Improving Emergency Communications Through the Use of Plain Language

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- The use of plain language emergency codes is also recommended by federal agencies such as The U.S. Department of Homeland Security Federal Emergency Management Agency (FEMA) and the U.S. Department of Health and Human Services (DHHS), who each advocate for the use of plain language in all emergency communications.

- The NIMS Integration Center wants you to know it sees the use of plain language in emergency response situations as a matter of public safety, especially the safety of first responders and those affected by the incident.
ICS Principle

- The ability to communicate within the Incident Command System (ICS) is absolutely critical. An essential method for ensuring the ability to communicate is by using common terminology and clear text.
- A critical part of an effective multiagency incident management system is for all communications to be in plain English.
- Do not use codes — radio, institution-specific or departmental codes, or jargon.
- Be careful with acronyms — EMT has 9 meanings and could be misunderstood depending on the responding agency.

What’s the Landscape in California …

- Not all facilities are using the hospital emergency codes the Hospital Association of Southern California (HASC) Safety and Security Committee and AllHealth Security Services helped define for the state of California.
- The nomenclature of code words and response actions are uncoordinated within hospital systems, including hospital systems, neighboring hospitals and health care facilities.
- Stanford Health Care (SHC) vs. Stanford Health Care — Valley Care (SHC-VC) where we have different codes and staff at SHC-VC campuses, but are following SHC codes for Palo Alto.
- Plain language vs. codes.
Findings Across the Nation …

- Contradictory disaster code nomenclature carries a greater risk for response confusion.
- Response actions had widely varying code words.
- Approximately 22 state hospital associations and at least 3 health care-related organizations have recommended standardized language over codes.

Plain Language

- Code words do not equal expected response actions.
- How many color codes and types are out there?
- Confusion or not, knowing color codes delays response.
- Threat or injury potential for patients, staff or others is more likely.

Color Codes

- Staff are used to terms.
- "It’s been this way for 20 years … why change?"
- Codes don’t cause panic to the common person.
Sharp HealthCare’s Journey

Sharon Carlson, RN
Director, Emergency Preparedness

Sharp HealthCare — Background

- Code Blue — Cardiac Arrest
- Code Red — Fire
- Code Pink — Pediatric Cardiac Arrest
- Code Purple — Infant Abduction
- Code Triage — Activation of Disaster
- **Code Yellow** — Intruder With a Weapon
- **Code Green** — Behavioral Emergency
Situation
Code Yellow Challenges

In 2 years, Sharp Healthcare (SHC) has had 4 Code Yellow events, none of which met the definition per Code Yellow policy:

- 76 year-old patient who pulled the footboard out of his bed and held it in front of himself
- Patient threatening to stab himself with a piece of broken clipboard
- Homeless female reluctant to give up personal belongings, which contained a knife (in her purse, no threat)
- Male patient cleaning his fingernails with a 2-inch pocketknife (no threat)

Staff response is consistently incorrect with Code Yellow policy.

Situation
Code Yellow Challenges (cont.)

- Improper Code Yellow
  - Security/staff response puts the responder at considerable risk due to a lack of information

- Hospital leadership has expressed confusion about response to Code Yellow
  - Objected to lack of standardization within County
  - Disagreement with current procedure
Background
Plain Language Benefits

- Active shooter events conclude quickly and require rapid and effective response
- Standardized communication is strongly recommended and considered a best practice in emergency and disaster management

Assessment
Joint Commission Recommendations

Plain language for:
- Evacuation
- Plant facility system alert
- Active shooter
- Hostage
- Armed violent intruder
Assessment
Balancing Patient and Personal Safety

Ethical/Legal issues:
• Patient abandonment
  – Sharp legal counsel found no cases for patient abandonment
• Most attacks are directed at health care staff
• Staff injured by attackers cannot help others
• Legal liability is reduced if individuals know what is happening and how to protect themselves

Moral issues ... survival:
• Escape if you’re in the area of attack
• Hide & lock yourself in a secluded area
• Close patient doors if time permits

Assessment
Industry Trends

HealthCare Risk Management Review (Sept. 2016)

“...plain language codes is another way to promote safety and reduce harm.”
Assessment
Truths and Validations

- Without extensive explanation, plain language indicates actions that are needed
- It will allow for visitors to protect themselves
- Additionally, this reduces confusion for health care professionals who may work in more than one hospital

