“WHAT’S NEW” IN THE 2020 GUIDELINES

This document summarizes the updates made in the ‘Clinical Guidelines for the Management of Epilepsy in Adults and Children’ published in 2020.

Defining Epilepsy

Epilepsy is a disease of the brain defined by any of the following conditions:
- At least two unprovoked (or reflex) seizures occurring >24 h apart
- One unprovoked (or reflex) seizure and a probability of further seizures similar to the general recurrence risk (at least 60%) after two unprovoked seizures, occurring over the next 10 years
- Diagnosis of an epilepsy syndrome

Types of Epilepsy Depending on Underlying Etiology:

- **Structural** - There is a structural abnormality or disease associated with an increased risk of developing epilepsy, e.g. stroke, trauma
- **Genetic** - Epilepsy results from a known or presumed genetic mutation, e.g. Dravet syndrome (>80% of patients have a mutation in the SCN1A gene)
- **Metabolic** - Epilepsy results from a known or presumed metabolic disorder. Most metabolic epilepsies have a genetic basis, but others are acquired, e.g. cerebral folate deficiency
- **Infectious** - Epilepsy results from an infection, e.g. tuberculosis, HIV, cerebral malaria, neurocysticercosis and Zika virus
- **Immune** - Epilepsy results from an immune disorder, e.g. anti-NMDA (N-methyl-D-aspartate) receptor encephalitis
- **Unknown Cause** - The nature of the underlying cause is unknown; it may have a fundamental genetic defect as its core or it may be the consequence of a separate yet unrecognized disorder

New Recommendations

**DRUG TREATMENT**

Options for Anti-Seizure Drugs (ASDs)
- See Section 6.2 (pages 22-24) of the Guidelines for updated list of first-line and adjunctive ASDs

Effects of ASDs on Hepatic Enzymes:
- Physicians should exercise caution when withdrawing an enzyme-inducing drug from a polytherapeutic regimen
- Interactions should be especially considered for drugs with narrow therapeutic indices (e.g. carbamazepine, lamotrigine, phenobarbital, phenytoin, and valproic acid)

**WOMEN WITH EPILEPSY**

- Avoid enzyme-inducing ASDs in women with epilepsy using oral contraceptives, transdermal patches, or levonorgestrel implants
- Whenever possible, valproic acid should be avoided in women of childbearing potential due to the risks to the fetus, including teratogenicity and neurodevelopmental delays
- Folic acid supplements (0.4 - 4mg/day) are recommended before and during pregnancy
### SUDDEN UNEXPECTED DEATH IN EPILEPSY (SUDEP)
- The incidence of sudden death is estimated to be approximately 11.2 cases per 1000 individuals with epilepsy per year.
- Seizure freedom, particularly freedom from generalized tonic-clonic seizures, is strongly associated with decreased SUDEP risk.
- The risk may be reduced by lowering seizure frequency and by adherence to ASD treatment.

### DEPRESSION
- Depression and anxiety are common in people with epilepsy.
- Patients should be regularly screened for depression and offered supportive therapy.
- Antidepressant use is generally safe in people with epilepsy when used at therapeutic doses.

### STIGMA
- Stigma is experienced by people with epilepsy in two main ways:
  - **Felt (or internalized) stigma** - the shame of having seizures and the fear of encountering epilepsy-linked enacted stigma.
  - **Enacted (or institutionalized) stigma** - reflects actions or discrimination that people with epilepsy face in their communities.
- Stigma is associated with higher seizure frequency and linked to poor psychosocial outcomes (e.g. depression, anxiety, social isolation).
- Targeted educational programs, counseling, and self-help groups can be empowering for people with epilepsy.

### PSYCHOGENIC NON-EPILEPTIC SEIZURES (PNES)
- PNES look like epileptic seizures but are not caused by abnormal brain electrical discharges.
- Between 53 and 100% of PNES patients have at least one comorbid psychiatric disorder, most commonly depression, anxiety, or posttraumatic stress disorder.
- A PNES diagnosis is made by an epileptologist who monitors a patient until a seizure occurs and then interprets a video-EEG.
- Cognitive behavioural therapy may be a first-line psychological treatment.

For the full set of guidelines, and for more information, go to: [www.ontarioepilepsyguidelines.ca](http://www.ontarioepilepsyguidelines.ca)