Clinical trial results:
Effect of Proton Pump Inhibitors on the duodenal microbiome in Functional Dyspepsia patients

Summary

EudraCT number	2017-004355-23
Trial protocol	BE
Global end of trial date	22 September 2020

Results information

Result version number	v1 (current)
This version publication date	28 December 2020
First version publication date	28 December 2020
Summary attachment (see zip file)	Summary (Summary.docx)

Trial information

Trial identification

Sponsor protocol code	PPI-microbiome-FD

Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT03545243
WHO universal trial number (UTN)	-

Notes:

Sponsors

Sponsor organisation name	University Hospitals Leuven
Sponsor organisation address	Herestraat 49, Leuven, Belgium, 3000
Public contact	TARGID, TARGID, KU Leuven, 32 16372093, Tim.vanuytsel@kuleuven.be
Scientific contact	TARGID, TARGID, KU Leuven, 32 16372093, Tim.vanuytsel@kuleuven.be

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	22 September 2020
Is this the analysis of the primary completion data?	Yes
Primary completion date	29 April 2020
Global end of trial reached?	Yes
Global end of trial date	22 September 2020
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

To assess the effect of Proton Pump Inhibitors (PPI) on the duodenal, oral and fecal microbiota composition in FD patients before and after start PPI during 4 weeks (FD cohort 1)

Protection of trial subjects:

local and optional IV sedation with endoscopy
local sedation and radioprotection with nasoduodenal tube

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	01 February 2018
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	Belgium: 49
Worldwide total number of subjects	49
EEA total number of subjects	49

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)	49
From 65 to 84 years	0
85 years and over	0

Subject disposition

Recruitment

Recruitment details:

All data were collected at KU Leuven and University Hospitals Leuven (Leuven, Belgium) between April 2018 - April 2020

Pre-assignment

Screening details:

patients with predominant FD symptoms, diagnosed according to Rome IV criteria. Patients were divided in 2 cohorts based on current or previous use of PPI-therapy: (1) "FD-starters" with no standard course of PPI-therapy (4 weeks healing dose) and/or acid suppression < 3 months before inclusion, and (2) "FD-stoppers" with refractory symptoms.

Period 1

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

Arms

Are arms mutually exclusive?	Yes
Arm title	FD-starters

Arm description:

Study procedures were performed before and after start PPI-therapy (pantoprazole 40mg OD for 4 weeks) in FD-starters

Arm type	Experimental
Investigational medicinal product name	Pantomed
Investigational medicinal product code	A02BC02
Other name	
Pharmaceutical forms	Tablet
Routes of administration	Oral use

Dosage and administration details:

Pantomed 40mg once daily for 4 weeks

Arm title	FD-stoppers

Arm description:

Study procedures were performed before and after PPI-withdrawal in FD-stoppers (8 weeks)

Arm type	No intervention

No investigational medicinal product assigned in this arm

Number of subjects in period 1	FD-starters	FD-stoppers
Started	30	19
Completed	27	18
Not completed	3	1
Pregnancy	1	-
Protocol deviation	2	1

Baseline characteristics

Reporting groups	
Reporting group title	FD-starters
Reporting group description:	
Study procedures were performed before and after start PPI-therapy (pantoprazole 40mg OD for 4 weeks) in FD-starters	
Reporting group title	FD-stoppers
Reporting group description:	
Study procedures were performed before and after PPI-withdrawal in FD-stoppers (8 weeks)	

Reporting group values	FD-starters	FD-stoppers	Total
Number of subjects	30	19	49
Age categorical Units: Subjects			
In utero	0	0	0
Preterm newborn infants (gestational age < 37 wks)	0	0	0
Newborns (0-27 days)	0	0	0
Infants and toddlers (28 days-23 months)	0	0	0
Children (2-11 years)	0	0	0
Adolescents (12-17 years)	0	0	0
Adults (18-64 years)	30	19	49
From 65-84 years	0	0	0
85 years and over	0	0	0
Gender categorical Units: Subjects			
Female	25	14	39
Male	5	5	10

End points

End points reporting groups

Reporting group title	FD-starters
Reporting group description:	
Study procedures were performed before and after start PPI-therapy (pantoprazole 40mg OD for 4 weeks) in FD-starters	
Reporting group title	FD-stoppers
Reporting group description:	
Study procedures were performed before and after PPI-withdrawal in FD-stoppers (8 weeks)	

Primary: Eosinophils

End point title	Eosinophils[1][2]
End point description:	
End point type	Primary
End point timeframe:	
before and after 4 weeks of pantomed 40mg once daily	

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: See attached chart with statistical analyses

[2] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: See attached chart with statistical analyses

End point values	FD-starters			
Subject group type	Reporting group			
Number of subjects analysed	30			
Units: per mm2				
number (not applicable)	30			

Attachments (see zip file)	within-group change in eosinophils/within-group FD.docx

Statistical analyses

No statistical analyses for this end point

Secondary: Symptoms

End point title	Symptoms[3]
End point description:	
End point type	Secondary
End point timeframe:	
before and after 4 weeks of pantomed 40mg once daily	

Notes:

[3] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: See attached chart with statistical analyses

End point values	FD-starters			
Subject group type	Reporting group			
Number of subjects analysed	30			
Units: PAGI-SYM				
number (not applicable)	30			

Attachments (see zip file)	within-group change in symptoms/within-group FD.docx

Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information[1]	
Timeframe for reporting adverse events: before and after 4 weeks of pantomed 40mg once daily	
Assessment type	Systematic

Dictionary used	
Dictionary name	MedDRA
Dictionary version	4

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

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: There were no serious adverse events.

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