

HOT TOPICS in EPILEPSY

Anticonvulsants: How to get the most out of what you are taking Discussion Notes

Epilepsy Basics: Epilepsy is a chronic neurological disorder characterized by recurrent seizures. A seizure is like an ‘electrical storm’ in the brain; during a seizure, the normal pattern of activity in the brain is temporarily disturbed. There are different kinds of epilepsy, as well as different seizure types. There is a broad range of seizure control from one person to the next. Seizures can be reduced or eliminated in about 80% of people with epilepsy. It is currently estimated that 1 in 26 will be diagnosed with epilepsy at some point in their lives.

Different types of epilepsy: Seizure classification and epilepsy syndromes

There are two major types of seizures: focal seizures and generalized seizures. The type is determined by how the seizures start in your brain.

- Partial seizures (focal) begin in just one part of the brain. The feelings or sensations or movements a person may have during a partial seizure depend on which part of the brain is affected. Partial seizures may spread to affect both sides of the brain.
- Generalized seizures result from abnormal brain cell activity on both sides of the brain at once. These seizures may cause momentary stares, loss of consciousness, falls, or massive muscle spasms.

Syndromes may include Lennox-Gastaut, Dravet, Infantile spasms. Types of epilepsies may include temporal lobe epilepsy, juvenile myoclonic epilepsy, childhood absence epilepsy, etc.

Treatment options currently available for epilepsy: Medications (antiseizure medications), Diets (ketogenic diet, modified atkins diet, etc.), Stimulators (vagus nerve stimulator, neuropace), Surgery. The most common treatment, and generally the first step in seizure control, is the use of medications.

Approach to seizure management with medications:

- Anti-seizure medications work to suppress seizure activity, they do not ‘cure’ epilepsy. The goal of medication is to achieve the best seizure control possible, with few to no side effects.
- Start with one medication and increase to the lowest effective dose. If seizures continue, the dosage is increased until the maximum dose is reached or side effects occur. If seizures continue, another medication is tried or added.
- Monitor for seizure control, side effects and long-term complications

Why is one anti-seizure medication chosen over another?

- Which medication your health provider recommends will depend on information specific to you, including: the type of seizures you have, the side effect profile of the drug, the cost of the drug, your gender, your age, your medical history, and whether you take other kinds of medications. Greater than 20 anticonvulsants are currently FDA approved
- Mechanism of action, metabolism, therapeutic level, half-life....what are these?

- Side effects. Side effects can vary and all medications have a long list of potential adverse reaction. These may be mild or severe. They may be related to the dose, related to interaction between drugs, common to the drug or related to an allergic reaction.
- Long-term risks may include gum swelling, bone disease, peripheral neuropathy, folate deficiency, etc.
- Each anti-seizure medication has its own unique common and concerning 'side effect profile'
- Impact on mood....
- Generic medications, formulations, etc.

What questions to ask your provider?

- Talk to your doctor, be open with how epilepsy affects you, what your mood is like, what you are confused about and/or any struggles you have within your day related to living with epilepsy.
- Specific to medication, ask about the following:
 - When am I supposed to take this medication?
 - What do I do if I forget to take my medicine?
 - What side effects does this drug have?
 - What should I watch out for?
 - Why did you choose this drug? Are there other ones that I could take?
 - How often will I need blood or other tests?
 - Is it alright for the pharmacist to me a generic drug, or should I have a name brand drug?
 - Are there any foods, drinks, or activities that I should stay away from while I'm taking this medicine?

How can you take control of your medication?

- Do take your medication regularly. Understand when and how your medication needs to be taken. Remember that medications suppress seizure activity. If it is not taken at regular intervals consistently, you may have side effects or loose seizure control.
- Learn about your medication. If you learn of concerning information from the internet or friends, ask your doctor
- Do not change the dose without checking first with your doctor
- Be honest. If you have been missing doses or having side effects, say so. This will allow you and your doctor to work together.
- Do not ever stop your medication abruptly. This can result in a dangerous increase in your seizures.
- Ask your doctor what to do if you miss a dose.
- Use reminder tools to remind you to take your medication. Useful tools include smartphone alarms, pill boxes, putting prescription bottles next to your toothbrush or bedside table if that is a scheduled routine for you.
- If you are unhappy with your medication, side effects or seizure control, talk to your doctor. Have an open discussion.

Resources for reliable information about anti-seizure medication

- <http://www.epilepsyfoundation.org>
- <http://www.drugs.com/onfi.html>