



Position Statement

930 E. Woodfield Road, Schaumburg, IL 60173 | 800.900.9659 | ena.org

Plain Language Emergency Alerts

Description

Emergency alert codes (e.g., “Code Blue,” “Code Red”) are widely used in hospitals worldwide to quickly and efficiently direct staff to critical situations without alarming patients and visitors. However, the lack of emergency alert standardization across the healthcare sector has resulted in a remarkably wide range of code words being used to designate a relatively small number of critical situations, even among hospitals in the same area. For example, in Pennsylvania healthcare facilities between 2004 and 2013 there were 80 different emergency codes designating 37 different functional categories, creating 154 combinations of terminology and intended meaning (Wallace & Finley, 2015). Among them were 15 different codes for “combative person,” 15 for “internal/external emergency,” and 15 for adult medical emergencies. “Code Yellow” had 10 different meanings, “Code Orange” had nine, and “Code Purple,” “Code White,” and “Code Silver” each had seven. In addition, not all the codes were color codes — Pennsylvania hospitals also used 16 different letter codes (“Code A,” “Code O,” etc.), four different names (“Dr. Gray,” “Dr. Quick,” etc.), 12 different numbers (“Code 1,” “Code 222,” etc.), and 22 different words (“Code Alpha,” “Code Wintergreen,” etc.) (Wallace & Finley, 2015). Pennsylvania is not alone. Studies in at least 22 U.S. states, Puerto Rico, and multiple countries have found similar situations (Al-Aboud & Al-Aboud, 2010; Ashworth et al., 2015; Dyble, 2011; Committee HE-026, 2010; Padilla-Elias et al., 2013). California, which in 1999 was one of the first states to confront the issue, found that hospitals in the state had 47 different codes for infant abduction and 61 different codes for a combative person (Truesdel, 2005).

This “code confusion” is of critical importance because many healthcare workers work at multiple facilities, whether it is because they are travel nurses, resident physicians, or fellows or they work multiple jobs in different facilities or states. Remembering the meanings and protocols for a broad range of codes can be difficult under any circumstances but is even more difficult when the same code means very different things. For instance, “Code Green” may mean “oxygen system failure” at one facility and “violent incident” at another, which have two very different response protocols (Iowa Hospital Association, 2014).

One solution to this decades-old problem is plain language emergency alerts. In addition to eliminating code confusion entirely, plain language alerts are easily adaptable to novel situations, and they provide specific instruction about what those who hear alerts need to do without compromising preordained response protocols. For these reasons, the Department of Homeland Security (DHS), the National Incident Management System, the Federal Bureau of Investigation, ten state hospital associations (Colorado, Florida, Iowa, Kansas, Minnesota, Missouri, North Carolina, South Carolina, Texas, and Wisconsin) support the use of plain language alerts (DHS, n.d.; U.S. Department of Health and Human Services [HHS], 2014).

ENA Position

It is the position of the Emergency Nurses Association (ENA) that:

1. Plain language for emergency alerts be adopted by all hospitals.
2. National ENA and state ENA collaborate with hospital and governmental agencies to advocate for standard national plain language alerts.
3. National ENA, ENA state councils, and ENA chapters advocate for the use of plain language alerts in all hospitals.
4. Emergency nurses advocate for plain language emergency alerts.

Background

The use of codes to activate in-hospital emergency response teams began more than a half century ago (Harbutt, 1964, Hosler, 1958.). “Code Blue,” the alert that is most widely and consistently used by hospitals in the U.S., was coined in 1960 (Day, 1962; Day, 1972). This evolved into a series of color codes and “secret words” which hospital staff were expected to memorize and respond to. These codes varied widely from hospital to hospital and state to state, creating confusion.

