External Ventricular Drain (EVD) Safety Campaign
Perioperative Quality and Safety Metrics

A) Preoperative assessment of patients with EVDs
Documentation of EVD-specific clinical information
Numerator: Percentage of patients with documentation of EVD setting, average CSF output, and an average ICP value
Denominator: All patients with indwelling EVDs who undergo preoperative assessment
Data source: Pre-anesthesia assessment notes

B) **Intrahospital transport**
ICP monitoring during intrahospital transport
Numerator: Percentage of patients with ICP monitoring during intrahospital transport
Denominator: All patients with indwelling EVDs who undergo intrahospital transport
Data source: Anesthesia records, electronic medical records

C) Intraoperative care of EVD
Intraoperative documentation of intracranial res
  1. Intraoperative EVD output (q 15 min- q 1 hr.)
  2. Intraoperative ICP values (q 15 min- q 1 hr.)
  3. Documentation of adverse events
      a. Disconnection of EVD system
      b. Inadvertent injection in the EVD collecting system
      c. Intracranial pressure elevation during intrahospital transport
Numerator:
  1. Number of patients with intraoperative EVD output documentation
  2. Number of patients with intraoperative ICP documentation
Denominator: Number of patients with indwelling EVDs who have an anesthetic encounter
Data source: Electronic medical records, Anesthesia records

D) **EVD-associated infection**
Numerator: Cerebrospinal fluid (CSF) infection related to an EVD. Definition: positive CSF culture
Denominator: External ventricular drain days
Data source: Infection control / ICU QI

E) **EVD-associated hemorrhagic complication**
Numerator: Intracerebral hemorrhage associated with placement of EVDs.
Denominator: All patients with EVDs placed at your institution
Data source: Post-EVD-placement computerized tomography of the head.

Abbreviations:
ICP: Intracranial pressure, CSF: cerebrospinal fluid