Arkansas Children's
HOSPITALS · RESEARCH · FOUNDATION

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SNP Microarray

Q: What is a SNP Microarray?
A: A SNP, or "single nucleotide polymorphism", is a common change in a person's DNA. SNP Microarray is a blood test that looks for large extra pieces or large missing pieces of that person's DNA and looks at the letter changes, or SNPs of that person. These extra or missing pieces could explain the patient's symptoms, and similarity of DNA can increase the chance of certain conditions.

Q: Who should get this test?
A: People who have developmental delay, birth defects, autism, or a few different symptoms that do not fit a known genetic disorder should get this test.

Q: Why is my child being tested?
A: If a child has learning, speech or other delays, or if they have many symptoms that could be tied together, a SNP Microarray would be a useful test to help figure out what is causing these issues.

Insurance pre-authorization
Genetic tests, like the SNP array, are expensive tests that may or may not be covered by a person's insurance. Insurance plans are interested in knowing whether the SNP array is medically necessary and if or how it will affect the medical management of a person. Because of this, it is important for the health care provider ordering the test to clearly document the reasons for performing the SNP array in the medical record. Insurance pre-authorization is recommended for genetic testing. Without pre-authorization, some patients may have to pay for the SNP array test.

5 Possible Test Results

1. **Negative Result**— We did not find any changes in the DNA. In other words, the test results were "normal." Most tests will have a normal/negative result.

2. **Positive Result**— We found extra or missing pieces of DNA that are known to cause the symptoms seen in the patient. This result occurs in about 15 out of 100 patients.

3. **Variant of Uncertain Significance (VUS)—** Some changes were seen in the DNA, but we do not know enough about these changes to decide if they cause symptoms or not. This happens in about 8 out of 100 test results.

4. **Incidental Finding—** We found something that we were not looking for. This could be a change in the DNA that could cause a completely different genetic disorder or symptom than what the patient is currently showing. This result would be unrelated to our reason for testing, but it could still be important for the patient's or the family's health.

5. **Family Relationships and Paternity—** Since we are looking at DNA, we will be able to see how people in the family are, or are not, related to each other. This sometimes points to incorrect paternity or parents being related.

The Genetic Information Nondiscrimination Act (GINA) is a law that protects patients from being denied health insurance or employment based on the results of their genetic tests or their family history of a genetic disorder. GINA does not protect military members or those applying for life insurance.