

# Transnasal endoscopy: image quality and patient acceptability

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<b>Registration date</b> 11/04/2012	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan <input checked="" type="checkbox"/> Results
<b>Last Edited</b> 25/08/2016	<b>Condition category</b> Surgery	<input type="checkbox"/> Individual participant data

## Plain English summary of protocol

### Background and study aims

Transnasal endoscopy (TNE) is a procedure whereby a flexible tube containing a video camera (endoscope) is passed via the nose, rather than the mouth, into the stomach. Transnasal endoscopy has gained wide acceptance in Japan over the last 5 years and has increasingly been practised in Europe and North America. It has the advantage that the transnasal (nose) route does not so readily induce a gag reflex, therefore the examination can be a lot more comfortable and, furthermore, the patient can interact and speak with the endoscopist during the examination. The patient does not require staying long following the completion of the examination, because there is no risk of aspiration as there is with the traditional throat spray (lasting about 30 minutes to an hour). The aim of the study is to evaluate the role of unsedated transnasal endoscopy versus routine unsedated endoscopy under throat spray.

### Who can participate?

Every patient due for a diagnostic upper gastrointestinal endoscopy under local anaesthetic.

### What does the study involve?

Participants will be randomly allocated to undergo either transoral (mouth route) endoscopy or transnasal (nose route) endoscopy. Both procedures will be carried out in the same environment in a standardised manner. The same team of experienced endoscopists will perform all endoscopic examinations. The duration of the procedure will be recorded from the beginning of nasal topical anaesthetic to the withdrawal of the endoscope. In addition, both procedures will be videoscoped or representative images will be taken from key areas of the upper digestive system. The quality of the procedure in terms of being able to achieve adequate information and image quality will be recorded for both types of procedure. Image recording in endoscopy is considered standard good endoscopic practice in particular when pathology is found.

### What are the possible benefits and risks of participating?

Patients who are interested to participate in the study may avoid the waiting time of their regular appointment. The study does not involve anything additional in terms of risks than standard endoscopy practice. Transoral and transnasal endoscopy are routinely used for investigation and diagnosis of upper digestive system symptoms.

Where is the study run from?

The study will take place in the Clinical Research Facility in the Royal Infirmary of Edinburgh (UK).

When is the study starting and how long is it expected to run for?

The study started in February 2011 and is anticipated to end in February 2012.

Who is funding the study?

The NHS Lothian R&D and Imotech-Fujinon fund the project.

Who is the main contact?

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## Contact information

### Type(s)

Scientific

### Contact name

Dr John Plevris

### Contact details

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## Additional identifiers

### Protocol serial number

REC No: 10/S1103/21

## Study information

### Scientific Title

Prospective randomized control study of the use of transnasal upper digestive endoscopy: image quality and patient acceptability

### Study objectives

Transnasal endoscopy has gained wide acceptance in Japan over the last 5 years and has increasingly been practised in Europe and North America. It has the advantage that it uses a super thin (<6mm) flexible endoscope which can be introduced through the nose in an unsedated patient. It has the advantage that the transnasal route does not so readily induce a gag reflex therefore the examination can be a lot more comfortable and, furthermore, the patient can interact and speak with the endoscopist during the examination. The patient does not require to stay long following the completion of the examination, because there is no risk of aspiration as there is with the traditional throat spray (lasting approximately 30 minutes to an hour). The examination can therefore be carried out on an ambulatory basis in Primary Care Offices and Outpatient Departments. This technique has not gained wide acceptance in the UK

and at present there are very few centres routinely offering transnasal endoscopy. The aim of the study is to prospectively evaluate in a randomised manner the role of unsedated transnasal endoscopy versus routine unsedated endoscopy under throat spray.

### **Ethics approval required**

Old ethics approval format

### **Ethics approval(s)**

South East Scotland NHS Research Ethics Committee, 09 June 2010 ref: 10/S1103/21  
NHS Lothian Research & Development Project No: 2010/RIGI01

