



JENSEN HUGHES

*Your Partner in Safety,  
Security and Risk-Based  
Engineering + Consulting*

## Loss of Communications Systems

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# Objectives

- + Understand the challenges of communication systems failure.
- + Recognize the impacts incurred by the organization, residents, staff, and others due to communications failure.
- + Discuss immediate actions when a communication system failure happens.



# A Few Examples

*Brooklyn fiber cut appears to cause East Coast Verizon FiOS outage*

Hackers are increasing their attempts to break into health-care companies, putting additional pressure on an industry already struggling

XXX Health experienced a systemwide problem with its electronic communications systems Tuesday, including its internal communications systems and electronic health records, officials said. All 24 locations across the system were affected

Hurricane Katrina - More than three million customer telephone lines were knocked down in Louisiana, Mississippi, and Alabama

A cyberattack last week that brought computer systems offline and continues to disrupt care with 16 hospitals and more than 165 other clinical locations impacted. No internal phones, loss of internet, imaging services, and other systems affected for **2+ months**

# Examples of Communication Systems in Healthcare

## *Obvious*

- + Phone
  - VOIP
  - POTS
  - Cellular
- + Nurse Call
- + Paging
  - Overhead
  - Text / Beeper / Other
  - Mass Notification Systems
- + Radios

## *Not so Obvious*

- + Email
- + Electronic Health Record
- + Website
- + Internet
- + Code Alarms
- + Others.....

# Regulatory Requirements

## National Fire Protection Association (NFPA) Health Care Facilities Code (NFPA 99-2012). Chapter 7

- + Discusses requirements for nurse call systems including patient areas, emergency assistance, staff emergency assistance, and emergency resuscitation alarms.



# CMS Regulations with Communications Failure implications:

- + Emergency Preparedness (§483.73) - Elements of the Emergency Plan
  - Interruptions in communication, including cyber-attacks
- + Availability of Physicians for Emergency Care (§483.40(d))
  - If a resident's own physician is unavailable, the facility should attempt to contact that physician's designated referral physician before assuming the responsibility of assigning a physician.
- + Policies and procedures (§483.73(b))
  - The LTC facility must develop and implement emergency preparedness policies and procedures, ..... and the communication plan at paragraph (c) of this section. The policies and procedures must be reviewed and updated at least annually.
- + Safe evacuation from the [facility], which includes consideration (§483.73(b)(3))
  - The facilities policies and procedures must outline primary and alternate means for communication with external sources for assistance.

*Part IX. Emergency Preparedness - 22VAC40-73-950. Emergency preparedness and response plan.*

<https://law.lis.virginia.gov/admincodefull/title22/agency40/chapter73/partIX/>

**A. The facility shall develop a written emergency preparedness and response plan that shall address:**

+ 3. Written emergency management policies and procedures for provision of:

- c. Communications

+ 4. ....Emergency procedures shall address:

- g. Communicating with staff and community emergency responders during the emergency;

**F. The facility shall review the emergency preparedness plan annually or more often as needed, document the review by signing and dating the plan, and make necessary plan revisions. Such revisions shall be communicated to staff, residents, and volunteers and incorporated into the orientation and semi-annual review for staff, residents, and volunteers.**

## *Part IX. Emergency Preparedness - 22VAC40-73-950. Emergency preparedness and response plan.*

<https://law.lis.virginia.gov/admincodefull/title22/agency40/chapter73/partIX/>

- + In the event of a disaster, fire, emergency, or any other condition that may jeopardize the health, safety, and welfare of residents, the **facility shall take appropriate action to protect the health, safety, and welfare of the residents** and take appropriate actions to remedy the conditions as soon as possible.
- + After the disaster or emergency is stabilized, the facility shall:
  - **Notify family members and legal representatives; and**
  - Report the disaster or emergency to the regional licensing office by the **next day** as specified in [22VAC40-73-70](#).



# Consequences vs. Causes

Consequence management occurs through the consideration of the wider ramifications of an emergency event.

- + This approach moves the focus from a specific hazard to broader consequences affecting a facility, regardless of the hazard source.

## *Causes (Specific Hazard)*

- + Power outage
- + Storms
- + Man made - Intentional / Accidental
- + Etc.

## *Consequences*

- + Loss of nurse call, phones, internet, etc.
- + Loss of emergency systems (fire alarm, code blue, 911, etc.)
- + Loss of external communications with families, physicians, staff
- + Loss of communication with vendors & suppliers

# Mitigation Planning

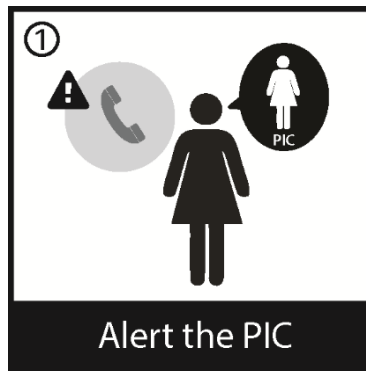
*What can be done to minimize the risk?*

- + Infrastructure Improvement
- + Redundant Equipment Purchase
- + Planning on all hazards
- + Training staff, volunteers, patients and families on emergency procedures
- + **Collaboration with other Partners (Town / City / County / State)**



# Immediate Support Actions

- + Activate the EOP to support the response
- + Establish methods to communicate within the building (runners, portable radios, etc.) if intercom/paging system is affected.
- + If phone system is down, notify Fire and Police Departments. Ensure that all staff are familiar with the method to notify Fire and Police Departments in the event of an emergency while experiencing a loss of telephone service.
- + Increase staffing and/or develop a “pool” to reassign staff to complete tasks that can no longer be automated to help ensure patient and staff safety.



# Immediate Support Actions

- + If Nursing Call System is inoperable, provide Tap or Hand Bells to residents and increase monitoring of residents.
- + Consider moving residents closer to the Nursing Station that need closer supervision or monitoring.
- + Identify and remind staff of special fail-safe telephone systems in your building (if available).
  - Check fax lines for operation for alternate uses
- + Determine alternate methods of communicating laboratory results, executing pharmacy orders, transmitting radiology results, and accomplishing other processes involving clinical information while maintaining HIPAA and PII.



# For Information and Resources

## *Virginia Long Term Care Infrastructure Pilot Project*



<https://www.vhca.org/vlipp/>



VHCA EMPRep [emprep@vhca.org](mailto:emprep@vhca.org)

Thank You!



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