Medication Safety Series: MSS 14

Antiepileptic Drugs (AEDs) – for the treatment of epilepsy (in-patients)

Categories of AEDs:

Category 1 – phenytoin, carbamazepine, phenobarbital and primidone

Patient MUST be maintained on the same brand or generic product. Select the branded product or endorse the prescription with the manufacturer name (generics) on the electronic prescribing and medicines administration (EPMA) system. Use patient's own drugs (PODs) where available.

Category 2 – valproate, lamotrigine, perampanel, retigabine, rufinamide, clobazam, clonazepam, oxcarbazepine, eslicarbazepine, zonisamide, topiramate

Patient SHOULD be maintained on the same brand or generic product. Select the branded product or endorse the prescription with the manufacturer name (generics) on EPMA. Use PODs where available.

Category 3 – levetiracetam, lacosamide, tiagabine, gabapentin, pregabalin, ethosuximide, brivaracetam, vigabatrin

It is usually unnecessary to be maintained on the same brand or generic product (but the patient may prefer to do so)

Patient admitted – already prescribed AEDs for any indication:

As part of the medicines reconciliation process (prescriber) :

- Confirm and document on electronic patient record (EPR) the brand/manufacturer (generics), form, dose being taken and indication (e.g. epilepsy, bipolar, pain, anxiety).
- Check adherence, seizure (or symptom) control, side-effects, or signs of toxicity particularly bone health and neuropsychiatric toxicity.
- In patients of childbearing potential - check if contraception is used and ensure this is prescribed where appropriate. For valproate – confirm that the Pregnancy Prevention Programme (PPP) is in place and a risk acknowledgement form has been completed within last 12 months (see MSS13).
- If prescribed for epilepsy: Check category of AEDs (above) to determine the need to maintain continuity of product supply. For category 1 & 2 AEDs, confirm the brand or manufacturer (if generic) taken and add to EPMA and select "critical medication – do not omit any doses unless on advice of prescriber" (see appendix 1); if the brand/manufacturer cannot be confirmed or supplied before the next dose is due, ask nursing staff to use PODs (including from compliance aids) until confirmed.

Administration / access to supplies throughout admission (nursing staff):

- AEDs for epilepsy are "Critical medicines" - ensure all doses are administered as prescribed and report **all** missed or refused doses immediately to prescriber, even if only one dose is missed.
- Ensure supplies are available / accessed out of hours, via emergency drug cupboard or PODs.

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Pharmacy Team Tasks:

- Ensure all prescriber actions are completed
- Ensure all AEDs prescribed for epilepsy are endorsed as **"critical medication"** on EPMA & monitor to ensure doses are not omitted - report omitted doses via InPhase
- Ensure the patient understands the importance of maintaining the supply of same brand or generic product.
- Check for interactions, particularly if AED or interacting medicine is initiated on admission/transfer:
  - Medicines that may lower the seizure threshold, e.g. antidepressants, tramadol (Epilepsy only).
  - Medicines that reduce or increase AED plasma levels or their effects (all indications).
  - Medicines affected by the AED - levels or effects (all indications).

All patients prescribed AEDs - discharge tasks :

- For epilepsy - category 1 & 2 AEDs & category 3 if patient preference: Ensure correct brand or generic product is prescribed/supplied on discharge and any PODs suitable for reuse are returned to the patient.

