# Formative DOPS: Endoscopic Ultrasound (EUS)

**Royal College of Physicians**

**Joint Advisory Group**

**On GI Endoscopy**

<table>
<thead>
<tr>
<th>Date of Procedure</th>
<th>Trainee name</th>
<th>Membership no (eg GMC/NMC)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Trainer name</td>
<td>Membership no (eg GMC/NMC)</td>
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</tbody>
</table>

**Outline of case**

<table>
<thead>
<tr>
<th>Category</th>
<th>Gastrointestinal</th>
<th>HPB</th>
<th>Other: eg Mediastinal</th>
</tr>
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</table>

Please tick appropriate box

**Difficulty of case**

<table>
<thead>
<tr>
<th>Easy</th>
<th>Moderate</th>
<th>Complicated</th>
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Please tick appropriate box

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**Level of supervision**

Complete DOPS form by ticking the appropriate level of supervision required for each item below. Constructive feedback is key to this tool assisting in skill development.

<table>
<thead>
<tr>
<th>Maximal supervision</th>
<th>Significant supervision</th>
<th>Minimal Supervision</th>
<th>Competent for independent practise</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervisor undertakes the majority of the tasks/decisions &amp; delivers constant verbal prompts</td>
<td>Trainee undertakes tasks requiring frequent supervisor input &amp; verbal prompts</td>
<td>Trainee undertakes tasks requiring occasional supervisor input &amp; verbal prompts</td>
<td>No supervision required</td>
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**Pre-Procedure**

<table>
<thead>
<tr>
<th>Indication</th>
<th>Personalised Risk</th>
<th>Review imaging</th>
<th>Preparation</th>
<th>Confirms Consent</th>
<th>Equipment check</th>
<th>Sedation</th>
<th>Monitoring</th>
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</table>

**Endoscopic Skills**

<table>
<thead>
<tr>
<th>Intubation</th>
<th>cricopharynx</th>
<th>oesophagus</th>
<th>duodenum</th>
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Endoscopy Visualization

Scope Handling

**Endoscopic Ultrasound Imaging and Interpretation**

<table>
<thead>
<tr>
<th>Ultrasound Proficiency</th>
<th>Image Acquisition</th>
<th>Document all key images</th>
<th>Interpretation</th>
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**Tissue Acquisition**

<table>
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<tr>
<th>Target Selection</th>
<th>Sampling Technique</th>
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**Complications**

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<th>Recognition and management of complications</th>
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**Post-Procedure**

<table>
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<tr>
<th>Report Writing</th>
<th>Management Plan</th>
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## Royal College of Physicians

### Formative DOPS:
Endoscopic Ultrasound (EUS)

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### ENTS (Endoscopic Non-Technical Skills)

- Communication and Teamwork
- Situation Awareness
- Leadership
- Judgement and Decision Making

### Comments

**Learning Objectives for the next case**

The objective should be added to the trainee’s personal development plan (PDP) once DOPS is submitted.

1. 
2. 
3. 

### Overall Degree of Supervision required

- **Maximal supervision**: Supervisor undertakes the majority of the tasks/decisions & delivers constant verbal prompts
- **Significant supervision**: Trainee undertakes tasks requiring frequent supervisor input & verbal prompts
- **Minimal Supervision**: Trainee undertakes tasks requiring occasional supervisor input & verbal prompts
- **Competent for independent practise**: No supervision required

**Please tick appropriate box**
**Pre-Procedure**

**Indication**
- Has read and evaluated referral
- Assess relevant documentation and results of tests
- Understands clinical question and role of EUS in management of patient

**Personalised Risk**
- Assesses co-morbidity including drug history
- Assesses any procedure related risks relevant to patient
- Takes appropriate action to minimise any risks

**Review Imaging**
- Evaluation of previous imaging
- Demonstrates understanding of relevant anatomy and features of pathology related to clinical condition on pre-procedural imaging
- Can correlate imaging with necessary EUS technique to successfully evaluate those abnormalities

**Preparation**
- Ensures all appropriate pre-procedure checks are performed as per local policies
- Ensures that all assisting staff are fully appraised of the current case
- Ensures all medications & accessories likely to be required for this case are available

**Confirms Consent**
- Candidate has knowledge of the most up-to-date national guidance on consent
  - Early in training the consent process should be witnessed by the trainer, once competent it is acceptable for the trainee to confirm that valid consent has been gained by another trained member of staff
  - During the summative DOPS the process of obtaining consent should be witnessed and assessed
  - Complete and full explanation of the procedure including proportionate risks and consequences without any significant omissions and individualised to the patient
  - Avoids the use of jargon
  - Does not raise any concerns unduly
    - Gives an opportunity for patient to ask questions by adopting appropriate verbal and non-verbal behaviours
    - Seeks out what matters to patients in order to share relevant information on the benefits and harms of proposed options and reasonable alternatives including the option to take no action
    - Develops rapport with the patient
  - Respects the patient’s own views, concerns and perceptions

