PARAMEDIC PREHOSPITAL UTILIZATION OF ULTRASOUND - TRIAL STUDY

I. PURPOSE

To establish authority and parameters for the prehospital use of Prehospital Point of Care Ultrasound (POCUS) as part of a trial study.

II. INCLUSION CRITERIA

Paramedic (EMT-P) application of POCUS should be considered to help guide treatment during any of the following conditions:

- Suspected Tension Pneumothorax as a result of blunt or penetrating traumatic injury.
  - Absent or decreased breath sounds, and
  - Signs of hemodynamic compromise (shock).
- Detection of intra-abdominal bleeding as a result of blunt or penetrating traumatic injury.
- Persistent cardiac arrest with fine ventricular fibrillation, asystole, or PEA.

III. CONTRAINDICATIONS

Any circumstance where application of POCUS, or interpretation of the trial study findings may delay patient care or transportation to the emergency department.

IV. PROCEDURE

EMT-Ps participating in the trial study must evaluate each patient to determine whether they meet criteria and indications for performing POCUS. This assessment is not intended to replace clinical judgement or currently employed techniques for treatment. It is intended to augment the paramedic's diagnostic tools and verify or eliminate differential diagnoses considered.

Only EMT-Ps meeting the following criteria may utilize the POCUS:

- May only use the Butterfly IQ handheld ultrasound device approved for use in the trial study.
- Be authorized by an EMS provider who is participating in the trial study and has purchased the trial study equipment and supplies.
- Received training in use of the Butterfly IQ handheld ultrasound device and meets all trial study requirements.

V. DOCUMENTATION REQUIREMENTS

- ICEMA requirements for documentation and collection and submission of EMS data must be followed.
- All images captured by POCUS must be archived in the "cloud" for review.

- Users will complete the user implementation survey provided to them by the investigators of this trial study through their EMS provider.

- The Institutional Review Board (IRB) Trauma Center involved in the care of the transported patient, ICEMA, and Medical Director for the EMS provider involved in the patient care must be advised, and the Principal Investigator (PI) must be informed within 24 hours if either of the following occur:

  - Needle decompression in setting of normal lung sliding.
  - Termination of resuscitation efforts in the setting of fine v-fib mistaken for asystole.

VI. QUALITY ASSURANCE

- EMS providers, participating in the trial study, must review 100% of the uses for quality of imaging and proper application of the device and by verifying use it is within the approved IRB guidelines and ICEMA policy.

- The investigation team will review a sample of each provider's studies obtained and verify the quality is adequate for the purposes of the trial study.