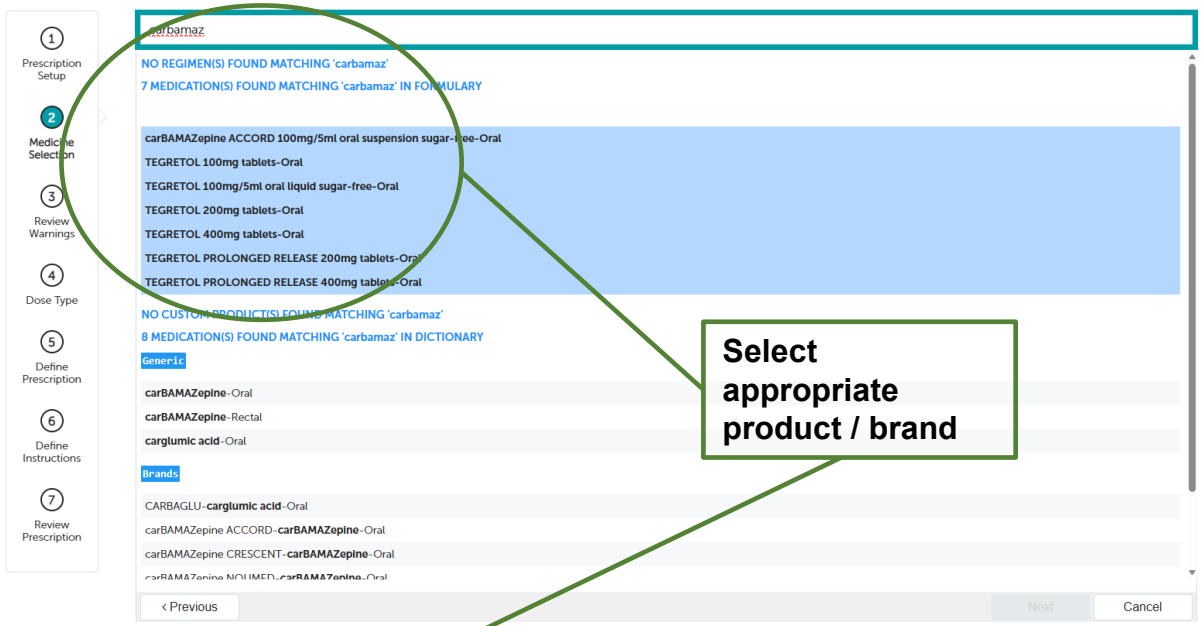
Therapeutic Drug Monitoring (checking plasma levels)

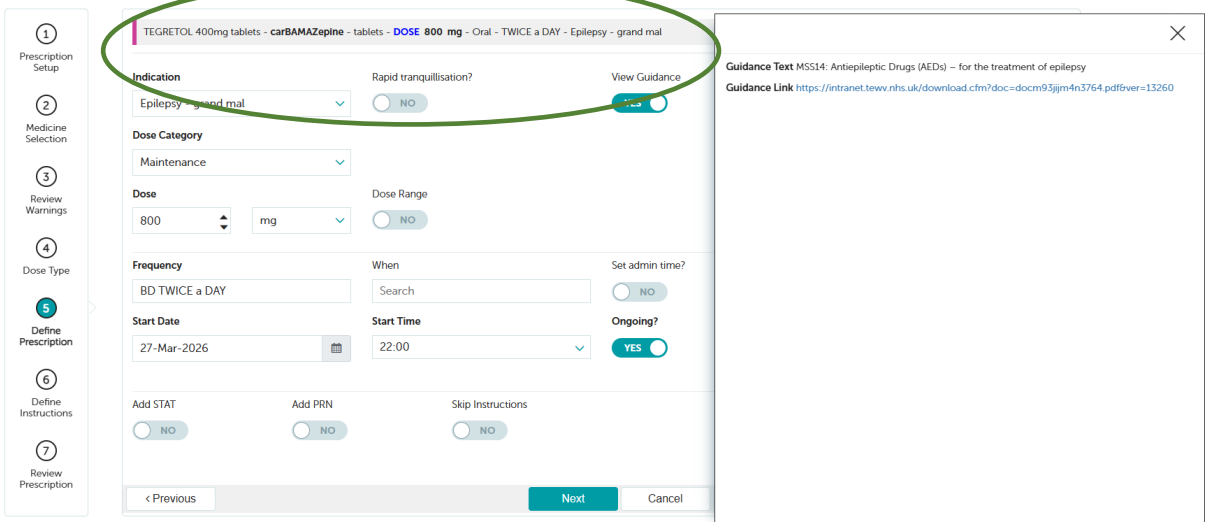
- Routine monitoring is not recommended (NICE CG137).
- Checking plasma levels is useful to:
  - Confirm non-adherence or suspected toxicity
  - Adjust dose of phenytoin
  - Manage pharmacokinetic interactions
  - Assess specific clinical situations, e.g. status epilepticus, organ failure
- Other monitoring requirements with AEDs – see Trust Psychotropic Medication Monitoring Guidance