**Equipment check**
- Ensures the available scope is appropriate for the current patient and indication
- Ensures the endoscope is functioning normally before attempting insertion

**Monitoring**
- Ensures appropriate monitoring of oxygen saturation and vital signs pre-procedure
- Ensures appropriate action taken if readings are sub-optimal
- Demonstrates awareness of clinical monitoring throughout procedure

**Sedation**
- When indicated inserts and secures IV access and uses appropriate topical anaesthesia
- Uses sedation and/or analgesic doses in keeping with current guidelines and in the context of the physiology of the patient
- Drug doses checked and confirmed with the assisting staff

**Endoscopic Skills**

**Intubation**
Demonstrates safe & effective intubation of: Cricopharynx, GOJ, Pylorus, D1/bulb, D2/D3

**Endoscopy Visualization**
Rudimentary appreciation & documentation of mucosal pathology noted visually

**Scope Handling**
Consistently positions echoendoscope to achieve stability in all stations including
- ability to manoeuvre scope and tip position to improve & optimise imaging
- knowledgeable in specific movements to “follow anatomical structures”

**Endoscopic Ultrasound Imaging and Interpretation**

**Ultrasound Proficiency**
U/S knowledge, recognition of ultrasound artefact, knoblinogy, Image optimisation,

**Target Acquisition**
- Can obtain and record clear, accurate images of all relevant anatomy and pathology
- Demonstrates knowledge and necessary skills to utilise scope and ultrasound equipment to produce diagnostic images

**Document all key images**
Document and annotate accurately all required key images for the given imaging remit
- Anatomical landmarks for normal anatomy and their variants
- Record pathology including key images to highlight diagnosis and staging etc

**Interpretation**
- Understands normal & abnormal findings, correlates with clinical problem to aid diagnosis
- Incorporate ultrasound findings into medical decision making and clinical practice
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### Tissue Acquisition
- **Target Selection**
  - Appropriate selection of FNA/Core biopsy technique
  - Demonstrates understanding of different tissue / fluid required depending on anticipated pathology
  - Shows ability to select safe and achievable target
- **Sampling Technique**
  - Selects appropriate FNA/core biopsy needle to obtain tissue/liquid
  - Demonstrates ability to maintain safe, stable position during sampling
  - Shows ability to maintain needle visualisation at all times
  - Demonstrates understanding and necessary skills for distribution of acquired sample for effective cytology/pathology preparation
  - Demonstrates necessary communication/liaison with pathology colleagues to ensure effective reporting of samples

### Complications
- **Recognition**
  - Understanding of potential complications and demonstration of knowledge about likely symptoms in immediate post procedure time, short term and long term.
  - To include those related to general endoscopy and those specific to EUS and EUS guided interventions
- **Management**
  - Demonstration of ability to set in motion necessary actions in case of immediate, short term and long-term complications including:
    - Communication with patients and staff
    - Stratification of risk and appropriate therapies

### Post-Procedure
- **Report writing**
  - **Content**
    - Structured endoscopy report:
      - Background, Risks, Remit
      - Findings
  - **Clarity**
    - Adequate record of definitive findings
    - Clear and concise use of relevant EUS terminology
  - **Conclusion & Answering the clinical question**
    - Intervention:
      - Conclusions: Correlation with previous imaging
      - Record of conclusion of findings and relevance to clinical care
      - Clear thought to diagnosis / differential diagnosis
    - Recommendations:
      - Post procedural Instructions: including anticoagulation re-commencement etc

### Management plan
- Adequate communication with clinical staff, patient & relatives

### ENTS (Endoscopic Non-Technical Skills)
- **Communication and Teamwork**
  - Ensures that the patient is at the centre of the procedure, emphasising safety and comfort
  - Maintains clear communication with assisting staff
  - Gives and receives knowledge and information in a clear and timely fashion
  - Ensures that both the team and the endoscopist are working together, using the same core information and understand the ‘big picture’ of the case
  - Clear communication of results and management plan with patient and/or carers

- **Situation Awareness**
  - Ensure procedure is carried out with full respect for privacy and dignity
  - Maintains continuous evaluation of the patient’s condition
  - Ensures lack of distractions and maintains concentration, particularly during difficult situations
  - Intra-procedural changes to scope set-up monitored and rechecked

- **Leadership**
  - Provides emotional and cognitive support to team members by tailoring leadership and teaching style appropriately
  - Supports safety and quality by adhering to current protocols and codes of clinical practice
  - Adopts a calm and controlled demeanour when under pressure, utilising all resources to maintain control of the situation and taking responsibility for patient outcome

- **Judgement and Decision Making**
  - Considers options and possible courses of action to solve an issue or problem, including assessment of risk and benefit
  - Communicates decisions and actions to team members prior to implementation
  - Reviews outcomes of procedure or options for dealing with problems
  - Reflects on issues and institutes changes to improve practice

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<tbody>
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<td><strong>Summative Assessment</strong></td>
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<tr>
<td>Assessor Name (1)</td>
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<tr>
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