INSTITUTE
OF MEDICINE

ROYAL COLLEGE OF
PHYSICIANS OF IRELAND

HIGHER SPECIALIST TRAINING IN

RESPIRATORY MEDICINE AND GENERAL INTERNAL MEDICINE

Outcome Based Education Curriculum

This curriculum of training in Respiratory Medicine was developed in 2020 and undergoes an annual review by Dr Emer Kelly and Dr David Curran, National Specialty Directors, the RCPI Education Department, and by the Respiratory Medicine Training Committee. The curriculum is approved by the Institute of Medicine.

Version	Date Published	Last Edited By	Version Comments
3.0	July 2024	Stephen Capper	New Taught Programme Added

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Introduction

Respiratory Medicine is a clinical specialty dealing primarily with diseases of the lungs but also their effects on other organs. Many diverse pathological processes are involved in producing such disorders and, in addition to the common diseases such as asthma, chronic obstructive pulmonary disease (COPD) and carcinoma of the lung, many other inflammatory, infective and degenerative processes lead to a wide variety of diverse diseases.

Consequently, there are many potential opportunities to develop a subspecialty interest. Because of the diverse nature of the disease processes, an interest in basic mechanisms of disease is important and there are ample opportunities for basic as well as translational research. Clinical management remains important as, though progress has been made in the care of certain diseases such as asthma and tuberculosis, and the use of existing techniques such as bronchoscopy is being expanded, further challenges remain and new ones are likely to emerge.

Besides these specialty specific elements, trainees in Respiratory Medicine must also acquire certain core professional skills which are essential for good medical practice.

Aims

Upon satisfactory completion of specialist training in Respiratory Medicine, the doctor will be able to undertake comprehensive medical practice in that specialty in a professional manner, unsupervised and independently, and/or within a team, in keeping with the needs of the healthcare system.

The modern ethos of training in Medicine is termed Outcomes based Learning. This is best considered by viewing the desired end-product of training (the outcomes) and working backwards to try and provide the essential training experiences to achieve those outcomes.

What is the expected skill set of a newly appointed Specialist in Respiratory Medicine trained in the Irish Healthcare system ?

1. Highly competent in diagnosing and managing all of the common acute and chronic respiratory disorders, as well as having had some exposure and proficiency in managing the less common and rare conditions.
2. Highly developed communication, team-working and interpersonal skills
3. Be capable of managing junior staff, an in-patient and out-patient and consultation service, complaints and performing clinical practice review.
4. Capable of independent practice in specific procedures, namely, fiberoptic bronchoscopy and intercostal chest drain insertion via Seldinger technique, and have significant exposure to endobronchial ultrasound (EBUS)
5. A capable mentor and trainer to junior colleagues

Professionalism

Being a good doctor is more than technical competence. It involves values – putting patients first, safeguarding their interests, being honest, communicating with care and personal attention, and being committed to lifelong learning and continuous improvement. Developing and maintaining values are important; however, it is only through putting values into action that doctors demonstrate the continuing trustworthiness which the public legitimately expect. According to the Medical Council, Good Professional Practice involves the following aspects:

- Effective communication
- Respect for autonomy and shared decision-making
- Maintaining confidentiality
- Honesty, openness and transparency (especially around mistakes, near-misses and errors)
- Raising concerns about patient safety
- Maintaining competence and assuring quality of medical practice

Entry Requirements

Applicants for Higher Specialist Training (HST) in Respiratory must have obtained the MRCPI and possess a certificate of completion of Basic Specialist Training (BST) in General Internal Medicine.

Those who do not hold a BST certificate and MRCPI must provide evidence of equivalency.

Entry to the training programme is at year 1, irrespective of previous experience in Respiratory Medicine. Deferrals are not allowed on entry to Higher Specialist Training.

Duration & Organisation of Training

The duration of HST in Respiratory Medicine and General Internal Medicine is five years**,** (four years of Respiratory Medicine and one year of High intensity General Internal Medicine). One year of Respiratory Medicine credit may be gained for a period of full-time research or a clinical fellowship undertaken as part of OCPE.

Trainees must spend the first three years of training in clinical posts in Ireland before undertaking Out of Programme Clinical Experience (OCPE). A maximum amount of 12 months training credit may be given for OCPE, regardless of how long a trainee spends in OCPE.

The earlier years of training will usually be directed towards acquiring a broad general experience of Respiratory Medicine under appropriate supervision. An increase in the content of hands-on experience follows naturally, and, as confidence is gained and abilities are acquired, the trainee will be encouraged to assume a greater degree of responsibility and independence.

If an intended career path would require a trainee to develop further an interest in a sub-specialty within Respiratory Medicine (e.g. cystic fibrosis, lung transplantation, non-invasive ventilation etc.) this can be undertaken as part OCPE.

Trainees on HST programme in Respiratory Medicine are given a rotation of posts at the start of the programme for the first 2-3 years. Each rotation will provide the trainee with experience in different hospitals so as to acquire the broad range of training required.

Variation in the timescale to achieve outcomes may occur due to experience in post, but failure to make progress towards meeting these important objectives **at an early stage** would cause concern about a Specialist Registrar's suitability and ability to become independently capable as a specialist.

Training Programme

The training programme offered will provide opportunities to fulfil all the requirements of the curriculum of training for Respiratory Medicine in accredited training hospitals. Each post within the programme will have a named trainer/educational supervisor and programmes will be under the direction of the National Specialty Director for Respiratory Medicine or, in the case of GIM, the Regional Specialty Advisor. Programmes will be as flexible as possible consistent with curricular requirements, for example to allow the trainee to develop a sub-specialty interest.

The experience gained through rotation around different departments is recognised as an essential part of HST. A Specialist Registrar may not remain in the same unit for longer than 2 years of clinical training; or with the same trainer for more than 1 year.

Where an essential element of the curriculum is missing from a programme, access to it should be arranged, by day release for example, or if necessary by secondment.

Skill acquisition in training

a. Apprenticeship type learning where there is a high degree of exposure to common respiratory conditions in a variety of settings under the supervision of a respiratory specialist. Duration of apprenticeship is thought best to be 3 clinical years in respiratory medicine with an option of doing a fourth clinical year or 1 or more years in research. It is now mandatory that trainees in their first 3 years of training complete 2 Clinical Respiratory years and 1 GIM year.
b. Maintaining a electronic logbook of training experiences. It is the trainees responsibility to drive their own learning by actively seeking learning opportunities.
c. Rotating between different hospitals and Consultants allows exposure to different management approaches, specialty interests and orphan lung diseases
d. Competency in managing respiratory conditions is underpinned by the attainment of a high degree of specialist knowledge in lung physiology and lung imaging.
e. A supervised training program in fiberoptic bronchoscopy and intercostal chest drain insertion via Seldinger technique.
f. Provide an opportunity for observing EBUS and hands-on training for those who wish to perform EBUS independently as a specialist.
g. Personal study – reflection on clinical experiences including performing relevant literature searches and keeping up to date with new respiratory publications.
h. Presenting respiratory topics at weekly respiratory departmental meetings, including journal clubs, and at grand rounds.
i. Study days – trainees in respiratory clinical posts have to attend at least 7 respiratory study days per annum and 8 mandatory study days including communication skills, clinical audit, ethics and a ACLS course throughout their entire program.
j. Attending national and international respiratory conferences and presenting research abstracts in poster and oral formats.
k. Discussing cases with senior colleagues including lung physiology and imaging components.
l. Undergoing observed procedures, communication and teaching events by senior colleagues.
m. Conducting 1 clinical practice review (audit) per year as part of a quality improvement initiative.
n. Quarterly meetings with your Trainer to monitor your progress through the curriculum and also to discuss 1 clinical case in detail drawing in history, examination, imaging and physiology strands.

