Introduction:
Polytrauma fully meets the criteria of the global pandemic. Throughout the world, as a result of traumatic injuries, about 16 thousand people die every day, and about 5.8 million people per year.*

Methods:
This study included 118 patients with traumatic injuries: concomitant skeletal trauma, fractures of pelvis, femur, humerus. On the 1st and the 2nd day all patients received tranexamic acid (15 mg/kg during 10 minutes followed by an infusion 1g during 8 hours), prothrombin complex concentrate (PCC) 1 ml/kg (25 IU/kg), and FFP in a dose 15 ml/kg. From the 3d till 14th day all patients received enoxaparin (3500 U every 12 hours). Method of low-frequency piezoelectric thromboelastography (LPTEG) used to study the functional state of the hemostasis system.

Results:
Different periods of traumatic illness are characterized by various manifestations of blood coagulation disorders. The following LPTEG values were checked - Intensity of contact coagulation (ICC), Intensity of coagulation drive (ICD), clot maximum density (MA) and fibrinolytic activity - Index of retraction and clot lysis (IRCL). In the first period of traumatic injury ICC was decreased by 19.27%, ICD decreased at 26.71%, MA was decreased by 24.92%, IRCL was 31.18% above the norm. The 3-14th days of post traumatic disease characterized next indicators – on the 5th day ICC were increased by 14.72%, compared to the norm; ICC increased by 22.62%, ICD increased by 17.57%, slightly increased MA, and IRCL was nearly in the normal range.

Conclusion:
Rapid and accurate diagnosis of the coagulation system by LPTEG method at different stages of traumatic disease allows for more accurate selection and adjustment of the therapy, which allows improving the prognosis of the disease.

References: