

**Clinical trial results:****A Phase I, Open-Label Study to Investigate the Pharmacokinetics and Pharmacodynamics of Etonogestrel (ENG) and 17 $\beta$ -Estradiol (E2) in Healthy female Postmenarcheal Adolescents and Healthy Female Adults Following Administration of MK-8342B (ENG-E2, 125/300 g/day) Vaginal Ring****Summary**

EudraCT number	2015-005284-16
Trial protocol	AT
Global end of trial date	14 July 2016

**Results information**

Result version number	v1 (current)
This version publication date	06 August 2020
First version publication date	06 August 2020
Summary attachment (see zip file)	EudraCT Summary Results (MK-8342B-072_2019-05-17_Cancelled_Withdrawn Memo for EU CTR.docx)

**Trial information****Trial identification**

Sponsor protocol code	MK-8342B-072
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**Additional study identifiers**

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

Notes:

**Sponsors**

Sponsor organisation name	Merck Sharp & Dohme Corp.
Sponsor organisation address	2000 Galloping Hill Road, Kenilworth, NJ, United States, 07033
Public contact	Clinical Trials Disclosure, Merck Sharp & Dohme Corp., ClinicalTrialsDisclosure@merck.com
Scientific contact	Clinical Trials Disclosure, Merck Sharp & Dohme Corp., ClinicalTrialsDisclosure@merck.com

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	14 July 2016
Is this the analysis of the primary completion data?	No
Global end of trial reached?	Yes
Global end of trial date	14 July 2016
Was the trial ended prematurely?	Yes

Notes:

## General information about the trial

Main objective of the trial:

Objective 1: To investigate the pharmacokinetics of ENG, E2 and E1 (estrone) following administration of MK-8342B (ENGE2, 125/300 µg/day) vaginal ring in healthy female postmenarcheal adolescents (≥12 to <18 years of age) and in healthy female adults (≥18 to ≤36 years of age).

Objective 2: To evaluate the pharmacodynamic effects (on progesterone (P), luteinizing hormone (LH), follicle-stimulating hormone (FSH), and sex hormonal binding globulin (SHBG) following administration of MK-8342B (ENG-E2, 125/300 µg/day) vaginal ring in healthy female postmenarcheal adolescents (≥12 to <18 years of age) and in healthy female adults (≥18 to ≤36 years of age).

Objective 3: To investigate the safety and tolerability following administration of MK-8342B (ENG-E2, 125/300 µg/day) vaginal ring in healthy female postmenarcheal adolescents (≥12 to <18 years of age) and in healthy female adults (≥18 to ≤36 years of age).

NOTE: This study was terminated early. No participants were ever enrolled in

Protection of trial subjects:

N/A

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	14 July 2016
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	Austria: 99999
Worldwide total number of subjects	99999
EEA total number of subjects	99999

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	0

months)	
Children (2-11 years)	0
Adolescents (12-17 years)	99999
Adults (18-64 years)	0
From 65 to 84 years	0
85 years and over	0

## Subject disposition

### Recruitment

Recruitment details:

99999 is "Not applicable" value or 0 participants, this trial was discontinued with no participants enrolled in the trial

### Pre-assignment

Screening details:

N/A

### Period 1

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

### Arms

<b>Arm title</b>	ENG-E2 125 µg/300 µg
Arm description: -	
Arm type	Experimental
Investigational medicinal product name	Etonogestrel + 17β-Estradiol Vaginal Ring
Investigational medicinal product code	
Other name	MK-8342B
Pharmaceutical forms	Buccal film, Vaginal delivery system
Routes of administration	Vaginal use

Dosage and administration details:

ENG-E2 125 µg/300 µg

<b>Number of subjects in period 1</b>	ENG-E2 125 µg/300 µg
Started	99999
Completed	99999

## Baseline characteristics

### Reporting groups

Reporting group title	Overall Trial
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Reporting group description: -

Reporting group values	Overall Trial	Total	
Number of subjects	99999	99999	
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)	99999	99999	
Adults (18-64 years)	0	0	
From 65-84 years	0	0	
85 years and over	0	0	
Age Continuous			
Units: years			
arithmetic mean	0		
standard deviation	± 0	-	
Gender Categorical			
Units: Subjects			
Female	99999	99999	
Male	0	0	

## End points

### End points reporting groups

Reporting group title	ENG-E2 125 µg/300 µg
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Reporting group description: -

### Primary: Time to maximum observed serum drug concentration (Tmax)

End point title	Time to maximum observed serum drug concentration
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End point description:

99999 is a "Not applicable" value. There were 0 participants. This study was terminated early. No participants were ever enrolled in it.

y on 14-July-2016.

