emergency) to ensure that recommendations on when and where to seek care are realistic for the health care system and that prevention messages are emphasized to reduce demand on health care services.

From the Field
Some health care coalitions have a public information workgroup that meets on a scheduled basis as well as during incidents to discuss issues and craft messages. These meetings can help foster common message development between public and private partners on issues such as preparing for excessive heat, influenza season, holiday safety, and other issues. During incidents, this group can then leverage their members and history/process to rapidly develop common talking points and gain awareness of current discipline specific challenges.

Ideally, the hospital's or health system's PIO should have established relationships with counterparts in other hospitals, law enforcement, fire, EMS, the mayor's office, emergency management, and public health.

Inaccurate information may be shared early in an incident. Official information may also change over time. Whenever possible, information should be vetted, particularly if it comes from social media or other sources that are not usual collaborators. In some cases, corrections or clarifications may be needed. Law enforcement may also share information that must be controlled and released only to individuals with a need to know. Hospitals should have a process for labeling and receiving law enforcement sensitive or other protected information to ensure the handler understands what information is sensitive, what information may be shared, and with whom.

The hospital should generally assume that any information circulated to employees, however labeled, will be shared with the media and potentially become public. This is independent of unauthorized employees speaking to the media or posting information on social media. Pre-incident media and social media policies that define how employees may communicate hospital-related news or issues should be in place. Additionally, policies on access to patient charts should ensure that only caregivers and others with an appropriate need can access patient information.

Media

Today's dynamic information sharing environment requires much faster development and distribution of public information. "Feeding the beast" is the colloquial expression for meeting media information needs. If these needs are not met, rumors may proliferate, jeopardizing aspects of the response and requiring significant commitments of time and resources to recalibrate.

From the Field
During the first hour of a major MCI response, hospital public relations personnel noted that a local television station was encouraging citizens to go to that hospital to donate blood. The hospital does not provide collection services and, even if it did, resources would not have been available to support an off hours blood drive. The hospital contacted the station, which issued a correction.

Both social and traditional media must be monitored during an incident. The PIO or Planning Section Chief should be responsible for designating individual(s) to monitor information streams for both practical and inaccurate information that can inform the ongoing response, including message development and prioritization.

The hospital should cultivate a good relationship with local media outlets. In the early stages of an incident, the media is generally interested in conveying key messages the hospital wants to share with the community. Leveraging these relationships is important to providing early, accurate information to the community about the situation. In some cases, a physical JIC or hybrid JIS will be established for communications coordination (e.g., developing joint press releases and hosting joint press conferences). The hospital should ensure participation in the JIC/JIS. However, the JIC/JIS does not prevent or even reduce the demands placed on the hospital by media outlets, patients' loved ones, and others. During an incident of national interest, the hospital can expect to be deluged with media requests,

particularly for exclusive interviews and content. Providing national media with exclusive content can alienate local outlets, however. In general, keeping a list of media inquiries and prioritizing them as time and resources allow is the best strategy with the caveat that media engagement should never compromise clinical operations, patient privacy, or staff safety.

Related Resources
ASPR TRACIE's Mass Violence/Active Shooter Incidents: Community Response and Media Management Tip Sheet includes additional information on working with the media following no-notice incidents.

Staff can anticipate that members of the media will attempt to access the hospital, Family Support Center, and other areas in search of information and interviews. They may also position themselves at the hospital entrance/exit, attempt interviews, and broadcast images of arriving patients if the hospital's ambulance entrance is not enclosed. The hospital should have contingency plans with its security personnel (approved by the hospital attorney) to address these potential issues.

The hospital should have a designated area for the press to gather, including a parking area for satellite trucks and an appropriate press conference area that does not allow access to other areas of the hospital. A press conference should be scheduled as soon as possible and communicated widely to try to minimize individual requests for interviews.

Media training for key individuals (e.g., department heads in emergency medicine and surgery, the chief executive officer, and the chief medical officer) is highly recommended to improve communication skills. In general, hospital staff should avoid commenting on any specific patients or injuries, convey overall information about the response (e.g., total number of incident-related patients, general types of injuries, how the hospital has mobilized), and avoid appearing defensive (e.g., "no comment" comes across much differently than "unfortunately, I do not have that information to share at the moment").

From the Field
Following an MCI of national interest, media attempted to gain access to a hospital by posing as health care providers (wearing scrubs), a pizza delivery driver, and an individual wishing to donate food to the providers. Vigilance against piggybacking of non hospital personnel at access controlled entrances and thorough screening of entering individuals is required for days after a major incident.

Conclusion

Emergencies generate a tremendous amount of information rapidly and require the swift generation and effective transmission of large amounts of time-sensitive information. A structured, proactive approach is needed, with roles clearly defined. Hospital leaders should recognize that information management is a critical operational function requiring considerable time and resource commitments, and not simply a public relations task. Some messages will require approval prior to dissemination, and understanding the expectations for review based on the type of information is essential. Building trusted relationships and processes before an

incident can help foster efficient information flow during emergencies. The hospital emergency manager should understand the available communication methods, how and when they will be used, the process for monitoring information streams, and the generation of relevant internal and external communications.

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