Clinical trial results:
Use of N-Acetylcysteine (NAC) and Simeticone as a pre-endoscopic drink to improve mucosal visualisation during gastroscopy: A randomised controlled trial

Summary

EudraCT number	2013-001097-24
Trial protocol	GB
Global end of trial date	05 March 2015

Results information

Result version number	v1 (current)
This version publication date	01 June 2022
First version publication date	01 June 2022
Summary attachment (see zip file)	NICEVIS Published Paper Endoscopy International Open (NICEVIS FINAL PUBLISHED PAPER.pdf)

Trial information

Trial identification

Sponsor protocol code	PHT/2013/01

Additional study identifiers

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

Notes:

Sponsors

Sponsor organisation name	Portsmouth Hospitals University NHS Trust
Sponsor organisation address	Trust Headquarters, F-Level, Queen Alexandra Hospital, Southwick Hill Road, Cosham, United Kingdom, PO6 3LY
Public contact	Sharon McCready, Portsmouth Hospitals University NHS Trust, +44 2392286236, research.office@porthosp.nhs.uk
Scientific contact	Professor Pradeep Bhandari, Portsmouth Hospitals University NHS Trust, +44 2392286000, pradeep.bhandari@porthosp.nhs.uk

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	19 March 2015
Is this the analysis of the primary completion data?	Yes
Primary completion date	05 March 2015
Global end of trial reached?	Yes
Global end of trial date	05 March 2015
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

To determine if a pre-endoscopy drink of simeticone/n-acetylcysteine (a solution which will disperse bubbles and dissolve mucus) will improve views during upper gastrointestinal endoscopy (a flexible endoscopy camera examination of the gullet, stomach and duodenum). The solution will be compared to a simple water pre-endoscopy drink or no preparation.

Protection of trial subjects:

One-off administration of the drug will be observed by the nurse pre-procedure.
If a patient regurgitates or vomits any of the fluid before the procedure commences this will be noted but the procedure will be completed without further preparatory drink being given (We have not known this to be problem in our practice and the drink is very well tolerated).

Participants have the right to withdraw from the study at any time for any reason. The investigator also has the right to withdraw patients from the study in the event of excessive inflammation in the upper gastrointestinal tract (this can only be identified after the endoscopy has been commenced), AEs, SAE's, SUSAR's, protocol violations, administrative reasons or other reasons. It is understood by all concerned that an excessive rate of withdrawals can render the study uninterpretable; therefore, unnecessary withdrawal of patients should be avoided. Should a patient decide to withdraw from the study, all efforts will be made to report the reason for withdrawal as thoroughly as possible.

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	03 June 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	United Kingdom: 126
Worldwide total number of subjects	126
EEA total number of subjects	126

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)	60
From 65 to 84 years	64
85 years and over	2

Subject disposition

Recruitment

Recruitment details:

Patients will be sent a study Patient Information Leaflet approximately 2-6 weeks prior to their procedure. Following this, patients will be contacted by the research team to answer any questions they have and to see if they are willing to participate. Willing patients will be approached on the day of their procedure to provide written consent

Pre-assignment

Screening details:

Patients referred for outpatient (day case) upper gastrointestinal endoscopy will be identified as possible study participants. Routine and CWT pathway patients would be considered for inclusion in the study. All referrals are processed through the endoscopy department office on a daily basis and these will be screened for possible participants.

Period 1

Period 1 title	Randomisation (overall period)
Is this the baseline period?	Yes
Allocation method	Randomised - controlled
Blinding used	Double blind
Roles blinded	Subject, Investigator

Arms

Are arms mutually exclusive?	Yes
Arm title	Arm A

Arm description:

Simeticone/N-acetyl cysteine pre-endoscopy drink (50ml water, 1000mg n-acetylcysteine, 60mg Simeticone

Arm type	Experimental
Investigational medicinal product name	Simeticone
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Oral liquid
Routes of administration	Oral use

Dosage and administration details:

60mg Simeticone as part of a pre-endoscopy drink

Investigational medicinal product name	n-acetylcysteine
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Oral liquid
Routes of administration	Oral use

Dosage and administration details:

1000mg n-acetylcysteine

Investigational medicinal product name	Water
Investigational medicinal product code	
Other name	Dihydrogen monoxide
Pharmaceutical forms	Oral liquid
Routes of administration	Oral use

Dosage and administration details:

50ml water as part of a pre-endoscopy drink

Arm title	Arm B

Arm description:

