

## Pharmacokinetics

Pharmacokinetics is an important section of the Pharmaceutical Sciences department at St. Jude. The staff in Pharmacokinetics works hard to find out:

- How much?
- How often?
- How long?

They try to determine how much, how often and how long certain medicines (drugs) should be given to your child to achieve the best results. To do their job well, the Pharmacokinetics staff may look at your child's blood and urine samples in the lab to find out how much of the medicine is in your child's body at a certain time. The staff might also need to collect blood and/or urine samples from your child to find the best route, or way, for your child to receive a medicine.



### How medicines are given

As shown in the cartoon, children wonder why they must get a shot instead of taking a pill. The staff in Pharmaceutical Sciences is a little bit like the child in the cartoon. They want to find the best way to give each drug. Medicines can be given in several ways:

- IV (by vein; intravenously)

*This document is not intended to take the place of the care and attention of your personal physician or other professional medical services. Our aim is to promote active participation in your care and treatment by providing information and education. Questions about individual health concerns or specific treatment options should be discussed with your physician.*

## **Pharmacokinetics**

- PO (by mouth; per oral)
- IM (in a muscle; intramuscularly)
- SubQ (under skin; subcutaneously; SQ)
- IT (in the spinal column; intrathecally)

### **Finding a good balance**

Children are different from adults and different from one another in how their bodies eliminate, or get rid of, medicines.

- Some children eliminate drugs slower than other children. This could result in toxic (harmful) side effects such as mouth sores, nausea, low blood pressure, etc.
- Some children eliminate drugs too quickly. This could result in a medicine not working as well as it should.

For drug therapy to be successful, the staff must find the correct balance of good and bad effects. Sometimes either the dose of the medicine or the schedule on which it is given will need to be changed.

Through active research, Pharmacokinetics staff members are always trying to find ways to improve how drugs are given to patients. They may ask you if your child would like to take part in a medicine study. Research done today could help many other children who receive medicine therapy, both now and in the future.

### **Questions?**

If you have questions about Pharmacokinetics at St. Jude, call 595-2482. If you are calling from outside the Memphis area, dial toll-free 1-866-2ST-JUDE (1-866-278-5833), then dial extension 2482.

### **The St. Jude Pharmacokinetics nurses**

Sheri Ring, RN,

Lisa Walters, RN

Terri Kuehner, RN

Margaret Edwards, RN

Paula Condry, RN

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