



## Clinical trial results:

### Evaluation of the antiseptic activity of 4 different modes of application of a 5% alcoholic povidone-iodine product (Bétadine® Alcoolique 5%)

#### Summary

EudraCT number	2019-000694-24
Trial protocol	FR
Global end of trial date	07 September 2020

#### Results information

Result version number	v1 (current)
This version publication date	06 November 2021
First version publication date	06 November 2021

#### Trial information

##### Trial identification

Sponsor protocol code	X-00069-3322
-----------------------	--------------

##### Additional study identifiers

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

Notes:

##### Sponsors

Sponsor organisation name	Meda Pharma GmbH & Co. KG (A Mylan company)
Sponsor organisation address	Benzstraße 1, Bad Homburg, Germany, 61352
Public contact	Clinical Affairs GKB, Meda Pharma GmbH & Co. KG (A Mylan company), 49 61728881425, susanne.horner@viatris.com
Scientific contact	Clinical Affairs GKB, Meda Pharma GmbH & Co. KG (A Mylan company), 49 61728881425, susanne.horner@viatris.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	23 October 2020
Is this the analysis of the primary completion data?	Yes
Primary completion date	07 September 2020
Global end of trial reached?	Yes
Global end of trial date	07 September 2020
Was the trial ended prematurely?	No

Notes:

## General information about the trial

Main objective of the trial:

The primary objective of this clinical trial is to evaluate the antiseptic activity of a 5% alcoholic povidone-iodine solution (Bétadine® Alcoolique 5%) applied with 4 different modes of application

Protection of trial subjects:

Study involved topical application of the medication over a specific period up to 30 mins, post which the application was rinsed off with soap and water. No specific additional measures were required to minimize distress given the nature of study. The subjects were provided with informed consents prior to start of any study procedures. Subjects could withdraw from treatment at any time and for any reason.

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	22 June 2020
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	France: 32
Worldwide total number of subjects	32
EEA total number of subjects	32

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)	31
From 65 to 84 years	1
85 years and over	0

## Subject disposition

### Recruitment

Recruitment details:

Main study started after the confirmation of the method validation. An in-vitro and an in-vivo formed method validation.

For the in-vivo validation, 20 subjects in addition to subjects in the main study were included and In-vivo recruitment started on 02 Sep 2019.

Main study had 32 subjects and recruitment for main study started on 22 Jun 2020.

### Pre-assignment

Screening details:

Healthy male and non-pregnant females (including non-pregnant females of child-bearing potential using acceptable methods of contraception) aged between 18 and 65 years (inclusive), with a BMI  $\leq 30$ , having adequate back size to cover 4 application fields of 10 x 10 cm, having a minimum CFU count of 2.5 log<sub>10</sub>/cm<sup>2</sup> at screening visit.

### Pre-assignment period milestones

Number of subjects started	32
Intermediate milestone: Number of subjects	Main study: 32
Number of subjects completed	32

### Period 1

Period 1 title	Main study: Baseline CFU sampling
Is this the baseline period?	Yes
Allocation method	Randomised - controlled
Blinding used	Not blinded

### Arms

Are arms mutually exclusive?	No
<b>Arm title</b>	Baseline CFU Treatment A

Arm description:

Baseline CFU sampling for treatment A: 3 mL Bétadine® Alcoolique 5% applied in spiral movement starting in the center of a 10 x 10 cm zone (snailing method, 3 mL)

Arm type	Baseline sampling
Investigational medicinal product name	Bétadine® Alcoolique 5%
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Cutaneous solution
Routes of administration	Cutaneous use

Dosage and administration details:

Before baseline sampling, no product has been applied.

<b>Arm title</b>	Baseline CFU Treatment B
------------------	--------------------------

Arm description:

Baseline CFU for treatment B: 10 mL Bétadine® Alcoolique 5% applied in spiral movement starting in the center of a 10 x 10 cm zone (snailing method, 10 mL)

Arm type	Baseline sampling
----------	-------------------

Investigational medicinal product name	Bétadine® Alcoolique 5%
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Cutaneous solution
Routes of administration	Cutaneous use
Dosage and administration details:	
Before baseline sampling, no product has been applied.	
<b>Arm title</b>	Baseline CFU Treatment C

Arm description:

Baseline CFU sampling for treatment C: 3 mL Bétadine® Alcoolique 5% applied by back and forth movements horizontally and vertically covering a 10 x 10 cm zone (scraping method, 3 mL)

Arm type	Baseline sampling
Investigational medicinal product name	Bétadine® Alcoolique 5%
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Cutaneous solution
Routes of administration	Cutaneous use
Dosage and administration details:	
Before baseline sampling, no product has been applied.	
<b>Arm title</b>	Baseline CFU Treatment D

Arm description:

Baseline CFU sampling for Treatment D: 10 mL Bétadine® Alcoolique 5% applied by back and forth movements horizontally and vertically covering a 10 x 10 cm zone (scraping method, 10 mL).

