

Business case for One-stop Transnasal Oesophagoscope Service Adoption

Narun Tantichirasakul¹, Ravneet Grewal¹, Natalie Watson², Benjamin Miller², and Yakubu Karagama²

¹King's College London GKT School of Medical Education

²Guy's and St Thomas' NHS Foundation Trust

May 15, 2021

Abstract

Keypoints: * Implementing a one-stop Transnasal oesophagoscopy (TNO) service will benefit patients, clinicians as well as the NHS Trusts. * TNO is safe, well-tolerated and improves diagnostic and therapeutic precision in the upper aerodigestive tract and oesophagus. * The one-stop TNO service has clear financial benefits. * The one-stop TNO service is a streamlined pathway which improves patient care and experience. * Both the clinical and financial risk of introducing the service is low.

Hosted file

Main_document (3).pdf available at <https://authorea.com/users/413928/articles/522116-business-case-for-one-stop-transnasal-oesophagoscope-service-adoption>

| | |
|---|--|
| <i>For TNO Assessment</i> | <ul style="list-style-type: none"> • Transnasal oesophagoscope – 1 per patient • Videostack system • 5% lidocaine hydrochloride + 0.5% phenylephrine hydrochloride – 2 per patient • Instillagel – 2% Lidocaine gel – 1 per patient • Xylocaine – 10% Lidocaine – 1 per patient • Pack of Gauze • Personal Protection Equipment |
| <i>Additional For Vocal Cord Injection Procedures</i> | <ul style="list-style-type: none"> • Voice injection (Botox, Radiesse, Hyaluronic acid, Depomedrone steroid) – 2 per patient • Rigid injection needle with support cannula – 1 per patient • Hypodermic needle size 24G x 1.5” – 1 per patient • 1 cup non-sterile hot water • MADgic Atomisation Device (Teleflex, USA) – 1 per patient |
| <i>Additional For Biopsy Procedures</i> | <ul style="list-style-type: none"> • Specimen pot • Flexible forceps • MADgic Atomisation Device (Teleflex, USA) – 1 per patient |
| <i>Additional For Balloon Dilation Procedures</i> | <ul style="list-style-type: none"> • Cook medical balloon – 3 selection of sizes (sizes 20, 18, 16) per patient • Cook medical syringe 60mls – 1 per patient |
| <i>Additional For Blue/KTP Fibre or CO₂ Laser Procedures</i> | <ul style="list-style-type: none"> • Blue laser • Specimen pot • Flexible forceps • Additional personal protection equipment – laser eyewear, door signs and locks on doors |

Table 1: Our equipment checklist for TNO procedures

| <i>Clinicians</i> | <i>NHS Trusts</i> | <i>Patients</i> |
|---|--|--|
| Comprehensive ENT examination from nasal cavity to GOJ | Switch from in-patient setting to out-patient one-stop clinic setting thereby reducing the patients' length of hospital stay | Reduces the time to diagnosis and treatment improving continuity of patient care and experience |
| Digital High-Resolution imaging increasing diagnostic yield and biopsy precision | Reduces waiting lists in day surgery, main theatre, barium swallows and radiology where these spaces can be assigned to other uses | Early and more accurate diagnosis means better outcomes |
| Eliminates risks associated with GA, particularly valuable in high risk patients | Shorter procedure time and more cost beneficial to the Trust | Immediate results remove stress of waiting and the need for additional travel for result clinics |
| Equipment is user friendly | Eliminates need for bed spaces | Out-patient setting less daunting to patients than theatre |
| Can be performed in outpatient setting so there is no need for theatre preparations | Saving theatre resources for other procedures | Avoidance of GA often means less risks and quicker recovery |
| | Reduce need for outpatient results clinic visits due to instant results | Reduces time spent in the hospital, minimising risk of hospital acquired infection |

Table 2: Summary of the key benefits of a one-stop TNO service to clinicians, NHS trusts and patients [3-5]

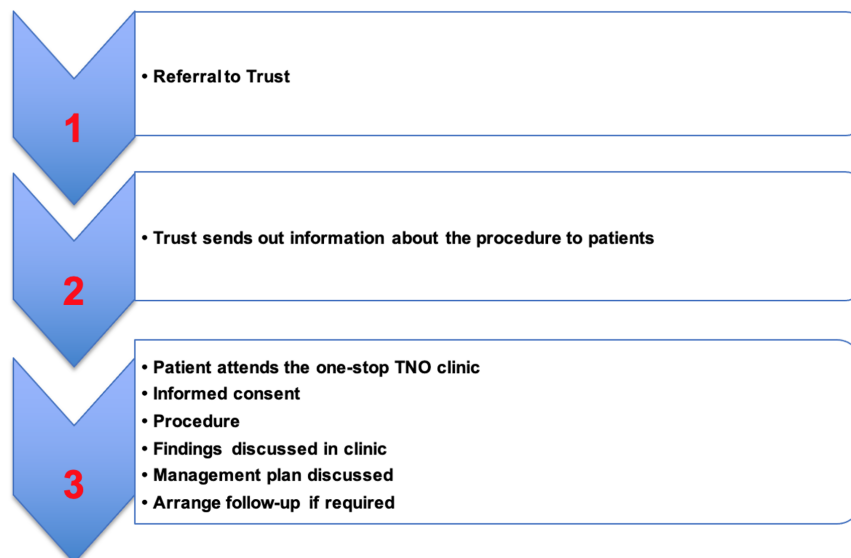


Figure 1: One-stop Transnasal Oesophagoscopy Service Pathway



Figure 2: Example of an outpatient set up