Clinical trial results:
Optimising the use of Entonox during screening colonoscopy: an open randomised controlled trial

Summary

EudraCT number	2012-003342-33
Trial protocol	GB
Global end of trial date	08 April 2014

Results information

Result version number	v1 (current)
This version publication date	07 November 2019
First version publication date	07 November 2019
Summary attachment (see zip file)	End of Trial Report (2012-003342-33 End of Study report.doc)

Trial information

Trial identification

Sponsor protocol code	STH16359

Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT01865721
WHO universal trial number (UTN)	-

Notes:

Sponsors

Sponsor organisation name	Sheffield Teaching Hospitals NHS Foundation Trust
Sponsor organisation address	Trust Headquarters, 8 Beech Hill Road, Sheffield, United Kingdom, S10 2SB
Public contact	Dr Dipak Patel, Sheffield Teaching Hospitals NHS Foundation Trust, sth.ResearchAdministration@nhs.net
Scientific contact	Dr Dipak Patel, Sheffield Teaching Hospitals NHS Foundation Trust, sth.ResearchAdministration@nhs.net

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	09 February 2015
Is this the analysis of the primary completion data?	Yes
Primary completion date	08 April 2014
Global end of trial reached?	Yes
Global end of trial date	08 April 2014
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

Does continuous use of Entonox® reduce pain severity during colonoscopy?

Protection of trial subjects:

Patient consent was obtained as per REC approved process. The study took place within standard care - all patients were having colonoscopies for clinically indicated reasons

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	10 October 2012
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	United Kingdom: 100
Worldwide total number of subjects	100
EEA total number of subjects	100

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)	35
From 65 to 84 years	65
85 years and over	0

Subject disposition

Recruitment

Recruitment details:

Participants were recruited from those planned to undergo colonoscopy for clinically indicated reasons at Sheffield Teaching Hospitals NHS Foundation Trust.

Pre-assignment

Screening details:

Patients referred for a screening colonoscopy, following a positive faecal occult blood (FOB) were invited to participate. Colonoscopy examinations were performed at the Northern General Hospital, Sheffield, between January 2013 and April 2014. Patients wishing to use Entonox were considered for inclusion.

Period 1

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

Arms

Are arms mutually exclusive?	Yes
Arm title	Continous Use

Arm description:

Entonox administered continuously throughout colonoscopy

Arm type	Experimental
Investigational medicinal product name	Entonox
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Medicinal gas, compressed
Routes of administration	Inhalation use

Dosage and administration details:

50% Oxygen, 50% Nitrous Oxide, administered by inhalation continuously

Arm title	As required use

Arm description:

Entonox administered as required throughout colonoscopy

Arm type	Active comparator
Investigational medicinal product name	Entonox
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Medicinal gas, compressed
Routes of administration	Inhalation use

Dosage and administration details:

50% oxygen, 50% nitrous oxide, inhaled as required

Number of subjects in period 1	Continous Use	As required use
Started	46	54
Completed	46	54

Baseline characteristics

Reporting groups	
Reporting group title	Continous Use
Reporting group description:	
Entonox administered continuously throughout colonoscopy	
Reporting group title	As required use
Reporting group description:	
Entonox administered as required throughout colonoscopy	

Reporting group values	Continous Use	As required use	Total
Number of subjects	46	54	100
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)			0
From 65-84 years			0
85 years and over			0
Age continuous Units: years			
arithmetic mean	66.7	66.5	
standard deviation	± 4.1	± 4.6	-
Gender categorical Units: Subjects			
Female	14	11	25
Male	32	43	75

End points

End points reporting groups	
Reporting group title	Continous Use
Reporting group description: Entonox administered continuously throughout colonoscopy	
Reporting group title	As required use
Reporting group description: Entonox administered as required throughout colonoscopy	

Primary: Overall pain rating prior to discharge	
End point title	Overall pain rating prior to discharge
End point description:	
End point type	Primary
End point timeframe: Overall pain rating prior to discharge	

End point values	Continous Use	As required use		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	46	54		
Units: score out of 10				
arithmetic mean (standard deviation)	2.4 (± 2.2)	3.2 (± 2.1)		

Statistical analyses

Statistical analysis title	primary endpoint
Comparison groups	Continous Use v As required use
Number of subjects included in analysis	100
Analysis specification	Pre-specified
Analysis type	superiority
P-value	≤ 0.05
Method	t-test, 2-sided

Adverse events

Adverse events information	
Timeframe for reporting adverse events:	
During colonoscopy	
Assessment type	Systematic

Dictionary used	
Dictionary name	MedDRA
Dictionary version	22.1

Reporting groups	
Reporting group title	Continous Use
Reporting group description:	
Entonox administered continuously throughout colonoscopy	
Reporting group title	As required use
Reporting group description:	
Entonox administered as required throughout colonoscopy	

Serious adverse events	Continous Use	As required use	
Total subjects affected by serious adverse events			
subjects affected / exposed	0 / 46 (0.00%)	0 / 39 (0.00%)	
number of deaths (all causes)	0	0	
number of deaths resulting from adverse events			

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

Non-serious adverse events	Continous Use	As required use	
Total subjects affected by non-serious adverse events			
subjects affected / exposed	45 / 46 (97.83%)	34 / 39 (87.18%)	
Nervous system disorders			
Light headedness			
subjects affected / exposed	22 / 46 (47.83%)	8 / 39 (20.51%)	
occurrences (all)	22	8	
Paraesthesia			
subjects affected / exposed	3 / 46 (6.52%)	1 / 39 (2.56%)	
occurrences (all)	3	1	
Gastrointestinal disorders			
Nausea			

subjects affected / exposed	3 / 46 (6.52%)	3 / 39 (7.69%)	
occurrences (all)	3	3	
Dry Mouth			
subjects affected / exposed	39 / 46 (84.78%)	34 / 39 (87.18%)	
occurrences (all)	39	34	
Psychiatric disorders			
Dysphoria			
subjects affected / exposed	3 / 46 (6.52%)	0 / 39 (0.00%)	
occurrences (all)	3	0	

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

Limitations of the trial such as small numbers of subjects analysed or technical problems leading to unreliable data.

The study ceased recruitment following the interim futility analysis of 100 patients pain ratings prior to discharge, which revealed that there were no clinically significant differences between the two groups (<1 point on a 10 point scale).

Notes:

Online references

http://www.ncbi.nlm.nih.gov/pubmed/25629571