# Prospective UK collaborative study of growth promoting treatment in Turner syndrome

Submission date Recruitment status Prospectively registered 02/06/2010 No longer recruiting [ ] Protocol [ ] Statistical analysis plan Registration date Overall study status 08/07/2010 Completed [X] Results Individual participant data **Last Edited** Condition category 30/06/2011 Other

# Plain English summary of protocol

Not provided at time of registration

# **Contact information**

## Type(s)

Scientific

#### Contact name

Dr Malcolm DC Donaldson

#### Contact details

University of Glasgow Department of Child Health Royal Hospital for Sick Children Yorkhill Glasgow United Kingdom G3 8SJ

# Additional identifiers

**EudraCT/CTIS** number

IRAS number

ClinicalTrials.gov number

# Secondary identifying numbers

Sponsor reference number: 99/CH/02

# Study information

#### Scientific Title

Prospective UK collaborative study of growth promoting treatment in Turner syndrome; impact of a consistent dose of growth hormone therapy and benefit of combination treatment with oxandrolone, and early or late oestrogen induction in a group of girls with Turner syndrome

#### Acronym

**UK Turner Study** 

# Study objectives

In a group of girls with Turner syndrome receiving a standard dose of growth hormone therapy, what is the impact on final height of:

- 1. Adjunctive treatment with the anabolic steroid, oxandrolone, from 9 years of age and
- 2. The introduction of oestrogen therapy for pubertal induction at 12 versus 14 years of age?

#### Ethics approval required

Old ethics approval format

#### Ethics approval(s)

Scotland A Research Ethics Committee (formerly Multi-Centre Research Ethics Committee for Scotland) approved on the 25th of February 1999 (ref: 98/0/092)

#### Study design

Multicentre randomised double blind placebo controlled trial

#### Primary study design

Interventional

#### Secondary study design

Randomised controlled trial

#### Study setting(s)

Hospital

## Study type(s)

Treatment

# Participant information sheet

Contact Emma-Jane Gault [EJ.Gault@clinmed.gla.ac.uk] (study research associate) for patient information (recruitment closed)

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

Turner syndrome, which can be defined as the loss or abnormality of the second X chromosome in a phenotypic female

#### **Interventions**

Girls with Turner syndrome receiving a standard dose of growth hormone therapy are randomised to receive oxandrolone (0.05mg/kg/day; max. dose 2.5mg/day) or placebo from 9 years until final height. Participants are further randomised at 12 years of age to either begin pubertal induction (Ethinylestradiol Yr 1: 2mcg daily/Yr 2: 4mcg daily/Yr 3: 4 months each of 6, 8, 10 mcg daily) or to receive placebo for 2 years and begin pubertal induction (as above) at 14

#### years of age.

Participants are followed up until final height is attained.

Joint sponsor details:
University of Glasgow
Contact:
Paul G Ellis
Senior Contracts Manager
Research & Enterprise
University of Glasgow
10 The Square
Glasgow

#### Intervention Type

Other

G12 8QQ

#### Phase

**Not Specified** 

#### Primary outcome measure

Final adult height (cm), defined as height velocity <1 cm/year and bone age  $\leq$ 15.5 years.

#### Secondary outcome measures

- 1. Maximum height, i.e. the most recently available height
- 2. Age of attaining final height
- 3. Three summary growth parameters (size, tempo, velocity)

# Overall study start date

24/11/1999

#### Completion date

31/12/2011

# **Eligibility**

#### Key inclusion criteria

- 1. Girls with Turner syndrome, confirmed by karyotype
- 2. Age 7 13 years
- 3. Naive to growth hormone therapy or previous treatment within specified range (8.3-11.7mg/m2/week in 5-7 injections per week)
- 4. Naive to oxandrolone or oestrogen therapy
- 5. Open epiphyses
- 6. Free from major systemic illness likely to impact growth

#### Participant type(s)

Patient

#### Age group

Child

## Lower age limit

7 Years

## Upper age limit

13 Years

#### Sex

Female

# Target number of participants

100

#### Key exclusion criteria

- 1. Age 0 6 years or 14+ years
- 2. Fused epiphyses
- 3. Chronic illness likely to impact growth
- 4. Social or psychological difficulties thought likely to result in serious impairment of concordance

#### Date of first enrolment

24/11/1999

#### Date of final enrolment

31/12/2011

# Locations

#### Countries of recruitment

Scotland

**United Kingdom** 

# Study participating centre University of Glasgow Department of Child Health

Glasgow United Kingdom G3 8SJ

# Sponsor information

#### Organisation

NHS Greater Glasgow & Clyde (UK)

# Sponsor details

Research and Development Central Office NHS Greater Glasgow and Clyde Western Infirmary 38 Church Street Glasgow United Kingdom G11 6NT

## Sponsor type

Government

#### **ROR**

https://ror.org/05kdz4d87

# Funder(s)

#### Funder type

Charity

#### Funder Name

1999 to 2004: Scottish Executive Chief Scientist Office (UK) (Ref. K/MRS/50/C2713)

#### **Funder Name**

2004 to present: British Society for Paediatric Endocrinology and Diabetes (UK)

# **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?
Results article	results	14/04/2011		Yes	No