

Procedure for Calgary Community Pediatricians ordering Array Comparative Genomic Hybridization (aCGH) testing

aCGH testing has become a standard investigation in those children with developmental delays who do not have features of a syndrome. It now replaces chromosome analysis as the primary genetic testing for non-syndromic developmental delays. This includes those patients with a new diagnosis of autism and dysmorphic features that do not fit a syndrome.

As this is an expensive test, Alberta Health has not approved this test unless a medical geneticist has approved it. In the past, this meant that a referral to a geneticist must be completed before the test could be ordered.

The Alberta Children's Hospital geneticists believe that Calgary Community Pediatricians are able to correctly screen those children who require this test and therefore a system has been developed so that the test can be ordered without a genetics consultation.

In order to have this aCGH test done without a genetics consultation, follow these steps:

- 1) The pediatrician determines that the child has developmental delay not associated with a syndrome and that the aCGH test is indicated.
- 2) The pediatrician reviews with the parent the indications and possible expected results from the test. (See attached information handout).
- 3) The pediatrician completes the requisition for the aCGH test (attached).
- 4) The pediatrician completes a referral letter to genetics with the reason for the opinion that the aCGH test is indicated and noting that the patient has no syndromic features.
- 5) The patient goes and has the blood work drawn at any CLS lab. The lab will forward the requisition and sample to the ACH cytogenetics lab where it will be held.
- 6) The medical geneticist will review the referral letter and fax back to the pediatrician an approval letter for aCGH testing. (example attached)
- 7) That letter can then be faxed (by the pediatrician's staff) to the ACH cytogenetics lab and the testing will proceed.

Advantages:

- The pediatrician can complete this portion of the work up of the developmentally delayed child in one step
- The patient can complete all laboratory investigations without having to return to the lab for subsequent pokes
- The medical geneticists can screen the aCGH testing in order to satisfy Alberta Health that the cost of the test is justified

We hope that, in time, this test will be permitted to be ordered without the medical genetics approval.

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