# Multiplex ligation-dependent probe amplification And Karyotyping: an Evaluation

Submission date	Recruitment status	[X] Prospectively registered		
22/01/2007	No longer recruiting  Overall study status	[X] Protocol		
Registration date		Statistical analysis plan		
22/01/2007	Completed  Condition category	Results		
Last Edited		[] Individual participant data		
03/06/2008	Other	Record updated in last year		

### Plain English summary of protocol

Not provided at time of registration

#### Study website

http://www.makestudy.nl

## Contact information

## Type(s)

Scientific

#### Contact name

Ms Elisabeth Boormans

#### Contact details

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## Additional identifiers

**EudraCT/CTIS** number

IRAS number

ClinicalTrials.gov number

## Secondary identifying numbers

80-007029-98-07-047

# Study information

#### Scientific Title

#### Acronym

**MAKE** 

#### Study objectives

The present study will evaluate the hypothesised equivalent pre-clinical diagnostic accuracy of Multiplex Ligation-dependent Probe Amplification (MLPA) compared to karyotyping in a clinical setting.

## Ethics approval required

Old ethics approval format

#### Ethics approval(s)

Approval received from the local ethics committee (Medisch Ethische Toetsings Commissie) on the 21st August 2006 (ref: WO 06.032).

#### Study design

Prospective study of two paired diagnostic tests.

## Primary study design

Interventional

## Secondary study design

Multi-centre

## Study setting(s)

Not specified

## Study type(s)

Diagnostic

## Participant information sheet

## Health condition(s) or problem(s) studied

Trisomy 13, Trisomy 21, Fetal aneuploidies, Trisomy 18, Sex chromosome abnormalities

#### **Interventions**

In each patient, amniotic fluid is assessed with MLPA (experimental diagnostic test) and Karyotyping (gold standard).

#### MPLA:

MLPA is a molecular genetic technique in prenatal diagnosis using amniotic fluid. In this study a commercially available kit, P095 is used (produced by MRC Holland and widely tested).

The MLPA-result is known in two to four days. To perform MLPA 2 - 4 ml of amniotic fluid is required. Such an amount is available since routinely 15 - 20 ml of amniotic fluid is obtained.

If there is too little amniotic fluid (less than 12 ml), MLPA will not be carried out in the study.

#### Karyotyping:

Karyotyping is carried out without any changes. The result is known in two to three weeks.

#### Intervention Type

Other

#### **Phase**

**Not Specified** 

#### Primary outcome measure

- 1. Diagnostic accuracy
- 2. Technical performance (inconclusive or missing results)
- 3. Technical capacity

#### Secondary outcome measures

- 1. Patient anxiety and distress
- 2. Cost-effectiveness
- 3. Unexpected findings
- 4. Patient preference

## Overall study start date

01/02/2007

#### Completion date

01/01/2009

## **Eligibility**

#### Key inclusion criteria

- 1. Amniocentesis is performed
- 2. The referral indication is advanced maternal age and/or increased risk after PreNatal Screening (PNS)
- 3. Aged more than or equal to 18 years
- 4. No language barriers
- 5. Informed consent is given
- 6. Singleton pregnancies

#### Participant type(s)

**Patient** 

#### Age group

Adult

#### Lower age limit

18 Years

#### Sex

**Not Specified** 

## Target number of participants

4500 paired MLPA-Karyotyping test results

#### Key exclusion criteria

Other referral indications:

- 1. Parent(s) with chromosome aberration
- 2. Ultrasound abnormalities
- 3. Previous child with chromosome aberration

#### Date of first enrolment

01/02/2007

#### Date of final enrolment

01/01/2009

## Locations

#### Countries of recruitment

Netherlands

# Study participating centre Onze Lieve Vrouwe Gasthuis (OLVG)

Amsterdam Netherlands 1090 HM

# Sponsor information

#### Organisation

Onze Lieve Vrouwe Gasthuis (OLVG) (The Netherlands)

## Sponsor details

Department of Obstetrics and Gynaecology P.O. Box 95500 Amsterdam Netherlands 1090 HM

#### Sponsor type

Hospital/treatment centre

#### Website

http://www.olvg.nl/

#### **ROR**

https://ror.org/01d02sf11

# Funder(s)

## Funder type

Research organisation

#### **Funder Name**

Netherlands Organisation for Health Research and Development (ZonMw) (The Netherlands)

#### Alternative Name(s)

Netherlands Organisation for Health Research and Development

#### **Funding Body Type**

Private sector organisation

## **Funding Body Subtype**

Other non-profit organizations

#### Location

Netherlands

## **Results and Publications**

## Publication and dissemination plan

Not provided at time of registration

## Intention to publish date

Individual participant data (IPD) sharing plan

## IPD sharing plan summary

Not provided at time of registration

## **Study outputs**

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Protocol article	Protocol	20/05/2008		Yes	No