Dual Specialty Training

GIM training is expected to be completed in the first 3 years of the programme. One of these years is a GIM specific year. During the other 2 years trainees must complete their GIM training as per the minimum requirements.
Each post must include general medicine on-call commitment for acute unscheduled/emergency care with attendance at relevant post-take rounds.

Acute Medicine:
There must be evidence of direct supervision of the activity of the more junior members of the "on-take" team and a minimum of 10 (480 per year) new acute medical assessments and admissions during the 24-hour period are expected. In addition, the trainee will be expected to have ongoing care/responsibility for a proportion of the patients for the duration of the clinical inpatient journey as well as follow up post discharge. In this capacity you should develop skills in non-technical aspects of care including discharge planning and end of life care.

Inpatient Responsibilities:
The trainee will have front line supervisory responsibilities for general medical inpatients. This will require supervising the activities (e.g. being available for advice) of the more junior members (SHO/Intern) of the clinical team at all times. In addition to personal ward rounds, a minimum of two ward rounds with the Consultant each week is expected for educational experience. Ongoing responsibility for shared care of the team's inpatients whilst in the ITU/HDU/CCU is also essential. If this is not possible in a particular hospital/training institution, then a period of secondment to the appropriate unit will be required.

Outpatient Responsibilities:
The trainee is expected to have personal responsibilities for the assessment and review of general medicine outpatients with a minimum of at least one consultant led GIM clinic per week. The trainee should assess new patients; access to consultant opinion/supervision during the clinic is essential. In the event of clinics being predominantly subspecialty orientated, a trainee must attend other clinics to ensure comprehensive General Internal Medicine training.

General Education in Training:
The trainee is expected to spend four hours per week, in formal general professional education for certification of training. In the types of experience noted below, time must be fairly distributed between GIM and the other specialty in dual training programmes. Review of all these activities will form part of the training record for each trainee.

All trainees are required to undergo training in management. This will take the form of day-to-day involvement in the administration of the team/firm and must include attendance at a management course during the training period.

Trainees are expected to be actively involved in audit throughout their training and should have experience of running the unit's audit programme and presenting results of projects at audit meetings. They should also regularly attend other activities, journal clubs, X-ray conferences, pathology meetings etc.

Trainees should be expected to show evidence of the development of effective communication skills. This can be assessed from taking part in formal case presentations or in giving lectures/seminars to other staff or research/audit presentations at unit meetings.

All trainees must have a current ACLS certificate throughout their HST.

Procedures:
During training the trainee should acquire those practical skills that are needed in the management of medical emergencies, particularly those occurring out of normal working hours. Some exposure to these skills may have occurred during the period of BST but experience must be consolidated, and competencies reviewed during HST. The procedures, with which the trainee must be familiar and show competencies in, are designated either as essential to acquire, or as additional procedural skills i.e. desirable to acquire.

Essential & Additional Experience:

The trainee will be expected to have had experience of/be familiar with the management of a wide range of cases presenting to hospitals as part of an unselected acute medical emergency “take”. Whilst trainees will not need to be expert in all of these areas, they will be expected to be able to plan and interpret the results of immediate investigations, initiate emergency therapy and triage cases to the appropriate specialist care. These emergency situations have been considered under each specialty section and are indicative of what should be covered but are not prescriptive. It should form the basis of regular discussions between the trainee and trainers as training progresses. The various clinical situations listed for experience have been divided into those, which are considered “essential” and others, which are “additional”.

Assessment Process

A critical part of any Training Curriculum, and a very challenging area, is assessing skill development.

Assessing the skills of a potential Respiratory Specialist requires a multi-faceted approach. The same assessment, however, can test a number of skills. 1 witnessed bronchoscopy procedure could allow observation of the consent procedure, approaches to minimising procedural risk, the technical aspects of bronchoscopy, communication with the patient and fellow healthcare professionals, post procedural care and patient follow-up.

1. A critical aspect of assessing progress in training is the cumulative opinion of your trainer and their colleagues regarding your work performance. This has the advantage of assessing global performance as well as longitudinal development. Trainers issue a quarterly report and each trainee undergoes an annual assessment by the National Specialty Directors. Remediation may be required for perceived deficiencies.

2. The e-logbook is the only permanent record of your training. Learning goals, clinical episodes, assessments, quality improvement initiatives and teaching and academic events should all be recorded. It is critical the logbook is filled out prospectively and is signed off every 3 months by your current trainer. It is the trainee's responsibility to organise the meetings with their trainer.

3. In each of their clinical respiratory years, trainees will complete 1 clinical practice review as part of a quality improvement initiative.

4. Trainees are encouraged strongly to sit **the Harmonised Education in Respiratory Medicine for European Specialists** (HERMES) exam before the end of their second clinical respiratory year (no later than year 3 in the GIM/Resp program). We would also encourage the results of this test to be made available to the two National Specialty Directors.

5. Trainees will have 1 observed teaching session/ oral presentation per year and 1 observed consent process, 1 episode of Breaking bad news and 1 episode of discussing ceiling of care with a patient (and relatives) who has very advanced lung disease during training.

6. Trainees in the first six months of their Final clinical respiratory year will undergo 1 observed bronchoscopy and 1 ultrasound guided intercostal tube insertion by the Consultant intervention lead at their current institution.

7. Most SpRs actually only do 3 general respiratory clinical years with the 4th year in specialised training or in research. Some assessments are to be carried out in SpR1 year and they will be marked SpR1 whilst others are to be carried out anytime in the 3 clinical respiratory years marked SpR1-3. Some assessments are also just to be completed once during training (marked^{1}) and some in all 3 clinical respiratory years (marked^{123}) or 4 in the case of audit which is also done in your GIM year (marked^{1234}). A summary sheet is provided.

Core Professional Skills

Partnership

Communication and interpersonal skills

- Facilitate the exchange of information; be considerate of the interpersonal and group dynamics; have a respectful and honest approach.
- Engage with patients and colleagues in a respectful manner,
- Actively listen to the thoughts, concerns and opinions of others,
- Consider data protection, duty of care and appropriate modes of communication when exchanging information with others,

Collaboration

- Collaborate with patients, their families and your colleagues, to work in the best interests of the patient, for improved services and to create a positive working environment.
- Work cooperatively with colleagues and team members to deliver an excellent standard of care.
- Seek to build trust and mutual respect with patients.
- Appropriately share knowledge and information, in compliance with GDPR guidelines.
- Take on-board available, relevant feedback.

Health Promotion

- Communicate and facilitate discussion around the effect of lifestyle factors on health and promote the ethical practice of evidence based medicine.
- Seek up to date evidence on lifestyle factors that:
    - negatively impact health outcomes
    - increase risk of illness
    - positively impact health and decrease risk factors
- Actively promote good health practices with patients individually and collectively.

Caring for patients

- Take into consideration patient's individuality, personal preferences, goals and the need to provide compassionate and dignified care.
- Be familiar with
    - Ethical guidelines
    - Local and national clinical care guidelines
- Act in the patient's best interest.
- Engage in shared decision making and discuss consent.

Performance

Patient safety and ethical practice

- Put the interest of the patient first in decisions and actions.
- React in a timely manner to issues identified that may negatively impact the patient's outcome.
- Follow safe working practices that impact patient's safety.
- Understand ethical practice and the Medical Council guidelines.
- Support a culture of open disclosure and risk reporting.
- Be aware of the risk of abuse, social, physical, financial and otherwise, of vulnerable persons.

