Clinical trial results:
A non-blinded randomised trial on the effect of metformin vs. metformin and oral contraceptives vs. oral contraceptives on glucosetolerance, insulin resistance, growth hormone and cortisol metabolism in polycystic ovary syndrome

Summary

EudraCT number	2006-004763-57
Trial protocol	DK
Global end of trial date	01 September 2013

Results information

Result version number	v1 (current)
This version publication date	22 November 2020
First version publication date	22 November 2020

Trial information

Trial identification

Sponsor protocol code	PCOS, metformin og p-piller 2006.

Additional study identifiers

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

Notes:

Sponsors

Sponsor organisation name	Odense University Hospital
Sponsor organisation address	kløvervænget 6, Odense, Denmark, 5000
Public contact	Department of endocrinology, Odense University Hospital, department of endocrinology, 0045 65412502,
Scientific contact	Marianne Andersen, Odense University Hospital, department of endocrinology, 0045 65412502, msa@rsyd.dk

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	29 October 2020
Is this the analysis of the primary completion data?	Yes
Primary completion date	01 September 2013
Global end of trial reached?	Yes
Global end of trial date	01 September 2013
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

To compare the effects of oral contraceptives vs. metformin vs. metformin and oral contraceptives in patients with polycystic ovary syndrome on two points:

Insulin resistance
Glucose tolerance

Protection of trial subjects:

regional data monitoring comitee + ethical comitee + GCP unit

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	12 October 2007
Long term follow-up planned	No
Independent data monitoring committee (IDMC) involvement?	Yes

Notes:

Population of trial subjects

Subjects enrolled per country

Country: Number of subjects enrolled	Denmark: 90
Worldwide total number of subjects	90
EEA total number of subjects	90

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)	90
From 65 to 84 years	0
85 years and over	0

Subject disposition

Recruitment

Recruitment details:

90 women aged 18-39 years fulfilling the Rotterdam criteria for PCOS were included in the study

Pre-assignment

Screening details:

90 women aged 18-39 years fulfilling the Rotterdam criteria for PCOS were included in the study

Period 1

Period 1 title	overall trial (overall period)
Is this the baseline period?	Yes
Allocation method	Randomised - controlled
Blinding used	Not blinded

Arms

Are arms mutually exclusive?	Yes
Arm title	Meformin

Arm description:

metformin

Arm type	Active comparator
Investigational medicinal product name	Metformin
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Tablet
Routes of administration	Oral use

Dosage and administration details:

1 g x 2

Arm title	oral contaceptive

Arm description:

oral contraceptive

Arm type	Active comparator
Investigational medicinal product name	Oral contraceptive
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Tablet
Routes of administration	Oral use

Dosage and administration details:

21 active/ 7 day pause

Arm title	Metformin and Oral contraceptive

Arm description:

Metformin and Oral contraceptive

Arm type	Active comparator
Investigational medicinal product name	Metformin
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Tablet
Routes of administration	Oral use

Dosage and administration details:

1 g x 2

Investigational medicinal product name	Oral contraceptive
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Tablet
Routes of administration	Oral use

Dosage and administration details:

21 day active/7 days pause

Number of subjects in period 1	Meformin	oral contaceptive	Metformin and Oral contraceptive
Started	30	30	30
baseline	30	23	30
12 months	19	23	23
Completed	19	23	23
Not completed	11	7	7
Lost to follow-up	11	7	7

Baseline characteristics

End points

End points reporting groups	
Reporting group title	Meformin
Reporting group description: metformin	
Reporting group title	oral contaceptive
Reporting group description: oral contraceptive	
Reporting group title	Metformin and Oral contraceptive
Reporting group description: Metformin and Oral contraceptive	

Primary: weight	
End point title	weight
End point description:	
End point type	Primary
End point timeframe: 12 months	

End point values	Meformin	oral contaceptive	Metformin and Oral contraceptive	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	19	23	23	
Units: kg				
median (inter-quartile range (Q1-Q3))	-3 (-10.3 to 0.6)	1.2 (-0.8 to 3.0)	-1.9 (-4.9 to 0.1)	

Statistical analyses

Statistical analysis title	Statistical analysis
Comparison groups	Meformin v oral contaceptive v Metformin and Oral contraceptive
Number of subjects included in analysis	65
Analysis specification	Pre-specified
Analysis type	superiority
P-value	< 0.05
Method	Regression, Linear
Parameter estimate	Mean difference (final values)

Adverse events

Adverse events information	
Timeframe for reporting adverse events: 12 months	
Assessment type	Systematic
Dictionary used	
Dictionary name	MedDRA
Dictionary version	1
Reporting groups	
Reporting group title	Metformin
Reporting group description: -	
Reporting group title	Metformin + oc
Reporting group description: -	
Reporting group title	oral contraceptive
Reporting group description: -	

Serious adverse events	Metformin	Metformin + oc	oral contraceptive
Total subjects affected by serious adverse events			
subjects affected / exposed	0 / 30 (0.00%)	0 / 30 (0.00%)	0 / 30 (0.00%)
number of deaths (all causes)	0	0	0
number of deaths resulting from adverse events			

Frequency threshold for reporting non-serious adverse events: 5 %

Non-serious adverse events	Metformin	Metformin + oc	oral contraceptive
Total subjects affected by non-serious adverse events			
subjects affected / exposed	1 / 30 (3.33%)	3 / 30 (10.00%)	3 / 30 (10.00%)
Gastrointestinal disorders			
nausea			
subjects affected / exposed	1 / 30 (3.33%)	3 / 30 (10.00%)	3 / 30 (10.00%)
occurrences (all)	1	3	3

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? No

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/33112812

http://www.ncbi.nlm.nih.gov/pubmed/29658344

http://www.ncbi.nlm.nih.gov/pubmed/28834135

http://www.ncbi.nlm.nih.gov/pubmed/28432082

http://www.ncbi.nlm.nih.gov/pubmed/26194691

http://www.ncbi.nlm.nih.gov/pubmed/24906976

http://www.ncbi.nlm.nih.gov/pubmed/24742124