

News release

March 17, 2021

## Safer screening test for Down's syndrome recommended for twin pregnancies

A study involving more than 1,000 women pregnant with twins has shown the Non-Invasive Prenatal Testing (NIPT) to be effective and safe in detecting Down's syndrome.

The test is already widely used in singleton pregnancies, with high detection and low false positive rates for three chromosomal differences conditions – Down's syndrome, Edward's syndrome and Patau's syndrome.

Researchers at the Twins Trust Centre for Research and Clinical Excellence at St George's Hospital in London, thought there was potential for NIPT to be useful in twin pregnancies, as it may reduce the need for invasive testing which carries the risk of losing one or more babies.

This research study, which took place in six fetal medicine centres, evaluated whether the IONA test, a form of NIPT using a blood test taken from the mother, could accurately detect these three chromosomal conditions.

For Down's syndrome, this test was shown to be the most accurate and effective screening test available in twins. It may be slightly less accurate for the other two conditions and therefore not recommended.

The study recommends that the IONA test should be the primary test offered for Down's syndrome screening in twins.

Professor Asma Khalil who led the research team said: "We know that non-invasive prenatal testing (NIPT) is the most accurate screening test in twin, as the case in singleton, pregnancies. The potential advantages of NIPT in twin pregnancies are even greater than in singletons, in particular lower need for invasive testing and consequent fetal loss rate of the other healthy twin.

"However, several organisations do not recommend this test in twin pregnancies and called for larger prospective studies which we have now successfully completed. To have published a multicentre study during the current pandemic – and in the number one journal for our specialty – is a real achievement for everyone involved."

Keith Reed, CEO of Twin Trust: “This is an important study with a clear recommendation.

“For this to take place during the Covid pandemic is testament to Asma and her team and demonstrates the importance fellow clinicians placed on the research.

“National and international organisations should now consider updating their guidelines on the implementation of NIPT in twin pregnancies and twin parents should be made aware of the test as and when necessary.”

### **Notes to Journalists**

The full article has been published in the American Journal of Obstetrics and Gynaecology. Non-invasive Pre-natal Screening in Twin Pregnancies with cell-free DNA using the IONA Test: a prospective multicentre study [https://www.ajog.org/article/S0002-9378\(21\)00028-4/fulltext](https://www.ajog.org/article/S0002-9378(21)00028-4/fulltext) (Jan 2021)

Participants in the study were recruited before the Covid-19 outbreak started, while the analysis of data and writing of the paper was carried out during the pandemic.

Please get in touch with Twins Trust if you would like an image showing NIPT in twins compared to singletons or any other images.

### **About Twins Trust**

For further information on multiple births please contact Alyson Chorley [alysonchorley@twinstrust.org](mailto:alysonchorley@twinstrust.org) or [pressoffice@twinstrust.org](mailto:pressoffice@twinstrust.org) call 01252 332344 / 07791 383494.

Twins Trust is the only UK-wide charity dedicated to improving the lives and wellbeing of families with twins, triplets or more. Representing 20,000 members and 100 local clubs in the UK, Twins Trust provides help and support to both parents and professionals to meet the unique challenges faced by multiple birth families. We invest in research to save lives, change lives and create better futures for multiple birth families. We also run a unique quality improvement project at Maternity Units to encourage and help with adherence to NICE QS46.

For further information, please visit [www.twinstrust.org](http://www.twinstrust.org)

1. Follow us on: Twitter/Facebook/Insta @twinstrust
2. For confidential and emotional support for families with multiples, please call Twinline which is staffed by trained volunteers that are parents of multiples and can offer support on sleeping, feeding, crying, behaviour, discipline, school issues or special needs. It is free to call on 0800 138 0509 and is open Monday to Friday from 10am–1pm and from 7pm–10pm

### **About St George's**

St George's University Hospitals NHS Foundation Trust is the largest healthcare provider, major teaching hospital and tertiary centre for south west London, Surrey and beyond – and one of the largest healthcare providers in the UK – serving a population of 3.5 million.

Its main site, St George's Hospital – one of the country's principal teaching hospitals – is shared with St George's, University of London, which trains medical students and carries out advanced medical research.

St George's is one of 11 adult and children major trauma centres in the UK, one of eight hyper acute stroke units and one of the biggest and busiest of the eight heart attack centres in London.

It is also an accredited centre of excellence for trauma, neurology, cardiology, cancer and blood pressure services and is the national centre for family HIV care and bone marrow transplantation for non-cancer diseases.