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*Dedicated to the
Indomitable Spirit
and Sacrifices of
the SOF Medic*

A Peer-Reviewed Journal That Brings Together the Global Interests of Special Operations' First Responders

Field Electronic Medical Records

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Tactical Emergency Medical Services (TEMS) is a highly volatile environment. TEMS medics and Special Reaction Team (SRT) Operators find themselves in demanding situations and must always be prepared by planning for all contingencies. A tactical medic's medical threat assessment and mission planning include many components, including extraction plan development,

- communication with medical control to ensure emergency department (ED) resources are available,
- identification of involved personnel and their planned locations,
- accounting for police dog (K9) presence and potential K9 injury, and
- ensuring all mission-appropriate medical gear is inventoried.

This list represents only a fragment of pre-mission preparation required to effectively perform the duties of a TEMS medic. Any opportunity to streamline the process will provide the best opportunity for success.

One such opportunity is the storage and accessibility of medical records. In the event of injury requiring transport to a hospital, medics need access to pertinent medical information to aid ED staff in caring for the wounded Operator. However, space limitations of medics' bags prohibit carrying full medical records of Operators during a mission. Before 2015, our team stored demographic and relevant medical records in a locked box in the primary SRT vehicle. Unfortunately, this vehicle is often not present on missions. For example, the SRT serves more than 120 search warrants annually and frequently uses unmarked vehicles for these situations. For barricaded suspects and hostage situations, we deploy with a BearCat (Lenco Industries, <http://www.lencoarmor.com>) and medics respond directly to the scene, preventing the opportunity to obtain medical records from headquarters. In addition to access issues, a single repository for all Operator records created significant privacy concerns. A simple locked box did not offer the security required by current privacy regulations. Our team briefly used laminated cards stored in each Operator's vest. Although this approach improved accessibility and privacy concerns, size constraints and labor-intensive updating of information quickly made this option not viable. To solve these problems, our TEMS team has developed an efficient, consistent, and secure method to store and retrieve medical records.

Advancements in smartphone technology and their nearly universal presence in healthcare settings provide a unique opportunity for TEMS providers. Cloud-based storage platforms now also provide access to information from any location with access to the Internet. Our team has leveraged these technologies by using Dropbox (Dropbox Inc., <https://www.dropbox.com>) and Quick Response (QR) codes to store and access team member demographic and pertinent medical information.

Every member of the SRT and TEMS team has an editable PDF file stored in a password-protected Dropbox account. The file contains relevant information such as medical history, allergies, and medications. For added security, each file is password protected with a password that is unique to the individual. This technology-driven approach provides a simple but effective solution to the access and security problems of previous processes. To optimize the speed with which this information is accessed, each file is linked to a unique QR code. The codes are printed, laminated, and attached to each officer's vest with hook-and-loop adhesive. When the information is needed, TEMS providers simply scan the code and are directly linked to the information. For added security, the QR codes are hidden beneath a police or medic patch on the left shoulder of each team member (Figure 1). This feature prevents bystander or media photography from being enhanced to reveal a team member's QR code. We think these measures provide the optimal level of personal privacy while also guaranteeing access to vital information in critical situations.

Figure 1 Quick Response code concealed for optimum Operator privacy.



In the coming months, we hope to implement this process for all police officers in the city of Springfield, Missouri. Future goals include all civil servants, city employees, and federal government employees working within the city limits. As the program expands, we plan to store the information on private servers for even greater security. Other industries already offer identification cards with QR codes directing emergency personnel to personal

medical records. At the time of this writing, however, there are no TEMS units to our knowledge using this method of medical record storage and access for their Operators. This creative, technology-driven approach to medical records has become a critical component of TEMS medic support for our SRT Operators.

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