End point type	Primary
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End point timeframe:

Day 1-22 and Day 1-29 of Cycle 2

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: This study was terminated early. No participants were ever enrolled in it.

<b>End point values</b>	ENG-E2 125 µg/300 µg			
Subject group type	Reporting group			
Number of subjects analysed	99999			
Units: Hours				
median (full range (min-max))	0 (0 to 0)			

### Statistical analyses

No statistical analyses for this end point

### Primary: Maximum observed serum concentration (Cmax)

End point title	Maximum observed serum concentration (Cmax) <sup>[2]</sup>
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End point description:

99999 is a "Not applicable" value. There were 0 participants. This study was terminated early. No participants were ever enrolled in it.

End point type	Primary
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End point timeframe:

Day 1-22 and Day 1-29 of Cycle 2

Notes:

[2] - 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: This study was terminated early. No participants were ever enrolled in it.

<b>End point values</b>	ENG-E2 125 µg/300 µg			
Subject group type	Reporting group			
Number of subjects analysed	99999			
Units: nM				
geometric mean (geometric coefficient of variation)	0 (± 0)			

### Statistical analyses

No statistical analyses for this end point

#### Primary: Area under the concentration versus time curve from Day 1 to Day 29 (AUC1-29)

End point title	Area under the concentration versus time curve from Day 1 to Day 29 (AUC1-29) <sup>[3]</sup>
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End point description:

99999 is a "Not applicable" value. There were 0 participants. This study was terminated early. No participants were ever enrolled in it.

End point type	Primary
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End point timeframe:

Up to 672 hours after vaginal ring insertion

Notes:

[3] - 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: This study was terminated early. No participants were ever enrolled in it.

<b>End point values</b>	ENG-E2 125 µg/300 µg			
Subject group type	Reporting group			
Number of subjects analysed	99999 <sup>[4]</sup>			
Units: nM*hr				
geometric mean (geometric coefficient of variation)	0 (± 0)			

Notes:

[4] - This study was terminated early. No participants were ever enrolled in it.

### Statistical analyses

No statistical analyses for this end point

#### Primary: Area under the concentration versus time curve from Day 1 to Day 22 (AUC1-22)

End point title	Area under the concentration versus time curve from Day 1 to Day 22 (AUC1-22) <sup>[5]</sup>
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End point description:

99999 is a "Not applicable" value. There were 0 participants. This study was terminated early. No participants were ever enrolled in it.

End point type	Primary
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End point timeframe:

Up to 504 hours after vaginal ring insertion

Notes:

[5] - 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: This study was terminated early. No participants were ever enrolled in it.

<b>End point values</b>	ENG-E2 125 µg/300 µg			
Subject group type	Reporting group			
Number of subjects analysed	99999 <sup>[6]</sup>			
Units: nM*hr				
geometric mean (geometric coefficient of variation)	0 (± 0)			

Notes:

[6] - This study was terminated early. No participants were ever enrolled in it.

## Statistical analyses

No statistical analyses for this end point

### Primary: Minimum observed/measured non-zero concentration (Cmin)

End point title	Minimum observed/measured non-zero concentration (Cmin) <sup>[7]</sup>
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End point description:

99999 is a "Not applicable" value. There were 0 participants. This study was terminated early. No participants were ever enrolled in it.

End point type	Primary
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End point timeframe:

Day 1-22 and Day 1-29 of Cycle 2

Notes:

[7] - 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: This study was terminated early. No participants were ever enrolled in it.

<b>End point values</b>	ENG-E2 125 µg/300 µg			
Subject group type	Reporting group			
Number of subjects analysed	99999 <sup>[8]</sup>			
Units: mcg/mL				
arithmetic mean (standard error)	0 (± 0)			

Notes:

[8] - This study was terminated early. No participants were ever enrolled in it.

