East Lancashire Health Economy Medicines Management Board
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Lancashire & South Cumbria Medicines Management Group

Position Statement

Levetiracetam (Keppra®) prescribing: bioequivalence and antiepileptic drugs

Recommendation:

Patients who are to be **newly initiated** on levetiracetam for the treatment of seizures should be prescribed a **generic** levetiracetam product as this the most cost-effective option.

Generic levetiracetam tablets are at least 93% less expensive than equivalent Keppra tablets

Patients **currently prescribed Keppra** brand of levetiracetam **should be considered for switching** from brand to generic using shared decision making, in line with MHRA guidance. The following patient factors should be considered: [1,3]

- Allergies to excipients in the generic product
- Current stability of seizure control and the consequences of a change in seizure control (e.g., driving license)
- Co-morbid autism, mental health issues, or learning disability
- Sensitivity to small dose changes
- Experience of previous unsuccessful attempts to switch
- Perception by patients of differences in supply, for example differences in product presentations

Patient's currently prescribed Keppra brand who have good seizure control, may remain on this brand if this is considered by their specialist to be the most appropriate choice. This should be clearly documented in the patient notes along with the rationale for remaining on branded levetiracetam.

Please note: If it is felt desirable for a patient to be maintained on a specific manufacturer's product, this should be prescribed either by specifying a brand name, or by using the generic drug name and name of the manufacturer (otherwise known as the Marketing Authorisation Holder).[2] This information should be documented in the patient notes and confirmed by the pharmacist at point of dispensing.

Healthcare professionals are reminded to report on a Yellow Card any suspected adverse reactions (www.mhra.gov.uk/yellowcard).

Background:

Levetiracetam is licensed for the treatment of seizures. It is available as the branded product Keppra or as a generic product, in a range of formulations and strengths.

In 2013 the MHRA issued a drug safety update looking at bioequivalence and antiepileptic drugs following concerns about switching between different manufacturers' products of an oral antiepileptic drug (AED). The main reasons for these concerns were the narrow therapeutic index of some AEDs and the potentially serious consequences of therapeutic failure.

The Commission on Human Medicines (CHM) concluded that reports of loss of seizure control and/or worsening of side effects around the time of switching between products could be explained as chance associations, but that a causal role of switching could not be ruled out in all cases. The CHM considered the characteristics of AEDs and advised that they could be classified into three categories. Levetiracetam was placed in category 3, with the following

advice: “For these drugs, it is usually unnecessary to ensure that patients are maintained on a specific manufacturer’s product unless there are specific reasons such as patient anxiety and risk of confusion or dosing errors”.[2]

In 2017 the MHRA issued an update stating that as well as the classification when evaluating whether continuity of supply should be maintained for category 2 or 3 drugs, consider:[3]

- perception by patients of differences in supply, for example differences in product presentations
- co-morbid autism, mental health issues, or learning disability

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[1] Specialist Pharmacy Service et al, “The Use of Generic Anti-Epileptics Drugs in Patients with Epilepsy”, 2020

[2] Medicines and Healthcare products Regulatory Agency, “Drug Safety Update: Antiepileptic drugs: new advice on switching between different manufacturers’ products for a particular drug”, vol. 7 (4), November 2013

[3] Medicines and Healthcare products Regulatory Agency, “Drug Safety Update: Antiepileptic drugs: updated advice on switching between different manufacturers’ products”, vol. 11(4), November 2017

Version Control

Version Number	Date	Amendments Made	Author
Version 1.0	June 2023	New document.	JG

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