Clinical trial results:
A pilot study of Concerta XL in adult offenders with ADHD

Summary

EudraCT number	2012-000517-37
Trial protocol	GB
Global end of trial date	23 February 2015

Results information

Result version number	v1 (current)
This version publication date	08 November 2018
First version publication date	08 November 2018
Summary attachment (see zip file)	FINAL STUDY REPORT (ADHD CIAO final report 28.2.2016.3.pdf)

Trial information

Trial identification

Sponsor protocol code	CIAO

Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	-
WHO universal trial number (UTN)	-

Notes:

Sponsors

Sponsor organisation name	King's College London
Sponsor organisation address	The Strand, London, United Kingdom, WC2R 2LS
Public contact	Professor Philip Asherson, King's College London, 44 02078480078, philip.asherson@kcl.ac.uk
Scientific contact	Professor Philip Asherson, King's College London, 44 02078480078, philip.asherson@kcl.ac.uk
Sponsor organisation name	South London & Maudsley NHS Foundation Trust
Sponsor organisation address	Bethlem Royal Hospital, Monks Orchard Road, Beckenham, United Kingdom, BR3 3BX
Public contact	Professor Philip Asherson, King's College London, 44 0207848 0078, philip.asherson@kcl.ac.uk
Scientific contact	Professor Philip Asherson, King's College London, 44 0207848 0078, philip.asherson@kcl.ac.uk

Notes:

Paediatric regulatory details

Is trial part of an agreed paediatric investigation plan (PIP)	No
Does article 45 of REGULATION (EC) No 1901/2006 apply to this trial?	No
Does article 46 of REGULATION (EC) No 1901/2006 apply to this trial?	No

Notes:

Results analysis stage

Analysis stage	Final
Date of interim/final analysis	23 February 2015
Is this the analysis of the primary completion data?	Yes
Primary completion date	23 February 2015
Global end of trial reached?	Yes
Global end of trial date	23 February 2015
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

The main question is to evaluate the effectiveness of a standard treatment for ADHD on behavioural problems, that are associated with ADHD in young male prisoners. The primary question is whether there is a decrease in aggressive behaviour following treatment of ADHD in a prison setting. Aggression is one of the main problem behaviours within the prison and previous research has shown the strong link between ADHD and aggression within adult prison populations.

Protection of trial subjects:

Safety remained the responsibility of the prison mental healthcare team. Adverse events of any medical or non-medical intervention identified or recorded by the research team will immediately be informed to 1) the clinical team, and 2) the clinical lead for the project.
Participants were aware that should they wish to withdraw from the study they may do so. Participants who become upset or distressed by the questions in the research (this is unlikely as the questions are similar to those asked regularly in the context of their clinical care) will be offered support by the researchers and by the prison mental health team.

Background therapy:

none

Evidence for comparator: -

Actual start date of recruitment	28 February 2013
Long term follow-up planned	No
Independent data monitoring committee (IDMC) involvement?	No

Notes:

Population of trial subjects

Subjects enrolled per country

Country: Number of subjects enrolled	United Kingdom: 121
Worldwide total number of subjects	121
EEA total number of subjects	121

Notes:

Subjects enrolled per age group

In utero	0
Preterm newborn - gestational age < 37 wk	0

Newborns (0-27 days)	0
Infants and toddlers (28 days-23 months)	0
Children (2-11 years)	0
Adolescents (12-17 years)	0
Adults (18-64 years)	121
From 65 to 84 years	0
85 years and over	0

Subject disposition

Recruitment

Recruitment details:

The trial took place at HMP YOI Isis, relatively new prison which opened in 2010 &holds sentenced young male adults and category C offenders. There are two house blocks with mixed single and double cells and the operational capacity was measured at 480 in August 2010.

