

EVALUATION OF VENOUS THROMBOEMBOLISM PROPHYLAXIS IN PEDIATRIC TRAUMA PATIENTS. Lauren N. Hernandez^{1,2,3}, A. Crystal Franco-Martinez^{1,2,3}, Stephanie Younts^{1,2,3}, Darrel W. Hughes,^{1,2,3} Anh Dinh⁴, and Lillian Liao⁵. ¹Department of Pharmacy, University Health System, San Antonio, TX; ²Pharmacotherapy Division, College of Pharmacy, The University of Texas at Austin; ³Pharmacotherapy Education & Research Center & ⁴Department of Pediatrics, Division of Critical Care & ⁵Department of Surgery, Division of Trauma & Emergency Surgery, The University of Texas Health Science Center at San Antonio.

Introduction: Although venous thromboembolism (VTE) risk factors for pediatric trauma patients have been identified in recent literature, overall low occurrence rates have resulted in minimal guidance on risk assessments and prophylaxis regimens.

Hypothesis: To determine the appropriateness of VTE prophylaxis in the pediatric trauma population at a level two trauma center.

Method: A single center retrospective chart review of patients 17 years of age and younger admitted to the Pediatric Trauma Service between July 1, 2008 and December 1, 2011 was conducted. A VTE risk assessment was developed and retrospectively applied to each patient to determine appropriateness of VTE prophylaxis.

Results: Eight hundred four patients met initial inclusion criteria. Of these, 200 were evaluated with the VTE risk assessment and included for review. The median age was 11 years (IQR 5-16). One hundred twenty-five patients (62%) received appropriate prophylaxis. Reasons for inappropriate prophylaxis were a lack of sequential compression device (SCD) orders in 55 patients (73%), lack of pharmacologic prophylaxis orders in 14 patients (19%), and pharmacologic prophylaxis orders when not indicated by the risk assessment in six patients (8%). Pharmacologic prophylaxis was prescribed in 28% of patients. VTE occurred in four patients. Risk factors for VTE were an elevated Injury Severity score ($p=0.03$), lower Glasgow Coma Scale score ($p=0.03$), and the presence of central venous lines ($p=0.004$). Median ICU length of stay for patients with and without a VTE was nine (IQR 7-45) vs two days (IQR 0-4), respectively ($p=0.006$). Median hospital length of stay was 25 (IQR 14-51) vs six days (IQR 4-11), respectively ($p=0.008$). One bleeding event occurred (0.5%) in a patient receiving treatment dose anticoagulation. There was one death unrelated to VTE events.

Conclusion: Though VTE prophylaxis is commonly administered to pediatric patients at this trauma center, adherence (62%) has room for improvement according to the study VTE risk assessment and recommendations. A standard VTE risk assessment and protocol may be beneficial in this population to ensure consistent prophylaxis.