SEIZURE PROPHYLAXIS IN THE NEUROICU

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INDICATION	INCIDENCE	ROUTINE PROPHYLAXIS INDICATED	RECOMMENDATIONS
Traumatic brain injury (TBI) [1]	4–42%	✚	– **Administer empiric prophylaxis for 7 days post-injury** – More beneficial in early vs. late PTS – Agents: Preferred – levetiracetam, phenytoin
Aneurysmal subarachnoid hemorrhage (aSAH) [2]	1–18%	✚/–	– **Administer empiric prophylaxis until aneurysm is secured** – Short-course (3–7 days) prophylaxis preferable if indicated – Phenytoin is not recommended routinely for seizure prophylaxis
Brain neoplasm [3]	10–45%	⊘	– Routine prophylaxis not recommended as shown to be ineffective in preventing first seizure and have potential side effects – No benefit shown in patients undergoing supratentorial meningioma resection or in metastatic brain tumors – A short course may be indicated postoperatively in patients presenting with seizures
Intracerebral hemorrhage [4, 5]	5.5–24%	⊘	– Insufficient evidence to support the use of prophylactic AEDs
Ischemic stroke [3]	4–23%	⊘	– Risk factors: hemorrhagic conversion, cortical involvement, involvement of >1 lobe – Insufficient evidence to support the use of prophylactic AEDs
Postoperative craniotomy [3]	15–20%	⊘	– Limited evidence to support the prophylactic use of AEDs in post neurosurgery patients – Levetiracetam preferred over phenytoin (due to lower ADEs)
Vascular lesions [3]	Variable	⊘	– Insufficient evidence to support the use of prophylactic AEDs
Cerebral venous thrombosis (CVT) [3]	Up to 40%	⊘	– Insufficient evidence to support the use of prophylactic AEDs

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Posterior reversible leukoencephalopathy syndrome (PRES) [3]	Up to 68.8%	⊘	– Insufficient evidence to support the use of prophylactic AEDs
Meningitis [3]	Up to 27%	⊘	– Insufficient evidence to support the use of prophylactic AEDs

✚ = routine prophylaxis indicated, ±/− = may consider routine prophylaxis, ⊘ = routine prophylaxis not indicated*

*Use best judgment in cases where routine prophylaxis is not advised, as it may be indicated on a case-by-case scenario.

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