Pre-assignment

Screening details:

Screening questionnaire data collected by the prison mental health team will be used to identify those who screen positive for ADHD. Patients who screen positive will be invited to take part in the clinical trial if they meet diagnostic criteria for ADHD following a research diagnostic interview and clinical review by the prison mental health team

Period 1

Period 1 title	Overall Trial (overall period)
Is this the baseline period?	Yes
Allocation method	Not applicable
Blinding used	Not blinded

Blinding implementation details:

A 12-week open label pilot study of Concerta XL with dose-escalation to a maximum of 90 mg. Following the initial 12-week trial there will be an open label extension with further titration to an optimal dose for each individual participant, for a period of 6-months.

Arms

Arm title	Full study

Arm description:

All participants up to 12 week endpoint

Arm type	Experimental
Investigational medicinal product name	Concerta XL
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Prolonged-release tablet
Routes of administration	Oral use

Dosage and administration details:

A 12-week open label pilot study of Concerta XL with dose-escalation to a maximum of 90 mg.

Number of subjects in period 1	Full study
Started	121
Completed	72
Not completed	49
Physician decision	4
Consent withdrawn by subject	9
Adverse event, non-fatal	18
Moved to another prison or released early.	18

Baseline characteristics

Reporting groups	
Reporting group title	Overall Trial
Reporting group description: Until 12 weeks post dose.	

Reporting group values	Overall Trial	Total	
Number of subjects	121	121	
Age categorical Units: Subjects			
In utero	0	0	
Preterm newborn infants (gestational age < 37 wks)	0	0	
Newborns (0-27 days)	0	0	
Infants and toddlers (28 days-23 months)	0	0	
Children (2-11 years)	0	0	
Adolescents (12-17 years)	0	0	
From 65-84 years	0	0	
85 years and over	0	0	
Aged 18 to 30 years	121	121	
Gender categorical Units: Subjects			
Female	0	0	
Male	121	121	

End points

End points reporting groups

Reporting group title	Full study

Reporting group description:

All participants up to 12 week endpoint

Primary: Primary Outcome

End point title	Primary Outcome[1]

End point description:

The primary outcome was the total number of adjudications reported by prison officers in the electronic prison records.

End point type	Primary

End point timeframe:

0 to 12 weeks dosing.

Notes:

[1] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: Please see attached report for full results and trial outcomes, including full list of adverse events

End point values	Full study			
Subject group type	Reporting group			
Number of subjects analysed	72			
Units: whole	72			

Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information	
Timeframe for reporting adverse events: Until 36 weeks post initial dose.	
Assessment type	Systematic

Dictionary used	
Dictionary name	MedDRA
Dictionary version	17.1

Reporting groups	
Reporting group title	Whole Trial

Reporting group description: -

Serious adverse events	Whole Trial		
Total subjects affected by serious adverse events			
subjects affected / exposed	0 / 121 (0.00%)		
number of deaths (all causes)	0		
number of deaths resulting from adverse events	0		

Frequency threshold for reporting non-serious adverse events: 0 %

Non-serious adverse events	Whole Trial		
Total subjects affected by non-serious adverse events			
subjects affected / exposed	78 / 121 (64.46%)		
Neoplasms benign, malignant and unspecified (incl cysts and polyps)			
Lump in left testicle			
subjects affected / exposed	1 / 121 (0.83%)		
occurrences (all)	1		
Lump on genitals			
subjects affected / exposed	1 / 121 (0.83%)		
occurrences (all)	1		
Lumps on throat getting bigger			
subjects affected / exposed	1 / 121 (0.83%)		
occurrences (all)	1		
Cyst in mouth			

