Improving Emergency Communications Through the Use of Plain Language

Caryn Thornburg, LVN, BAIS, MS
Stanford Health Care — ValleyCare (moderator)

Sharon Carlson, RN
Sharp HealthCare

Mark Shirley, MS, CSP, CHMM
Sutter Health Risk Services

Kathryn Harris
Stanford Health Care/Stanford Children’s Health
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, 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, neighboring hospitals and health care facilities.
- Stanford Health Care (SHC) vs. Stanford Health Care — Valley Care (SHC-VC): We each have different color codes, and have SHC staff at SHC-VC campuses. SHC staff are following SHC codes for Palo Alto and are not familiar with the SHC-VC codes where they work.
- 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
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.

- 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
Why Standardize?

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)

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>
</table>
| CODE BLUE   | Cardiac or respiratory arrest  
- Adult  
- Maternity  
- Neonate  
- Pediatric  
  ANNOUNCEMENT: “Code Blue (Adult, Maternity, Neonate, Pediatric) — location” |
| CODE GRAY   | Combative person (aggressive, hostile, combative or potentially combative persons)  
  ANNOUNCEMENT: “Code Gray — location” |
| CODE ORANGE| Hazardous material spill/Release  
  ANNOUNCEMENT: “Code Orange — Hazardous materials spill/Release — location” |
| CODE PINK  | Infant missing or abducted (infants/children up to 2 years of age)  
  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” |
### Standardized Codes (cont.)

<table>
<thead>
<tr>
<th>Code</th>
<th>Definition/Announcement</th>
</tr>
</thead>
<tbody>
<tr>
<td>CODE PURPLE</td>
<td>Child/Adult missing or abducted (child/adult over the age of 2)</td>
</tr>
<tr>
<td></td>
<td>ANNOUNCEMENT: “Code Purple — last seen — location and description (e.g., age, gender, race, clothing)”</td>
</tr>
<tr>
<td>CODE RED</td>
<td>Fire</td>
</tr>
<tr>
<td></td>
<td>ANNOUNCEMENT: “Code Red — location”</td>
</tr>
<tr>
<td>CODE SILVER</td>
<td>Person with a non-firearm weapon and/or hostage situation</td>
</tr>
<tr>
<td></td>
<td>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.”</td>
</tr>
<tr>
<td>CODE SILVER – ACTIVE SHOOTER</td>
<td>A person with a firearm who has used or is threatening to use deadly physical force on other persons</td>
</tr>
<tr>
<td></td>
<td>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.”</td>
</tr>
<tr>
<td>CODE LIME</td>
<td>Electronic health record is down</td>
</tr>
<tr>
<td></td>
<td>ANNOUNCEMENT: “Code Lime — initiate (EPIC, PACS, other) downtime procedures”</td>
</tr>
<tr>
<td>CODE SEPSIS</td>
<td>A patient is in septic shock, needs emergent attention</td>
</tr>
<tr>
<td></td>
<td>ANNOUNCEMENT: “Code Sepsis — location.”</td>
</tr>
</tbody>
</table>
Standardized Codes (cont.)

<table>
<thead>
<tr>
<th>Code</th>
<th>Definition/Announcement</th>
</tr>
</thead>
<tbody>
<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*.” OR “Code Triage Internal/External — Activate — situation*. The Emergency Operations Plan has been activated.” 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>
</tbody>
</table>

Standardized Medical Alerts

<table>
<thead>
<tr>
<th>Medical Alert</th>
<th>Definition/Announcement</th>
</tr>
</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>
<thead>
<tr>
<th>Medical Alert</th>
<th>Definition/Announcement</th>
</tr>
</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**: Utility 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**: Bomb Threat
- **CODE ZEBRA**: Infectious Disease

**Know Your Codes**

OEM EMERGENCY MANAGEMENT
Background

Problem Statement
Emergency Communications are often necessary and also important for the efficient response to natural disasters, terrorist attacks, and other emergencies. The organization begins to explore various options for improving their current communication channels and processes.

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

Problem Statement Evolves
**The Four R Approach**

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

- **Stay in the loop!**

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

- **Reference**
  - Emergency Procedure Flipbooks
  - Reference your resources/plans

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

---

**Revised Safety Badge**

- **1. Recognize the Emergency**
  - Medical Emergency (Code Blue)
  - Fire or Fire Alarm
  - Response is to sound or fire: "Rescue Alarm Contains Evacuation or Relocate"
  - Using the extinguisher: "Pull Aim Squirt Sweep"
  - Security: Needing a threatening person, alienating child or infant, Experient, Bomb Threat
  - Hazardous Odor or Spill
  - Utility Failure or Flood: Power, water, smoke/odors/leagues
  - Active Shooter or Person with a Weapon

- **Hospital #** | **Offsite #**
  - Medical Emergency (Code Blue): 211, 911
  - Fire or Fire Alarm: 211, 911
  - Security: Needing a threatening person, alienating child or infant, Experient, Bomb Threat: 211, 911
  - Hazardous Odor or Spill: 211, 650-723-7222
  - Utility Failure or Flood: Power, water, smoke/odors/leagues: 211, 650-723-7222
  - Active Shooter or Person with a Weapon: 911, 911

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

- **Other Important Numbers:**
  - Security: 650-723-7222
  - Hospital Operator: 650-723-6661
  - SMC IT Help Desk: 650-723-3333
  - Children’s SMC Help Desk: 650-408-7508

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

---

Confidential – For Discussion Purposes Only
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!

Caryn Thornburg  
Stanford Health Care — Valley Care  
cthornbu@stanfordhealthcare.org

Mark Shirley  
Sutter Health Risk Services  
shirlem@sutterhealth.org

Sharon Carlson  
Sharp HealthCare  
Sharon.Carlson@sharp.com

Kathryn Harris  
Stanford Health Care/  
Stanford Children’s Health  
KaHarris@stanfordhealthcare.org