Clinical trial results:
A randomized, assessor-blinded, multicenter, international study investigating efficacy, patient's acceptance, safety and tolerability of Sodium Phosphate tablets compared to split dose Polyethylene Glycol for colon cleansing prior to colonoscopy.

Summary

EudraCT number	2012-005115-13
Trial protocol	ES
Global end of trial date	06 March 2014

Results information

Result version number	v1 (current)
This version publication date	31 December 2016
First version publication date	31 December 2016

Trial information

Trial identification

Sponsor protocol code	ICOL121

Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT01840553
WHO universal trial number (UTN)	-

Notes:

Sponsors

Sponsor organisation name	MAYOLY SPINDLER
Sponsor organisation address	6 avenue de l'europe, chatou, France, 78400
Public contact	Valérie O'Mahony, Mayoly Spindler, 33 0134804102, valerie.omahony@mayoly.com
Scientific contact	Valérie O'Mahony, Mayoly Spindler, 33 0134804102, valerie.omahony@mayoly.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	02 June 2014
Is this the analysis of the primary completion data?	Yes
Primary completion date	06 March 2014
Global end of trial reached?	Yes
Global end of trial date	06 March 2014
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

Assess the efficacy of sodium phosphate tablets versus split dose of 4 liters of PEG for bowel cleansing prior to colonoscopy.

Protection of trial subjects:

Subjects had a follow up visit 7 to 10 days after last study medication intake for safety follow up

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	24 April 2013
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	Spain: 172
Country: Number of subjects enrolled	France: 216
Country: Number of subjects enrolled	Germany: 73
Worldwide total number of subjects	461
EEA total number of subjects	461

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)	390
From 65 to 84 years	71
85 years and over	0

Subject disposition

Recruitment

Recruitment details:

Patients undergoing total colonoscopy for screening or surveillance colonoscopy from April 2013 to March 2014 were selected for inclusion in the study in 3 European countries (France, Germany and Spain).

Pre-assignment

Screening details:

Patients undergoing total colonoscopy were selected, aged from 18 to 75 years, eligible for both treatments, had a normal renal function and no contraindication for sodium phosphate . Overall, inclusion and exclusion criteria were defined according to the SMPC.

Period 1

Period 1 title	overall trial (overall period)
Is this the baseline period?	Yes
Allocation method	Randomised - controlled
Blinding used	Single blind
Roles blinded	Assessor[1]

Blinding implementation details:

Colonoscopies were video-recorded. Two independent experienced gastroenterologists, blinded for treatment reviewed and scored the quality of the preparation for assessment. For any discrepancies, a third blinded expert determined the BBPS score.

Arms

Are arms mutually exclusive?	Yes
Arm title	Sodium phosphate tablets

Arm description:

Sodium phosphate tablets

Arm type	Experimental
Investigational medicinal product name	sodium phosphate tablets
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Tablet
Routes of administration	Oral use

Dosage and administration details:

Patients received 32 tablets of sodium phosphate bowel preparation (NaP, Colokit©) in total. Each tablet contains monobasic monohydrate sodium phosphate (1102 mg) and dibasic anhydrous sodium phosphate (398 mg).
The evening before the examination, patients took a first sequence : 4 NaP tablets with 250mL of water (or another clear liquid) every 15 minutes, repeated a further 4 times for a total of 20 tablets.
On the day of the examination, patients took the second sequence :4 tablets of NaP every 15 minutes, in addition to 250mL of water (or another clear liquid), repeated another two times under the same conditions, i.e.12 tablets in total.

Arm title	Polyethylene glycol

Arm description:

Polyethylene glycol

Arm type	Active comparator
Investigational medicinal product name	Polyethylene glycol
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Powder for oral solution in sachet
Routes of administration	Oral use

Dosage and administration details:

Patients received 4 liters of PEG (Klean-Prep©) in total before colonoscopy. Preparation was standardized as follows:
The day before the examination, two sachets were taken during the evening.
The remaining two sachets were taken in the morning of the examination day, starting 4-8 hours prior to the colonoscopy.
Each sachet was dissolved in one liter of water and taken at a rate of 250mL every 10 to 15 minutes.

Notes:

[1] - The roles blinded appear inconsistent with a simple blinded trial.

