

**NATIONAL EMS ADVISORY COUNCIL**  
**COMMITTEE REPORT AND ADVISORY**  
Current status: FINAL as of December 2, 2016

**Committee:** Data Integration and Technology

**Title:** Universal Health Information – Real time and retrospective patient care enhancement

**Version:** FINAL

**Issue Synopsis:** Sharing of patient information throughout the continuum of patient care is fragmented and primarily unidirectional. This leads to avoidable errors and impacts quality patient care.

**A. Problem statement**

Ideally, Data integration and sharing throughout the continuum of care is seamless from 9-1-1 to public safety answering points (PSAP) to emergency medical services (EMS) agencies to hospitals to other health partner collaborations. This data and its pathways of flow should dovetail, in its entirety, into the foundation of patient-centered care and outcomes, quality improvement and performance measures, disease surveillance, and data linkage among crash records and health records to better identify serious injuries and outcomes in a manner that is completely harmonized. Currently, this is not the case. In fact, as care is transitioned between care givers, the majority of information sharing is verbal, sometimes backed up with a hard copy of a quickly written patient care report.

Key elements to this problem statement include Health Information Exchange leverage for continuous flow of information, standardized quality improvement (QI) and performance improvement (PI), and standardized surveillance. There is a need for linkage to improve continuum of care, bidirectional flow to EMS and other parts of the health care system, to enhance communication, and have data repository for QI and PI.

**B. Crosswalk with other standards documents or past recommendations**

1. NEMSAC Advisory Council, Committee of Medical Oversight and Research, NEMSIS: Achieving its Full Potential for Advancing Healthcare, January 30, 2013
2. Health Information Exchange Issue Brief: National Emergency Medical Services Use Cases, May 13, 2014

The NEMSAC-Final-Recommendation-on-FICEMS-Strategic-Plan-Implementation-Dec2014[1].pdf as excerpted below is in concert with this recommendation, specifically elements under goals 1, 2, and 4:

Goal 1: Coordinated, Regionalized, and Accountable EMS and 9-1-1 Systems that Provide Safe, High-Quality Care
Goal 2: Data-Driven and Evidence-Based EMS Systems that Promote Improved Patient Care Quality
Goal 3: EMS Systems Fully Integrated Into State, Territorial, Local, Tribal, Regional, and Federal Preparedness Planning, Response, and Recovery
Goal 4: EMS Systems that Are Sustainable, Forward Looking, and Integrated With the Evolving Health Care System
Goal 5: An EMS Culture in Which Safety Considerations for Patients, Providers, and the Community Permeate the Full Spectrum of Activities
Goal 6: A Well-Educated and Uniformly Credentialed EMS Workplace

### C. Analysis

This is occurring in pocket areas in the United States. Specifically, Arizona, California, Colorado, Maine, and Utah are trying to develop these more robustly regionally, yet this is not the national standard as of yet. Arizona's Health-e connection (AzHeC) is a statewide Health Information Exchange (HIE). The network serves as a community data trustee and a network of networks. It includes behavioral health providers, federally qualified health centers (FQHCs), community health centers and providers, health plans, health systems and hospitals, accountable care organizations (ACOs), reference labs, imaging centers, and state and local government. It is a bidirectional exchange, has provider and payer portals, and has public health reporting. Maine also has a bidirectional HIE called HealthInfoNet (HIN). It has similar member participation, yet also includes a Veterans Administration Hospital/System in Maine and has syndromic surveillance as well. HIN is also in the process of including EMS, freestanding home health, and long-term care agencies, especially skilled nursing facilities. These are examples of the progressive work needed and proof of concept that this is the direction we should all be heading.

### D. Committee conclusion

We conclude that in the interest of health and patient safety, that Health Information Exchanges support the global sharing and transmission of health data across the continuity of care, including EMS.

### **Recommended Actions/Strategies:**

#### **NEMSAC Recommends to the:**

#### **Federal Interagency Committee on Emergency Medical Services**

Recommendation 1: Federal Interagency Committee on Emergency Medical Services: NEMSAC recommends to FICEMS that universal health record with bidirectional flow to all who care for patients, especially EMS and community paramedicine programs, to aid in

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continuum of care for patients who have care provided in any venue or scenario including outpatient clinics, emergency departments, urgent care centers, hospitals, rehabilitation centers, nursing homes, and home healthcare. Also, the standardization of QI and PI supports the goal of data quality that is seamless and meaningful. And finally, having a universal health record would help with hard-wired surveillance fields that are needed for national and regional Centers for Disease Control and Prevention (CDC) work on surveillance endeavors.

**References and Resources:**

1. NEMSAC Advisory Council, Committee of Medical Oversight and Research, NEMSIS: Achieving its Full Potential for Advancing Healthcare, January 30, 2013
2. Health Information Exchange Issue Brief: National Emergency Medical Services Use Cases, May 13, 2014
3. Office of the National Coordinator for Health Information Technology, Office of the National Coordinator, 5 year plan and interoperability road map, January 2015
4. Healthy People 2020, EMS in Disaster Preparedness:  
<https://www.healthypeople.gov/2020/topics-objectives/topic/preparedness>
5. Ottawa Hospital Research Institute – HIPAA EMS Use Cases (Attachment)  
<sup>1</sup>[OPALS Studies - Ottawa Hospital Research Institute](http://www.ohri.ca/emerg/research_archive/opals)  
[www.ohri.ca/emerg/research\\_archive/opals](http://www.ohri.ca/emerg/research_archive/opals)