

## Appendix E: Pharmacological treatment

The tables that follow provide a summary reference guide to pharmacological treatment. They were updated in 2011. Licensing details are listed under table 3. All drugs are listed in alphabetical order.

**Table 1 AED options by seizure type**

Seizure type	First-line AEDs	Adjunctive AEDs	Other AEDs that may be considered on referral to tertiary care	Do not offer AEDs (may worsen seizures)
Generalised tonic–clonic	Carbamazepine Lamotrigine Oxcarbazepine <sup>a</sup> Sodium valproate	Clobazam <sup>a</sup> Lamotrigine Levetiracetam Sodium valproate Topiramate		(If there are absence or myoclonic seizures, or if JME suspected) Carbamazepine Gabapentin Oxcarbazepine Phenytoin Pregabalin Tiagabine Vigabatrin
Tonic or atonic	Sodium valproate	Lamotrigine <sup>a</sup>	Rufinamide <sup>a</sup> Topiramate <sup>a</sup>	Carbamazepine Gabapentin Oxcarbazepine Pregabalin Tiagabine Vigabatrin

Absence	Ethosuximide Lamotrigine <sup>a</sup> Sodium valproate	Ethosuximide Lamotrigine <sup>a</sup> Sodium valproate	Clobazam <sup>a</sup> Clonazepam Levetiracetam <sup>a</sup> Topiramate <sup>a</sup> Zonisamide <sup>a</sup>	Carbamazepine Gabapentin Oxcarbazepine Phenytoin Pregabalin Tiagabine Vigabatrin
Myoclonic	Levetiracetam <sup>a</sup> Sodium valproate Topiramate <sup>a</sup>	Levetiracetam Sodium valproate Topiramate <sup>a</sup>	Clobazam <sup>a</sup> Clonazepam Piracetam Zonisamide <sup>a</sup>	Carbamazepine Gabapentin Oxcarbazepine Phenytoin Pregabalin Tiagabine Vigabatrin
Focal	Carbamazepine Lamotrigine Levetiracetam Oxcarbazepine Sodium valproate	Carbamazepine Clobazam <sup>a</sup> Gabapentin <sup>a</sup> Lamotrigine Levetiracetam Oxcarbazepine Sodium valproate Topiramate	Eslicarbazepine acetate <sup>a</sup> Lacosamide Phenobarbital Phenytoin Pregabalin <sup>a</sup> Tiagabine Vigabatrin Zonisamide <sup>a</sup>	
Prolonged or repeated seizures and convulsive status epilepticus in the community	Buccal midazolam Rectal diazepam <sup>b</sup> Intravenous lorazepam			

Convulsive status epilepticus in hospital	Intravenous lorazepam Intravenous diazepam Buccal midazolam	Intravenous phenobarbital Phenytoin		
Refractory convulsive status epilepticus	Intravenous midazolam <sup>b</sup> Propofol <sup>b</sup> (not in children) Thiopental sodium <sup>b</sup>			
<p><sup>a</sup> At the time of publication (January 2012) this drug did not have UK marketing authorisation for this indication and/or population (see table 3 for specific details about this drug for this indication and population). Informed consent should be obtained and documented.</p> <p><sup>b</sup> At the time of publication (January 2012), this drug did not have UK marketing authorisation for this indication and/or population (see table 3 for specific details about this drug for this indication and population). Informed consent should be obtained and documented in line with normal standards in emergency care.</p>				

**Table 2 AED options by epilepsy syndrome**

<b>Epilepsy syndrome</b>	<b>First-line AEDs</b>	<b>Adjunctive AEDs</b>	<b>Other AEDs that may be considered on referral to tertiary care</b>	<b>Do not offer AEDs (may worsen seizures)</b>

Childhood absence epilepsy or other absence syndromes	Ethosuximide Lamotrigine <sup>a</sup> Sodium valproate	Ethosuximide Lamotrigine <sup>a</sup> Sodium valproate	Clobazam <sup>a</sup> Clonazepam Levetiracetam <sup>a</sup> Topiramate <sup>a</sup> Zonisamide <sup>a</sup>	Carbamazepine Gabapentin Oxcarbazepine Phenytoin Pregabalin Tiagabine Vigabatrin
Juvenile absence epilepsy or other absence syndromes	Ethosuximide Lamotrigine <sup>a</sup> Sodium valproate	Ethosuximide Lamotrigine <sup>a</sup> Sodium valproate	Clobazam <sup>a</sup> Clonazepam Levetiracetam <sup>a</sup> Topiramate <sup>a</sup> Zonisamide <sup>a</sup>	Carbamazepine Gabapentin Oxcarbazepine Phenytoin Pregabalin Tiagabine Vigabatrin
Juvenile myoclonic epilepsy	Lamotrigine <sup>a</sup> Levetiracetam <sup>a</sup> Sodium valproate Topiramate <sup>a</sup>	Lamotrigine <sup>a</sup> Levetiracetam Sodium valproate Topiramate <sup>a</sup>	Clobazam <sup>a</sup> Clonazepam Zonisamide <sup>a</sup>	Carbamazepine Gabapentin Oxcarbazepine Phenytoin Pregabalin Tiagabine Vigabatrin
Epilepsy with generalised tonic–clonic seizures only	Carbamazepine Lamotrigine Oxcarbazepine <sup>a</sup> Sodium valproate	Clobazam <sup>a</sup> Lamotrigine Levetiracetam Sodium valproate Topiramate		

