PATIENT UNIFIED LOOKUP SYSTEM FOR EMERGENCIES (PULSE)
Table Top Drill Summary

When: June 13-15, 2017
Where: CSU Sacramento
6000 J Street, Napa Hall Room 204
Sacramento, CA 95819

SUMMARY:
Emergency Medical Services Authority (EMSA) conducted a tabletop drill at Sacramento State University, in Sacramento, California. EMSA successfully tested the Patient Unified Lookup System for Emergencies (PULSE). Disaster Health Care volunteers played the roles of volunteers retrieving and/or assessing health information retrieved using PULSE as if working in an alternative care facility (ACF). PULSE is a web-based application accessed through DHV that allows a user to search for and retrieve health information on disaster victims or evacuees. It supports two roles: volunteers that are searching for patients matching the demographics of victims or evacuees, and volunteers that are reviewing information discovered on victims or evacuees in order to treat them.

Participants in this drill included: EMSA Staff, California Association of Health Information Exchange, Audacious Inquiry, Collaborative Fusion, U.C. Davis Health System, Sutter Health, Santa Cruz Health Information Organization, Orange County Regional Health Information Exchange, and Ten Disaster Health Care Volunteers from Sacramento Medical Reserve Corps. and Sacramento County.

BACKGROUND:

PATIENT UNIFIED LOOKUP SYSTEM FOR EMERGENCIES (PULSE)
The PULSE web portal on the California Disaster Healthcare Volunteers (DHV) site was activated by EMSA and the PULSE system connected multiple local data sources (health information organizations and health systems) during a mock disaster. Once activated, disaster medical volunteers were able to connect to the PULSE system in order to check patient records for allergies, problem lists, and medications in order to allow the health care providers in DHV to make better clinical decisions. PULSE allowed disaster medical volunteers registered and logged into California Disaster Healthcare Volunteers (DHV) application to access PULSE, once they had been assigned to a
formally designated disaster, and are preparing to treat disaster patients. California’s DHV system routinely verifies credentials of registered medical volunteers to ensure that patients will receive care from adequately credentialed medical personnel.

**Use Case:** Retrieving health information to aid in caring for patients evacuated from healthcare facilities in the affected area.

1. Injured victims transported by first responders
2. Injured victims transported by themselves, family, or neighbors
3. Walking wounded presenting with minor injuries
4. Evacuees seeking primary care for chronic conditions or health issues unrelated to the disaster

Used in Alternate Care Facilities (ACF) by disaster healthcare volunteers

**ONC Grant Recipient for PULSE**
Org: EMSA (Howard Backer MD, Dan Smiley, and Leslie Witten-Rood)
Role: Grant implementation, oversite, and provides **attestation** for PULSE

**Technical Advisor**
Org: CAHIE
Role: Design and set up PULSE Drill

**Message Broker and Portal**
Org: Audacious Inquiry (Ai)
Role: Component that queries for health information

**Disaster Health Volunteers portal (DHV)**
Org: Intermedix
Role: Single sign-on for access to PULSE portal

**Directory Services**
Org: CAHIE
Role: Registry for PULSE participants

**Operator**
Org: Audacious Inquiry (Ai)
Role: Operation of PULSE through Drill

**Drill Participants**
Org: Santa Cruz HIE, OCPRHIO, UC Davis Health System, Sutter Health
Role: On-board to PULSE and participate in Drill
Drill Participants will be testing connectivity (HIO) with Operator Working with CAHIE to define Drill scenarios, create fictitious patient data, and stage data.
Disaster Health Care Volunteers (DHV) Occupations used for Drill

1. Physicians
2. Pharmacist
3. Physician Assistants
4. Nurses
5. Nurse Practitioners
6. EMT/Paramedic

DHV Volunteers Role Day of Drill Wednesday, June 14, 2017 9am to 5pm

DHV volunteers played the roles of volunteers retrieving and/or assessing health information retrieved using PULSE as if working in an alternative care facility (ACF) using PULSE. PULSE is a web-based application accessed through DHV that allows a user to search for and retrieve health information on disaster victims or evacuees. It supports two roles: volunteers that are searching for patients matching the demographics of victims or evacuees, and volunteers that are reviewing information discovered on victims or evacuees in order to treat them. Each of the DHV volunteers were assigned one or both of these roles at one of three ACFs.

More than 30 fictitious “patients” with fictitious health information were staged in one or more of the participating health systems connected to PULSE. During the drill, DHV volunteers were asked to respond to over 30 short scenarios, each one asking them to search for patients, retrieve health information on them if available, and answer specific questions. The scenarios covered five separate types of patients that might be seen during a real disaster: evacuees transferred from a healthcare facility in the affected area, victims transported by first responders, victims transported by friends or family, walking wounded in need of first aid, and evacuees in need of routine care now that they are displaced from their normal care providers. Searches were made using patient demographic information that will be provided as part of each of scenario, such as name, date-of-birth, gender, or home address. Each scenario will include a specific request for information, such as drug allergies for the patient that were retrieved by viewing the retrieved health information.

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