Organisational behaviour and leadership

- Be aware of he activities, personnel and resources that impact the functioning of the team, hospital and health care system.
- Understand and work within management systems.
- Know the impacts of resources and their necessary management.
- Demonstrate proficient self-management.

Wellbeing

- Be responsible for own well-being and health, and its potential impact on the provision of clinical care and patient outcomes.
- Be aware of signs of poor health and well-being.
- Be cognisant of the risk to patient safety related to poor health and well-being of self and colleagues.
- Manage and sustain your own physical and mental well-being.

Practice

Continuing competence and lifelong learning

- Continually seek to learn, to improve clinical skills and to understand established and emerging theories in the practice of medicine.
- Meet career requirements including those of the Medical Council, your employer and your training body.
- Be able to identify and optimise teaching opportunities in the workplace and other professional environments.
- Develop and deliver teaching using appropriate methods for the environment and target audience.

Reflective practice and self-awareness

- Bring awareness to your actions and decisions and engage in critical appraisal of own work to drive lifelong learning and improve practice.
- Pay critical attention to the practical values and theories which inform every day practice
- Be aware of your own level of practice and your learning needs.
- Evaluate and appraise your decisions and actions with consideration as to what you would change in the future.
- Seek to role model good professional practice within the health service.

Quality assurance and improvement

- Seek opportunities to promote excellence and improvements in clinical care through the audit of practice, active engagement in and the application of clinical research, and the dissemination of knowledge at all levels and across teams.
- Gain knowledge of quality improvement methodology.
- Follow best practice in patient safety.
- Conduct ethical and reproducible research.

General Internal Medicine Section

Objective: On completion of Higher Specialist Training, the trainee will be able to identify and treat immediate life threatening common medical presentations, form a differential diagnosis for non-life threatening cases and effectively manage the patient including further investigation and appropriate referral. They will have acquired a broad range of procedural and clinical skills to manage diverse presentations.

Assessment and Learning Methods

Learning opportunities during HST are through:

- Self-directed learning
- Attendance at study days
- Participation in In-house activities
- Unselected acute on call
- General Medicine outpatient clinics
- Departmental education sessions (black box, journal club, tutorials)
- Completion of required courses
- Attendance at additional learning events such as recommended courses and masterclasses

Progress is assessed through:

- Case Based Discussion
- ePortfolio
- Annual assessment
- DOPS

In the Acute setting

During the course of HST the trainee will encounter common acute presentations and demonstrate the following competencies:

- Recognising and assessing urgency
- Stabilising the patient
- Prioritising
  - Tasks
  - Investigations
- Managing co-existing morbidities
- Making appropriate referrals
- Decision making and appropriate delegation

The presentations listed in this section represent the most common acute presentations and conditions currently seen in Irish hospitals, accounting for over 95% of admissions. It is expected that HST trainees in General Internal Medicine will have a comprehensive knowledge of, and be able to provide a differential diagnosis for, these conditions.

Presentations

1. Shortness of breath
2. Cough
3. Chest Pain
4. Blackout/ Collapse/ Dizziness
5. The frail older patient in the acute setting
6. Abdominal Pain
7. Fever
8. Alcohol and substance dependence or withdrawal
9. Falls and Decreased mobility
10. Weakness and Paralysis
11. Headache
12. Limb Pain and/or Swelling
13. Nausea and Vomiting
14. Seizure
15. Diarrhoea
16. Delirium/Acute confusion
17. Acute Psychological illness
18. Palpitations
19. Hepatitis or Jaundice
20. Gastrointestinal Bleeding
21. Haemoptysis
22. Rash
23. Acute Back Pain
24. Poisoning and Drug Overdose
25. Hyperglycaemia

Emergency management

Recognising and managing emergency cases including:

- Acute Coronary Syndrome
- Acute Kidney Injury
- Acute Respiratory Failure
- Acute Seizure
- Anaphylaxis / Angioedema
- Cardio-respiratory arrest
- Critical electrolyte abnormalities (calcium, sodium, potassium)
- Hypo- or Hyperglycaemia
- Sepsis and septic shock
- Stroke/ TIA
- The unconscious patient
- Unstable hypotensive patient

Skills and Knowledge in the General Medicine Setting

On completion of HST, the trainee should know life threatening causes, clinical features, classifications, investigations and management, including indications for urgent referral, for common general medicine presentations. The following outlines commonly associated features, causes and/or routes of investigation for these presentations, both acutely and for ongoing case management, which the trainee is expected to know, and the competencies they are expected to demonstrate.

When a patient presents with a general medicine complaint the trainee should demonstrate an ability to:

- Assess their signs and symptoms; formulating a differential diagnosis
    - Take history as part of an investigation
    - Undertake primary assessment
    - Recognise and assess urgency
    - Undertake secondary assessment
- Initiate appropriate investigations
    - Interpret results for common investigations
- Initiate appropriate treatment, including stabilising the patient where necessary
- Manage co-existing morbidities
- Manage on-going cases including
    - Confirming a diagnosis for those not requiring urgent referral
    - Assessing response to initial treatment
    - Recognising need to escalate management when needed
- Appropriately refer based on:
    - Response to treatment
    - Local guidelines
    - Culture
    - Self-awareness of their own knowledge and ability
    - Services available
- Provide ongoing management of the case

Shortness of breath

When a patient presents with shortness of breath, a trainee should demonstrate knowledge of the clinical features, classifications, appropriate investigations and necessary management, including indications for urgent referral, for common causes.

- Life threatening causes of breathlessness
    - Airway obstruction
    - Acute severe asthma
    - Acute exacerbation of COPD
    - Pulmonary oedema
    - Tension pneumothorax
    - Acute presentations of Ischaemic heart disease
    - Acute severe left ventricular failure
    - Dysrhythmia
    - Pulmonary embolism
    - Cardiac tamponade
    - Metabolic acidosis

Cough

When a patient presents with cough, a trainee should demonstrate knowledge of the clinical features, classifications, appropriate investigations and necessary management, including indications for urgent referral, for the common causes.

- Common causes of acute cough
    - Viral and Pertussis type cough
    - Acute bronchitis
    - Pneumonia
    - Tuberculosis
    - Lung cancer
    - Understand the relevance of subacute and chronic cough
    - Common causes (Asthma, Upper airway cough syndrome, GORD)
    - When to refer for assessment of lung cancer
    - Consideration of Interstitial lung disease

Chest Pain

When a patient presents with chest pain, a trainee should demonstrate knowledge of the clinical features, classifications, appropriate investigations and necessary management, including indications for urgent referral, for common causes.

- Life threatening causes of chest pain
    - Myocardial infarction
    - Dissecting aortic aneurysm
    - Pulmonary embolism
    - Tension pneumothorax
    - Oesophageal rupture
- Clinical features of:
    - Cardiac chest pain
    - Chest pain caused by respiratory disease and oesophageal rupture
    - Chest pain caused by gastrointestinal disease
    - Chest wall pain
    - Functional chest pain

Blackout / Collapse / Dizziness

When a patient blacks out, collapses or presents with dizziness, a trainee should demonstrate that they know the life threatening causes, clinical features, classifications, appropriate investigations and necessary management, including indications for urgent referral, for the common causes.

- Stroke
    - Cerebral infarction
    - Primary intracerebral haemorrhage
    - Subarachnoid haemorrhage
- Syncope
    - Cardiac causes (arrhythmia, cardiogenic shock)
    - Vasovagal syncope
    - Postural hypotension (e.g., drugs, neurocardiac, autonomic)
    - Localised vascular disease (posterior circulation)
    - Metabolic causes (e.g., hypoglycaemia)
- Seizures and epilepsy

Management of the frail older patient in the acute setting

When a frail older patient presents, a trainee should demonstrate knowledge of the appropriate approach to assessment, risk factors, appropriate investigations and necessary management, including indications for urgent referral, for this population.