Idiopathic generalised epilepsy	Lamotrigine <sup>a</sup> Sodium valproate Topiramate <sup>a</sup>	Lamotrigine <sup>a</sup> Levetiracetam <sup>a</sup> Sodium valproate Topiramate <sup>a</sup>	Clobazam <sup>a</sup> Clonazepam Zonisamide <sup>a</sup>	Carbamazepine Gabapentin Oxcarbazepine Phenytoin Pregabalin Tiagabine Vigabatrin
Infantile spasms not due to tuberous sclerosis	Discuss with, or refer to, a tertiary paediatric epilepsy specialist Steroid (prednisolone or tetracosactide <sup>a</sup> ) or vigabatrin			
Infantile spasms due to tuberous sclerosis	Discuss with, or refer to, a tertiary paediatric epilepsy specialist Vigabatrin or steroid (prednisolone or tetracosactide <sup>a</sup> )			

Benign epilepsy with centrotemporal spikes	Carbamazepine <sup>a</sup> Lamotrigine <sup>a</sup> Levetiracetam <sup>a</sup> Oxcarbazepine <sup>a</sup> Sodium valproate	Carbamazepine <sup>a</sup> Clobazam <sup>a</sup> Gabapentin <sup>a</sup> Lamotrigine <sup>a</sup> Levetiracetam <sup>a</sup> Oxcarbazepine <sup>a</sup> Sodium valproate Topiramate <sup>a</sup>	Eslicarbazepine acetate <sup>a</sup> Lacosamide <sup>a</sup> Phenobarbital Phenytoin Pregabalin <sup>a</sup> Tiagabine <sup>a</sup> Vigabatrin <sup>a</sup> Zonisamide <sup>a</sup>	
Panayiotopoulos syndrome	Carbamazepine <sup>a</sup> Lamotrigine <sup>a</sup> Levetiracetam <sup>a</sup> Oxcarbazepine <sup>a</sup> Sodium valproate	Carbamazepine <sup>a</sup> Clobazam <sup>a</sup> Gabapentin <sup>a</sup> Lamotrigine <sup>a</sup> Levetiracetam <sup>a</sup> Oxcarbazepine <sup>a</sup> Sodium valproate Topiramate <sup>a</sup>	Eslicarbazepine acetate <sup>a</sup> Lacosamide <sup>a</sup> Phenobarbital Phenytoin Pregabalin <sup>a</sup> Tiagabine <sup>a</sup> Vigabatrin <sup>a</sup> Zonisamide <sup>a</sup>	
Late-onset childhood occipital epilepsy (Gastaut type)	Carbamazepine <sup>a</sup> Lamotrigine <sup>a</sup> Levetiracetam <sup>a</sup> Oxcarbazepine <sup>a</sup> Sodium valproate	Carbamazepine <sup>a</sup> Clobazam <sup>a</sup> Gabapentin <sup>a</sup> Lamotrigine <sup>a</sup> Levetiracetam <sup>a</sup> Oxcarbazepine <sup>a</sup> Sodium valproate Topiramate <sup>a</sup>	Eslicarbazepine acetate <sup>a</sup> Lacosamide <sup>a</sup> Phenobarbital Phenytoin Pregabalin <sup>a</sup> Tiagabine <sup>a</sup> Vigabatrin <sup>a</sup> Zonisamide <sup>a</sup>	

Dravet syndrome	Discuss with, or refer to, a tertiary paediatric epilepsy specialist Sodium valproate Topiramate <sup>a</sup>	Clobazam <sup>a</sup> Stiripentol		Carbamazepine Gabapentin Lamotrigine Oxcarbazepine Phenytoin Pregabalin Tiagabine Vigabatrin
Continuous spike and wave during slow sleep	Refer to a tertiary paediatric epilepsy specialist			
Lennox–Gastaut syndrome	Discuss with, or refer to, a tertiary paediatric epilepsy specialist Sodium valproate	Lamotrigine	Felbamate <sup>a</sup> Rufinamide Topiramate	Carbamazepine Gabapentin Oxcarbazepine Pregabalin Tiagabine Vigabatrin
Landau–Kleffner syndrome	Refer to a tertiary paediatric epilepsy specialist			
Myoclonic-astatic epilepsy	Refer to a tertiary paediatric epilepsy specialist			
<p><sup>a</sup> At the time of publication (January 2012), this drug did not have UK marketing authorisation for this indication and/or population (please see table 3 for specific details about this drug for this indication and population). Informed consent should be obtained and documented.</p>				