Abstract 22

Primary Author: Allison Fike, RN

Hospital Affiliation: Parker Adventist Hospital, Parker, CO

Co-Author(s): Beverly Stephens, Amy Schantz

Title: Reducing Excessive Initial Heparin Dosing in Non-ST Elevation Acute Coronary Syndrome

Background:

ACTION Registry®-GWTG™ data for 2013 revealed 79% of NSTE-ACS cases received excessive initial Unfractionated Heparin dosing. Using a multidisciplinary team approach our hospital reduced excessive UFH dosing errors by 54% in 2014. Acute anticoagulation strategy using UFH for patients presenting with NSTE-ACS suggests using weight-adjusted dosing to achieve more predictable anticoagulation (1). Excessive antithrombotic dosing is linked to increased risk of bleeding in the NSTE-ACS population. Bleeding post-acute myocardial infarction is associated with increased mortality, and longer length of stay (2).

Methods:

Using the ACTION Registry®-GWTG™ patient level drill down report our multidisciplinary team was able to extract and review patient fall-outs. By analyzing each individual case, interviewing staff involved in the medication process and accessing current practice we discovered the cause of patients receiving excessive initial UFH dosing was multifactorial. Our medication process changed to include a “just in time” reminder of the current UFH dosing recommendations immediately before administration. We changed our electronic medication interface and did education with all staff involved in the Heparin medication process.

Results:

Annual data for 2014 (2014Q1-2014Q4) showed a decrease in excessive UFH dosing to only 25% of cases, which is above the 50th percentile for US hospitals. Our goal is to be in the 90th percentile. In order to achieve this goal we’ve started writing occurrence reports for all excessive UFH doses and continue monitoring and individual follow-up.

Conclusion:

According to research using the cardiac weight adjusted protocol is more likely to result in a therapeutic lab result and should be followed to prevent any unnecessary risk of bleeding. The research correlated with results from the data collected from our patient population. Data from ACTION Registry helped us identify a cardiovascular patient safety issue at our facility, thus giving us the opportunity to reduce excessive UFH dosing and prevent patient harm. When used appropriately, antithrombotic therapy is beneficial for NSTE-ACS patients. With the increase in antithrombotic medications available, it is important to dose patients correctly to reduce the risk of complications related to bleeding.