The difference between coded alerts and plain language alerts can be seen in the contrast between active shooter situations at West Anaheim Medical Center (WAMC) in 1999 and at Brigham and Women’s Hospital in 2015. At WAMC, there was no specific color code for an active shooter, and the code alert system, by its very nature, prohibited adaptation of established codes to novel situations (The People of the State of California v. Trinh, 2014) As a result, “Code Gray” was announced, which indicated the presence of a combative person. However, the Code Gray protocol at WAMC directed male staff members to respond and help control the situation, which drew them toward the shooter and resulted in two of them being killed (The People of the State of California v. Trinh, 2014).

Brigham and Women’s hospital, on the other hand, had replaced coded alerts with plain language alerts prior to the 2015 active shooter incident. Their overhead emergency alert stated “A life-threatening situation now exists at Watkins Clinic. All persons should immediately move away from that location if it is safe to do so. If it is not safe to move away, shelter in place immediately” (Sweeney, 2015, June).

In addition to its clarity and specific instruction, the Brigham and Women’s alert relieved hospital staff of the task of communicating to every patient and visitor what “Code Gray” meant and what they needed to do about it while also executing the active shooter protocols (Sweeney, 2015, July).

Healthcare workers are far more likely than the general population to have multiple employers. Nearly 200,000 nurses across the U.S. hold multiple jobs (McMenamin, 2014). A 2013 survey found that between 25% and 40% of physicians (depending on the specialty) are employed at more than one healthcare facility (Bernard, 2014; McMenamin, 2014). The same applies to respiratory therapists, social workers, nursing assistants, housekeeping personnel, and other hospital staff (Hipple, 2010; Mapp, et al., 2015) resulting in real danger of code confusion and has led to adverse events (Rice, 2016; Weikel, 2017). This supports the need for plain language alerts throughout healthcare settings (Dauksewicz, 2019).

For example, a part-time nurse who worked in multiple Washington State hospitals called a “Code Blue” for a patient who had stopped breathing, but “Code Blue” in that hospital meant that an armed police response was required. The nurse did not realize that “Code Blue” meant something else until the police

arrived with guns drawn (Rice, 2016). One survey of hospital staff in the Delaware Valley Region found that 41% had worked at hospitals with different codes, 40% had witnessed code confusion, and most of them were unfamiliar with the color codes for security events (Mapp et al., 2016). A seasoned physician and hospital CEO in Minnesota admitted that he had worked at five different hospitals during his career and never knew all of the color codes at any of them (MHA, 2011). In 2017, Weikel reviewed the ethical dilemma of not using plain language alerts, stating that the plain language alert results in “effective communication to the most amount of people” (p. 104). The author explains how lack of plain language can create confusion and delay actions, which can contribute to increased morbidity and mortality (Weikel, 2017).

Opposition to plain language alerts is usually rooted in a belief that patients and visitors will panic in an emergency, so coded language will protect both them and the staff (Minnesota Hospital Association [MHA], 2011; Proulx & Sime, 1991). However, studies of human behavior in emergency and disaster situations have shown not only that people tend not to panic but that they are more composed when they know what is happening and are given direction (Dezecache, 2015; Glass & Schoch-Spana, 2002; HHS, 2014; Mawson, 2005; National Center for Missing & Exploited Children [NCMEC], 2014; Proulx, & Sime, 1991). Perhaps this is why most hospital patients and visitors polled in multiple surveys have said that they prefer the transparency of plain language alerts over coded alerts (Drury et al., 2013; McMenamin, 2014; MHA, 2011;). Plain language alerts have many benefits, including integration into the National Incident Management System and improved response and safety for hospital patients, staff, and visitors (Dauksewicz, 2019).

