



	Phenobarbital	Carbamazepine	Phenytoin	Valproate
Starting dose in children	2–3 mg/kg/day	5 mg/kg/day	3–4 mg/kg/day	15–20 mg/kg/day
Typical effective dose in children	2–6 mg/kg/day	10–30 mg/kg/day	3–8 mg/kg/day (max. dose 300 mg/day)	15–30 mg/kg/day
Starting dose in adults	60 mg/day	200–400 mg/day	150–200 mg/day	400 mg/day
Typical effective dose in adults	60–180 mg/day	400–1400 mg/day	200–400 mg/day	400–2000 mg/day
Dosing schedule	Once daily at bedtime	Twice daily	In children, give twice daily; in adults, it can be given once daily	Usually 2 or 3 times daily
Rare but serious side-effects	<ul style="list-style-type: none"> ➤ Severe skin rash (Stevens-Johnson syndrome) ➤ Bone marrow depression ➤ Liver failure 	<ul style="list-style-type: none"> ➤ Severe skin rash (Stevens-Johnson syndrome, toxic epidermal necrolysis) ➤ Bone marrow depression 	<ul style="list-style-type: none"> ➤ Anaemia and other haematological abnormalities ➤ Hypersensitivity reactions including severe skin rash (Stevens-Johnson syndrome) ➤ Hepatitis 	<ul style="list-style-type: none"> ➤ Drowsiness ➤ Confusion
Common side-effects	<ul style="list-style-type: none"> ➤ Drowsiness ➤ Hyperactivity in children 	<ul style="list-style-type: none"> ➤ Drowsiness ➤ Trouble walking ➤ Nausea 	<ul style="list-style-type: none"> ➤ Nausea, vomiting, constipation ➤ Tremor ➤ Drowsiness ➤ Ataxia and slurred speech ➤ Motor twitching ➤ Mental confusion 	<ul style="list-style-type: none"> ➤ Lethargy ➤ Sedation ➤ Tremor ➤ Nausea, diarrhoea ➤ Weight gain ➤ Transient hair loss ➤ Impaired hepatic function
Precautions	<p>⚠ Avoid phenobarbital in children with intellectual disability or behavioural problems</p>			<p>⚠ Avoid valproate in pregnant women</p>

Source: WHO mhGAP Humanitarian Intervention Guide (mhGAP – HIG), *Clinical Management of Mental, Neurological and Substance Use Conditions in Humanitarian Emergencies – 2015*