JAG accreditation scheme
JAG guidance: transnasal endoscopy

Audience: All endoscopy services
Date issued: October 2018
Review date: October 2021
Standards relevant: NA

Introduction

Transnasal endoscopy (TNE) is an emerging practice undertaken in endoscopy services. This briefing aims to provide guidance to ensure that TNE services are undertaken in the same high quality and safe manner as trans oral endoscopy.

What is it?

TNE uses an ultra slim gastroscope, which is passed via the nose rather than the mouth, in order to undertake diagnostic upper GI endoscopy +/- biopsies. Should both nostrils not be passable at intubation, the scope can also be used for standard oral gastroscopy.

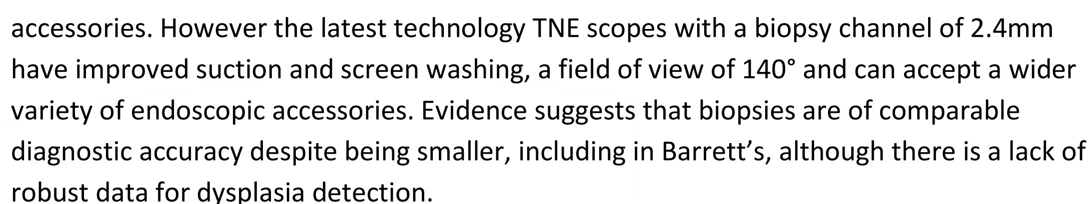
The scope is between 5-6mm diameter, and has a biopsy channel of between 2-2.4mm. All functions and connections are the same as a standard diameter gastroscope.

Advantages to patients

Most patients find the procedure more comfortable and relaxed as there is little gagging sensation. Patients are able to talk during the procedure and discharge may be immediately post procedure, without the need for recovery. It is generally a comfortable, unsedated procedure, meaning patients do not need to be accompanied, can drive immediately and return to normal activities and work as desired. The patient preparation and procedure time is the same as for trans oral gastroscopy.

Are there any disadvantages over the trans oral route?

There are some technical limitations to TNE. Its narrow diameter results in a 'floppier' scope that can limit advancement if patients have difficult anatomy, including large hiatus hernia and that from previous surgery or trauma, or if the endoscopist is inexperienced in TNE (Parker et al, 2015). The smaller working channel of these instruments also results in reduced suction, less effective screen washing and a limitation in available endoscopy



accessories. However the latest technology TNE scopes with a biopsy channel of 2.4mm have improved suction and screen washing, a field of view of 140° and can accept a wider variety of endoscopic accessories. Evidence suggests that biopsies are of comparable diagnostic accuracy despite being smaller, including in Barrett's, although there is a lack of robust data for dysplasia detection.

What are the risks associated with TNE?

Risks of perforation and bleeding are the same as for a standard trans oral endoscopy. There is less cardiovascular stress with no sedation related risk, making TNE a good option in high-risk patients and the elderly. Increased patient comfort using this modality means that the risks associated with gagging such as a sore throat are reduced. TNE does carry an additional risk of epistaxis, although this rarely requires intervention above a simple 'nose pinch'. There is the potential risk of transmitting CJD in addition to VCJD in that there is a risk of breaching the olfactory mucosa, highlighting the importance of the correct training of practitioners.

What training is required to undertake the procedure?

Although there is no formalised training programme, either for trainee endoscopists or for those learning how to undertake TNE who already have accreditation in trans oral gastroscopy, there is a requirement to understand the nasal anatomy and how to deal with complications. There are also subtle differences to the techniques required to negotiate some aspects of the anatomy, particularly large hiatus hernias and passage through to D2. There are training courses available, which JAG strongly recommends clinicians attend. ENT surgeons should be involved at local service level to understand the anatomical approach and managing complications, and to provide mentoring.

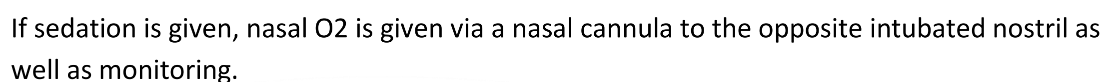
Where can the procedure be undertaken?

This is a highly ambulatory procedure, which is undertaken in endoscopy units or within an outpatient clinic setting. If carried out in an outpatient setting there must be processes in place for how patients will be managed if sedation is required or in the event of an adverse event. Patient assessment, peri procedural care and discharge remain the responsibility of a registered nurse throughout.

Preparation for and during the procedure

Patients are given a drink containing simeticone (e.g. InfacolTM) to reduce bubbles in the stomach, and receive a nasal spray of phenylephrine and lidocaine, to reduce nasal congestion and provide local anaesthetic in the nose.

Patients can talk throughout the procedure, which is of significant value, and it can be undertaken in either a seated position on a trolley or chair or with the patient lying on the left side. Although there is minimal gagging or breath holding and sedation is not used routinely, it is seen as good practice to monitor oxygen saturation (O2) and pulse throughout. Oral suction is not usually required, but must be available.



If sedation is given, nasal O2 is given via a nasal cannula to the opposite intubated nostril as well as monitoring.

What about care and decontamination of the scope?

The scope design and function is exactly the same as a standard gastroscope. As it has a smaller biopsy/suction channel it requires full management, processing and storage in line with other GI endoscopes including tracking and traceability, following the requirements of HTM 01-06 documents.

What infrastructure is required to support TNE in an outpatient setting?

If undertaken within an outpatient setting there remains the same requirement to ensure that the respect and dignity of patients is maintained at all times as with a standard endoscopy. Gender segregation is not required as patients are not changed out of their clothes, providing that sedation is not used (gender segregation for other procedures is only a requirement for English providers).

A full risk assessment must be carried out to ensure that appropriate facilities are available to support patients who experience complications, including a failed procedure or where sedation is required. There should be clear standard operating procedures (SOPs) in place to manage the pathway including pre assessment, peri procedural care, equipment requirements and reprocessing and management of complications.

All staff supporting TNE should have demonstrable competencies for the roles they are undertaking as with standard endoscopy procedures.

References

Parker C, et al. Frontline Gastroenterology 2015;0 :1–11.

Further information

For further information, please do not hesitate to contact JAG by going to www.thejag.org.uk/support.

Document control	
Version	2.0 final
Effective from	October 2018
Review date	October 2021
Owner	Accreditation Unit