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Consumers Can Help Prevent Harmful Medication Incidents

SafeMedicationUse.ca Newsletter

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Confusion with a Baby's Dose of Medicine

When it comes to infants, we must be extra careful with the dose of any medicine administered. SafeMedicationUse.ca has received a report from a consumer whose 1-month-old baby received too much phenobarbital because of a mistake at a pharmacy. Phenobarbital is a medicine used to treat seizures. The dose of phenobarbital has to be carefully monitored. If the dose is too low, seizures may not be controlled. If the dose is too high, phenobarbital can cause serious side effects that may even lead to death.

The baby's doctor faxed a prescription for phenobarbital to the pharmacy. The doctor wrote that the baby should receive 9 **mg** (milligrams) of phenobarbital twice a day. However, the pharmacy's instructions said to give the baby 9 **mL** (millilitres) of a liquid that contained 5 mg of phenobarbital in each millilitre. This mistake meant that the baby was receiving 45 mg of phenobarbital per dose (9 mL × 5 mg/mL)—5 times the intended amount.

Three days later, the consumer became concerned because her baby was very sleepy and difficult to arouse. The clinic where the phenobarbital had been prescribed was closed for the weekend, but a paediatrician at the local hospital told the consumer to stop giving the phenobarbital until she could talk with the baby's doctor. The dispensing error was discovered when the clinic reopened after the weekend and the consumer told the nurse at the clinic what happened. The nurse confirmed with the pharmacy that someone had misread the prescription as phenobarbital 9 **mL** twice a day, rather than 9 **mg** twice a day as the prescriber intended. Fortunately, the baby recovered.

As consumers, we expect healthcare professionals not to make mistakes when they are prescribing or dispensing our medicines. Pharmacy staff put checks into place to try to prevent dispensing errors, but mistakes sometimes happen anyway. One way that consumers can help to prevent harm from mistakes like this one is to learn as much as possible about the medicines a doctor has prescribed. In the case described above, the parent helped to prevent serious harm to her child by contacting a healthcare provider when she noticed that the child was showing unusual symptoms.

Here are some tips:

- Whenever you receive a new prescription, ask why the medicine has been prescribed, what the correct dosage is, and how often to take it.
- If the medicine has been prescribed for your child, the dose may depend on the child's age and weight. Make sure the prescriber and the pharmacy filling the prescription know your child's current age and weight.
- If the pharmacy dispenses a liquid medicine, ask for an oral syringe to measure the dose accurately. Ask the pharmacist to tell you the dose that has been prescribed and then show you how much liquid will provide this dose. If any of the information you receive is different from what you expected, ask the pharmacist to check the prescription with you again.

- Ask the doctor and the pharmacist about any side effects to watch for and when to contact a healthcare provider for help. This information is especially important when you are giving medicine to babies and young children.

Read more about Preventing Errors with Children's Medicines at the Doctor's Office and Pharmacy (http://www.safemedicationuse.ca/newsletter/newsletter_children_part1.html)

Tips for Practitioners

- Children are particularly vulnerable to the consequences of a medication error. Additional safeguards should be put in place when prescribing, dispensing, and administering medications for children. Consider using tools such as checklists and computerized dose checks to support safe practices.
- When prescribing or dispensing a medication for a child, always ask for the child's age and current weight. A child's weight can change quickly with normal growth. Take care to record the unit of the weight correctly on the pharmacy profile, e.g., kilograms (kg) versus pounds (lb).
- Make sure the prescribed dose is appropriate for the child's weight. Verify dose calculations and other details against an approved reference for pediatric dosing.
- Counsel the child's caregiver on how to administer the medicine. For liquid medicines, provide an oral syringe or other suitable measuring device. Demonstrate how the dose should be measured accurately, and then have the caregiver show you how he or she would measure the dose. Make sure the caregiver knows how frequently the medicine is to be given.
- Inform the child's caregiver of possible side effects from the medicine, and when to seek medical advice if such side effects occur.
- Provide written information that the caregiver can consult at home.