- Understand the broad differential diagnosis and management of complex multi-morbid illness in older patients
- Approach to investigation and management of recurrent falls
- Non-pharmacological and pharmacological management of behavioural complications of dementia
- Investigation of causes, non-pharmacological and pharmacological management of delirium
- Polypharmacy and inappropriate prescribing in older patients (e.g. renal dose adjustment)
- Medical management of nursing home residents- identifying aspiration risk
- Palliative care and pain management in the acute setting
- Acute stroke thrombolysis delivery and criteria for referral for intravascular intervention
- Completion of NIHSS stroke scale

Abdominal Pain

When a patient presents with abdominal pain, a trainee should demonstrate knowledge of the life threatening causes, clinical features, classifications, appropriate investigations and necessary management, including indications for urgent referral, for the common causes.

- Initial assessment of abdominal pain
- Differential Diagnosis:
    - Intra-abdominal
        - Gastrointestinal
        - Vascular (aneurysm, ischemia)
        - Urological
        - Gynaecological
    - Extraabdominal causes of pain
- Ability to identify and initiate management of life threatening conditions causes of abdominal pain
- Indications for surgical consultation and urgent referral
- Identifying constipation and urinary retention in older patients

Fever

When a patient presents with fever, a trainee should demonstrate knowledge of the life threatening causes, clinical features, classifications, appropriate investigations and necessary management, including indications for urgent referral, for the common causes.

- Recognize the symptoms and signs of sepsis
- Identify common causes of fever
    - Infection
    - Non-infectious including PE, drugs, vasculitis,
- Delivery of initial management of septic patient
- Knowledge of the choice of empiric and infection targeted antibiotics

Alcohol and substance dependence or withdrawal

When a patient presents with dependence or withdrawa,l a trainee should demonstrate that they know the classifications and necessary management, including indications for referral.

- Recognition
- Psychosocial dysfunction
- Autonomic disturbances
- Stress and panic disorders
- Insomnia and sleep disturbance
- Understand the role of psychiatrist and referral to rehabilitation services

Falls and Decreased mobility

When a patient falls or presents with decreased mobility, a trainee should demonstrate knowledge of the life threatening causes, clinical feature, classifications, appropriate investigations and necessary management, including indications for urgent referral, for the common causes.

- Common medical and social causes of falls in medical patients
- Complications of falls
    - Fractures including the neck of the femur
    - Intracranial injury
    - Rib fracture and pneumothorax
    - Loss of mobility and independence

Weakness and Paralysis

When a patient presents with weakness or paralysis, a trainee should demonstrate knowledge of the life threatening causes, clinical features, classifications, appropriate investigations and necessary management, including indications for urgent referral, for the common causes.

- Stroke/ space occupying lesion
- Spinal cord injury
- Underlying neurological causes: e.g. multiple sclerosis, Guillain-Barre syndrome
- Infections and disease causing weakness

Headache

When a patient presents with headache, a trainee should demonstrate knowledge of the life threatening causes, clinical features, classifications, appropriate investigations and necessary management, including indications for urgent referral, for the common causes.

- Clinical classification of headache
- Headache with altered neurological and focal signs
- Headache with features suggestive of raised intracranial pressure
- Headache with papilloedema
- Headache with fever
- Headache with extracranial signs
- Headache with no abnormal signs
- Drugs and toxins

Limb Pain and/or Swelling

When a patient presents with limb pain or swelling, a trainee should demonstrate knowledge of the life threatening causes, clinical features, classifications, appropriate investigations and necessary management, including indications for urgent referral, for the common causes.

- As a result of injury
- As a result of an underlying medical condition
    - Undifferentiated inflammatory arthritis

Nausea and Vomiting

When a patient presents with nausea and vomiting, a trainee should demonstrate knowledge of the life threatening causes, clinical feature,, classifications, appropriate investigations and necessary management, including indications for urgent referral, for the common causes.

- Understanding of common causes
    - Abdominal
        - Acute Gastroenteritis
        - PUD
        - Pancreatitis
        - Acute hepatitis
        - Bowel obstruction
    - Central nervous system causes
    - Poisoning and Medications
- Management
    - Identification of underlying cause
    - Control of symptoms
    - Treating dehydration

Seizure

When a patient presents with seizures, a trainee should demonstrate knowledge of the life threatening causes, clinical features, classifications, appropriate investigations and necessary management, including indications for urgent referral, for the common causes.

- Causes
    - Unprovoked seizures/epilepsy
    - Seizures associated with metabolic, toxic and system illness
    - Cerebral hypoxia
    - Seizures associated with drugs and toxic substances
- Management
    - Emergency supportive treatment
    - Anticonvulsant treatment
    - Work up of first presentation with seizure
    - Understand driving implications for patients with seizures

Diarrhoea

When a patient presents with diarrhoea, a trainee should demonstrate knowledge of the life threatening causes, clinical features, classifications, appropriate investigations and necessary management, including indications for urgent referral, for the common causes.

- Classification
  - Osmotic
  - Secretary
  - Exudative
- Causes
  - Infectious
  - Inflammatory
  - Ischemic
  - Malignant
- Complications
- Management
  - Acute management
  - Knowledge of appropriate investigations
  - Recognition of associated complications
  - Role of antibiotics
  - When to refer to gastroenterology.

Delirium/Acute confusion

When a patient presents with delirium or acute confusion, a trainee should demonstrate knowledge of the life threatening causes, clinical features, classifications, appropriate investigations and necessary management, including indications for urgent referral, for the common causes.

- Clinical features of acute confusional state- differentiating delirium, dementia, depression and psychosis
- Causes of delirium
- Use of screening instruments for delirium and/or cognitive impairment
- Clinical features of acute delirium
- Clinical features of acute functional psychosis
- Causes of acute confusional state associated with alcohol abuse- delirium tremens, Wernicke's encephalopathy
- Drug induced/related confusion/delirium
- Bacterial meningitis, Viral encephalitis
- Subarachnoid haemorrhage/ subdural haematoma

Social issues

When a patient presents with social issues, a trainee should demonstrate knowledge of the appropriate approach to assessment, risk factors, appropriate investigations and necessary management, including indications for urgent referral, for this population.

- Managing medical conditions with an uncooperative patient
- Identifying potential elder abuse
- Recognising substance abuse
- Basic principles of psychiatry
- Recognising an at risk patient

Palpitations

When a patient presents with palpitations, a trainee should demonstrate knowledge of the life threatening causes, clinical features, classifications, appropriate investigations and necessary management, including indications for urgent referral, for the common causes.

- Anxiety
- Exercise induced
- In relation to pre-existing conditions including
    - Thyroid disease
    - Anaemia
    - Fever
    - Dehydration
    - Low blood sugar
    - Low blood pressure
- Resulting from medications or toxins
- Hormonal changes
- After prior myocardial infarct
- Coronary artery disease
- Other heart problems including congestive heart failure, heart valve or heart muscle problems

Hepatitis or Jaundice

When a patient presents with hepatitis or jaundice, a trainee should demonstrate knowledge of the life threatening causes, clinical features, classifications, appropriate investigations and necessary management, including indications for urgent referral, for the common causes.

- Incubation and prodromal phase
- Virus-specific
- Toxic hepatitis
- Autoimmune
- Acute liver failure

Gastrointestinal Bleeding

When a patient presents with gastrointestinal bleeding, a trainee should demonstrate knowledge of the life threatening causes, clinical features, classifications, appropriate investigations and necessary management, including indications for urgent referral, for the common causes.

