**What is iGeneScreen™?**

iGeneScreen™ is a highly efficient, non-invasive prenatal screening test for fetal trisomy, based on Massively Parallel Sequencing (“MPS”) that analyses circulating cell-free fetal DNA from a maternal blood sample. All screening tests carry a false positive and false negative rate, which for iGeneScreen™ is less than 1% for each, when testing for trisomy 13, 18 and 21 in the current pregnancy.

iGeneScreen™ has been validated prospectively on 11,105 cases, the largest prospective study for any non-invasive prenatal test to date. The study showed iGeneScreen™ to be more than 99% accurate in detecting chromosomal abnormalities, in particular Down Syndrome and Edwards Syndrome. The study was independently peer-reviewed and published in Prenatal Diagnosis, an internationally recognised publication, and the Official Journal of the International Society for Prenatal Diagnosis (ISPD).

**How does iGeneScreen™ compare with other screening tests?**

iGeneScreen™ has a Detection Rate (DR) of >99%, false positive rate (FPR) of <1% and a false negative rate (FNR) of <1%. In contrast, the DR, FPR and FNR of Triple Test, NT alone and the Combined Test respectively are presented in Table 1.

**When is the earliest gestation that the test can be done?**

iGeneScreen™ can be done as early as 10 weeks of gestation. Whereas fetal genetic material is known to circulate in maternal blood in earlier gestations, the proportions are lower the earlier the gestation. In order to keep the no call rate low (<3%), it is advisable to take the maternal blood sample at or after 10 weeks gestation.

**What is the turn-around time?**

In 90% of the cases, the turn-around time is 14 business days. If a delay in the results is likely, the iGeneScreen™ team would contact the doctor early to discuss the imminent delay.

**How do I order iGeneScreen™?**

iGeneScreen™ Request Form and Informed Consent Form must be completed and signed by the ordering clinician and patient. These forms are available at [www.igenescreen.com/fordoctors](http://www.igenescreen.com/fordoctors).
What are the limitations of iGeneScreen™?

The sensitivity and specificity are at >99% for singleton pregnancy after 10 weeks in gestation. The usefulness of iGeneScreen™ as not been established in mosaicism, mothers with chromosomal aneuploidies, chimera, chromosome microdeletion, microduplication and in mothers who have had received allogeneic blood transfusion, transplantation or stem cell therapy. The presence of aberrant or exogenous DNA would affect the iGeneScreen™ result.

How does iGeneScreenCares™ work?

In the event your patient’s result returns a SCREEN-POSITIVE for any of the trisomies tested, iGeneScreen™ will reimburse your patient the cost of further confirmatory diagnostic tests including amniocentesis, CVS or karyotyping analysis. The reimbursement will be up to a maximum of USD$400.

What are the chances that the test will yield an indeterminate result?

There is a 3% chance of a repeat blood sampling. This will be determined as part of the Quality Control (QC) step at the start of the process. The repeat sampling could be due to a number of reasons, such as damage to blood sample or insufficient fetal DNA. The patient needs only pay for the transport charges in shipping the second sample. The turn-around time will be an additional 5 working days to account for the shipping of the second sample. The iGeneScreen™ cost is incurred only when the sample begins the MPS cycle.

FAQs:

1. If my patient tests negative for iGeneScreen™, what can I tell my patient?
   SCREEN NEGATIVE result suggests low risk for the tested trisomies.

2. If my patient tests positive for iGeneScreen™ and wishes to terminate the pregnancy can I advise her to do so on the basis of the iGeneScreen™ test?
   Although all research to date suggests that this test is highly accurate, with a Detection Rate (DR) of fetal trisomy 21, 18 and 13 of >99% and a false positive rate (FPR) of <1%\(^1,2\), this test is not diagnostic. A SCREEN-POSITIVE result, even on a highly efficient screening test such as iGeneScreen™, requires confirmation by amniocentesis and karyotyping.

3. How does iGeneScreenCares™ work?
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5. Do we need informed consent?
   It is generally regarded that all pregnant women should be made aware of all available screening tests for fetal aneuploidies. Informed choice will determine which pregnant couple would choose which test, if any. Patients need to sign the INFORMED CONSENT, which states the accuracy and limitations of iGeneScreen™.

6. How many tests have been performed to date, and what are the demographics?
   iGeneScreen™ has been tested on an actual prenatal screening population, with patients mostly from China and Asia Pacific. As of May 2014, more than 260,000 tests have been performed worldwide.

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Relevant resources: