

New Medicine Service

A FOCUS ON EPILEPSY



Learning for this session

- ▶ **NMS service recap**
- ▶ **Recap on epilepsy**
- ▶ **Overall management of epilepsy**
- ▶ **Key information on each medicine category**
- ▶ **Key counselling points**
- ▶ **Clinical case study**
- ▶ **Further reading and signposting**



Objectives



NMS - Summary

- ▶ **Patient consent and other data requirements**
- ▶ **Catch up NMS - between 1st September 2021 and 31st March 2022.**
- ▶ **Targets for payment**
 - ▶ All completed NMS provided by a contractor that fall below the 10% target will be paid at £20 each;
 - ▶ Once a contractor reaches the 10% target all completed NMS (including those which fall below the 10% target) will be paid at £25 each;
 - ▶ Once a contractor reaches the 20% target all completed NMS (including those which fall below the 20% target) will be paid at £26 each;
 - ▶ Once a contractor reaches the 30% target all completed NMS (including those which fall below the 30% target) will be paid at £27 each;
 - ▶ Once a contractor reaches the 40% target all completed NMS (including those up to the maximum target) will be paid at £28 each.



The condition and clinical features

- Epilepsy is the fourth most common neurological disorder and affects people of all ages.
- Epilepsy means the same thing as "seizure disorders."
- Epilepsy is characterized by unpredictable seizures and can cause other health problems.
- Epilepsy is a spectrum condition with a wide range of seizure types and control varying from person-to-person.
- Public misunderstandings of epilepsy cause challenges that are often worse than the seizures.



The condition

- Epilepsy is a condition that affects the brain.
- Anyone can have a one-off seizure
- A seizure happens when there is a sudden burst of intense electrical activity in the brain.
- sudden cry and fall
- followed by;
 - Convulsive movements of all limbs
 - Shallow/interrupted breathing – cyanosis
 - Loss of bowel/bladder control
 - Slow return to consciousness, post-seizure confusion and/or fatigue



Clinical features

- ▶ Déjà vu (a feeling that a person, place or thing is familiar, but you've never experienced it before)
 - ▶ Jamais vu (feeling that a person, place or thing is new or unfamiliar, but it's not)
 - ▶ Smells, Sounds, Tastes, Visual loss or blurring
 - ▶ “Strange” feelings
 - Dizzy or lightheaded
 - Headache
 - Nausea or other stomach feelings
 - Numbness or tingling in part of the body
- Loss of awareness
 - Confused, feeling spacey
 - Periods of forgetfulness or memory lapses
 - Distracted, daydreaming
 - Loss of consciousness, unconscious, or “pass out”
 - Unable to hear
 - Difficulty talking (may stop talking, make nonsense or garbled sounds, keep talking or speech may not make sense)
 - Unable to swallow, drooling
 - Repeated blinking of eyes,
 - Tremors, twitching or jerking movements
 - Rigid or tense muscles

