Are there any limitations to this screen?

• Yes. It is not known how all medicines are processed by our bodies.
• Other variants in other genes will not be found.
• We will not find variants in genes not included in the test. These genes could be important, but we do not know.
• This screen can find many variants in the genes tested. It is not known how all of those variants may affect you.
• We will report only variants known to affect how your body will process medicines.
• Please let your doctor or nurse know if you are taking other medicines.

Can my insurance company get my genetic screen results?

• Clinical tests: Yes, if your doctor ordered it for a clinical test
• Research study: No, if the screen is done as part of a research study, insurance companies will not get the results.
• Our genetic counselor can answer your questions about insurance companies and genetic information.

Helpful Websites

Iowa Institute of Human Genetics (IIHG)
>> www.medicine.uiowa.edu/humangenetics
Genetics Home Reference
Pharmacogenomics Knowledgebase
>> www.pharmgkb.org

Did you know?
Ten percent of drugs recommend genetic testing for the best treatment.
What is pharmacogenetics?

- Pharmacogenetics (PGx) is a way to determine medicine and dosage based on genes.
- PGx can be used to determine whether a specific medicine and/or dosage is correct for you by studying specific genes.
- It may help your doctor decide which medicine and how much of that medicine will work best for you.

What are genes?

- Genes are short pieces of DNA that contain the instructions for our bodies.
- Genes are passed down to us from our parents.
- Genes have DNA changes (variants) that determine a great deal about us, including what we look like and how our bodies react to medicine.

What is a genetic screen?

- It is a test used to show gene changes in a person.

Why would I have a genetic screen for pharmacogenetics?

- Your body may process certain medicines normally, poorly, or too quickly.
- The type of gene variants you have will help your doctor decide if certain medicines will work for you.
- For example, the CYP2C19 gene controls how your body will process (metabolize) clopidogrel (Plavix®).

How can variants in these genes affect me?

- In most people, we will not discover any unusual gene variants. Those people are called normal or extensive metabolizers.
- Some people have gene variants that process medicine(s) poorly. They are called poor metabolizers.
- Some people have gene variants that process medicine(s) too fast. They are called ultra-rapid metabolizers.
- Some people have gene variants that process medicine(s) different than normal, but not too fast or too slow. They are called intermediate metabolizers.

I’m not on any medications, so why should I have this screen?

- In the past, doctors have given patients medicine and then waited to learn if the medication worked.
- If you have this test before you need a medicine, your doctor will have the results before giving you the medicine.

What medications will this screen tell me about?

- A list of current genes and medications this screen can tell you about can be found at www.medicine.uiowa.edu/humangenetics/patientfamily.

What do I need to do for a genetic screen?

- You may need to provide a blood sample, a saliva sample, or both.
- If it is a screen that needs a blood sample, we will draw blood, usually from your arm. From this, we will extract DNA for the PGx screen.
- If it is a screen that needs a saliva sample, you will be given a small tube or a small sponge to wipe across the inside of your cheek to collect a sample of your DNA (genes).
- The DNA samples will be used to study your genes that process drugs.
- You may also be asked for a new sample of saliva or blood in the case the first sample does not work.

How will I learn about my results?

- Your doctor or nurse can tell you the results at your next appointment.
- The results from some PGx screens may be put into your electronic medical record and in your MyChart account (mychart.uihealthcare.org).
- For some PGx screens you may receive a letter in the mail with your results.