- Understanding of the initial assessment and stabilization of patients with GI bleeding
- Understanding of haemovigilance and blood transfusion protocols
- Upper gastrointestinal bleeding including
    - Peptic ulcer Disease
    - Gastritis
    - Oesophageal varices
    - Mallory-Weiss tears
    - Gastrointestinal cancers
    - Inflammation of the gastrointestinal lining from ingested material
- Lower gastrointestinal bleeding including
    - Diverticular disease
    - Gastrointestinal cancers
    - Inflammatory bowel disease (IBD)
    - Infectious diarrhoea
    - Angiodysplasia
    - Polyps
    - Haemorrhoids and anal fissures

Haemoptysis

When a patient presents with haemoptysis, a trainee should demonstrate knowledge of the life threatening causes, clinical features, classifications, appropriate investigations and necessary management, including indications for urgent referral, for the common causes.

- Recognition and Management of massive haemoptysisi
- Common causes of haemoptysis
    - Acute and chronic bronchitis
    - Tuberculosis
    - Lung cancer
    - Pneumonia
    - Bronchiectasis
    - Pulmonary embolism
    - Diffuse alveolar haemorrhage

Rash

When a patient presents with a rash, a trainee should demonstrate knowledge of the life threatening causes, clinical features, classifications, appropriate investigations and necessary management, including indications for urgent referral, for the common causes.

- Urticaria
- Anaphylaxis and angioedema
- Erythroderma and exfoliation
- Psoriasis and seborrhaoeic/contact dermatitis
- Purpura and vasculitis
- Blistering eruptions
- Infections of the skin

Acute Back Pain

When a patient presents with acute back pain, a trainee should demonstrate knowledge of the life threatening causes, clinical features, classifications, appropriate investigations and necessary management, including indications for urgent referral, for the common causes.

- Non-specific acute back pain
- Causes of chronic low back pain
- Neurologic findings in back pain
- Identifying serious aetiologies of back pain e.g.,
    - Cancer
    - Fracture
    - Infection
    - Cauda equina syndrome

Poisoning and Drug Overdose

When a patient presents with poisoning or overdose, a trainee should demonstrate knowledge of the life threatening causes, clinical features, classifications, appropriate investigations and necessary management, including indications for urgent referral, for the common causes.

- Diagnostic clues in the assessment of overdoses
- Identification of toxic agent (paracetamol, SSRI, benzodiazepines, opiates, amphetamines, TCADs)
- Immediate management
- Mental health assessment and definitive care

Hyperglycaemia

When a patient presents with hyperglycaemia a trainee should demonstrate knowledge of the life threatening causes, clinical features, classifications, appropriate investigations and necessary management, including indications for urgent referral, for the common causes.

- Symptoms of acute hyperglycaemia
- Recognition and management of diabetic ketoacidosis
- Recognition and management of hyperosmolar non-ketotic hyperglycemic states

Procedures

Abdominal paracentesis under ultrasound guidance

ECG Interpretation

Emergency DC cardioversion

- Up to date ACLS training to cover:
    - Indications for synchronised DC shock
    - Starting voltage
    - Safe use of defibrillator

Emergency care of tracheostomy

- In cases of:
    - Cardiac arrest
    - Dealing with a compromised airway

Femoral venous lines with ultrasound guidance

- Ultrasound guided femoral venous line placement
- Anatomical markers for femoral veins
- Safe cannulation of vein
- Secure line in place/review position on X-ray

Intercostal drain under ultrasound guidance

- Anatomical markings
- Insertion of intercostal tube (small bore Seldinger)
- Connection to underwater seal and secure in place
- Assessment and management of drain
- Safe removal of the tube

Joint aspiration

- Sterile field
- Fluid analysis
- Injectable compounds

Lumbar puncture

- Anatomical markers
- Cannula selection
- Safe puncture including appropriate preparation
- Measurement of CSF pressure
- Removal of samples and interpretation of results
- Management of post lumbar puncture headache

Non-invasive Ventilation

- Principles of BIPAP and CPAP
- Monitoring and limitations
- Mask fitting
- Understanding of pressures

Pleural and ascitic fluid aspiration under ultrasound guidance

- Safe approach and role of ultrasound guidance
- Puncture pleural / peritoneal space
- Withdrawal of fluid

Specialty Section

Core Respiratory Skills for Patient Management

- Communication skills
- History and Examination
- Imaging interpretation
- Recognition of normal and abnormal respiratory physiology
- Diagnostic and therapeutic procedures

Communication skills

By the end of Specialist training the trainee will be able:

1. Communicate effectively with patients, relatives and carers

Skill Development Opportunity	Record	Assessment	Timeframe
Procedural consent	1 observed during SpR1	*Procedures & Investigations.* Signed as complete during end of post meeting	SpR1
Breaking Bad news	Study day attendance and 1 observed episode	Record in *Speciality Case Experience.* Signed as complete during end of post meeting. Observation should be completed in year 1.	SpR1-3
Ceiling of care discussion	1 observed discussion with patient and relatives in a patient with very advanced lung disease		SpR1-3
Ward Rounds	1 observed per year	*Clinics.* Record as agreed with trainer for post, observation signed off in workplace	SpR1-3

2. Communicate with senior and junior medical staff and within a multi-disciplinary team; perform effective clinical teaching and academic presentations

Skill Development Opportunity	Record	Assessment	Timeframe
Ward MDT	1 observed during SPR1	*Clinics*. Observation signed off in workplace	SpR1
Oral presentation or tutorial	1 observed per year	*Additional Professional Experience*	SpR1-3
Journal Club	Record at least 5 attended and present at 1	Presentation signed off at end of post. Record attendance in *Collaborative Activities*	SpR1-3
Ward Rounds	1 observed per year	*Clinics.* Record as agreed with trainer for post; observation signed off in workplace	SpR1-3

History and Examination

By the end of Specialist training the trainee will be able to:

1. Perform nuanced history taking and clinical examinations in patients presenting with a wide range of respiratory and systemic symptoms

Skill Development			
Opportunity	**Record**	**Assessment**	**Timeframe**
Present new out- patients and post-take patients to a senior colleague	At least 3 cases in *Speciality Case Experience*	Case Based Discussion signed off by trainer	SpR1-3
Present patients at x-ray conferences, outpatient clinics, lung cancer MDT meetings and other specialist meetings	At least 3 cases in *Speciality Case Experience*	Trainer sign off at end of post	SpR1-3

Imaging Techniques

By the end of Specialist training the trainee will be able to:

1. **I**nterpret plain chest radiographs, helical and high-resolution CT of thorax and CT pulmonary angiograms
2. Determine the need for CT/ultrasound-guided biopsies
3. Appreciate the clinical value of ordering bone scans, CT/MRI brain, PET scans, cardiac MRI and ventilation /perfusion scans
4. Complete necessary aspects of Pleural USS – see specific section

Skill Development			
Opportunity	**Record**	**Assessment**	**Timeframe**
Chest Radiograph	Interpret 20 at outpatient clinic and 20 post take per year	Record in *Imaging Techniques* Or *Speciality Case Experience*. Signed off in the workplace.	SpR1-3
HRCT Thorax	Interpret 10 at OPD and 10 at ILD clinics per year		SpR1-3
Helical CT	interpret 10 at clinic, 20 at bronchoscopy		SpR1-3
CTPA	10 post take and 10 in-patients		SpR1-3
Image guided lung biopsy	Attend 1	*Procedures & Investigations*	SpR1-3
ILD clinics	Attend 10	*Clinics*	SpR1-3
Lung cancer MDT	Attend 20	*Collaborative Activities*	SpR1-3
HRCT Thorax	Study day attendance	Record attendance	SpR1-3
Helical CT thorax			SpR1-3