Arm type	Baseline sampling
Investigational medicinal product name	Bétadine® Alcoolique 5%
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Cutaneous solution
Routes of administration	Cutaneous use
Dosage and administration details:	
Before baseline sampling, no product has been applied.	
Investigational medicinal product name	Bétadine® Alcoolique 5%
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Cutaneous solution
Routes of administration	Cutaneous use

Dosage and administration details:

Before baseline sampling, no product has been applied.

<b>Number of subjects in period 1</b>	Baseline CFU Treatment A	Baseline CFU Treatment B	Baseline CFU Treatment C
Started	32	32	32
Completed	32	32	32

<b>Number of subjects in period 1</b>	Baseline CFU Treatment D
Started	32

Completed	32
-----------	----

## Period 2

Period 2 title	Main study: Post-Treatment CFU sampling
Is this the baseline period?	No
Allocation method	Randomised - controlled
Blinding used	Not blinded

## Arms

Are arms mutually exclusive?	No
<b>Arm title</b>	Treatment A:

### Arm description:

3 mL Bétadine® Alcoolique 5% applied in spiral movement starting in the center of a 10 x 10 cm zone (snailing method, 3 mL)

Arm type	Experimental
Investigational medicinal product name	Bétadine® Alcoolique 5%
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Cutaneous solution
Routes of administration	Cutaneous use

### Dosage and administration details:

3 mL Bétadine® Alcoolique 5% applied in spiral movement starting in the center of a 10 x 10 cm zone (snailing method, 3 mL),

<b>Arm title</b>	Treatment B
------------------	-------------

### Arm description:

10 mL Bétadine® Alcoolique 5% applied in spiral movement starting in the center of a 10 x 10 cm zone (snailing method, 10 mL)

Arm type	Experimental
Investigational medicinal product name	Bétadine® Alcoolique 5%
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Cutaneous solution
Routes of administration	Cutaneous use

### Dosage and administration details:

10 mL Bétadine® Alcoolique 5% applied in spiral movement starting in the center of a 10 x 10 cm zone (snailing method, 10 mL)

<b>Arm title</b>	Treatment C
------------------	-------------

### Arm description:

3 mL Bétadine® Alcoolique 5% applied by back and forth movements horizontally and vertically covering a 10 x 10 cm zone (scrapping method, 3 mL)

Arm type	Experimental
----------	--------------

Investigational medicinal product name	Bétadine® Alcoolique 5%
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Cutaneous solution
Routes of administration	Cutaneous use

Dosage and administration details:

3 mL Bétadine® Alcoolique 5% applied by back and forth movements horizontally and vertically covering a 10 x 10 cm zone (scraping method, 3 mL)

<b>Arm title</b>	Treatment D
------------------	-------------

Arm description:

10 mL Bétadine® Alcoolique 5% applied by back and forth movements horizontally and vertically covering a 10 x 10 cm zone (scraping method, 10 mL)

Arm type	Experimental
Investigational medicinal product name	Bétadine® Alcoolique 5%
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Cutaneous solution
Routes of administration	Cutaneous use

Dosage and administration details:

10 mL Bétadine® Alcoolique 5% applied by back and forth movements horizontally and vertically covering a 10 x 10 cm zone (scraping method, 10 mL)

<b>Number of subjects in period 2</b>	Treatment A:	Treatment B	Treatment C
Started	32	32	32
Completed	32	32	32

<b>Number of subjects in period 2</b>	Treatment D
Started	32
Completed	32

## Baseline characteristics

### Reporting groups

Reporting group title	Main study: Baseline CFU sampling
Reporting group description: -	

Reporting group values	Main study: Baseline CFU sampling	Total	
Number of subjects	32	32	
Age categorical			
Healthy male and/or female subjects aged between 18 and 65 years (inclusive).			
Units: Subjects			
Adults (18-64 years)	31	31	
From 65-84 years	1	1	
Gender categorical			
Units: Subjects			
Female	18	18	
Male	14	14	