## Statistical analyses

No statistical analyses for this end point

### Primary: Ratio of AUC1-29 to the corresponding time interval Day 1 to Day 29

End point title	Ratio of AUC1-29 to the corresponding time interval Day 1 to Day 29 <sup>[9]</sup>
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End point description:

99999 is a "Not applicable" value. There were 0 participants. This study was terminated early. No participants were ever enrolled in it.

End point type	Primary
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End point timeframe:

Up to 672 hours after vaginal ring insertion

Notes:

[9] - 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: This study was terminated early. No participants were ever enrolled in it.

<b>End point values</b>	ENG-E2 125 µg/300 µg			
Subject group type	Reporting group			
Number of subjects analysed	99999 <sup>[10]</sup>			
Units: Number	99999			

Notes:

[10] - This study was terminated early. No participants were ever enrolled in it.

## Statistical analyses

No statistical analyses for this end point

### Primary: Ratio of AUC1-22 to the corresponding time interval Day 1 to Day 22

End point title	Ratio of AUC1-22 to the corresponding time interval Day 1 to Day 22 <sup>[11]</sup>
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End point description:

99999 is a "Not applicable" value. There were 0 participants. This study was terminated early. No participants were ever enrolled in it.

End point type	Primary
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End point timeframe:

Up to 504 hours

Notes:

[11] - 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: This study was terminated early. No participants were ever enrolled in it.

<b>End point values</b>	ENG-E2 125 µg/300 µg			
Subject group type	Reporting group			
Number of subjects analysed	99999 <sup>[12]</sup>			
Units: Number	99999			

Notes:

[12] - This study was terminated early. No participants were ever enrolled in it.

## Statistical analyses

No statistical analyses for this end point

### Primary: Apparent terminal half life (t<sub>1/2</sub>)

End point title	Apparent terminal half life (t <sub>1/2</sub> ) <sup>[13]</sup>
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End point description:

99999 is a "Not applicable" value. There were 0 participants. This study was terminated early. No participants were ever enrolled in it.

End point type	Primary
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End point timeframe:

Day 1-22 and Day 1-29 of Cycle 2

Notes:

[13] - 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: This study was terminated early. No participants were ever enrolled in it.

<b>End point values</b>	ENG-E2 125 µg/300 µg			
Subject group type	Reporting group			
Number of subjects analysed	99999 <sup>[14]</sup>			
Units: Hours	99999			

Notes:

[14] - This study was terminated early. No participants were ever enrolled in it.

### Statistical analyses

No statistical analyses for this end point

### Primary: Percent change from baseline in serum hormone concentrations of progesterone (P)

End point title	Percent change from baseline in serum hormone concentrations of progesterone (P) <sup>[15]</sup>
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End point description:

99999 is a "Not applicable" value. There were 0 participants. This study was terminated early. No participants were ever enrolled in it.

End point type	Primary
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End point timeframe:

Up to Day 29 of Cycle 2

Notes:

[15] - 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: This study was terminated early. No participants were ever enrolled in it.

<b>End point values</b>	ENG-E2 125 µg/300 µg			
Subject group type	Reporting group			
Number of subjects analysed	99999 <sup>[16]</sup>			
Units: Number	99999			

Notes:

[16] - This study was terminated early. No participants were ever enrolled in it.

### Statistical analyses

No statistical analyses for this end point

### Primary: Percent change from baseline in serum hormone concentrations of luteinizing hormone (LH)

End point title	Percent change from baseline in serum hormone concentrations of luteinizing hormone (LH) <sup>[17]</sup>
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End point description:

99999 is a "Not applicable" value. There were 0 participants. This study was terminated early. No participants were ever enrolled in it.

End point type	Primary
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End point timeframe:

Up to Day 29 of Cycle 2

Notes:

[17] - 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: This study was terminated early. No participants were ever enrolled in it.

<b>End point values</b>	ENG-E2 125 µg/300 µg			
Subject group type	Reporting group			
Number of subjects analysed	99999 <sup>[18]</sup>			
Units: Number	99999			

Notes:

[18] - This study was terminated early. No participants were ever enrolled in it.

### Statistical analyses

No statistical analyses for this end point

### Primary: Percent change from baseline in serum hormone concentrations of follicle-stimulating hormone (FSH)

End point title	Percent change from baseline in serum hormone concentrations of follicle-stimulating hormone (FSH) <sup>[19]</sup>
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End point description:

99999 is a "Not applicable" value. There were 0 participants. This study was terminated early. No participants were ever enrolled in it.

