Hertfordshire and West Essex Integrated Care System

NHS Hertfordshire and West Essex Integrated Care Board

Prescribing Support Document

Ethosuximide use in absence seizures, atypical absence seizures (adjunct) and myoclonic seizures in adults and children.

1. Introduction

The document aims to support prescribing of ethosuximide for adults and children with absence seizures, atypical absence seizures (adjunct) and myoclonic seizures.
Ethosuximide is a first-line treatment option for absence seizures. It may also be prescribed as adjunctive treatment for absence seizures when monotherapy is ineffective and is also licensed for myoclonic seizures (NICE - Epilepsies in children, young people and adults (NG217)).

The HWE ICS formulary status of ethosuximide is AMBER INITATION. This is because diagnosis and management (including prescribing of treatment) of absence and myoclonic seizures would usually be initiated within specialist secondary care and then continued in primary care. This is also in line with NICE guidance NG217, which states that antiepileptic drugs should be initiated on the recommendation of a specialist.

2. Criteria for transfer of prescribing to primary care

The following must apply before the GP is asked to accept on-going prescribing responsibility for ethosuximide.

*The **inclusion** criteria:*

- The patient has a diagnosis and is being treated for absence seizures, atypical absence seizures (adjunct) and myoclonic seizures (licenced indications).
- The specialist will ensure on-going review and monitoring of ethosuximide treatment to ensure continued benefit of medication.
- Ethosuximide prescribing from specialists can be transferred to primary care when it is deemed to be clinically appropriate by the specialists, considering individual patient factors.

*The **exclusion** criteria:*

- Off-label/ unlicenced use to remain with the specialist.

3. Areas of responsibility

Specialist Responsibilities	
1.	Initiate ethosuximide for patients after a diagnosis for absence seizures, atypical absence seizures (adjunct) and myoclonic seizures (licenced indications).
2.	Discuss treatment with ethosuximide, including counselling points, monitoring/review requirements and side effects with the patient/ carer. Patients or their carers should be told how to recognise signs of blood disorders, and advised that it is their responsibility to seek immediate medical attention if symptoms such as fever, mouth ulcers, bruising, or bleeding develop.
3.	Undertake routine specialist reviews and follow up appointments, which includes dose titration and monitoring.
4.	Ensure that patient/carer is informed and made aware of their responsibilities (see patient/carer responsibilities). This includes the importance of attending review appointments with the specialist.
5.	Determine monitoring requirements for patients on a case-by-case basis, which may include but is not limited to the following: • Blood counts • Urinalysis • Hepatic function • Renal function Checking drug levels will be considered if there is a suspicion of poor adherence, uncontrolled seizures, toxicity or in pregnancy.

	See sections 4 & 5 for more information.
6.	Advise GP of the outcomes of routine reviews/monitoring undertaken within secondary care.
7.	At the point of requesting the transfer of prescribing to primary care, to provide advice to Primary Care prescribers which includes but is not limited to the following: • Clear diagnosis and care plan including information that has been discussed with patient and carer • Dosing regime • Monitoring requirements (information on what monitoring will be undertaken by secondary care, including the frequency of monitoring) • Results of monitoring/blood tests undertaken • Stopping criteria • Referral criteria • Any ongoing blood test monitoring required by GP (NB routine blood test monitoring in primary care not routinely required, but may be requested by specialist on a case-by-case basis; see section 5) • Share this prescribing support document • Specialist team contact details for GPs to obtain advice and support
8.	Contact the GP if patient does not attend review appointments. Inform patients who have missed routine appointment that GPs will be unwilling to continue to supply ethosuximide.

GP/ Primary care prescriber responsibilities	
1.	Review the request from the specialist to take on prescribing of ethosuximide. Promptly communicate to the specialist if prescribing responsibility is not accepted (within 2 weeks), including the clinical reason. Responsibility cannot be declined on grounds of cost of medication.
2.	Check sufficient information has been provided to take on the responsibility for continued prescribing. Request any missing information to be provided from the specialist before taking on the prescribing in primary care. Transfer of care can be refused by GP if information is insufficient. (Refer to point 7 of the 'Specialist Responsibilities')
3.	Prescribe ethosuximide at the dose advised by the specialist. The brand of ethosuximide to be prescribed in primary care should be based on the ICB preferred choice.
4.	Link ethosuximide to the indication on the GP prescribing system.
5.	Monitor patient during routine medication reviews for efficacy, adverse effects, adherence, and seek advice from the specialist on any aspect of patient care of concern to the GP that may affect treatment.
6.	Check for possible drug interactions when newly prescribing or stopping concurrent medication.
7.	Refer patient back to secondary care when appropriate and during pregnancy. Primary care prescribers should flag up any concerns regarding the patient's symptoms or treatment with the specialist.