Recommendation

Change emergency codes to plain language

- Educate executive leadership
- Develop a timeline
- Develop an education plan
- Change all code documentation
- Tabletop and exercise
Sutter Health’s Emergency Codes & Medical Alerts Standardization Initiative

Mark Shirley, MS, CSP
Environmental Risk Consultant
Sutter Health Risk Services

Sutter Health Overview
Sutter Health primarily serves Northern California
- 24 hospitals (4311 licensed beds)
- 35 ambulatory surgery centers
- 200+ physician office and clinic locations
- 53,000 employees
- 5,500 physicians
- 2200 hospice & home care employees
Impetus was the San Bernardino shooting

Lack of standards across the enterprise resulted in:
• Confusion for staff working at multiple sites
• Variation in response practices
• Multiple education modules
• Reference tool (e.g., flip chart) cost inefficiency
• Codes were beginning to be used for medical emergencies (e.g., Code Stroke)

Why Standardize?

Project Scope

• Traditional codes plus medical alerts
• Acute, ambulatory and business occupancies
• Code and medical alert definitions
• Standardized language for announcements
• Process to make future code/alert revisions
• Guidelines for use of the overhead paging system
• An implementation plan
Stakeholder Engagement

- Security and safety leaders
- Emergency preparedness coordinators
- Women's, Infants & Children's Services
- Chief Nursing Executives
- Clinical educators
- Ambulatory leaders
- Legal and Risk
- Patient advisors

Standardized Codes

<table>
<thead>
<tr>
<th>Code</th>
<th>Definition/Announcement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CODE BLUE</strong></td>
<td>Cardiac or respiratory arrest</td>
</tr>
<tr>
<td>Adult</td>
<td>ANNOUNCEMENT: “Code Blue (Adult, Maternity, Neonate, Pediatric) — location”</td>
</tr>
<tr>
<td>Maternity</td>
<td></td>
</tr>
<tr>
<td>Neonate</td>
<td></td>
</tr>
<tr>
<td>Pediatric</td>
<td></td>
</tr>
<tr>
<td><strong>CODE GRAY</strong></td>
<td>Combative person (aggressive, hostile, combative or potentially combative persons)</td>
</tr>
<tr>
<td></td>
<td>ANNOUNCEMENT: “Code Gray — location”</td>
</tr>
<tr>
<td><strong>CODE ORANGE</strong></td>
<td>Hazardous material spill/Release</td>
</tr>
<tr>
<td></td>
<td>ANNOUNCEMENT: “Code Orange — Hazardous materials spill/Release — location”</td>
</tr>
<tr>
<td><strong>CODE PINK</strong></td>
<td>Infant missing or abducted (infants/children up to 2 years of age)</td>
</tr>
<tr>
<td></td>
<td>ANNOUNCEMENT: “Code Pink last seen — location insert description (e.g., age, gender, race) of missing infant and description (e.g., age, gender, race, clothing) of individual that he/she may be with, if available”</td>
</tr>
</tbody>
</table>
### Standardized Codes (cont.)

<table>
<thead>
<tr>
<th>Code</th>
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</table>
| **CODE PURPLE** | Child/Adult missing or abducted (child/adult over the age of 2)  
ANNOUNCEMENT: “Code Purple — last seen — location and description (e.g., age, gender, race, clothing)” |
| **CODE RED**  | Fire  
ANNOUNCEMENT: “Code Red — location” |
| **CODE SILVER** | Person with a non-firearm weapon and/or hostage situation  
ANNOUNCEMENT: “Code Silver — location. A security threat exists at location. All persons should immediately move away from that location if it is safe to do so. If it is not safe to move away, seek shelter or remain in a room with the door closed until an all clear has been announced.” |

### Standardized Codes (cont.)

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| **CODE SILVER — ACTIVE SHOOTER** | A person with a firearm who has used or is threatening to use deadly physical force on other persons  
ANNOUNCEMENT: “Code Silver — active shooter — location. A security threat involving a firearm exists at location. All persons should immediately move away from that location if it is safe to do so. If it is not safe to move away, seek shelter or remain in a room with the door closed until an all clear has been announced.” |
| **CODE LIME**                 | Electronic health record is down  
ANNOUNCEMENT: “Code Lime — initiate (EPIC, PACS, other) downtime procedures” |
| **CODE SEPSIS**               | A patient is in septic shock, needs emergent attention  
ANNOUNCEMENT: “Code Sepsis — location.” |
### Standardized Codes (cont.)

