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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) |
| **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) |
| **Navigation, guided transbronchial biopsy (guided- TBB) for peripheral pulmonary lesions (PPL)** | | | |
| **Radial EBUS**  **Electromagnetic**  **pulmonary navigation (EMN)**  **Virtual bronchoscopy navigation (VBN)** | AIPPD: 20  TSANZ: 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) |
| Ablative therapies (Laser -Electro/APC Cryoablation) | ATS/ERS: >20/10-15  ACCP: 15/10  AIPPD: 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% |
| Airways Stents | ATS-ERS: 10/5-10  ACCP: 20/10  AIPPD: 20 | Quantitative:  Simulation: 5 (Cylindric and Y metallic and silicon)  Observational: 5  Under supervision: 5  Qualitative:   * 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. |
| **Pleural Procedures** | | | |
| Pleural drainage with chest tubes/pleural catheters (not including thoracentesis) | CCG: 10/3 | Simulation: 2  Observational: 2  Under supervision: 5  Qualitative:   * 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 |
| **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 least 100 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). |
| **Interventional Pulmonology Emergencies** | | | |
| Emergency in IP (Bleeding) | Unknown |  |
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