



## Clinical trial results:

### The influence of UGT inhibition on endoxifen exposure in cancer patients treated with tamoxifen: A proof of concept study. "The PROTAM study"

#### Summary

EudraCT number	2019-004854-27
Trial protocol	NL
Global end of trial date	01 July 2021

#### Results information

Result version number	v1 (current)
This version publication date	21 May 2022
First version publication date	21 May 2022
Summary attachment (see zip file)	Summary results (Buck et al. Influence of probenecid on endoxifen systemic exposure in breast cancer patients on adjuvant tamoxifen treatment.pdf)

#### Trial information

##### Trial identification

Sponsor protocol code	PROTAM
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##### Additional study identifiers

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

Notes:

#### Sponsors

Sponsor organisation name	Erasmus MC
Sponsor organisation address	Dr Molewaterplein 40, Rotterdam, Netherlands, 3015GD
Public contact	R.H.J. Mathijssen, Erasmus MC Cancer Institute, a.mathijssen@erasmusmc.nl
Scientific contact	R.H.J. Mathijssen, Erasmus MC Cancer Institute, a.mathijssen@erasmusmc.nl

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	05 May 2022
Is this the analysis of the primary completion data?	Yes
Primary completion date	01 July 2021
Global end of trial reached?	Yes
Global end of trial date	01 July 2021
Was the trial ended prematurely?	No

Notes:

## General information about the trial

Main objective of the trial:

To compare the Area under the curve (AUC) of endoxifen in patients with breast cancer treated with tamoxifen with and without probenecid.

Protection of trial subjects:

Interim analysis, monitoring and follow up by medical oncologists

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	01 March 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	Netherlands: 11
Worldwide total number of subjects	11
EEA total number of subjects	11

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)	11
From 65 to 84 years	0
85 years and over	0

## Subject disposition

### Recruitment

Recruitment details:

Metastatic breast cancer treated with tamoxifen

### Pre-assignment

Screening details: -

### Pre-assignment period milestones

Number of subjects started	11
Number of subjects completed	11

### Period 1

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

### Arms

Arm title	tamoxifen + probenecid
Arm description: -	
Arm type	Experimental
Investigational medicinal product name	tamoxifen + probenecid
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Tablet
Routes of administration	Oral use

Dosage and administration details:

tamoxifen: 20mg qd

Probenecid: 1000mg bid

Number of subjects in period 1	tamoxifen + probenecid
Started	11
Completed	11

## Baseline characteristics

### Reporting groups

Reporting group title	Tamoxifen
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Reporting group description: -

Reporting group values	Tamoxifen	Total	
Number of subjects	11	11	
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	
Adults (18-64 years)	11	11	
From 65-84 years	0	0	
85 years and over	0	0	
Adults	0	0	
Gender categorical			
Units: Subjects			
Female	11	11	
Male	0	0	

### Subject analysis sets

Subject analysis set title	Endoxifen AUC0-24h
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Subject analysis set type	Full analysis
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Subject analysis set description:

Endoxifen AUC0-24h with and without probenecid

Reporting group values	Endoxifen AUC0-24h		
Number of subjects	11		
Age categorical			
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)	11		
From 65-84 years	0		
85 years and over	0		
Adults	0		

Gender categorical			
Units: Subjects			
Female	11		
Male	0		

## End points

### End points reporting groups

Reporting group title	tamoxifen + probenecid
Reporting group description: -	
Subject analysis set title	Endoxifen AUC0-24h
Subject analysis set type	Full analysis
Subject analysis set description:	
Endoxifen AUC0-24h with and without probenecid	

### Primary: Endoxifen AUC0-24h

End point title	Endoxifen AUC0-24h <sup>[1]</sup>
End point description:	

End point type	Primary
End point timeframe:	
0-24 hours	

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: Commented on in attachment

End point values	tamoxifen + probenecid	Endoxifen AUC0-24h		
Subject group type	Reporting group	Subject analysis set		
Number of subjects analysed	11			
Units: ng*h/mL				
geometric mean (geometric coefficient of variation)				
tamoxifen	402 (± 43)	402 (± 43)		
tamoxifen + probenecid	505 (± 41)	505 (± 41)		

### Statistical analyses

No statistical analyses for this end point

## Adverse events

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

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Timeframe for reporting adverse events:

During probenecid treatment

Assessment type	Systematic
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### Dictionary used

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Dictionary name	CTCAE
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Dictionary version	5
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Frequency threshold for reporting non-serious adverse events: 5 %

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### 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: Commented on in attachment

## 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

None reported