subjects affected / exposed	1 / 121 (0.83%)		
occurrences (all)	1		
cut lip from play fighting			
subjects affected / exposed	1 / 121 (0.83%)		
occurrences (all)	1		
Surgical and medical procedures			
Inguinal hernia			
subjects affected / exposed	1 / 121 (0.83%)		
occurrences (all)	1		
General disorders and administration site conditions			
Headache			
subjects affected / exposed	58 / 121 (47.93%)		
occurrences (all)	58		
Sore Throat			
subjects affected / exposed	7 / 121 (5.79%)		
occurrences (all)	7		
Sore Lips			
subjects affected / exposed	2 / 121 (1.65%)		
occurrences (all)	2		
Mouth Ulcer			
subjects affected / exposed	1 / 121 (0.83%)		
occurrences (all)	1		
Moles and Dry Skin			
subjects affected / exposed	1 / 121 (0.83%)		
occurrences (all)	1		
Muscle pain			
subjects affected / exposed	1 / 121 (0.83%)		
occurrences (all)	1		
neck pain post exercise			
subjects affected / exposed	1 / 121 (0.83%)		
occurrences (all)	1		
Nose bleed			
subjects affected / exposed	1 / 121 (0.83%)		
occurrences (all)	1		
Pain in mouth due to small spot			

subjects affected / exposed	1 / 121 (0.83%)		
occurrences (all)	1		
Scratches on arm			
subjects affected / exposed	1 / 121 (0.83%)		
occurrences (all)	1		
Cough			
subjects affected / exposed	6 / 121 (4.96%)		
occurrences (all)	6		
Dizziness			
subjects affected / exposed	2 / 121 (1.65%)		
occurrences (all)	2		
Dry and cracked lips			
subjects affected / exposed	1 / 121 (0.83%)		
occurrences (all)	1		
Feeling unwell			
subjects affected / exposed	1 / 121 (0.83%)		
occurrences (all)	1		
Gum pain			
subjects affected / exposed	1 / 121 (0.83%)		
occurrences (all)	1		
Social circumstances			
Fighting			
subjects affected / exposed	5 / 121 (4.13%)		
occurrences (all)	6		
Verbally abusive			
subjects affected / exposed	1 / 121 (0.83%)		
occurrences (all)	1		
Reproductive system and breast disorders			
Diagnosed HSV in sexual health clinic			
subjects affected / exposed	1 / 121 (0.83%)		
occurrences (all)	1		
Pain in testicles			
subjects affected / exposed	2 / 121 (1.65%)		
occurrences (all)	2		
Genital warts			

subjects affected / exposed	1 / 121 (0.83%)		
occurrences (all)	1		
Respiratory, thoracic and mediastinal disorders			
Difficulty breathing & pain in nostril			
subjects affected / exposed	1 / 121 (0.83%)		
occurrences (all)	1		
Right side of face intermittent swelling			
subjects affected / exposed	1 / 121 (0.83%)		
occurrences (all)	2		
Psychiatric disorders			
Risk of self harm			
subjects affected / exposed	3 / 121 (2.48%)		
occurrences (all)	5		
Self harmed			
subjects affected / exposed	5 / 121 (4.13%)		
occurrences (all)	10		
Agitation			
subjects affected / exposed	2 / 121 (1.65%)		
occurrences (all)	3		
Appetite loss			
subjects affected / exposed	4 / 121 (3.31%)		
occurrences (all)	4		
Insomnia			
subjects affected / exposed	4 / 121 (3.31%)		
occurrences (all)	8		
Low mood			
subjects affected / exposed	1 / 121 (0.83%)		
occurrences (all)	1		
Hearing voices			
subjects affected / exposed	2 / 121 (1.65%)		
occurrences (all)	3		
Twitching hands			
subjects affected / exposed	2 / 121 (1.65%)		
occurrences (all)	2		
Paranoia			