Recognition of normal and abnormal respiratory physiology

Lung Function Testing

By the end of Specialist training the trainee will be able to:

1. Perform and interpret spirometry and flow-volume loops
2. Understand the mechanisms behind measuring lung volumes by plethysmography and nitrogen washout and their clinical significance
3. Understand the principles behind measuring carbon monoxide gas transfer and its clinical significance
4. Order appropriately and interpret bronchial provocation testing
5. Interpret tests of respiratory muscle strength- to include erect/ supine spirometry, MIPs, MEPs and SNIPs

Skill Development			
Opportunity	**Record**	**Assessment**	**Timeframe**
Be able to perform spirometry independently	Record an example	*Procedures & Investigations*	SpR1
Correctly identify obstruction, reversibility and air trapping		*Imaging Techniques*	
Correctly identify restriction - pulmonary and extra-pulmonary			
Correctly identify combined obstruction and restriction			
Correctly identify reduced gas transfer			
Correctly identify extra thoracic obstruction			
Measuring lung volumes -Mechanisms	Agree with trainer		
Pulmonary function testing Study Day	Record attendance	*Study day attendance*	SpR1
Reporting lung function with your supervising consultant	One case per year	*Specialty Case Experience*	SpR1-3[123]
Respiratory muscle strength testing	Witness once erect and supine spirometry, MIPs, MEPs and SNIPs and interpret results in patients with neuromuscular weakness, record in *Specialty Case Experience*		SpR1-3

Gas Exchange and Oxygenation

By the end of Specialist training the trainee will be able to:

1. Perform arterial blood gas sampling
2. Interpret arterial blood gases and calculate Alveolar-arterial oxygen difference (Aa diff)
3. Prescribe appropriate acute oxygen therapy and interface in acute type 1 and 2 resp failure
4. Perform flight assessments and interpret hypoxic challenge testing
5. Interpret overnight pulse oximetry and trans-cutaneous carbon dioxide monitoring
6. Perform and interpret 6 minute walk tests
7. Understand the principles of cardio-pulmonary exercise testing (CPET) and its role in lung transplantation referral in cystic fibrosis and fitness for surgery in lung cancer patients

Skill Development			
Opportunity	**Record**	**Assessment**	**Timeframe**
Perform ABGs supervised by an experienced senior colleague	Agree a goal with Yr 1 Trainer	Record in *Speciality Case Experience,* Observed in the workplace and signed off by trainer	SpR1
ABG analysis	correctly interpret type 1 and type 2 respiratory failure	Record in *Speciality Case Experience* complete informal CBD	
Calculating Alveolar arterial oxygen difference	Record Case examples as agreed with Trainer		
Mixed metabolic and respiratory disturbance on blood gas analysis			
Interpret overnight pulse oximetry and trans-cutaneous carbon dioxide			
Acute O2 prescription	Discuss cases of acute O2 prescription and the interface employed and why	Record in *Speciality Case Experience* with CBD, signed off by trainer in the workplace	
Present patients at x-ray conferences, outpatient clinics, lung cancer MDT meetings and other specialist meetings	At least 3 cases in *Speciality Case Experience*	Trainer sign off at end of post	SpR1-3
	Record example and seek informal feedback	*Procedures & Investigations*	
Interpret and observe one 6 minute walk test			
Observe 1 CPET test			

LTOT, non-invasive ventilation

By the end of Specialist training the trainee will be able to:

1. Appropriately prescribe long-term oxygen therapy
2. Appropriately prescribe and set up a non-invasive ventilation circuit in patients with acute acidotic type 2 respiratory failure and monitor clinical response
3. Appropriately prescribe non-invasive ventilation in patients with chronic type 2 respiratory failure and monitor clinical response
4. Understand the principles of sleep studies with and without EEG monitoring and the indications for treatment

Skill Development			
Opportunity	**Record**	**Assessment**	**Timeframe**
Prescribing long-term oxygen therapy	Record example in *Specialty Case Experience*. Discuss commencing a patient on long-term oxygen therapy and their follow-up		SpR1
Instituting acute non-invasive ventilation	Record example in *Specialty Case Experience*. Discuss clinical examples of setting up an acute non-invasive ventilation circuit in patients with acidotic type 2 respiratory failure with 1 observed in real-time (observer can be supervising Consultant, Senior Colleague or the Institutional NIV team)		
Prescribing Chronic NIV	Record example in *Specialty Case Experience*. Discuss cases you have commenced on domiciliary non-invasive ventilation in patients with chronic type 2 respiratory failure and their follow-up		SpR1-3
Sleep studies*	*See sleep disorders		

Diagnostic and therapeutic procedures

Bronchoscopy

By the end of Specialist training the trainee will be able to:

1. Recognise Indications and contraindications for flexible bronchoscopy
2. Perform consent for this procedure
3. Prepare the patient for the procedure and perform safe effective sedation and local anaesthesia
4. Independently perform oral and nasal approach flexible bronchoscopy and sampling techniques including bronchial biopsy, bronchial brushings, bronchoalveolar lavage and transbronchial biopsy
5. Recognise normal and variant bronchial anatomy
6. Institute appropriate clinical monitoring during the procedure
7. Institute appropriate haemostatic techniques if there is excessive bleeding
8. Institute safe post-procedural care

Skill Development			
Opportunity	**Record**	**Assessment**	**Timeframe**
Discuss indication for bronchoscopy	Agree feedback discussion with trainer	Record in *Bronchoscopy*	SpR1-3
Performing bronchoscopy	Record up to 200 or as agreed with NSD to include: Correctly identify the endobronchial anatomy Correctly perform bronchial wash/lavage Correctly perform bronchial biopsies Correctly perform bronchial brushings Correctly perform transbronchial lung biopsies Haemostasis post sampling with cold 0.9% saline, 1:1000 adrenaline and tamponande techniques		
Directly Observed Assessment of Bronchoscopy	Keep a record of the number and different sampling techniques performed and any complications	*Bronchoscopy DOPS*	SpR3
Perform unsupervised bronchoscopies	Keep a record of the number and different sampling techniques performed and any complications	*Bronchoscopy*	
Directly Observed Assessment of Bronchoscopy	Perform one bronchoscopy observed by your institutional bronchoscopy lead	Final sign off in first 6 months of year in *Bronchoscopy DOPS*	SpR5

EBUS

By the end of Specialist training the trainee will be able to:

1. Recognise Indications and contraindications for EBUS
2. Prepare the patient for the procedure and perform safe, effective sedation and local anaesthesia
3. Institute appropriate clinical monitoring during the procedure
4. Institute safe post-procedural care
5. If the trainee wishes to become an independent practitioner in EBUS, the trainee may consider pursuing further training in an interventional lung cancer centre as OCPE.

