

The Ohio Board of Emergency Medical, Fire, and Transportation Services (“EMFTS Board”) issues the following statement:

Electronic Technologies and the Impact on EMS  
August 2015

*This statement is an attempt to provide general information about the above issue facing EMS providers. It should not be treated as legal advice or medical direction. For direct advice regarding a particular scenario, please consult with your medical director and legal counsel. Although the following statement represents the EMFTS Board’s general position on the above issue, this statement in no way precludes the EMFTS Board from taking disciplinary action in a particular case if necessary. Any potential complaints brought before the EMFTS Board will be decided on a case by case basis.*

The modes and avenues of communication have evolved exponentially, especially during the most recent decades. When National Academy of Sciences published “Accidental Death and Disability: The Neglected Disease of Modern Society” in 1966 and the need for structured quality emergency medical services (EMS) was formally recognized, the primary avenues of communication for EMS providers were land-line telephones and relatively primitive radios. As time went on, the availability of facsimile transmission via telephone lines, i.e. “fax”, telemetry, and verbal communication via cellular telephones seemed revolutionary.

In recent years, the methods of electronic communication and electronic transmission have advanced in terms of capability, quality, and breadth of options. The development of digital communication and the use of the internet and networking are all encompassed under the umbrella commonly called cyberspace. With the addition of this sector of communication adjuncts, the ability of EMS providers to deliver expeditious quality patient care, record critical findings and events on scene, generate electronic medical records, contribute to data registries, and communicate with hospitals, EMS agencies, first responders, and other healthcare system stakeholders has been enhanced.

Although the term “electronic transmission” has not changed, the modes by which this task is completed has elevated from the simple foundation of transferring data or images via facsimile or telemetry. Modern cellular phones are ubiquitously mobile and are manufactured with cameras and video capabilities as standard installed equipment. Cellular phones with advanced mobile operating systems, i.e. smartphones, have the additional capabilities of internet browsing and communication, personal digital assistants, media players, and GPS (global positioning system) navigation units. Electronic data acquisition and transmission now includes telemedicine where streaming video images can be transmitted in real time to global locations via satellites and network servers. Today’s electronic technology also includes data and images, including 12-lead electrocardiograms (EKGs), that are acquired with cellular telephones, body and vehicle cameras, unmanned aircraft systems (UAS), and other video devices followed by transmission via digital or wireless modalities.

Regardless of these advancements, EMS providers must continue to function within the Ohio EMS scope of practice for their respective certification level. Unfortunately, the evolution of electronic technology is accompanied with challenges for the EMS community to develop policies and procedures to ensure compliance with the federal Health Insurance Portability and Accountability Act of 1996 (HIPAA) and protect patient privacy, address ongoing cybersecurity threats, and to delineate the appropriate use of these assets by EMS providers. Due to these

concerns, the EMFTS Board provides these supportive administrative and operational recommendations to assist EMS agencies in the creation of policies and procedures to avoid some of the critical pitfalls inherent with the implementation and utilization of electronic technologies. As these recommendations are provided, it remains imperative for each EMS agency and organization to consult with their legal counsel to ensure that the policies and procedures for electronic technologies are fully compliant with local, state, and federal regulations, including HIPAA.

#### Recommendations:

1. The cellular telephones, computers, cameras, video devices, UAS, telemedicine units, and other equipment used to acquire data and images should be the property of the EMS agency or EMS organization. Personal devices should never be used in the course of conducting operations or providing patient care during the performance of EMS employment duties even if the patient is not identified.
2. Secured transmission modalities, with the incorporation of encryption when feasible, should be established, maintained, and periodically updated to protect patient privacy and mitigate cybercrime.
3. The quality and clarity of the images obtained should be acceptable. For images obtained with cellular phones, the minimum resolution should be 640 X 480 pixels.
4. Ideally, written agreements should be in place between the EMS agency and any healthcare system organizations or recipients of the acquired out-of-hospital data. Parameters within these agreements should include, but are not limited to, processes to ensure HIPAA compliance, security of data transmission, and storage of data and electronic medical records.
5. The EMS agency or organization should develop policies and procedures for the internal organizational transmission, storage, and security of electronic data including the duration of retention. This should also include a defined and documented schedule for purging all devices positioned in the out-of-hospital environment of acquired data that is no longer needed or has been transferred to a secured digital data storage site or repository.
6. Designated policies and procedures should be established in writing, with mutual agreement of the EMS medical director, for the utilization of electronically acquired data and images for quality assurance processes.
7. Authorization from the EMS agency supervisor, the public information officer, or a designee should be required for the release of data and images acquired in the course of out-of-hospital patient care or during an emergency response to requesting parties that are not part of the healthcare system involved in the patient's care or the incident. This includes, but is not limited to, media outlets, family members, employers, or attorneys.
8. EMS providers should never independently transmit or post data or images acquired in the course of out-of-hospital patient care or during an emergency response on social media outlets.
9. All potential security breaches involving the acquisition, transmission, and storage of electronic data and images or structural elements of the digital system, including the loss or theft of a device, should be reported immediately to the supervisor of the EMS agency or organization.