Evaluation of the impact of weight estimations on anticoagulation reversal with 4-factor prothrombin complex concentrate (4F-PCC) in the emergency department

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PURPOSE: Multiple studies have evaluated various doses of 4F-PCC in an attempt to find the most ideal dosing strategy to achieve successful anticoagulation reversal. Currently, the FDA labeled dosing is based off of the initial INR and the patient’s actual body weight. The purpose of this study is to assess if weight estimations in the emergency department impact successful anticoagulation reversal.

METHODS: This study obtained Institutional Review Board approval. This retrospective chart review will assess any patient ≥ 18 years of age or older who received 4F-PCC in the emergency department for reversal of warfarin from January 2013 to August 2015. Patients will be included if they have a recorded initial INR and an indication for anticoagulation reversal with 4F-PCC. Any patient who expires within 60 minutes of administration or any patient who received FFP or Novo-7 prior to, concomitantly with, or 60 minutes after administration of 4F-PCC will be excluded. Subsequent INR, time to INR, use of additional blood products, actual weight, estimated weight, actual dose, and calculated dose will all be collected. Outcomes such as thrombotic event within 7 and 30 days, in-hospital mortality, percent of product labeled dose given, and average weight difference will be analyzed. Data will be recorded and maintained in a password-protected database without patient identifiers.

RESULTS: Study in progress.

CONCLUSION: We hypothesize that weight estimations in the ED may affect successful anticoagulation reversal with 4F-PCC.