EPILEPSY COMMON SYMPTOMS



Loss of consciousness



Weakness



Anxiety



Staring



Contraction and jerking of muscles

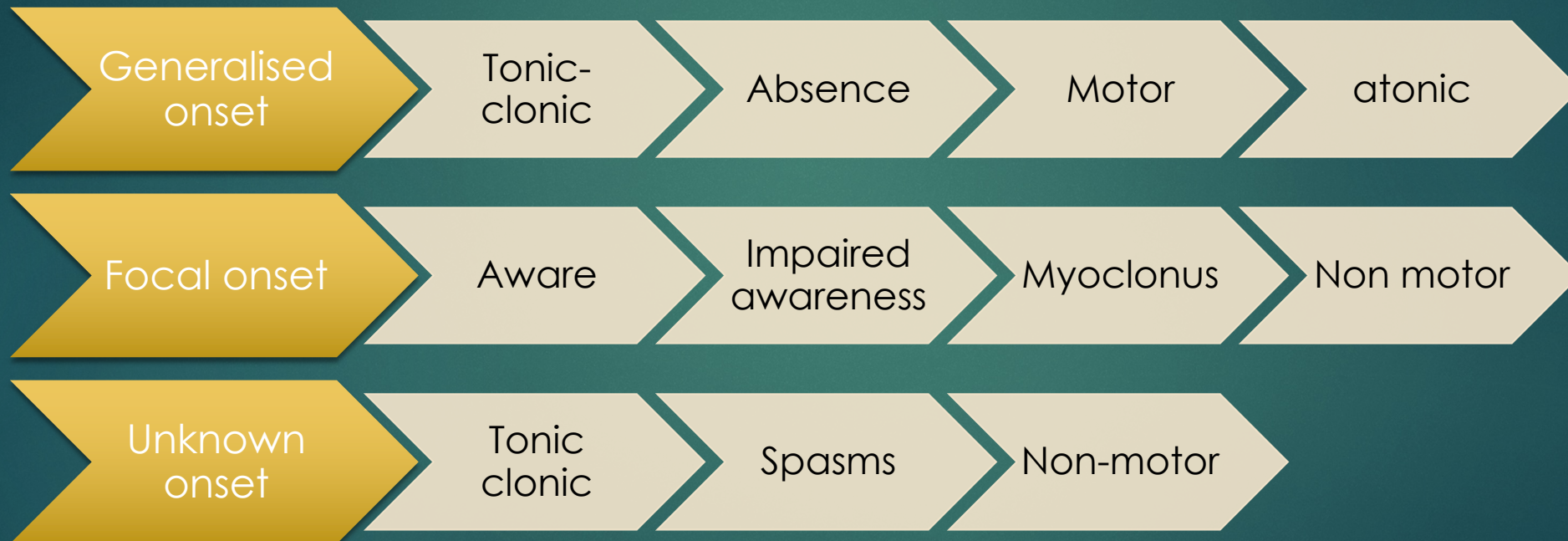


Confused speech



The condition

New ways of classifying seizures



Risk factors

Babies born small for their age

Babies having seizures in the first month of life

Babies who are born with abnormal areas in the brain

Bleeding into the brain

Abnormal blood vessels in the brain

Serious brain injury or lack of oxygen to the brain

Brain tumors

Infections of the brain

Stroke resulting from blockage of arteries

Cerebral palsy

Conditions with intellectual and developmental disabilities

Seizures occurring within days after head injury

Family history of epilepsy or fever-related seizures

Alzheimer's disease (late in the illness)

Autism spectrum disorder

Fever-related (febrile) seizures that are unusually long

Long episodes of seizures or repeated seizures (status epilepticus)

Use of illegal drugs such as cocaine



The management

▶ NICE Guidance

<https://www.nice.org.uk/guidance/cg137>

▶ BNF <https://bnf.nice.org.uk/treatment-summary/epilepsy.html>



Epilepsy treatments		
Category 1	Category 2	Category 3
Carbamazepine	Clobazam	Brivaracetam
phenobarbital	clonazepam	ethosuximide
phenytoin	eslicarbazepine acetate	gabapentin
primidone	lamotrigine	lacosamide
	oxcarbazepine	levetiracetam
	perampanel	pregabalin
	topiramate	tiagabine
	zonisamide	vigabatrin
	valproate	



The medicines - CARBAMAZEPINE

Focal and secondary generalised tonic-clonic seizures,
Primary generalised tonic-clonic seizures

Prolonged and immediate release

Mono or combined therapy

Carbamazepine should be withdrawn immediately in cases of aggravated liver dysfunction or acute liver disease.