Opposition to plain language alerts also includes the belief that patients do not need to know about emergencies that do not concern them (e.g., a cardiac arrest on another floor), and that plain language alerts would constitute a stressor (MHA, 2011). However, it is noteworthy that the majority of coded alerts indicate situations that could potentially harm patients and visitors, without alerting them as to what is happening or what they should do. All alerts other than those for medical emergencies, including alerts for an abducted baby or child, have potential implications for patient and visitor safety and so should be announced in plain language (Hsu et al., 2012). As for the small number of codes that are used to designate medical emergencies, it is believed by some that most are effectively plain language alerts already due to their use on TV (e.g., Code Blue) or their already-assigned plain language (e.g., Code Stroke, Code Rapid Response). In many studies, however, plain language alerts are still not widely used (Iroquois Healthcare Association, 2020). In addition, multiple studies have shown that the real stressor in overhead alerts is unnecessary noise, so the position that patients might be stressed by overhead alerts in plain language is an argument for silencing alerts altogether, rather than an argument for using coded language (DHS, n.d.; Konkani et al., 2014; Ryherd et al., 2012;).

The formulaic nature of plain language alerts (e.g., “medical emergency,” plus descriptor, plus location) ensures that they provide a great deal of information in a short amount of time without violating HIPAA (Drury et al., 2013). Concerns that plain language alerts come with the security risk of alerting perpetrators to the knowledge of their presence have been deemed unfounded by many security experts (DHS, n.d.; Garloch, 2016; HHS, 2014; Hsu et al., 2014; International Association of Fire Chiefs (IAFC), 2009; Washington State Hospital Association, 200; Weikel, 2017). In a 2018 study by Prickett and Williams-Prickett, healthcare professionals expressed a preference for plain language alert standardization. As noted by the Director of Security at Brigham and Women’s Hospital, Robert Chicarello, “There’s no downside” in using plain language emergency alerts (Sweeney, 2015, July, p. 1).

Types of plain language recommended include the following (see resources):

1. Facility Alerts:

2. Bed capacity
3. Emergency plan activation
4. Fire alarm activation
5. Hazardous spill
6. Command center activation
7. Disaster alert
8. Medical Alerts:
 9. Cardiopulmonary or cardiac arrest (adult, pediatric or neonatal)
 10. Mass casualty incident
 11. Hypothermia response team
 12. Stroke response team
 13. STEMI response team
 14. Sepsis response team
 15. Malignant hyperthermia
 16. RRT (rapid response team)
 17. OB (obstetric) alert
 18. Delivery team
 19. Postpartum hemorrhage
20. Trauma
21. Security Alerts:
 22. Missing person/elopement
 23. Armed, violent intruder
 24. Bomb threat/suspicious item
 25. Combative patient/security assistance
 26. Infant/child abduction
 27. Lockdown
 28. Civil disturbance
 29. Hostage
30. Weather Alert
31. Severe weather

Examples of overhead or silent paging include the following:

1. Medical alert – cardiopulmonary arrest – adult – room 202
2. Medical alert – OB alert – trauma – emergency department – bed 38
3. Security alert – infant abduction – second floor – (add descriptor of alleged perpetrator, if known)

4. Weather alert – tornado – move away from windows and take shelter
5. Facility alert – fire alarm – third floor

Resources

Iowa Hospital Association. (n.d.). Plain language emergency codes: Implementation guide. <https://www.ihaonline.org/wp-content/uploads/2020/12/Plain-Language-Document.pdf>

Iroquois Healthcare Association. (2020). *Hospital emergency codes: Standardization and plain language recommendations and guidance*. <https://www.iroquois.org/wp-content/uploads/2021/07/Hospital-Emergency-Codes-Standardization-and-Plain-Language-January-2020.pdf#page12>

Minnesota Hospital Association. (2011). *Plain language emergency overhead paging: Implementation toolkit*. <http://www.mnhospitals.org/Portals/0/Documents/ptsafety/overhead-paging-toolkit-2011.pdf>

Missouri Hospital Association. (2013). *Standardized, plain language emergency codes: Implementation guide*. http://web.mhanet.com/2013_Emergency_Code_Implementation_Manual.pdf

RWJBarnabas Health. (n.d.). *Plain language emergency alerts: Making it easier to respond to emergencies [Presentation]*. Community Medical Center. <https://www.rwjbh.org/documents/cmc/Plain-Language-Emergency-Alerts.pdf>