Justification: patients and investigators were not blinded but the primary efficacy criteria was assess by blinded assessors (videos of the colonoscopies)

Number of subjects in period 1[2]	Sodium phosphate tablets	Polyethylene glycol
Started	226	226
Completed	226	218
Not completed	0	8
Consent withdrawn by subject	-	1
colonoscopy not performed	-	4
poor compliance	-	2
Lost to follow-up	-	1

Notes:

[2] - 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: 461 patients were randomised but only 452 received the study treatments. 9 didn't receive treatment: 4 consent withdrawal, 2 lost of follow up, 2 adverse event and 1 for other reason

Baseline characteristics

Reporting groups

Reporting group title	overall trial

Reporting group description: -

Reporting group values	overall trial	Total	
Number of subjects	452	452	
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)	386	386	
From 65-84 years	66	66	
85 years and over	0	0	
Gender categorical Units: Subjects			
Female	225	225	
Male	227	227	

Subject analysis sets

Subject analysis set title	Full analysis
Subject analysis set type	Full analysis

Subject analysis set description:

The Full Analysis Set (FAS) includes all subjects who received any study medication for whom the BBPS score was obtained (primary efficacy endpoint), disregarding any protocol deviation.

Reporting group values	Full analysis		
Number of subjects	429		
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)	367		
From 65-84 years	62		
85 years and over	0		

Gender categorical Units: Subjects			
Female	214		
Male	215		

End points

End points reporting groups

Reporting group title	Sodium phosphate tablets
Reporting group description: Sodium phosphate tablets	
Reporting group title	Polyethylene glycol
Reporting group description: Polyethylene glycol	
Subject analysis set title	Full analysis
Subject analysis set type	Full analysis
Subject analysis set description: The Full Analysis Set (FAS) includes all subjects who received any study medication for whom the BBPS score was obtained (primary efficacy endpoint), disregarding any protocol deviation.	

Primary: overall quality of bowel cleansing

End point title	overall quality of bowel cleansing
End point description:	
End point type	Primary
End point timeframe: during colonoscopy	

End point values	Sodium phosphate tablets	Polyethylene glycol	Full analysis	
Subject group type	Reporting group	Reporting group	Subject analysis set	
Number of subjects analysed	219	210	429	
Units: number of patients with a BBPS >=7	189	187	376	

Statistical analyses

Statistical analysis title	primary efficacy analysis
Statistical analysis description: Descriptive statistics [group size, mean, standard deviations, median, ranges, and 95 % confidence intervals (CI)] were used to report patients' baseline characteristics. The sample size was determined assuming an estimated "adequate" cleansing rate of the colon of 85 %, a 10 % non-inferiority margin, 80 % power and a one-sided significance level of 0.025.	
Comparison groups	Sodium phosphate tablets v Polyethylene glycol
Number of subjects included in analysis	429
Analysis specification	Pre-specified
Analysis type	non-inferiority[1]
P-value	< 0.025
Method	Chi-squared

Notes:
[1] - 10 % non-inferiority margin

Adverse events

Adverse events information	
Timeframe for reporting adverse events:	
Adverse events were collected from informed consent signature till the follow up visit (7-10 days after last study drug administration)	
Assessment type	Systematic

Dictionary used	
Dictionary name	MedDRA
Dictionary version	16.1

Reporting groups	
Reporting group title	overall Safety population
Reporting group description:	
The Safety set includes all the subjects included in the study who received any study medication.	

Serious adverse events	overall Safety population		
Total subjects affected by serious adverse events			
subjects affected / exposed	0 / 452 (0.00%)		
number of deaths (all causes)	0		
number of deaths resulting from adverse events	0		

Frequency threshold for reporting non-serious adverse events: 2 %

Non-serious adverse events	overall Safety population		
Total subjects affected by non-serious adverse events			
subjects affected / exposed	298 / 452 (65.93%)		
Nervous system disorders			
Headache			
subjects affected / exposed	11 / 452 (2.43%)		
occurrences (all)	2		
General disorders and administration site conditions			
Hyperphosphataemia			
subjects affected / exposed	9 / 452 (1.99%)		
occurrences (all)	2		
Gastrointestinal disorders			
Abdominal distension			

subjects affected / exposed	245 / 452 (54.20%)		
occurrences (all)	54		
Nausea			
subjects affected / exposed	142 / 452 (31.42%)		
occurrences (all)	31		
Abdominal pain			
subjects affected / exposed	67 / 452 (14.82%)		
occurrences (all)	15		
Vomiting			
subjects affected / exposed	44 / 452 (9.73%)		
occurrences (all)	10		
Gastritis			
subjects affected / exposed	12 / 452 (2.65%)		
occurrences (all)	3		

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

Online references

http://www.ncbi.nlm.nih.gov/pubmed/27864718