Skill Development			
Opportunity	**Record**	**Assessment**	**Timeframe**
Discuss Indications For EBUS	Agree with Trainer	Complete once	SpR1-3
Witness/assist at EBUS	Record 20 procedures	*Investigations and procedures*	

Pleural Ultrasound/procedures

By the end of Specialist training the trainee will be able to:

1. Recognise normal anatomy of pleura and diaphragm, heart, liver, kidneys and spleen
2. Differentiate transudative from exudative effusions including use of Light's criteria. Recognise an empyema
3. Identify a pleural effusion and interpret its depth and size and whether there are exudative features including loculation
4. Identify pleural thickening and its differentiation from fluid
5. Identify consolidated lung and its differentiation from pleural fluid
6. Perform consent for thoracocentesis/ intercostal tube placement
7. Recognize Indications and contraindications for diagnostic thoracocentesis and small bore (≤ 18 FR guage) intercostal tube insertion via Seldinger technique
8. Identify a safe site for thoracocentesis/ intercostal tube placement
9. Prepare the patient for diagnostic thoracocentesis/ intercostal tube procedure and perform safe local anaesthesia
10. Institute safe post-procedural care and intercostal tube management

Skill Development			
Opportunity	**Record**	**Assessment**	**Timeframe**
Differentiate Transudate and Exudates	Agreed with Trainer	Procedures & Investigations	SpR1-3
Supervised Pleural USS	Record approx. 30, with 20 supervised normal pleural ultrasounds and 10 abnormal pleural ultrasounds highlighting the anatomy		
Thoracocentesis – supervised ultrasound-guided	Record 10		
Intercostal tube insertion via seldinger technique -supervised	Record 10		
Witnessed intercostal tube insertion via seldinger technique	DOPS with final sign off- in first 6 months of 3rd clinical resp year		SpR3
Attend a pleural ultrasound course			

Diagnosis and Treatment of Specific Respiratory Conditions

- Respiratory Diseases 1: Airway diseases, ILD and Cancer
- Respiratory Diseases 2: Pulmonary Infections
- Respiratory Diseases 3: Bronchiectasis, Sleep, VACC and Transplant

Respiratory Diseases 1: Airway diseases, ILD and Cancer

Asthma

By the end of Specialist training the trainee will be able to:

1. Rapidly diagnose, assess and treat patients attending ED with acute severe asthma including when to involve acute anaesthetic care
2. Diagnose, assess severity and treat out-patients with asthma according to current GINA guidelines
3. Monitor control of asthma in an out-patient setting including compliance, inhaler technique and patient self-management
4. Identify triggers of asthma including occupational factors and co-existing GORD and upper airway disease
5. Diagnose and treat cough predominant asthma
6. Recognise the role of bronchial bronchoprovocation tests in diagnosis / exclusion of asthma
7. Appropriately initiate a trial of Omalizumab /IL-5 inhibitors in poorly controlled patients with severe allergic asthma and eosinophilic asthma respectively
8. Differentiate asthma from other conditions such as vocal cord dysfunction, dysfunctional breathing, sleep-apnoea, CCF and COPD.

Skill Development			
Opportunity	**Record**	**Assessment**	**Timeframe**
Asthma diagnosis - recognise obstruction and reversibility*	Agree a goal with Trainer	Record in *Speciality Case Experience* and signed off by trainer at EoP/Qrtly Assessment	SpR1-3
Difficult asthma diagnosis: Observe and interpret a mannitol inhalation test Observe and interpret a histamine or metacholine inhalation test	Record cases		
Attend 10 dedicated difficult asthma clinics	Record attendance at 10. Focus on common differential diagnoses and when to consider a treatment trial of Omalizumab/ or IL-5 inhibitors	Record in *Clinics.* Signed as complete at assessment.	
Management of acute severe asthma attack	Present history, exam and management plan of patients attending ED with acute severe asthma in CBD	Record in *Speciality Case Experience* and complete CBD	SpR1-3[123]
Management of asthma in outpatient setting	Discuss cases citing possible triggers including occupational factors, GINA/BTS treatment guidelines and self-management plans		

*Please see previous section on lung function testing

COPD

By the end of Specialist training the trainee will be able to:

1. Rapidly diagnose, assess and treat patients attending ED with acute exacerbations of COPD including when to initiate acute NIV and establish ceiling of care
2. Diagnose and assess severity of out-patients with COPD according to current GOLD guidelines
3. Treat patients focussing on risk factors, symptoms and exacerbations employing non-pharmacological and pharmacological methods
4. Provide expert advice on smoking cessation
5. Refer patients appropriately for, and understand the principles of, pulmonary rehabilitation
6. Refer patients appropriately for consideration of lung transplantation
7. Know when to refer patients appropriately for palliative care

Skill Development			
Opportunity	**Record**	**Assessment**	**Timeframe**
COPD Diagnosis – Recognize aetiological factors and post-bronchodilator obstruction and lack of reversibility*	Agree with Trainer	Record in *Speciality Case Experience* and signed off by trainer at EoP/Qrtly Assessment	SpR1
Management of acute exacerbation of COPD (AECOPD)**	Present history, exam, ABG and CXR interpretation and management plan of patients attending ED with an AECOPD including those with acidotic type 2 resp failure requiring controlled oxygen prescription and acute NIV	Record in *Speciality Case Experience* and complete CBD	
Observed ceiling of care discussion***	Complete once	Record in *Speciality Case Experience* and complete observation	
Management of COPD in outpatient setting	Discuss the management of patients based on GOLD guidelines focussing on modifying risk factors, and symptom and exacerbation control, including referral for pulmonary rehabilitation and lung transplantation	Record in *Speciality Case Experience* and complete CBD	SpR1-3

* See Lung Function Testing

**See Gas Exchange

***See communication

Chronic Cough in non-smokers with normal lung physiology and imaging

By the end of Specialist training the trainee will be able to:

1. Take a detailed cough history focussing on the commonest causes such as rhinosinusitis, cough predominant asthma, gastro-oesophageal reflux disease (GORD), post-infectious cough and cough secondary to ACE-inhibitor therapy
2. Identify potential cough complications namely syncope, vomiting and urinary incontinence in women (latter rarely self reported)
3. Prescribe appropriate mono-treatment trials, if possible, although some patients with complex cough syndromes may need to start on 2 or even 3 agents
4. Stop ACE-inhibitor therapy for the correct duration
5. Appreciate that a number of patients with post nasal drip and GORD are asymptomatic and that PPI treatment of GORD only reduces the acidity of the reflux, not the reflux volume or proximal extent
6. Consider further investigations if treatment trials fail, including bronchial challenge testing, bronchoscopy, HRCT thorax, OGD, 24 hr oesophageal pH monitoring/impedence testing, barium swallow, CT sinuses and ENT review
7. Palliate idiopathic cough with opiates, low-dose gabapentin or pregabalin

Skill Development Opportunity	**Record**	**Assessment**	**Timeframe**
Aetiology: common causes and treatment	Record a case annually and discuss Discuss palliative treatments	Record in *Speciality Case Experience* and complete CBD	SpR1-3[123]
Treatment failure			
Palliative treatment			

Occupational and Environmental Lung Disease

By the end of Specialist training the trainee will be able to:

1. Appreciate that the environment in which the patient lives and works can cause or exacerbate respiratory disease
2. Recognise the common occupations that may cause occupational asthma and how to investigate this possibility
3. Assess the potential role of occupational dust, fumes and vapours in causing or contributing to the development of COPD
4. Recognize the common exposures that may cause acute and chronic hypersensitivity pneumonitis
5. Make a diagnosis of hypersensitivity pneumonitis based on history, examination, serum precipitins, CT imaging, bronchoscopy with lavage, and lung biopsy
6. Treat and monitor acute and chronic hypersensitivity pneumonitis
7. Have a working knowledge of the exposures that can cause inorganic lung disease particularly asbestos
8. Differentiate the different lung pathologies associated with asbestos exposure