Texas Hospital Association. (2016). *Overview of plain-language code categories*. <http://www.tha.org/plainlanguagecodes/overview>

Texas Hospital Association. (2018). *Stop speaking in code: Using plain language alerts to improve communication in the hospital in an emergency*. <https://www.tha.org/plainlanguagealerts/whitepaper>

References

- Al-Aboud, K. M., & Al-Aboud, D. M. (2010). Hospital emergency codes: An appraisal. *Saudi Medical Journal*, 31(12), 1377.
- Ashworth, I., El-Dali, A., ElDeib, O., Altoub, A., Pasha, F., & Butt, T. (2015). Variability of emergency color codes for critical events between hospitals in Riyadh. *Annals of Saudi Medicine*, 35(6), 450–455. <https://doi.org/10.5144/0256-4947.2015.450>
- Bernard, R. (2014, July 24). *Moonlighting: Physicians expand income, experience by taking on secondary employment*. Medical Economics. <https://www.medicaleconomics.com/view/moonlighting-physicians-expand-income-experience-taking-secondary-employment>
- Dauksewicz, B. W. (2019). Hospitals should replace emergency codes with plain language. *Journal of Healthcare Risk Management*, 38(3), 32–41. <https://doi.org/10.1002/jhrm.21346>
- Day, H. W. (1962). A cardiac resuscitation program. *The Lancet*, 82, 153–156.
- Day, H. W. (1972). History of coronary care units. *The American Journal of Cardiology*, 30(4), 405–407
- Department of Homeland Security. (n.d.). *Plain language guide: Making the transition from ten codes to plain language*. <https://www.cisa.gov/sites/default/files/publications/PlainLanguageGuide.pdf>
- Dezecache, G. (2015). Human collective reactions to threat. *WIREs Cognitive Science*, 6(3), 209–219. <https://doi.org/10.1002/wcs.1344>
- Drury, J., Novelli, D., & Stott, C. (2013). Psychological disaster myths in the perception and management of mass emergencies. *Journal of Applied Social Psychology*, 43(11), 2259–2270. <https://doi.org/10.1111/jasp.12176>