### Subject analysis sets

Subject analysis set title	Change of CFU count treatment A
Subject analysis set type	Per protocol
Subject analysis set description:	
Change of CFU count (in log10/cm2) from baseline -Treatment A (3 mL, Snail)	
Subject analysis set title	Change of CFU count treatment B
Subject analysis set type	Per protocol
Subject analysis set description:	
Change of CFU count (in log10/cm2) from baseline - Treatment B (10 mL, Snail)	
Subject analysis set title	Change of CFU count treatment C
Subject analysis set type	Per protocol
Subject analysis set description:	
Change of CFU count (in log10 /cm2) from baseline - Treatment C (3mL, Scrape)	
Subject analysis set title	Change of CFU count treatment D
Subject analysis set type	Per protocol
Subject analysis set description:	
Change of CFU count (in log10 /cm2) from baseline - Treatment D (10mL, Scrape)	

Reporting group values	Change of CFU count treatment A	Change of CFU count treatment B	Change of CFU count treatment C
Number of subjects	26	25	27
Age categorical			
Healthy male and/or female subjects aged between 18 and 65 years (inclusive).			
Units: Subjects			
Adults (18-64 years)	25	24	26
From 65-84 years	1	1	1
Gender categorical			
Units: Subjects			
Female			
Male			

<b>Reporting group values</b>	Change of CFU count treatment D		
Number of subjects	27		
Age categorical			
Healthy male and/or female subjects aged between 18 and 65 years (inclusive).			
Units: Subjects			
Adults (18-64 years)	26		
From 65-84 years	1		
Gender categorical			
Units: Subjects			
Female			
Male			



## End points

### End points reporting groups

Reporting group title	Baseline CFU Treatment A
Reporting group description: Baseline CFU sampling for treatment A: 3 mL Bétadine® Alcoolique 5% applied in spiral movement starting in the center of a 10 x 10 cm zone (snailing method, 3 mL)	
Reporting group title	Baseline CFU Treatment B
Reporting group description: Baseline CFU for treatment B: 10 mL Bétadine® Alcoolique 5% applied in spiral movement starting in the center of a 10 x 10 cm zone (snailing method, 10 mL)	
Reporting group title	Baseline CFU Treatment C
Reporting group description: Baseline CFU sampling for treatment C: 3 mL Bétadine® Alcoolique 5% applied by back and forth movements horizontally and vertically covering a 10 x 10 cm zone (scraping method, 3 mL)	
Reporting group title	Baseline CFU Treatment D
Reporting group description: Baseline CFU sampling for Treatment D: 10 mL Bétadine® Alcoolique 5% applied by back and forth movements horizontally and vertically covering a 10 x 10 cm zone (scraping method, 10 mL).	
Reporting group title	Treatment A:
Reporting group description: 3 mL Bétadine® Alcoolique 5% applied in spiral movement starting in the center of a 10 x 10 cm zone (snailing method, 3 mL)	
Reporting group title	Treatment B
Reporting group description: 10 mL Bétadine® Alcoolique 5% applied in spiral movement starting in the center of a 10 x 10 cm zone (snailing method, 10 mL)	
Reporting group title	Treatment C
Reporting group description: 3 mL Bétadine® Alcoolique 5% applied by back and forth movements horizontally and vertically covering a 10 x 10 cm zone (scraping method, 3 mL)	
Reporting group title	Treatment D
Reporting group description: 10 mL Bétadine® Alcoolique 5% applied by back and forth movements horizontally and vertically covering a 10 x 10 cm zone (scraping method, 10 mL)	
Subject analysis set title	Change of CFU count treatment A
Subject analysis set type	Per protocol
Subject analysis set description: Change of CFU count (in log <sub>10</sub> /cm <sup>2</sup> ) from baseline -Treatment A (3 mL, Snail)	
Subject analysis set title	Change of CFU count treatment B
Subject analysis set type	Per protocol
Subject analysis set description: Change of CFU count (in log <sub>10</sub> /cm <sup>2</sup> ) from baseline - Treatment B (10 mL, Snail)	
Subject analysis set title	Change of CFU count treatment C
Subject analysis set type	Per protocol
Subject analysis set description: Change of CFU count (in log <sub>10</sub> /cm <sup>2</sup> ) from baseline - Treatment C (3mL, Scrape)	
Subject analysis set title	Change of CFU count treatment D
Subject analysis set type	Per protocol
Subject analysis set description: Change of CFU count (in log <sub>10</sub> /cm <sup>2</sup> ) from baseline - Treatment D (10mL, Scrape)	

**Primary: Antiseptic activity of Bétadine® Alcoolique**

End point title	Antiseptic activity of Bétadine® Alcoolique
-----------------	---

End point description:

The primary endpoints were defined as follows:

Evaluation of antiseptic activity of a 5% alcoholic povidone-iodine solution (Bétadine® Alcoolique 5%) by measuring the change from baseline in log10/cm2 CFU counts for total aerobic and facultative anaerobic bacteria using 4 different modes of applications.

