

Procedure:

Lumbar drain

Indication:

Trauma (head & neck), monitoring of ICP.

Description:

Drain catheter is placed into lumbar spine, Accudrain system will come out of OR with patient attached, but RN must be prepared to set-up and operate system.

Post-op Implications:**Complications:**

hemorrhage, infection, herniation, catheter fracture, intracranial hypotension, and spinal headache.

Meds:

Prophylactic anti-seizure meds can be used as seizures raise ICP. Sedation can lower metabolic demand and reduce agitation that causes increased ICP. Pressors have been shown to be safe for most patients with elevated ICP.

Principles:

Lumbar drains most often not placed in setting of elevated ICP due to risk of herniation. Keep patients euvolemic. HTN should only be treated when CPP >120 and ICP >20. Hypotension and hypoxemia can cause intracranial vasodilation resulting in increased ICP. CSF fluid should be removed 1-2ml/min for 2-3min at a time, with breaks of 2-3min until desired ICP is achieved. ICP - 5-15mmHg goal of treatment should usually be <20mmHg. $CPP = MAP - ICP$. CPP=50-120

Care Plan:

HOB can be raised as long as CPP remains WNL. If ICP elevated, keep HOB >30 and head midline.

Room Setup: see Accudrain manual for setup of lumbar drain.