- Dyble, J. (2011). *Ministry of Health Services policy communiqué: Standardized hospital colour codes*. Government of British Columbia. <http://www2.gov.bc.ca/assets/gov/health/keeping-bc-healthy-safe/health-emergency-response/standardized-hospital-colour-codes.pdf>
- Garloch, K. (2016). *Attention, please: Plain language replaces color-coded alerts at some hospitals*. The Charlotte Observer. <http://www.charlotteobserver.com/living/health-family/karen-garloch/article56812018.html>
- Glass, T. A., & Schoch-Spana, M. (2002). Bioterrorism and the people: How to vaccinate a city against panic. *Clinical Infectious Diseases*, 34(2), 217–223. <https://doi.org/10.1086/338711>
- Harbutt, C. (1964). 'Code 99!' The emergency call that mobilizes a hospital when a life hangs in the balance. *Life Magazine*, 6(9), 52B.
- Hipple, S. F. (2010). Multiple jobholding during the 2000s. *Monthly Labor Review*. <http://www.bls.gov/opub/mlr/2010/07/art3full.pdf>
- Hosler, R. M. (1958). *A manual on cardiac resuscitation* (2nd ed.). Charles C. Thomas.
- Hsu, T., Ryherd, E., Wayne, K. P., & Ackerman, J. (2012). Noise pollution in hospitals: Impact on patients. *Journal of Clinical Outcomes Management*, 19(10), 301–309
- International Association of Fire Chiefs. (2009). "Plain language" use in radio communications [Position statement]. https://www.iafc.org/docs/default-source/1assoc/iafcposition-plainlanguage.pdf?sfvrsn=a80bd80d_0&download=true
- Iowa Hospital Association. (2014). *Plain language emergency codes: Implementation guide*. <https://www.ihaonline.org/wp-content/uploads/2020/12/Plain-Language-Document.pdf>
- Iroquois Healthcare Association. (2020). Hospital emergency codes: Standardization and plain language recommendations and guidance. <https://www.iroquois.org/wp-content/uploads/2021/07/Hospital-Emergency-Codes-Standardization-and-Plain-Language-January-2020.pdf#page12>
- Konkani, A., Oakley, B., & Penprase, B. (2014). Reducing hospital ICU noise: A behavior-based approach. *Journal of Healthcare Engineering*, 5(2), 229–246. <https://doi.org/10.1260/2040-2295.5.2.229>
- Mapp, A., Goldsack, J., Carandang, L., Buehler, J. W., & Sonnad, S. S. (2015). Emergency codes: A study of hospital attitudes and practices. *Journal of Healthcare Protection Management*, 31(2), 36–47.
- Mawson, A. (2005). Understanding mass panic and other collective responses to threat and disaster. *Psychiatry Interpersonal & Biological Processes*, 68(2), 95–113. <https://doi.org/10.1521/psyc.2005.68.2.95>
- McMenamin, P. (2014). QuikStats—Moonlighting nurses. *Georgia Nursing*, 74(4), 8. https://assets.nursingald.com/uploads/publication/pdf/1096/Georgia_Nursing_11_14.pdf
- Minnesota Hospital Association. (2011). *Plain language emergency overhead paging: Implementation toolkit*. <http://www.mnhospitals.org/Portals/0/Documents/ptsafety/overhead-paging-toolkit-2011.pdf>
- National Center for Missing & Exploited Children. (2014). *For health care professionals: Guidelines on prevention of and response to infant abductions* (10th ed.). https://www.missingkids.org/content/dam/missingkids/pdfs/ForHealthCareProfessionals_10thEdition.pdf
- Padilla-Elías, N., Peña-Orellana, M., Rivera-Gutiérrez, R., González-Sánchez, J. A., Marín Centeno, H. A., Alonso-Serra, H., Millán-Pérez, L., & Monserrate-Vázquez, P. (2013). Diversity of emergency codes in hospitals. *International Journal of Clinical Medicine*, 4(4), 499–503. <https://doi.org/10.4236/ijcm.2013.411088>
- Prickett, K. J., & Williams-Prickett, K. (2018). Plain language emergency alert codes: The importance of direct impact statements in hospital emergency alerts. *Journal of Emergency Management*, 16(2), 73–79. <https://doi.org/10.5055/jem.2018.0356>
- Proulx, G., & Sime, J. D. (2007). To prevent 'panic' in an underground emergency: Why not tell people the truth? In G. Cox & B. Langford (Eds.). *Fire Safety Science—Proceedings of the Third International Symposium* (843–852). Taylor & Francis Group. <https://doi.org/10.4324/9780203973493>
- Rice, S. (2016, July 14). *Texas hospitals work to reduce security code confusion*. Dallas Morning News. <http://www.dallasnews.com/news/dallas-ambush/2016/07/14/texas-hospitals-work-reduce-security-code-confusion>
- Ryherd, E., Okcu, S., Ackerman, J., Zimring, C., & Wayne, K.P. (2012). Noise pollution in hospitals: Impact on staff. *Journal of Clinical Outcomes Management*, 19(11), 491–500.