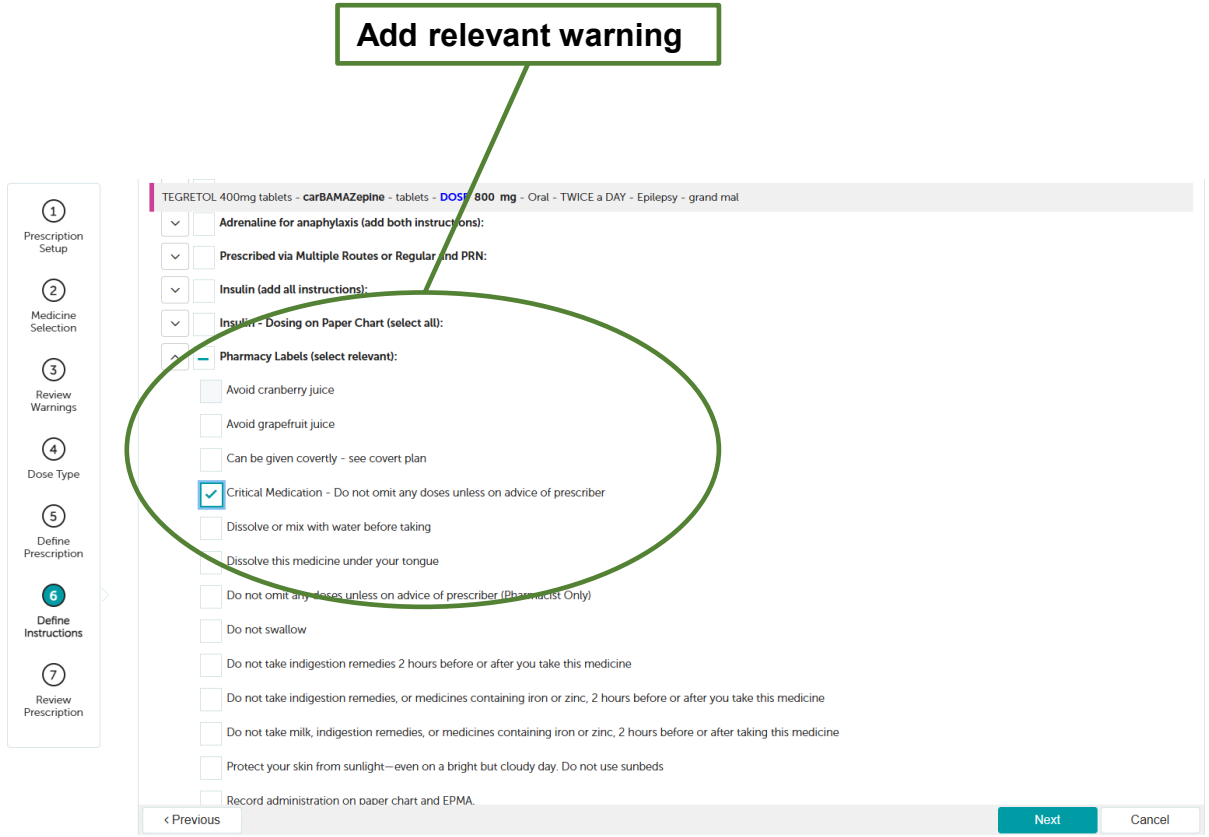
NEVER events:

- ✗ **NEVER** change the prescribed brand of **phenytoin, carbamazepine, phenobarbital, or primidone**
- ✗ Do not initiate **VALPROATE** in people of childbearing potential unless a risk acknowledgement form has been completed and where appropriate, a PPP is in place (MSS13)

Appendix 1: Prescribing AEDS and adding relevant warnings to EPMA







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