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| ***Quantitative and Qualitative Assessment of Competence for IP Training at the Interventional Pulmonology Institute (IPI) of WABIP-Istanbul*** |
| **Procedure type** | **Quantitative assessment for achieving competence/annual maintenance****(International Guidelines/Statements)** | **IPI 3-month Assessment**  |
| **Diagnostic flexible bronchoscopy with direct biopsy** |
| **Flexible bronchoscopy** | Minimal volumes/maintenance annual volume-ERS/ATS: 100/50: -BTS 50-TSANZ 200/12-20: -ACCP 100/25:  | Quantitative: * Observational: 5
* Simulation: 5
* Under supervision: 25

Qualitative: * MCQ
* DOPS (BSTAT)
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| **Biopsies/TBNA** | Quantitative: * Biopsies: 20
* TBNA: 5

Qualitative: * MCQ
* DOPS (BSTAT)

Outcome.* At least 85% diagnostic sensitivity for biopsies of central lesions;
* Complications: no major complications – only mild bleeding

Tutor check that the operators ensure sufficient diagnostic material to allow phenotyping and genotyping of tumors - appropriate ROSE (**valid for all the procedures below**) |
| **Interventional Endobronchial Ultrasound (EBUS)** |
| **EBUS-TBNA**  | ERS-ATS: 40/25: ACCP 50/20: TSANZ:50/20 CCG: 50 procedures, after at least 100 flexible bronchoscopies and 5 TBNAs: AIPPD: 100 | Quantitative: * Simulation: 10 (Low-High fidelity)
* Observational: 10
* Under supervision: 20

MCQ:* Case-based questionnaire
* DOPS (EBUS-STAT, EBUS-SAT)

Assessment on patient:* Needle set-up in all cases
* Ability to pass scope through vocal cords in ±90% of cases (in case of Facial and laryngeal mask ventilation
* Ability to image lymph nodes in question in ±90% of cases
* Ability to pass TBNA needle through wall of trachea/bronchus into node in ±80%
* Typical procedure time: 20–60 min (Targeted -systematic)
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| **Navigation, guided transbronchial biopsy (guided- TBB) for peripheral pulmonary lesions (PPL)** |
| **Radial EBUS** **Electromagnetic****pulmonary navigation (EMN)** **Virtual bronchoscopy navigation (VBN)** | AIPPD: 20TSANZ: 20/20 CCG 20/20 | Quantitative: * Simulation: 5
* Observational: 5
* Under supervision: 10

Qualitative:* MCQ
* DOPS: NA

Outcome measures:* Correlation between the image and the final histology in > 75% of cases (data to be recorded in the Logbook)
* Sensitivity for malignancy: 60–70%
* Typical procedure time: 30–40 min
* Safety: < 1% bleeding, pneumothorax, infections
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| **Operative bronchoscopy procedures** |
| Rigid Bronchoscopy | ATS/ERS 20/10-15: ACCP 20/10 AIPPD: 50 | Quantitative: * Simulation: 5
* Observational: 5
* Under supervision: 10

Qualitative:* MCQ
* Case-based questionnaires
* DOPS (RIGID TASC), on simulator, animal and patient

Outcome assessment:* Ability to pass instrument into the trachea on first attempt in >90% of cases without significant hypoxic periods
* Injury to teeth, gums or larynx on < 2% of cases
* Therapeutic results (% of disobstruction, symptom improvement, quality of life)
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| Ablative therapies (Laser -Electro/APC Cryoablation) | ATS/ERS: >20/10-15 ACCP: 15/10AIPPD: 50 endobronchial ablation | Quantitative:* Observational: 5
* Under supervision: 10

Qualitative:* DOPS (RIGID TASC) on simulator, animal and patient

Outcome assessment:* Relief of symptoms in > 85% of cases
* Complication rate (haemorrhage, hypoxaemia, perforation, cardiac events): <5%
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| Airways Stents | ATS-ERS: 10/5-10 ACCP: 20/10 AIPPD: 20 | Quantitative: Simulation: 5 (Cylindric and Y metallic and silicon)Observational: 5Under supervision: 5Qualitative:* MCQ
* Case-based questionnaires

Outcome assessment:* A significant improvement in the score of breathlessness (as measured by an appropriate instrument) should be demonstrated in at least 80% of cases
* Patency achieved demonstrated by a picture of pre- and post-procedure endobronchial appearance and chest X-ray in all cases
* Complications should occur in <20% of cases. These include stent displacement, cough, mucus impaction, granulation tissue at stent ends, infection and perforation of airway walls.
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| **Pleural Procedures** |
| Pleural drainage with chest tubes/pleural catheters (not including thoracentesis)  | CCG: 10/3  | Simulation: 2Observational: 2Under supervision: 5Qualitative:* Management of patient comfort and complications
* Case-based questionnaires, including evaluation of correct decision-making
* DOPS (e.g. UGSTAT and EUTAT, TUBE-iCOMPT (the Chest Tube Insertion Competency Test: a 5-domain 100-point assessment tool in line with British Thoracic Society
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| **Thoracic Ecography** |
| Thoracic ultrasound | EFSUMB (European Federation of Societies for Ultrasound in Medicine and Biology): * observe at least 25 thoracic ultrasound examinations
* perform under supervision at least100 examinations on normal patients
* 50 examinations on patients with pleural effusions
 | Quantitative: * Simulation: 5 (optional)
* Observational: 5
* Under supervision: 25

Qualitative:* Questionnaires MCQ
* Case-based questionnaires, with decision- making process
* Assessment tools (UGSTAT, TUBE-iCOMPT).
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| **Interventional Pulmonology Emergencies** |
| Emergency in IP (Bleeding) | Unknown |  |
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