Results are presented for per protocol population.

End point type	Primary
----------------	---------

End point timeframe:

Baseline sampling and post-treatment sampling for all 4 modes of application were collected during Visit 1.

End point values	Baseline CFU Treatment A	Treatment A:	Baseline CFU Treatment B	Treatment B
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	26	26	25	27
Units: CFU				
log mean (standard deviation)	3.473 (± 0.714)	0.351 (± 0.796)	3.391 (± 0.719)	0.066 (± 0.463)

End point values	Baseline CFU Treatment C	Treatment C	Baseline CFU Treatment D	Treatment D
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	27	27	27	27
Units: CFU				
log mean (standard deviation)	3.594 (± 0.747)	0.104 (± 0.629)	3.450 (± 0.820)	-0.013 (± 0.535)

End point values	Change of CFU count treatment A	Change of CFU count treatment B	Change of CFU count treatment C	Change of CFU count treatment D
Subject group type	Subject analysis set	Subject analysis set	Subject analysis set	Subject analysis set
Number of subjects analysed	26	25	27	27
Units: CFU				
log mean (standard deviation)	-3.122 (± 0.779)	-3.339 (± 0.715)	-3.491 (± 0.605)	-3.463 (± 0.749)

**Statistical analyses**

Statistical analysis title	Inferential analysis - Treatment A (3 mL, Snail)
----------------------------	--

Statistical analysis description:

Covariate adjusted change in log10 CFU/cm2 count from baseline - Treatment A (3mL, Snail)

Comparison groups	Baseline CFU Treatment A v Treatment A:
-------------------	---

Number of subjects included in analysis	52
Analysis specification	Pre-specified
Analysis type	superiority <sup>[1]</sup>
P-value	≤ 0.1
Method	Mixed models analysis
Confidence interval	
level	90 %
sides	2-sided
Variability estimate	Standard error of the mean

Notes:

[1] - 26 subjects were analyzed for log10 CFU count as part of baseline on A and 26 subjects subjects were analyzed for log10 CFU count as part of post treatment on A, giving 52 observations. Analysis was based on 26 subjects due to the cross-over design.

<b>Statistical analysis title</b>	Inferential analysis - Treatment B (10 mL, Snail)
Statistical analysis description:	
Covariate adjusted change in log10 CFU/cm2 count from baseline - Treatment B (10mL, Snail)	
Comparison groups	Baseline CFU Treatment B v Treatment B
Number of subjects included in analysis	52
Analysis specification	Pre-specified
Analysis type	superiority <sup>[2]</sup>
P-value	≤ 0.1
Method	Mixed models analysis
Parameter estimate	Mean difference (net)
Confidence interval	
level	90 %
sides	2-sided
Variability estimate	Standard error of the mean

Notes:

[2] - 25 subjects were analyzed for log10 CFU count as part of baseline on B and 27 subjects subjects were analyzed for log10 CFU count as part of post treatment on B, giving 52 observations. Analysis was based on 25 subjects due to the cross-over design.

<b>Statistical analysis title</b>	Inferential analysis - Treatment C (3mL, Scrape)
Statistical analysis description:	
Covariate adjusted change in log10 CFU/cm2 count from baseline - Treatment C (3mL, Scrape)	
Comparison groups	Baseline CFU Treatment C v Treatment C
Number of subjects included in analysis	54
Analysis specification	Pre-specified
Analysis type	superiority <sup>[3]</sup>
P-value	≤ 0.1
Method	Mixed models analysis
Parameter estimate	Mean difference (net)
Confidence interval	
level	90 %
sides	2-sided
Variability estimate	Standard error of the mean

Notes:

[3] - 27 subjects were analyzed for log10 CFU count as part of baseline on C and 27 subjects subjects were analyzed for log10 CFU count as part of post treatment on C, giving 54 observations. Analysis was based on 27 subjects due to the cross-over design.

<b>Statistical analysis title</b>	Inferential analysis - Treatment D (10mL, Scrape)
-----------------------------------	---

Statistical analysis description:

Covariate adjusted change in log10 CFU/cm2 count from baseline - Treatment D (10mL, Scrape)

Comparison groups	Baseline CFU Treatment D v Treatment D
Number of subjects included in analysis	54
Analysis specification	Pre-specified
Analysis type	superiority <sup>[4]</sup>
P-value	≤ 0.1
Method	Mixed models analysis
Confidence interval	
level	90 %
sides	2-sided
Variability estimate	Standard error of the mean

Notes:

[4] - 27 subjects were analyzed for log10 CFU count as part of baseline on D and 27 subjects were analyzed for log10 CFU count as part of post treatment on D, giving 54 observations. Analysis was based on 27 subjects due to the cross-over design.

