

RH15-7

1. **Research Title:** The Feasibility of Bar Code Scanning for Medication Administration during Aeromedical Evacuation

2. **Individual Sponsor:**

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3. **Academic Area/Field and Education Level**

Computer Science/Computer Application Development (MS or PhD)

4. **Objectives:** To determine the feasibility of bar-code scanning for medication administration during United States Air Force (USAF) Aeromedical Evacuation (AE)

5. **Description:** The care of ill or injured military personnel often includes moving patients from one medical facility to another. The USAF AE system is responsible for the air transport of patients, which includes the preparation for flight at the Contingency Aeromedical Staging Facility (CASF), ground transport to and from the aircraft, and in-flight care. AE patient transport occurs nationally and globally during normal and other military operations and in disaster response. Patient safety is of paramount concern and reducing errors in medication administration has been identified as a priority due to the potentially catastrophic effect to patients. Technological advances in the electronic medication administration record (bar-code scanning) have shown a significant decrease in medication errors nationally. The standard of care for medication administration in community and military hospitals consists of a computerized "cross-checking" process between the patient and medication information prior to the administration of the medication with the use of a bar-code scanning device. To date, there is no bar-code scanning capability for medication administration in the USAF AE system. Developing bar-code scanning capability using the existing IPAD AE technology will decrease medication errors and improve patient safety during AE patient care.

6. **Research Classification/Restrictions:** Unclassified

7. **Eligible Research Institutions:** Indicate to what organizations this topic should be provided



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**AFIT (only)**

AFRL FY14 Research Topic Template -DAGSI -AFIT -USAFA

**USAFA (only)**

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Yes

No