50ml water pre-endoscopy drink

Arm type	Placebo
Investigational medicinal product name	Water
Investigational medicinal product code	
Other name	Dihydrogen monoxide
Pharmaceutical forms	Oral liquid
Routes of administration	Oral use
Dosage and administration details: 50ml pre-endoscopy drink	
Arm title	Arm C
Arm description: no pre-endoscopy drink (current standard practice)	
Arm type	No intervention
No investigational medicinal product assigned in this arm	

Number of subjects in period 1	Arm A	Arm B	Arm C
Started	42	42	42
Completed	42	42	42

Baseline characteristics

End points

End points reporting groups	
Reporting group title	Arm A
Reporting group description:	
Simeticone/N-acetyl cysteine pre-endoscopy drink (50ml water, 1000mg n-acetylcysteine, 60mg Simeticone	
Reporting group title	Arm B
Reporting group description:	
50ml water pre-endoscopy drink	
Reporting group title	Arm C
Reporting group description:	
no pre-endoscopy drink (current standard practice)	

Primary: Mean visibility mucosal score.	
End point title	Mean visibility mucosal score.
End point description:	
Mean overall mucosal visibility score at 4 pre-defined locations rated by four blinded assessors.	
End point type	Primary
End point timeframe:	
Post Procedure	

End point values	Arm A	Arm B	Arm C	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	41	40	41	
Units: Digital photographs 4 locations				
number (not applicable)	41	40	41	

Statistical analyses

Statistical analysis title	Mucosal visibility scores
Statistical analysis description:	
Mean total mucosal visibility scores between groups were compared using one-way analysis of variance with Tukey’s test to detect between group differences.	

Comparison groups	Arm A v Arm B v Arm C
Number of subjects included in analysis	122
Analysis specification	Post-hoc
Analysis type	other[1]
P-value	< 0.05
Method	ANOVA
Parameter estimate	Mean difference (final values)

Confidence interval	
level	95 %
sides	2-sided
lower limit	5.02
upper limit	9.53
Variability estimate	Standard deviation

Notes:

[1] - Mean total mucosal visibility scores between groups were compared using one-way analysis of variance with Tukey’s test to detect between group differences. In post-hoc testing the Chi-squared test was used to compare the proportion of images with inadequate visibility scores (score 3 or 4) between groups.

Adverse events

Adverse events information

Timeframe for reporting adverse events:

Pre-Procedure to 7 days post procedure

Adverse event reporting additional description:

Any adverse events identified were document in the patient's medical notes and CRF. Investigator will assess AE for Seriousness. If an SAE is identified was assess for Causality, Expectedness and Intensity. An independent clinical reviewer will also assess for causality and relatedness. Follow up of participants appropriately until resolved.

Assessment type	Systematic

Dictionary used

Dictionary name	PHTRDSOP007
Dictionary version	1.0

Reporting groups

Reporting group title	Arm A

Reporting group description:

Simeticone/N-acetyl cysteine pre-endoscopy drink (50ml water, 1000mg n-acetylcysteine, 60mg Simeticone

Reporting group title	Arm B

Reporting group description:

50ml water pre-endoscopy drink

Reporting group title	Arm C

Reporting group description:

no pre-endoscopy drink (current standard practice)

Serious adverse events	Arm A	Arm B	Arm C
Total subjects affected by serious adverse events			
subjects affected / exposed	0 / 42 (0.00%)	1 / 42 (2.38%)	0 / 42 (0.00%)
number of deaths (all causes)	0	0	0
number of deaths resulting from adverse events	0	0	0
Gastrointestinal disorders			
Laryngospasm	Additional description: 1 participant who received water pre-procedure developed laryngospasm shortly after intubation of the oesophagus. The procedure was abandoned and the participant recovered quickly with no long-term sequelae.		
subjects affected / exposed	0 / 42 (0.00%)	1 / 42 (2.38%)	0 / 42 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0

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

Non-serious adverse events	Arm A	Arm B	Arm C
Total subjects affected by non-serious adverse events			
subjects affected / exposed	0 / 42 (0.00%)	1 / 42 (2.38%)	0 / 42 (0.00%)
Gastrointestinal disorders			
Abdominal pain	Additional description: abdominal cramps and diarrhea reported post procedure.		
subjects affected / exposed	0 / 42 (0.00%)	1 / 42 (2.38%)	0 / 42 (0.00%)
occurrences (all)	0	1	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

None reported

Online references

http://www.ncbi.nlm.nih.gov/pubmed/2785374