



# UTSW/Parkland BioTel EMS ALERT

March 28, 2017

## EMS ALERT 17-001

### **Addition of Anticoagulant Therapy as a Prehospital Trauma Triage Criterion**

**Goals:** To rapidly identify patients on prescription anticoagulants at risk of intracranial hemorrhage or other major bleeding and to reduce the time from EMS evaluation to the reversal of anticoagulation and/or definitive treatment.

**Background:** Anticoagulation therapy is used in a variety of clinical conditions, including chronic atrial fibrillation, pulmonary embolism (PE), and Deep Vein Thrombosis (DVT), and in patients with artificial heart valves. Warfarin is the most common, chronic, oral anticoagulant. Newer, “novel”, “non-Vitamin K” oral anticoagulants (NOACs) (also called DOACs – Direct Oral Anticoagulants) are increasingly being prescribed as well. Many of these drugs directly block clotting factors IIa or Xa in the blood clotting cascade. Studies have shown that adult patients on prescription anticoagulants with traumatic injury have a higher risk of bleeding complications. In particular, patients on anticoagulants with even mild head injuries may initially present with no or minimal neurological symptoms, but may quickly deteriorate. Moreover, anticoagulant use is a significant predictor of mortality in patients with traumatic intracranial hemorrhage.

**As patients on anticoagulants are at increased risk of bleeding, they should be preferentially routed to a designated Trauma Center for evaluation and treatment.**

**Policy, effective immediately:** Adult and pediatric patients who meet both of these criteria shall be transported to the closest adult or pediatric Trauma Center, respectively:

1. Known or reported (by patient/family/caregiver/healthcare provider) prescription anticoagulant therapy, *such as:* heparin (e.g. Lovenox<sup>®</sup>, Dalteparin<sup>®</sup>), warfarin (Coumadin<sup>®</sup>), dabigatran (Pradaxa<sup>®</sup>), apixaban (Eliquis<sup>®</sup>), rivoroxaban (Xarelto<sup>®</sup>), edoxaban (Savaysa<sup>®</sup>), betrixaban, fondaparinux (Arixtra<sup>®</sup>), clopidogrel (Plavix<sup>®</sup>), ticagrelor (Brilinta<sup>®</sup>), and prasugrel (Effient<sup>®</sup>).
  - a. EXCEPTIONS: anti-platelet medications, *such as:* aspirin, dipyridamole (Persantine<sup>®</sup>), aspirin/dipyridamole (Aggrenox<sup>®</sup>), cilostazol (Pletal<sup>®</sup>) and zontivity (Vorapaxar<sup>®</sup>).
2. Any blunt trauma, including a fall from any height (including ground-level fall).

➤ ***UTSW/Parkland BioTel EMS Providers may contact BioTel or the [EMS Medical Direction Team](#) at any time with questions or concerns about this Alert, especially regarding the transport to a designated Trauma Center of any patient on anticoagulants***