

What is a TPMT test?

A TPMT test is a blood test. It checks for certain forms of a gene called Thiopurine s-methyltransferase. Some people have forms of the TPMT gene that make them sensitive to thiopurine medicine. These medicines include 6-mercaptopurine (6-MP), azathiopurine (Imuran) and thioguanine. Sometimes the test also measures the TPMT gene product.

What is a gene?

A gene is a piece of DNA that we inherit from our parents. Genes provide the instructions to make our bodies look and work as they do.

What is the TPMT gene product?

The TPMT gene product is an enzyme. The TPMT enzyme helps your body get rid of the active form of thiopurine medicines. The medicine's active form can damage the bone marrow and other body organs if it stays in the body too long.

Why did the doctor order the TPMT test for my child?

Your doctor wants to find out if your child has one or two forms of the TPMT gene that has been linked to thiopurine sensitivity.

What if my child has one or two of the forms linked to sensitivity?

The doctor will use the test results to decide about your child's medicine. Your child's doctor may choose to use a low dose of a thiopurine medicine. Your child's doctor may choose to treat your child with other medicines that do not rely on the TPMT gene.

What are the potential benefits of the TPMT test?

- The test greatly improves the chances that the medicine will help your child as intended.
- The test lowers the chance of severe side effects from the medicine.
- Your child may need to be tested for the TPMT gene only once in his /her lifetime. The genes inherited from our parents very rarely change. Therefore, doctors in the future can use the results from this test if your child needs thiopurine medicines.

Does the TPMT test have any limitations?

The test only looks at the most common forms of TPMT gene that cause medicine sensitivity. People without these forms of the TPMT gene can still be sensitive to the medicines. Regardless of the results, the doctor will closely follow your child's response to the medicine.

Is there anything else I should know about the PG test?

The test results may be important for other family members. Biologic brothers, sisters and parents may have one or both of the same TPMT gene forms.

How long does it take to get the test results?

Test results will be ready in 2 business days.



How will I learn about my child's test results?

The doctor or nurse will discuss your child's test results. The doctor will receive a report from the laboratory. The report will state if medicine changes are recommended. The report will be placed in your child's medical record.

Will my child's gene result be in the medical records?

Yes. Cincinnati Children's strictly follows HIPAA guidelines to safeguard medical information.

Will insurance pay for the TPMT test?

Health care insurance companies have different types of coverage policies. Many policies cover genetic tests that are used to guide medical management. It is always a good idea to get this information directly from your insurance company.

What will happen to my child's sample?

Your child's DNA from the blood sample may be stored for up to two years in case future tests are needed. Neither your child's sample nor DNA will be used for research purposes.