Clinical trial results:
Efficacy of Dehydroepiandrosterone to overcome the effect of ovarian aging

Summary

EudraCT number	2011-002425-21
Trial protocol	GB
Global end of trial date	04 January 2016

Results information

Result version number	v1 (current)
This version publication date	01 March 2019
First version publication date	01 March 2019

Trial information

Trial identification

Sponsor protocol code	11054

Additional study identifiers

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

Notes:

Sponsors

Sponsor organisation name	University of Nottingham
Sponsor organisation address	University Park, Nottingham, United Kingdom, NG7 2UH
Public contact	Bruce Campbell, University of Nottingham, 0044 01158230688, bruce.campbell@nottingham.ac.uk
Scientific contact	Bruce Campbell, University of Nottingham, 0044 01158230688, bruce.campbell@nottingham.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	04 January 2016
Is this the analysis of the primary completion data?	Yes
Primary completion date	09 November 2015
Global end of trial reached?	Yes
Global end of trial date	04 January 2016
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

• To examine whether supplementation of DHEA for at least twelve weeks prior to and during ovarian stimulation increases the number of oocytes retrieved and the clinical pregnancy rates following IVF/ICSI treatment. • To evaluate the feasibility of conducting a large multicentre randomised controlled trial of DHEA versus Placebo in women affected with ovarian ageing undergoing IVF/ICSI treatment.

Protection of trial subjects:

Participants were encouraged to report if any side-effects/ issues related to trial medications. They were given relevant contact details.

Background therapy:

IVF treatment

Evidence for comparator:

Placebo with inactive ingredients used

Actual start date of recruitment	01 May 2012
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: 60
Worldwide total number of subjects	60
EEA total number of subjects	60

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)	60

From 65 to 84 years	0
85 years and over	0

Subject disposition

Recruitment

Recruitment details:

Age stratified randomisation was performed by computer-based random permuted block randomisation, created by the University of Nottingham Clinical Trials Unit (CTU). They were randomised to receive either capsules of 75 mg DHEA or placebo taken orally once daily for at least 12 weeks before and during controlled ovarian stimulation until the day be

Pre-assignment

Screening details:

Women aged more than 23 years, who were predicted to have diminished ovarian reserved determined by antral follicle count scan less than 10 and/or serum Anti-Mullerian hormone less than 5 pmol/L undertaking either IVF or ICSI treatment at the clinic, were asked to participate in the study at the time of their initial consultation. Patients had to h

Period 1

Period 1 title	Baseline period (overall period)
Is this the baseline period?	Yes
Allocation method	Randomised - controlled
Blinding used	Double blind
Roles blinded	Subject, Investigator, Assessor

Blinding implementation details:

Participants were issued their trial number as well as randomisation number and were issued their corresponding IMPs supply from the unblinded pharmacist according to the randomisation. They were randomised to receive either capsules of 75 mg DHEA or placebo, which looks exactly similar to the study medication

Arms

Are arms mutually exclusive?	Yes
Arm title	Study

Arm description:

Those who received capsules of 75 mg DHEA

Arm type	Experimental
Investigational medicinal product name	DHEA
Investigational medicinal product code	35929
Other name	
Pharmaceutical forms	Capsule
Routes of administration	Oral use

Dosage and administration details:

75 mg once daily

Arm title	control

Arm description:

received placebo

Arm type	Placebo
Investigational medicinal product name	Placebo
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Capsule
Routes of administration	Oral use

Dosage and administration details:

one capsule daily

Number of subjects in period 1[1]	Study	control
Started	27	25
Completed	27	25

Notes:

[1] - The number of subjects reported to be in the baseline period are not the same as the worldwide number enrolled in the trial. It is expected that these numbers will be the same.
Justification: A few subjects did not start treatment due to personal reasons/ pregnancy

Baseline characteristics

Reporting groups	
Reporting group title	Study
Reporting group description: Those who received capsules of 75 mg DHEA	
Reporting group title	control
Reporting group description: received placebo	

Reporting group values	Study	control	Total
Number of subjects	27	25	52
Age categorical			
Women's age at the recruitment stage recorded			
Units: Subjects			
In utero			0
Preterm newborn infants (gestational age < 37 wks)			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)			0
From 65-84 years			0
85 years and over			0
Age continuous			
mean age recorded			
Units: years			
geometric mean	36.8	35.2	
standard deviation	± 3.9	± 5.3	-
Gender categorical			
Units: Subjects			
Female	27	25	52
Male	0	0	0
Cause of subfertility			
cause of subfertility			
Units: Subjects			
endometriosis	4	5	9
male factor	2	5	7
Oligo-ovulation	2	0	2
Tubal factor	1	5	6
low ovarian reserve	5	5	10
Unknown	13	5	18

End points

End points reporting groups	
Reporting group title	Study
Reporting group description: Those who received capsules of 75 mg DHEA	
Reporting group title	control
Reporting group description: received placebo	

Primary: Live birth	
End point title	Live birth
End point description: number of Live born babies after IVF treatment	
End point type	Primary
End point timeframe: Nine months	

End point values	Study	control		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	27	25		
Units: numbers	7	8		

Statistical analyses

Statistical analysis title	Relative risk
Statistical analysis description: Differences in proportional outcome analysed using relative risk	
Comparison groups	Study v control
Number of subjects included in analysis	52
Analysis specification	Pre-specified
Analysis type	equivalence
P-value	= 0.63 [1]
Method	Chi-squared corrected
Parameter estimate	Risk ratio (RR)
Point estimate	0.74
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.22
upper limit	2.48

Notes:
[1] - not significant

Adverse events

Adverse events information[1]

Timeframe for reporting adverse events:

during treatment and unto 9 months after

Assessment type	Systematic

Dictionary used

Dictionary name	MedDRA
Dictionary version	1

Reporting groups

Reporting group title	study and control

Reporting group description:

Whole study population

Serious adverse events	study and control		
Total subjects affected by serious adverse events			
subjects affected / exposed	0 / 52 (0.00%)		
number of deaths (all causes)	0		
number of deaths resulting from adverse events	0		

Frequency threshold for reporting non-serious adverse events: 1 %

Non-serious adverse events	study and control		
Total subjects affected by non-serious adverse events			
subjects affected / exposed	0 / 52 (0.00%)		

Notes:

[1] - There are no non-serious adverse events recorded for these results. It is expected that there will be at least one non-serious adverse event reported.
Justification: the adverse events reported are directly related to IVF treatment rather than due to trial medication or placebo

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

Limitations of the trial such as small numbers of subjects analysed or technical problems leading to unreliable data.

none

Notes:

Online references

http://www.ncbi.nlm.nih.gov/pubmed/28934714