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<tr>
<td>CODE TRIAGE, INTERNAL or EXTERNAL, ALERT or ACTIVATE</td>
<td>Disaster/MCI/patient surge event. Activate Emergency Operations Plan for internal or external incident. ANNOUNCEMENT: “Code Triage Internal/External — Alert — situation.&quot; OR “Code Triage Internal/External — Activate — situation.&quot; The Emergency Operations Plan has been activated.&quot; When applicable, the following should be added to the announcement: “Incident management team members should proceed to the location for a briefing.” *NOTE: Plain language should be used to describe the “situation.” For example, “facility lockdown,” “water failure,” “evacuation,” “high census,” etc.</td>
</tr>
<tr>
<td>CODE YELLOW</td>
<td>Bomb threat (a bomb threat or the discovery of a suspicious device or item) ANNOUNCEMENT: “Code Yellow - location”</td>
</tr>
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</table>

### Standardized Medical Alerts

<table>
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<tr>
<th>Medical Alert</th>
<th>Definition/Announcement</th>
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</thead>
<tbody>
<tr>
<td>C-SECTION</td>
<td>A pregnant patient needs an emergent C-section. ANNOUNCEMENT: “Medical Alert: C-section — location.”</td>
</tr>
<tr>
<td>ECMO</td>
<td>A patient needs emergent extracorporeal life support. ANNOUNCEMENT: “Medical Alert: ECMO — location.”</td>
</tr>
<tr>
<td>IMMINENT DELIVERY</td>
<td>A pregnant patient in advanced stages of labor cannot be transported to the Mother/Baby Unit prior to delivery and needs emergent attention. ANNOUNCEMENT: “Medical Alert: Imminent Delivery — location.”</td>
</tr>
<tr>
<td>RAPID RESPONSE</td>
<td>A patient with early signs of clinical deterioration needs emergent attention to prevent respiratory or cardiac arrest. ANNOUNCEMENT: “Medical Alert: Rapid Response — location.”</td>
</tr>
</tbody>
</table>
Standardized Medical Alerts (cont.)

<table>
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<th>Medical Alert</th>
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</thead>
<tbody>
<tr>
<td>SEPSIS</td>
<td>A patient has severe sepsis and needs urgent attention. ANNOUNCEMENT: “Medical Alert: Sepsis — location.”</td>
</tr>
<tr>
<td>STEMI</td>
<td>A patient with myocardial infarction and ECG evidence of ST elevation needs emergent percutaneous coronary intervention. ANNOUNCEMENT: “Medical Alert: STEMI — location.”</td>
</tr>
<tr>
<td>STROKE</td>
<td>A patient with poor blood flow to the brain (ischemic or hemorrhagic) needs emergent attention. ANNOUNCEMENT: “Medical Alert: Stroke — location.”</td>
</tr>
<tr>
<td>TRANSFUSION</td>
<td>A patient emergently needs a blood transfusion. ANNOUNCEMENT: “Medical Alert: Transfusion — location.”</td>
</tr>
<tr>
<td>TRAUMA</td>
<td>A critically ill patient(s) will be arriving or has arrived in the Emergency Department and specialized services/personnel are emergently needed. ANNOUNCEMENT: “Medical Alert: Trauma”</td>
</tr>
</tbody>
</table>

Implementation Plan

- Established an implementation workgroup
- Identified major tasks
  - Develop staff/physician communication plan
  - Draft flip charts and badge buddies (acute, ambulatory & business occupancy versions)
  - Secure pricing & budget for charts and buddies
  - Revise e-learning module
  - Revise other educational materials (e.g., MD, volunteer, student, etc.)
  - Revise/approve impacted code and alert policies
  - Educate staff, physicians and others
- One-year implementation timeline
- Implementation attestation
The 14 Codes!