subjects affected / exposed	1 / 121 (0.83%)		
occurrences (all)	1		
Segregation			
subjects affected / exposed	1 / 121 (0.83%)		
occurrences (all)	1		
Twitching			
subjects affected / exposed	1 / 121 (0.83%)		
occurrences (all)	2		
Injury, poisoning and procedural complications			
Pain in jaw after falling out of bed			
subjects affected / exposed	1 / 121 (0.83%)		
occurrences (all)	1		
Eye disorders			
Unspecified eye problem			
subjects affected / exposed	1 / 121 (0.83%)		
occurrences (all)	1		
Skin and subcutaneous tissue disorders			
Dry Skin			
subjects affected / exposed	6 / 121 (4.96%)		
occurrences (all)	8		
Eczema			
subjects affected / exposed	2 / 121 (1.65%)		
occurrences (all)	2		
Fungal infection			
subjects affected / exposed	3 / 121 (2.48%)		
occurrences (all)	3		
Spots on back			
subjects affected / exposed	1 / 121 (0.83%)		
occurrences (all)	1		
visible scars from acne			
subjects affected / exposed	1 / 121 (0.83%)		
occurrences (all)	1		
Pityriasis simplex			
subjects affected / exposed	1 / 121 (0.83%)		
occurrences (all)	1		
Rash			

subjects affected / exposed	2 / 121 (1.65%)		
occurrences (all)	2		
Swollen Upper lip			
subjects affected / exposed	1 / 121 (0.83%)		
occurrences (all)	1		
Poor appetite			
subjects affected / exposed	1 / 121 (0.83%)		
occurrences (all)	1		
Renal and urinary disorders			
Constipation			
subjects affected / exposed	3 / 121 (2.48%)		
occurrences (all)	7		
Musculoskeletal and connective tissue disorders			
Pain			
subjects affected / exposed	3 / 121 (2.48%)		
occurrences (all)	3		
Chest pain			
subjects affected / exposed	2 / 121 (1.65%)		
occurrences (all)	2		
Leg pain			
subjects affected / exposed	5 / 121 (4.13%)		
occurrences (all)	5		
Foot pain			
subjects affected / exposed	1 / 121 (0.83%)		
occurrences (all)	1		
Knee Pain			
subjects affected / exposed	2 / 121 (1.65%)		
occurrences (all)	2		
Finger pain			
subjects affected / exposed	1 / 121 (0.83%)		
occurrences (all)	1		
Nausea			
subjects affected / exposed	1 / 121 (0.83%)		
occurrences (all)	1		
Pain in Shoulder			

subjects affected / exposed	3 / 121 (2.48%)		
occurrences (all)	3		
Pain in sternum from fighting			
subjects affected / exposed	1 / 121 (0.83%)		
occurrences (all)	1		
Pain and swelling from fighting			
subjects affected / exposed	1 / 121 (0.83%)		
occurrences (all)	1		
Rib pain			
subjects affected / exposed	1 / 121 (0.83%)		
occurrences (all)	1		
Sore thumb			
subjects affected / exposed	1 / 121 (0.83%)		
occurrences (all)	1		
Sore knuckle			
subjects affected / exposed	1 / 121 (0.83%)		
occurrences (all)	1		
Swollen ankle			
subjects affected / exposed	1 / 121 (0.83%)		
occurrences (all)	1		
Infections and infestations			
Chest Infection			
subjects affected / exposed	1 / 121 (0.83%)		
occurrences (all)	1		
Cold symptoms			
subjects affected / exposed	20 / 121 (16.53%)		
occurrences (all)	20		
Cold sore			
subjects affected / exposed	1 / 121 (0.83%)		
occurrences (all)	1		
Flu symptoms			
subjects affected / exposed	2 / 121 (1.65%)		
occurrences (all)	2		
Tonsillitis			
subjects affected / exposed	1 / 121 (0.83%)		
occurrences (all)	1		

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

Date	Amendment
24 July 2013	The change relates to the secondary outcome that includes an additional brief report from Education and prison staff on participants' behaviour in class and social time in the prison.
19 February 2014	The changes relate to the screening process that will enable the team to have a control group to compare the data already collected. There will be changes in the inclusion and exclusion criteria for the study as well to include the control group in the trial.

Notes:

Interruptions (globally)

Were there any global interruptions to the trial? No

Limitations and caveats

None reported

Online references

http://www.ncbi.nlm.nih.gov/pubmed/30180832