



EMS ADVISORY

The Use of Generative Artificial Intelligence (AI) in EMS

The Innovation and Research Committee of the State Emergency Medical Services Council (SEMSCO) has reviewed the use of artificial intelligence in Emergency Medical Services (EMS). The committee worked with the Department of Health to highlight key components for EMS Agency administrators to consider related to artificial intelligence.

PURPOSE:

The use of artificial intelligence (AI) technology has rapidly expanded across various industries and is transforming operations, decision-making processes, and user experiences. In healthcare, some areas in which artificial intelligence is being applied include the interpretation of diagnostic imaging, support in clinical decision making, and streamlining of administrative processes, including clinical documentation. Despite these developments and the patient care benefits they bring, the integration of artificial intelligence in healthcare also presents challenges and risks. Concerns surrounding patient privacy, data security, algorithmic bias, and potential errors in automated clinical decision-making underscore the need for careful oversight, transparent practices, and ongoing validation to ensure patient safety and to maintain trust.

ADVISORY:

With the widespread availability of open, generative artificial intelligence technologies such as ChatGPT and other applications, the SEMSCO is reminding the EMS field of the importance of making well-informed decisions before implementing new tools. In addition, prior to implementation and at all times during use of artificial intelligence technologies, they must be sure to comply with the Health Insurance Portability and Accountability Act (HIPAA) by safeguarding the privacy and security of protected health information (PHI) in the pre-hospital care environment. Additionally, ensuring that the patient care record reflects the specific patient encounter is of the highest importance.

Key Components to Consider:

- **Patient Consent:** EMS personnel should know when consent is needed from either the patient or an authorized representative for any photographs or recordings collected in the course of treatment, regardless of whether or not the intent is to use them with artificial intelligence technologies. Providers should remember that individually identifiable photographs and video recordings of patients are considered protected health information.

- **Data Security:** EMS organizations implementing artificial intelligence should use secure, protected environments that allow them to understand both the flow of data and the structure of the algorithms in use. All artificial intelligence technologies should undergo a thorough security review and, when appropriate, be covered by a business associate agreement.
- **Provider Responsibility:** The certified EMS provider remains responsible for all clinical decisions and documentation. If artificial intelligence tools are consulted during decision-making, their use must be documented in the patient record in a way that reflects how they were utilized in the patient's care. The provider is responsible for all documentation submitted with the patient, and it is essential that the provider review and fact-check any output from a generative artificial intelligence tool. In addition, like any other medical or diagnostic equipment, providers should have an understanding of the artificial intelligence tools they employ in order to assess their reliability, as well as identify and mitigate bias, including documenting and reporting issues or concerns, and, if warranted, removing an artificial intelligence tool from use until it has been adequately tested and validated.

Ultimately, EMS agencies should consult with their legal counsel to ensure all necessary measures are taken to maintain full compliance with state and federal laws, rules, and regulations.

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