- Committee HE-026. (2010). *Australian Standard®: Planning for emergencies—Health care facilities*. Standards Australia. https://infostore.saiglobal.com/preview/826202981533.pdf?sku=122111_SAIG_AS_AS_273981
- Sweeney, C. (2015, July 13). *When it comes to hospital shootings, emergency color codes don't work*. *Boston Magazine*. <https://www.bostonmagazine.com/health/2015/07/13/hospital-shootings-emergency-color-codes/>
- Sweeney, C. (2015, June 30). *The murder in exam room 15*. *Boston Magazine*. <https://www.bostonmagazine.com/news/2015/06/30/brigham-and-womens-hospital-shooting/>
- The People of the State of California v. Dung Dinh Anh Trinh, 59 Cal. 4th 216 173 Cal. Rptr. 3d 1, (2014) . <http://www.courts.ca.gov/documents/2-s115284-resp-brief-051611.pdf>
- Truesdell, A. (2005). Meeting hospital needs for standardized emergency codes – the HASC response. *Journal of Healthcare Protection Management*, 21(1), 77–89.
- U.S. Department of Health and Human Services. (2014). Incorporating active shooter incident planning into health care facility emergency operations plans. <https://www.phe.gov/Preparedness/planning/Documents/active-shooter-planning-eop2014.pdf>
- U.S. Department of Homeland Security. (2017). *National Incident Management System (NIMS)*. https://www.fema.gov/sites/default/files/2020-07/fema_nims_doctrine-2017.pdf
- Washington State Hospital Association. (2009). *Standardization of emergency code calls in Washington: Implementation toolkit*. http://www.wsha.org/wp-content/uploads/Standardization_MSWordCompleteEmergencyCodesToolkit_REVNov09.pdf
- Wallace, S. C., & Finley, E. (2015). Standardized emergency codes may minimize “code confusion.” *Pennsylvania Patient Safety Advisory*, 12(1), 1–6. http://patientsafety.pa.gov/ADVISORIES/Pages/201503_01.aspx
- Weikel, S. (2017). The ethics of using plain language in hospital emergency codes. *Journal of Healthcare Protection Management*, 33, 2. 94–105.

Authors

Authored by

Brenda Braun, MSN, RNC-EFM, CEN, CPEN, FAEN

Reviewed by

2022 ENA Position Statement Committee

Alison Day, PhD, MSN, BS, RN, FAEN

Lisa Leiding, DNP, RN, CCHP-RN

Dawn Peta, BN, RN, ENC©

Joanne Navaroli, MSN, BS, RN, CEN

Cheryl Riwitis, DNP, RN, FNP, EMT-B, CEN, CFRN, FNP-BC, TCRN, FAEN

Elizabeth Stone, PhD, RN, CPEN, CHSE, FAEN

Sharon Vanairsdale, DNP, MS, RN, APRN, NP, CNS, CEN, ACNS-BC, NP-C, FAEN, FAAN

Jean Proehl, MN, RN, CEN, CPEN, TCRN, FAEN, FAAN, Chairperson

ENA 2022 Board of Directors Liaison

Ryan Oglesby, PhD, RN, CEN

ENA Staff Liaison

Domenique Johnson, MSN, RN

Developed: June 2016

Approved by the ENA Board of Directors: December 2017

Revised and Approved by the ENA Board of Directors: 2019

Revised and Approved by the ENA Board of Directors: 2022

© Emergency Nurses Association 2022

This position statement, including the information and recommendations set forth herein, reflects ENA's current position with respect to the subject matter discussed herein based on current knowledge at the time of publication. This position statement is only current as of its publication date and is subject to change without notice as new information and advances emerge. The positions, information and recommendations discussed herein are not codified into law or regulations. In addition, variations in practice, which take into account the needs of the individual patient and the resources and limitations unique to the institution, may warrant approaches, treatments and/or procedures that differ from the recommendations outlined in this position statement. Therefore, this position statement should not be construed as dictating an exclusive course of management, treatment, or care, nor does adherence to this position statement guarantee a particular outcome. ENA's position statements are never intended to replace a practitioner's best nursing judgment based on the clinical circumstances of a particular patient or patient population. Position statements are published by ENA for educational and informational purposes only, and ENA does not "approve" or "endorse" any specific sources of information referenced herein. ENA assumes no liability for any injury and/or damage to persons or property arising out of or related to the use of or reliance on any position statement.