Dizziness; drowsiness; dry mouth; eosinophilia; fatigue; fluid imbalance; gastrointestinal discomfort; headache; hyponatraemia; leucopenia; movement disorders; nausea; oedema; skin reactions; thrombocytopenia; vision disorders; vomiting; weight increased

Agranulocytosis

Plasma-drug concentration should be monitored

Take with food



The medicines - LAMOTRIGINE

**Monotherapy of focal seizures,
Monotherapy of primary and secondary generalised tonic-clonic seizures**

Mono or adjunctive

Aggression; agitation; arthralgia; diarrhoea; dizziness; drowsiness; dry mouth; fatigue; headache; irritability; nausea; pain; rash; sleep disorders; tremor; vomiting

Alopecia; movement disorders; vision disorders, Steven-Johnsons syndrome

Careful - suicidal behaviours



The medicines - ETHOSUXIMIDE

Absence seizures,
Atypical absence seizures (adjunct),
Myoclonic seizures

risk of suicidal thoughts and behaviour

Aggression; agranulocytosis; appetite decreased; blood disorder; bone marrow disorders

Hiccups, vision disorders, rash, sleep problems weight decrease

Plasma-drug concentration should be regularly monitored

inhibits NADPH-linked aldehyde reductase necessary for the formation of gamma-hydroxybutyrate,



The medicines - LACOSAMIDE

Monotherapy of focal seizures with or without secondary generalization

risk of suicidal thoughts and behaviour

concentration
impaired; confusion; constipation; depression; diarrhoea; dizziness; drowsi
ness; dry mouth; dysarthria; dyspepsia; flatulence; gait
abnormal; headache; insomnia

Aggression; agitation; angioedema; arrhythmias; atrioventricular block;

Sodium channel inactivation

Care in pregnancy



Self-help counselling points

Treatment management,
Seizure management,
Lifestyle management,
Physician support



Clinical case study

Your 22yr old patient has been diagnosed with focal epilepsy and been prescribed carbamazepine and lamotrigine. She also takes the oral contraception pill

What will you discuss with the patient?

As the patient is newly diagnosed what self-help will you advise?

You contact the patient after one week and she tells you that she is coping well as soon as she reached maintenance dose. However, she has a rash that won't go away

How do you respond?



Further reading and signposting

- ▶ <https://www.cdc.gov/epilepsy/communications/features/self-management.htm>
- ▶ <https://www.nice.org.uk/guidance/cg137/chapter/Appendix-E-Pharmacological-treatment>
- ▶ <https://www.epilepsy.org.uk/info/what-is-epilepsy>
- ▶ <https://www.epilepsy.com/learn/about-epilepsy-basics/what-happens-during-seizure>



Bibliography/References

- ▶ <https://www.nhs.uk/conditions/epilepsy/>
- ▶ <https://www.epilepsy.com/article/2014/4/revised-definition-epilepsy>
- ▶ <https://www.cdc.gov/epilepsy/communications/features/self-management.htm>
- ▶ <https://www.epilepsy.com/medications/ethosuximide/advanced#:~:text=The%20exact%20mechanism%20of%20action,the%20sodium%20potassium%20ATPase%20system>
- ▶ <https://www.nice.org.uk/guidance/cg137/chapter/Appendix-E-Pharmacological-treatment>
- ▶ <https://www.epilepsy.com/learn/about-epilepsy-basics/what-happens-during-seizure>



Clinical case study

Your 22yr old patient has been diagnosed with focal epilepsy and been prescribed carbamazepine and lamotrigine. She also takes the oral contraception pill

What will you discuss with the patient? Discuss with women and girls who are taking lamotrigine that the simultaneous use of any oestrogen-based contraceptive can result in a significant reduction of lamotrigine levels and lead to loss of seizure control. When a woman or girl starts or stops taking these contraceptives, the dose of lamotrigine may need to be adjusted. All women and girls on AEDs should be offered 5 mg per day of folic acid before any possibility of pregnancy

As the patient is newly diagnosed what self-help will you advise? – ensure fully understands how to take tablets and what to do with missed doses. Get enough sleep, eat well and attend all appointments. You should also discuss triggers and seizure control, management and self-care, risk management, first aid, safety and injury prevention at home and at school or work, psychological issues, social security benefits and social services, insurance issues,

You contact the patient after one week and she tells you that she is coping well as soon as she reached maintenance dose. However, she has a rash that won't go away

What do you respond? This patient should be referred back to the prescriber as soon as possible

