4.) Measure # ACSTrauma7
Timely Initiation of VTE Prophylaxis in Trauma Patients

**National Quality Strategy (NQS) Domain:** Patient Safety

**Measure Type (Process/Outcome):** Process

**DESCRIPTION:**
Percentage of seriously injured patients with pharmacologic venous thromboembolism (VTE) prophylaxis initiated within 48 hours of admission.

**INSTRUCTIONS:**
This measure is to be reported **each time** a seriously injured trauma patient is admitted to hospital with a total length of stay (ED and hospital) of ≥ 72 hours.

**Measure Reporting via Registry:**
Medical record information is used to identify patients who are included in the measure’s denominator. The listed numerator options are used to report the numerator of the measure.

**DENOMINATOR:**
Patients meeting all of the following criteria:
- a) Trauma patient inclusion criteria (see appendix 1)
- b) AIS ≥ 3 in at least two body regions
- c) Total length of stay ≥ 72 hours

**Denominator exclusion criteria:**
- a) Patients who receive ≥ 4 units of packed red blood cells within 4 hours of emergency department arrival
- b) Patients with traumatic intracranial hemorrhage (any of: subdural or epidural hematoma, intraventricular hemorrhage, subarachnoid hemorrhage, cerebral contusion)
- c) Patients with acquired coagulopathy as a comorbidity
- d) Patients with isolated geriatric hip fractures (see appendix 1)

**NUMERATOR:**
Patients meeting all of the following criteria:
- a) Trauma patient inclusion criteria (see appendix 1)
- b) AIS ≥ 3 in at least two body regions
- c) Total length of stay ≥ 72 hours
- d) A first recorded dose of any of the following agents within 48 hours of emergency department arrival
  - i. Unfractionated heparin
  - ii. Low molecular weight heparin
  - iii. Direct thrombin inhibitor
  - iv. Oral Xa inhibitor
  - v. Coumadin
Numerator Quality-Data Coding Options for Reporting Satisfactorily
There must be evidence in the medical record of the patient having received chemical VTE prophylaxis within 48 hours of admission.

**Performance Met:**
Documentation in medical record of the patient having received chemical VTE prophylaxis within 48 hours of admission.

**OR**

VTE prophylaxis *not ordered* for medical reasons. Any one of the medical reasons listed below qualifies as a medical performance exception.

*Medical Performance Exceptions:*
i. Patients with traumatic intracranial or spinal hemorrhage (any of: subdural or epidural hematoma, intraventricular hemorrhage, subarachnoid hemorrhage, contusion)

ii. Patients with a bleeding disorder, either congenital or acquired (e.g. hemophilia, thrombocytopenia, chronic anticoagulation therapy, anti-platelet agents exclusive of ASA)

iii. Patient undergoes operative fixation of spinal fractures within 48 hours of ED arrival

iv. Patients with a traumatic spinal epidural hematoma

v. Patients receiving epidural pain control

**Performance Not Met:**
The patient does not receive pharmacologic VTE prophylaxis within 48 hours, nor do they have any medical performance exceptions listed above.

**RATIONALE:**
VTE and pulmonary embolism (PE) are two very common occurrences in the seriously injured patient population, due to physiologic and inflammatory disturbances along with decreased mobility. Pharmacologic VTE prophylaxis in the form of subcutaneous heparin and low molecular weight heparin have both been found to reduce the occurrence of DVT and PE in this population.1 Delaying time to initiation of VTE chemoprophylaxis increases the rate of VTE and PE.2,3

**REFERENCES:**