- **Code Alpha**: Hospital Emergency
- **Code Bravo**: Utilities Emergency
- **Code Blue**: Medical Emergency
- **Code Gold**: Elopement
- **Code Gray**: Threatening Person
- **Code Green**: IT Downtime
- **Code Orange**: Hazmat Incident
- **Code Pink**: Infant Abduction
- **Code Purple**: Child Abduction
- **Code Red**: Fire
- **Code Silver**: Active Shooter
- **Code Triage**: Mass Casualty
- **Code Yellow**: Boom Threat
- **Code Zebra**: Infectious Disease

**Know Your Codes**
**Background**

**Problem Statement**
Emergency Communications are often necessary and are the backbone for the incident response. Existing systems often require coordination with the incident command center and the organization as a whole, increasing the uncoordinated nature of the process. The organization does not have a single source of contact database which is integrated into a mass-notification system.

**Background Experience**
The Office of Emergency Management oversees incident communications to ensure the organization is well informed and capable of responding appropriately. The organization frequently employs technology and processes to assess the functionality of these systems. The process frequently relies on the standard work that is done, such as with scaling, in an agile framework. The framework is the organization’s ability to respond efficiently to events.

**Current State**
- Communications methods currently used:
  - Operator Services (Voice Intercom System)
  - Internal e-mail
  - Alerting using internal tools, e-mail, manual database

**Problem Statement Evolves**

- **2014** — Initial Problem Statement developed
- **2015** — New mass notification solution deployed
- **2016** — Final integration of solution and process improvement work
- **2017** — Transition to plain language & Security Operations Center

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**Code Response Current State**

- Employee reports emergency by calling 511
- If Code Green or Yellow, then staff may directly call 511 or OSC and it is relayed to 511

**Operator Services Center**

- If Code Green, then OSC forwards to SFC
- If Code Yellow, then OSC forwards to Security

**Palo Alto Comm.**

- PALCO (POLICE) (9-1-1)

**Security Operations Center**

- SFC (Security) (9-1-1)

**Facilities Services Response Center**

- FFRSC (Facilities) (9-1-1)

**IT/IS Service Desk**

- ISS (IT Services) (9-1-1)

**Other Services**

- OSC (Operations Support Center) (9-1-1)

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**Stanford MEDICINE**
The Four R Approach

**Recognize**
- Actionable Instructions
  - Respond by taking advised actions

**Stay in the loop!**
- Reference
- Emergency Procedure Flipbooks
  - Reference your resources/plans

**Report**
- Plain Language
  - Recognize the emergency

**Respond**
- Coordinated Communications
  - Report the emergency via the appropriate phone number

Revised Safety Badge

**Steps for staff to follow to get help**

1. **Recognize the Emergency**
   - Medical Emergency (Code Blue)
     - 211 911
   - Fire or Fire Alarm
     - 211 911
   - Security Needed
     - Threatening person, missing child or infant, Experient, Bomb Threat
     - 211 911
   - Hazardous Odor or Spill
     - 211 650-723-7222
   - Utility Failure or Flood
     - 211 650-723-7222
   - Active Shooter or Person with a Weapon
     - 911 911

2. **Report the Emergency**
   - Describe the emergency to the operator
   - Stay on the line until instructed to hang up
   - Guide response team to exact location

3. **Reference the Emergency Procedures Flipbook and Respond appropriately**
   - References how/when to use the flipbook

**Contact numbers for hospital and off-site locations**

Other Important Numbers:
- Security: 650-723-7222
- Facilities Services Response Center: 650-408-4400
- Hospital Operator: 650-723-6661
- SHC IT Help Desk: 650-723-3333
- Children’s SHC Help Desk: 650-408-7500
Emergency Procedures Flipbook

Implementation

- Change out of Flipbooks
- Change out of safety badges
- Release of revised Disaster and Emergency Procedures Healthstream Module
- Unit/Department based 1:1 training
- Transition from Amcom paging to Mir3 for emergency communications
Implementation (cont.)

- Transition from Operator Service Center (OSC) to Security Dispatch for all non-medical calls
  - 211
    - If this is a medical emergency, press 1: Transferred to OSC
    - For all other emergencies, press 2: Transferred to Security Dispatch

- Update to New Employee Orientation

- Revision of OEM website and Emergency Operations Plan

- Revision of other policies and procedures

Summary

**Project Timelines and Due Diligence**

- **Assess** — who should participate in the transition and who will it affect
- **Plan** — relevant stakeholders to determine plain language and policies
- **Equip** — prepare stakeholders for plain language, develop necessary training for staff, standardize terminology system-wide, modify or develop new operating policies and procedures, Code Cards, Quick Reference Communication Guides
- **Train and Use** — put the new products and policies into place, and train staff and external stakeholders
Thank you!

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