<b>Statistical analysis title</b>	Inferential analysis - A vs. B
-----------------------------------	--------------------------------

Statistical analysis description:

Covariate adjusted change in log10 CFU/cm2 count from baseline - A vs. B (3 mL vs. 10 mL for Snail)

Comparison groups	Change of CFU count treatment A v Change of CFU count treatment B
Number of subjects included in analysis	51
Analysis specification	Pre-specified
Analysis type	superiority <sup>[5]</sup>
P-value	≤ 0.1
Method	Mixed models analysis
Parameter estimate	Mean difference (net)
Confidence interval	
level	90 %
sides	2-sided
Variability estimate	Standard error of the mean

Notes:

[5] - 26 subjects were analyzed for change from baseline on A and 25 subjects were analyzed for change from baseline on B giving 51 observations. Analysis was based on 25 subjects due to the crossover design.

<b>Statistical analysis title</b>	Inferential analysis - C vs. D
-----------------------------------	--------------------------------

Statistical analysis description:

Covariate adjusted change in log10 CFU/cm2 count from baseline - C vs. D (3 mL vs. 10 mL for Scrape)

Comparison groups	Change of CFU count treatment C v Change of CFU count treatment D
Number of subjects included in analysis	54
Analysis specification	Pre-specified
Analysis type	superiority <sup>[6]</sup>
P-value	≤ 0.1
Method	Mixed models analysis
Parameter estimate	Mean difference (net)
Confidence interval	
level	90 %
sides	2-sided
Variability estimate	Standard error of the mean

Notes:

[6] - 27 subjects were analyzed for change from baseline on C and 27 subjects were analyzed for change from baseline on D giving 54 observations. Analysis was based on 27 subjects due to the crossover design.

<b>Statistical analysis title</b>	Inferential analysis - A vs. C
Statistical analysis description:	
Covariate adjusted change in log10 CFU/cm2 count from baseline - A vs. C (Snail vs. Scrape, 3mL)	
Comparison groups	Change of CFU count treatment A v Change of CFU count treatment C
Number of subjects included in analysis	53
Analysis specification	Pre-specified
Analysis type	superiority <sup>[7]</sup>
P-value	≤ 0.1
Method	Mixed models analysis
Parameter estimate	Mean difference (net)
Confidence interval	
level	90 %
sides	2-sided
Variability estimate	Standard error of the mean

Notes:

[7] - 26 subjects were analyzed for change from baseline on A and 27 subjects were analyzed for change from baseline on C giving 53 observations. Analysis was based on 26 subjects due to the crossover design.

<b>Statistical analysis title</b>	Inferential analysis - B vs. D
Statistical analysis description:	
25 subjects were analyzed for change from baseline on B and 27 subjects were analyzed for change from baseline on D giving 52 observations. Analysis was based on 25 subjects due to the crossover design.	
Comparison groups	Change of CFU count treatment B v Change of CFU count treatment D
Number of subjects included in analysis	52
Analysis specification	Pre-specified
Analysis type	superiority <sup>[8]</sup>
P-value	≤ 0.1
Method	Mixed models analysis
Parameter estimate	Mean difference (net)
Confidence interval	
level	90 %
sides	2-sided
Variability estimate	Standard error of the mean

Notes:

[8] - 25 subjects were analyzed for change from baseline on B and 27 subjects were analyzed for change from baseline on D giving 52 observations. Analysis was based on 25 subjects due to the crossover design.

## Adverse events

---

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

---

Timeframe for reporting adverse events:

Subjects were monitored for any Adverse event from signing of the informed consent until D1 treatment visit. All AEs that occurred after the first dose of study medication through 30 days after the last dose were considered to be treatment emergent AEs

---

Adverse event reporting additional description:

Subjects were routinely queried regarding presence or absence of adverse events using open ended questions. Laboratory tests and Physical examinations were also undertaken. Date, time of assessment and the outcome were recorded.

---

Assessment type	Systematic
-----------------	------------

---

### Dictionary used

Dictionary name	MedDRA
-----------------	--------

---

Dictionary version	23.0
--------------------	------

---

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

---

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: During this study neither non-serious nor serious adverse events occurred.

## 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