### **Study design**

Prospective randomised control study

### **Primary study design**

Interventional

### **Study type(s)**

Diagnostic

### **Health condition(s) or problem(s) studied**

Upper gastro intestinal endoscopy

### **Interventions**

Following patient consent and after recording standard demographic and clinical information, the procedure will take place in the Clinical Research Facility in the Royal Infirmary of Edinburgh. Both the trans-oral unsedated (under throat spray) endoscopy and the unsedated transnasal endoscopy will happen in the same environment in a standardised manner. The same team of experienced Endoscopists (KT/JP/PCH/SA) will perform all endoscopic examinations. The duration of the procedure will be recorded from the beginning of nasal topic anaesthetic to the withdrawal of the endoscope. In addition, both procedures will be videoscoped or representative images will be taken from key anatomical areas of the upper digestive system. These will include the oesophagus, the oesophagogastric junction, cardia (retroflexion), inspection of the body, the antrum, the incisura (lesser curve), the pylorus, D1 and D2 images. The quality of the procedure in terms of being able to achieve adequate topographic information as well as adequate image quality of pictures will be recorded for both types of procedures. Image recording in endoscopy is considered standard good endoscopic practice in particular when pathology is found. Furthermore, images will be taken also under FICE (Fujinon Intelligent ChromoEndoscopy) from all examinations for further assessment of the FICE quality. All images will be anonymized prior to further analysis.

Following completion of the procedure and up to 72 hours, complications will be recorded by a specific questionnaire. Questionnaires regarding expectations of the procedure, procedure acceptability, and satisfaction with the examination will be used to assess the patient's experience at the end of the procedure and a week later.

For patients who have previous experience of trans-oral endoscopy, a specific questionnaire will be used, aiming to record whether they would prefer in the future to have a transnasal endoscopy or a standard endoscopy.

In all questionnaires we will use a visual analog scale (0 to 10cm) and will ask the patient to mark somewhere in between. The length from 0 to the marked point will be measured in cm and will be the score for that question.

A sub group of patients will inevitably require having their endoscopy repeated (i.e. in cases of oesophagitis to check healing or gastric ulcers to check healing etc). These people will be given the opportunity to have the repeat endoscopy in a crossover fashion i.e. those who were previously randomised to have a trans-oral endoscopy will have it done via the transnasal route while those randomised to the initial endoscopy through the transnasal route will have it in the trans-oral manner. The study will be completed for those patients who do not wish to enter the cross over phase.

### **Intervention Type**

Procedure/Surgery

### **Phase**

Not Applicable

### **Primary outcome(s)**

Is there a difference in the acceptability (as marked on a 100mm line) in those receiving transnasal endoscopy (TNE) versus standard endoscopy?

### **Key secondary outcome(s)**

1. Is there a difference in the tolerability (as marked on a 100mm line) in those receiving TNE versus standard endoscopy?
2. Is there a difference in the acceptability / tolerability of each method (TNE and standard) in those patients who receive both methods in the course of this trial?
3. Adequacy of endoscopic examination and image quality of endoscopic images including digital image enhancement (FICE). The endoscopist will be asked to comment using a specific questionnaire along the lines explained in A10

### **Completion date**

29/02/2012

## **Eligibility**

### **Key inclusion criteria**

1. Routine indication for diagnostic upper GI endoscopy
2. Age over 18

### **Participant type(s)**

Patient

### **Healthy volunteers allowed**

No

### **Age group**

Adult

### **Lower age limit**

18 years

**Sex**

All

**Key exclusion criteria**

1. Patients who demand an under sedation upper endoscopy
2. Pregnant women
3. Patients with any malformation of nasal area or previous nose surgery or fractures
4. History of frequent nose bleeds or blood coagulopathy
5. Patients receiving warfarin
6. Psychiatric disorders
7. Patient allergic to the local anaesthetic used
8. High risk for Variant Creutzfeldt-Jakob disease (vCJD) patients

**Date of first enrolment**

01/09/2010

**Date of final enrolment**

29/02/2012

**Locations**

**Countries of recruitment**

United Kingdom

Scotland

**Study participating centre**

University of Edinburgh

Edinburgh

United Kingdom

EH16 4SA

**Sponsor information**

**Organisation**

University of Edinburgh (UK)

**ROR**

<https://ror.org/01nrxf90>

**Funder(s)**

**Funder type**

University/education

**Funder Name**

University of Edinburgh (UK)

**Alternative Name(s)**

Universitas Academica Edinburgensis, Oilthigh Dhùn Èideann, The University of Edinburgh, University of Edinburgh in United Kingdom, Edin, Tounis College, King James' College, Athens of the North, ED, Edin

**Funding Body Type**

Government organisation

**Funding Body Subtype**

Universities (academic only)

**Location**

United Kingdom

**Funder Name**

Imotech (UK) - Fujinon

## Results and Publications

**Individual participant data (IPD) sharing plan****IPD sharing plan summary**

Not provided at time of registration

**Study outputs**

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<a href="#">Results article</a>	results:	01/09/2014		Yes	No
<a href="#">Participant information sheet</a>	Participant information sheet	11/11/2025	11/11/2025	No	Yes