ICB responsibility	
1.	The ICB will review the prescribing support document when new information becomes available.

Patient/Carer responsibilities	
1.	Report to their specialist if they do not have a clear understanding of or have any concerns with their treatment with ethosuximide.
2.	Inform the GP and specialist if pregnant or planning a pregnancy while on treatment with ethosuximide.
3.	Following the transfer of prescribing, obtain further prescriptions for ethosuximide from the GP and not the specialist.

4.	Inform their GP of any over the counter products (the GP will know the patient's prescribed medications). Inform the community pharmacist that they are prescribed ethosuximide when buying over the counter medications.
5.	Report any adverse effects or worsening of condition to the GP and specialist whilst taking ethosuximide and seek immediate medical attention if symptoms such as fever, mouth ulcers, bruising, or bleeding develop.
6.	Attend review appointments with specialist as requested; if patients miss appointments GPs will be unwilling to continue to supply ethosuximide.

4. Monitoring requirements

Secondary care/Specialist monitoring	
1.	Monitoring requirements for patients will be determined on a case-by-case basis by the specialist, which may include but is not limited to the following: • Blood counts • Urinalysis • Hepatic function • Renal function Checking drug levels will be considered if there is a suspicion of poor adherence, uncontrolled seizures, toxicity or in pregnancy.
2.	Ensure that on-going treatment is warranted and tolerated.
3.	Monitor patients for any dose change requirements.

GP/ Primary care monitoring	
1.	Monitor patients during routine medication reviews for efficacy, adverse effects, adherence, and drug interactions. Contact the specialist for advice where necessary.
2.	Flag up any concerns regarding the patient's symptoms or treatment with the specialist.
3.	Undertake blood test monitoring as advised by the specialist (NB routine blood test monitoring in primary care not routinely required, but may be requested by specialist on a case-by-case basis; see section 5).

5. Summary table for blood test monitoring including specialist and GP responsibility.

Test	Specialist ongoing monitoring	GP ongoing monitoring
Blood counts	If indicated	Not required unless requested by the specialist on a case-by-case basis
Urinalysis	If indicated	Not required unless requested by the specialist on a case-by-case basis
Hepatic function	If indicated	Not required unless requested by the specialist on a case-by-case basis
Renal function	If indicated	Not required unless requested by the specialist on a case-by-case basis
Drug levels	If indicated	Not required unless requested by the specialist on a case-by-case basis

6. Supporting Information on ethosuximide

For full details, please refer to the current individual drug Summary of Product Characteristics (SmPC) and BNFc.

7. References

1) National Institute for Health and Care Excellence (NICE)) (2022), NICE guideline [NG217] Epilepsies in children, young people and adults. Available at: https://www.nice.org.uk/guidance/ng217 (Accessed: 05/01/2023)
2) BNF Joint Formulary Committee. BNF (online) London: BMJ Group, Pharmaceutical Press, and RCPCH Publications (Accessed 05/01/2023)
3) Electronic Medicines Compendium (emc), SmPC Ethosuximide, Available at: Search Results - (emc) (medicines.org.uk) (Accessed: 05/01/2023).
4) National Health Service (NHS), Epilepsy. Available at: https://www.nhs.uk/conditions/epilepsy/ (Accessed 20/01/2022)

Version: V1.0

Developed by: Kruti Shah, Medicines Optimisation Pharmacist, South & West Herts, HWE ICB; Cathy Geeson, Interface Pharmacist, South & West Herts, HWE ICB; in consultation with learning disability specialists across HWE ICS.

Approved by: HWE APC

Date approved: September 2023

Review date: The document is based upon the information available at the time of publication. This document will be reviewed upon request in light of new information becoming available.

Superseded: n/a