End point type	Primary
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End point timeframe:

Up to Day 29 of Cycle 2

Notes:

[19] - 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: This study was terminated early. No participants were ever enrolled in it.

<b>End point values</b>	ENG-E2 125 µg/300 µg			
Subject group type	Reporting group			
Number of subjects analysed	99999 <sup>[20]</sup>			
Units: Number	99999			

Notes:

[20] - This study was terminated early. No participants were ever enrolled in it.

### Statistical analyses

No statistical analyses for this end point

### Primary: Percent change from baseline in serum hormone concentrations of sex hormonal binding globulin (SHBG)

End point title	Percent change from baseline in serum hormone concentrations of sex hormonal binding globulin (SHBG) <sup>[21]</sup>
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End point description:

99999 is a "Not applicable" value. There were 0 participants. This study was terminated early. No participants were ever enrolled in it.

End point type	Primary
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End point timeframe:

Up to Day 29 of Cycle 2

Notes:

[21] - 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: This study was terminated early. No participants were ever enrolled in it.

<b>End point values</b>	ENG-E2 125 µg/300 µg			
Subject group type	Reporting group			
Number of subjects analysed	99999 <sup>[22]</sup>			
Units: Number	99999			

Notes:

[22] - This study was terminated early. No participants were ever enrolled in it.

## Statistical analyses

No statistical analyses for this end point

### Primary: Percentage of participants who experienced one or more adverse events

End point title	Percentage of participants who experienced one or more adverse events <sup>[23]</sup>
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End point description:

99999 is a "Not applicable" value. There were 0 participants. This study was terminated early. No participants were ever enrolled in it.

End point type	Primary
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End point timeframe:

Up to approximately 72 days

Notes:

[23] - 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: This study was terminated early. No participants were ever enrolled in it.

<b>End point values</b>	ENG-E2 125 µg/300 µg			
Subject group type	Reporting group			
Number of subjects analysed	99999 <sup>[24]</sup>			
Units: Percentage of participants	99999			

Notes:

[24] - This study was terminated early. No participants were ever enrolled in it.

## Statistical analyses

No statistical analyses for this end point

### Primary: Percentage of participants who discontinued treatment due to an adverse event

End point title	Percentage of participants who discontinued treatment due to an adverse event <sup>[25]</sup>
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End point description:

99999 is a "Not applicable" value. There were 0 participants. This study was terminated early. No participants were ever enrolled in it.

End point type	Primary
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End point timeframe:

Up to Day 58

Notes:

[25] - 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: This study was terminated early. No participants were ever enrolled in it.

<b>End point values</b>	ENG-E2 125 µg/300 µg			
Subject group type	Reporting group			
Number of subjects analysed	99999 <sup>[26]</sup>			
Units: Percentage of participants	99999			

Notes:

[26] - This study was terminated early. No participants were ever enrolled in it.

## Statistical analyses

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No statistical analyses for this end point

## Adverse events

### Adverse events information<sup>[1]</sup>

Timeframe for reporting adverse events:

All adverse events occurring during the course of the clinical trial were to be collected.

Adverse event reporting additional description:

99999 is a "Not applicable" value. There were 0 participants. This study was terminated early. No participants were ever enrolled in it.

Assessment type	Systematic
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### Dictionary used

Dictionary name	MedDRA
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Dictionary version	0
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### Reporting groups

Reporting group title	ENG-E2 125 µg/300 µg
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Reporting group description:

This study was terminated early. No participants were ever enrolled in it.

<b>Serious adverse events</b>	ENG-E2 125 µg/300 µg		
Total subjects affected by serious adverse events			
subjects affected / exposed	0 / 99999 (0.00%)		
number of deaths (all causes)	0		
number of deaths resulting from adverse events			

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

<b>Non-serious adverse events</b>	ENG-E2 125 µg/300 µg		
Total subjects affected by non-serious adverse events			
subjects affected / exposed	0 / 99999 (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: This study was terminated early. No participants were ever enrolled in it.

## More information

### Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? No

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### 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.

This study was terminated early on 14-July-2016. No participants were ever enrolled in it.
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Notes: