GUIDELINES FOR ANESTHESIA AND SURGERY IN PEOPLE WITH EPILEPSY

Antiepileptic drugs (AEDs) cause unique considerations for people with epilepsy because skipping, or even delaying, a single dose can result in seizures. Strategies for avoiding or minimizing skipped doses are paramount in the care of people with epilepsy. You can give this guide to your anesthesiologist.

- **AEDs should be taken early in the morning before surgery.** Patients are usually instructed not to eat or drink after midnight so their stomach will be empty during surgery. However, tell your doctor that you take seizure medications. Your doctor will probably advise you to take your AEDs up until 2 hours or earlier before surgery with less than one ounce of water or clear liquids. The timing of medication administration is more complicated for patients who must take medications with applesauce or similar solids. In this case, the medication can be administered 6 hours (or as early as possible) before surgery; however, the subsequent dose must still be given as close to on-time as possible. Thus, the risk of seizures if the medication is not given must be weighed against the risk of aspiration if pills are given close to surgery.
- **If you have missed doses of AEDs then seizures may emerge when anesthesia wears off.** There is little risk of seizures during general anesthesia because anesthetic agents inhibit the firing of neurons, although the anesthetic sevoflurane can rarely precipitate seizures. There is generally no increased risk of seizures upon awakening from anesthesia if AEDs have been taken.
- **If even a single AED dose cannot be given orally then the AED should be given by another route.** This may occur because you are under anesthesia during prolonged surgery or you are unable to swallow in the post-operative period. AEDs that are available in **intravenous (**IV) form include phenytoin (Dilantin®), levetiracetam (Keppra®), lacosamide (Vimpat®), valproate (Depakote®), and phenobarbital. AEDs that are not available in IV formulation include carbamazepine (Tegretol®), oxcarbazepine (Trileptal®), topiramate (Topamax®), and lamotrigine (Lamictal®).
- **Lorazepam (Ativan®) or another similar drug called a "benzodiazepine" is usually administered on a standing basis if a person with epilepsy can't be given their usual AEDs by the IV route.** It must be administered at the time their usual AED would be given or at the end of general anesthesia. IV doses of benzodiazepines should not be delayed until seizures occur because it is then too late to prevent the seizure.
- **There are times when patients cannot take their AEDs for prolonged periods, e.g. in the ICU or after stomach surgery.** Switching to an AED that is available in IV form is the simplest solution. For some epilepsy patients, only their unique combination of AEDs will prevent their seizures. For these people, their AEDs must be given if they will miss more than 2 doses of their usual AEDs. If their usual AEDs are not available in IV form, then alternative methods of administration include through an NG tube or giving oral formulations per rectum.