

Health Information Exchange in Emergency Medical Services

California Emergency Medical Services Authority
June 2015





Vision: EMS is a full participant in health information exchange with the ability to securely send, receive, find and use relevant patient information.

Path: Support technical and administrative infrastructure development to enable EMS providers and hospitals to securely share electronic patient information via health information organizations.

Rationale: Better patient care, outcomes and experiences; more complete longitudinal patient record; greater ability to aggregate and analyze system data; and more resilience in the face of disasters.



Office of the National Coordinator Health Information Exchange Grant

- EMSA has applied for a \$3,000,000 grant over two years
- to develop technology, tools, services, policies and agreements
- that enable interoperable exchange of health information
- between emergency medical services, disaster healthcare professionals, health information organizations, hospitals, pharmacies, labs and other healthcare entities



Patient Unified Lookup System for Emergencies

PULSE

- PULSE will connect multiple data sources to an interoperability broker
- using exchange specifications, direct secure messaging and federated directory services
- enabled by the California Trusted Exchange Network (CTEN) following “Integrating the Healthcare Enterprise” (IHE) standards
- accessed via several user interfaces created for different purposes and user types

PULSE+EMS

PULSE+EHR-Link

PULSE+DHV





- HIEs, HIOs, Health Systems



- Disaster Healthcare Volunteers (DHV) access to patient records from alternate care sites



- Hospital staff access to remote HIOs for EHRs on patients displaced during a disaster



- Hospitals, physicians, labs, imaging, pharmacies



- Search
- Alert
- File
- Reconcile

PULSE+EHR-Link

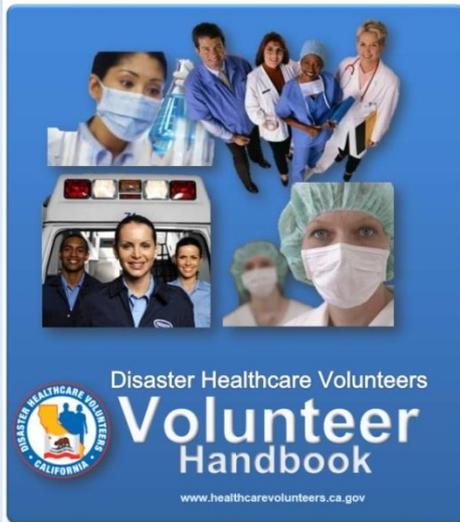
During disasters patients may be transported to a hospital outside the affected area for treatment.



- Establish pre-existing connectivity with participating HIOs that would be “turned on” under disaster declaration scenarios.
- Emergency department personnel may find health information for a relocated patient directly from EHR screen.

PULSE+DHV

Provides access to patient health information for health care workers in alternate care sites.



- Web portal activated during a disaster
- 21,000 disaster health care personnel will have access
- Secure sign-on technology
- Health care professionals would be able to access patient records through their existing employer or HIO systems, or through a web portal.



ESSENTIAL HIE FUNCTIONS IN PULSE +EMS

S	SEARCH:	PARAMEDICS and EMTs may look up and display patient problem list, medications, allergies, POLST and DNR in field on ePCR screen	Improve clinical decision making Improve patient care
A	ALERT:	Display patient Information on hospital dashboard at ED to alert and share incoming patient information to assist in time-sensitive therapies	Improve decision support Better transitions of care Improve patient care
F	FILE:	Incorporate ePCR data into hospital EHR in HL7 format (using NEMESIS 3.4 CDA standards)	Build better longitudinal patient record
R	RECONCILE:	Receive patient disposition information from hospital EHR to add to EMS provider patient record	Improve population health



SEARCH



ePCR requests limited data set on patient from CHIO

HIO searches via PULSE and sends data to ePCR



ALERT



ePCR sends patient information to ED while on-scene or enroute

ED may send instructions to EMS while on-scene or enroute



FILE



ePCR sends patient data for merge into to EHR

ePCR data is merged into EHR



RECONCILE



ePCR receives and incorporates close-out data from EHR

EHR sends outcome data to ePCR at conclusion



Working Assumptions

- EMS Providers have ePCR systems that are NEMESIS 3 Compliant
- Utilize HL7 language with the NEMESIS CDA
- EHRs are modified to incorporate patient data from an ePCR
- Hospitals are willing to accept ePCR data into their EHR
- Work with Community Health Information Organizations (HIOs) as the information hub
- Match EMS providers and EMS receiving hospitals
- All parties sign the California Data Use and Reciprocal Support Agreement (CalDURSA)



California EMS Authority HIE Team

Project Director:

Dan Smiley, Chief Deputy Director

Fiscal/Administration:

Rick Trussell, Admin Chief

Project Manager:

Jim Switzgable, Chief Info Officer

EMS Systems Coordinator:

**Tom McGinnis, NREMT-P
EMS Systems Division Chief**

Project Coordinator:

June Iljana, Compliance Manager

EMS Data Manager:

Kathy Bissell, EMS Systems Div.

Technical Advisor:

TBD (Contract)

Disaster Medical Coordinator:

**Patrick Lynch, RN, Response
Personnel Manager**