Skill Development Opportunity	**Record**	**Assessment**	**Timeframe**
Taking Case History	Worsening asthma or late-onset asthma: develop the habit of asking about occupation, timing of symptoms and have some knowledge of common sensitisers that can cause occupational asthma	Record in *Speciality Case Experience* and complete informal CBD, signed off by trainer in the workplace	SpR1-3
Acute hypersensitivity pneumonitis	Cases encountered, diagnostic features and management strategy		
Asbestos lung disease	Strive to see cases of asbestos pleural plaques, benign pleural thickening, rounded atelectasis, asbestos pleuritis, mesothelioma, and asbestosis		
Other inorganic lung diseases	Discuss cases and report to rare lung disease group		
Attend Study day early in training	Record Attendance	*Study Day Attendance*	

Lung Cancer

By the end of Specialist training the trainee will be able to:

1. Recognise potential symptoms and physical signs of lung cancer including paraneoplastic syndromes
2. Recognize potential plain radiographic and CT features of lung cancer
3. Assess performance status
4. Rapidly organise tissue confirmation of lung cancer by the least invasive and / or highest staging method
5. Break bad news
6. Recognise the role of EBUS in confirming and staging lung cancer
7. Stage non-small cell and small cell lung cancer and mesothelioma with procedures, biopsies and appropriate imaging including CT thorax and upper abdomen, CT / MRI brain, PET scan and bone scan
8. Present cases of lung cancer/ mesothelioma at MDT meetings
9. Identify and refer patients for radical treatment as early as possible
10. Appreciate the various therapeutic modalities available based on type of cancer, staging, patient wishes, genetic markers and performance status
11. Organise appropriate palliative interventions as soon as possible – pleural fluid control, radiotherapy, airway de-bulking /stenting / haemostatic techniques, SVC stenting
12. Refer appropriately to palliative care team

<table>
<tr><th colspan="4">Skill Development</th></tr>
<tr><th>Opportunity</th><th>Record</th><th>Assessment</th><th>Timeframe</th></tr>
<tr><td>SCLC and NSCLC</td><td>Discuss different disease stages</td><td>Record in Speciality Case Experience and complete informal CBD</td><td>SpR1-3[123]</td></tr>
<tr><td>Rapid access lung cancer clinic</td><td rowspan="2">Attend at least 20 during training</td><td>Record in Clinics</td><td rowspan="2">SpR1-3</td></tr>
<tr><td>Lung cancer MDT meetings</td><td>Record in Collaborative Activities</td></tr>
</table>

See previous sections for training in bronchoscopy, EBUS, thoracocentesis, chest drain insertion and breaking bad news. Further training can also be sought, if available, in joint thoracic clinics (attended by respiratory physicians, lung cancer nurses, medical and radiation oncologists and thoracic surgeons) and survivorship clinics.

Interstitial Lung Disease (ILD)

By the end of Specialist training the trainee will be able to:

1. Appreciate that ILD is a highly heterogenous group of conditions some of which are rapidly progressive
2. Perform detailed history and examination of patients presenting with ILD
3. Order appropriate blood tests that may contribute to the diagnosis
4. Assess functional status with spirometry, static lung volumes, diffusion capacity, 6MWT, BMI and blood gases
5. Recognize distinctive patterns of radiological abnormality on chest radiograph and HRCT in common causes of ILD such as sarcoidosis, idiopathic pulmonary fibrosis (IPF), connective tissue disease-associated ILD, hypersensitivity pneumonitis, asbestosis, lymphangitis carcinomatosis, cystic lung disease and radiation pneumonitis and fibrosis
6. Decide when a biopsy is appropriate and what type of biopsy
7. Assess disease progression with imaging and functional tests
8. Decide which patients should be treated and with what medication including anti-fibrotic therapy for IPF

Skill Development			
Opportunity	**Record**	**Assessment**	**Timeframe**
Discuss different phenotypes of IPF including patients prescribed anti-fibrotic therapy and those referred for lung transplantation assessment	Record Cases in *Speciality Case Experience*	Complete informal CBD and sign off by trainer	SpR1-3
Discuss cases of sarcoidosis, those who need/don't need treatment, including Lofgren's syndrome			
Discuss any patients with drug-induced ILD, CTD-associated ILD, cystic lung disease (LIP, LAM , Langerhan's cell histiocytosis), hypersensitivity pneumonitis*			
Attendance at 10 ILD clinics	Record Attendance	*Clinics*	
Attendance at 10 ILD MDT meetings		*Collaborative Activities*	
Attendance at one HRCT interpretation study day		*Study Day Attendance*	

* See previous section on occupational and environmental Lung disease

Respiratory Diseases 2: Pulmonary Infections

Acute respiratory infections

By the end of Specialist training the trainee will be able to:

1. Differentiate bronchitis from likely parenchymal lung infections
2. Ascertain if a patient has an underlying chronic lung disorder, e.g. COPD or bronchiectasis, and if they chronically colonised with certain bacteria
3. Determine likely viral aetiology and send viral swabs if appropriate
4. Recognise patients at risk of primary or secondary aspiration, opportunistic infection or HAP
5. Appreciate the role of urgent sampling (sputum and BAL) in patients suspected of opportunistic infection
6. Investigate, diagnose and empirically treat CAP based on CURB 65 score
7. Recognise complications of pneumonia, namely abscess formation, empyema, ARDS and metastatic infection
8. Determine which patients with pneumonia require critical care
9. Arrange appropriate follow-up and consider treatments to reduce future risk of lung infection

Skill Development			
Opportunity	**Record**	**Assessment**	**Timeframe**
History, examination, chest x-ray interpretation	Record cases from general medicine take	*Speciality Case Experience*, discussed at end of post	SpR1-3[123]
Chest x-ray Interpretation*	Interpret 20 acute chest x-rays post take per year		

*See imaging, requirement meets both criteria

Mycobacterial infection

By the end of Specialist training the trainee will be able to:

1. Suspect the diagnosis of TB based on symptoms, immunodeficiency including HIV, and characteristic radiology
2. Appreciate the diagnostic and potential infectivity implications of sending 3 sputum samples (≥1 early morning sample)for smear and culture in productive patients with suspected pulmonary TB
3. Perform a tuberculin test
4. Appreciate the role of targeted BAL and tissue biopsy, and sending for PCR, microbiological culture (biopsy in saline), and histology to achieve diagnosis of TB
5. Appreciate that TB in patients on TNF inhibitors is frequently extra-pulmonary
6. Appreciate that all patients with newly diagnosed tuberculosis require A HIV test
7. Decide if community treatment, or hospitalization and isolation, is the most appropriate
8. Prescribe standard RIPE treatment for TB for the correct duration and be aware of compliance issues, drug toxicities (particularly hepatitis) and interactions, and the importance of close clinical follow-up
9. Determine early if there is a risk of MDR-TB based on patient ethnicity, known contact's drug susceptibility, history of previous TB treatment and/or poor compliance
10. Refer to specialist clinic if MDR-TB proven

Latent TB

By the end of Specialist training the trainee will be able to:

1. Understand the concept of latent TB and future risk of developing TB
2. Test close contacts of infectious TB patients for latent TB by IGRA test and/or 2Tu tuberculin tests and advise treatment if positive
3. Test patients due to commence TNF- inhibitors for latent TB by IGRA test and/or 2Tu tuberculin tests, and advise treatment if positive

Mycobacterium Other Than Tuberculosis (MOTT)

By the end of Specialist training the trainee will be able to:

1. Appreciate that some patients are colonised or infected with MOTT.
2. Recognise risk factors for MOTT, such as middle-aged females with recurrent bronchitis, environmental exposure, chronic airway inflammation, Cystic Fibrosis, and immunosuppression including HIV infection
3. Recognise that not all patients require treatment and some are best observed
4. Appreciate that these bacteria are very resistant and treatment courses are typically ≥ 18 months often in frail, elderly patients with the potential for high drug toxicity
5. Consider referral to specialty clinics if drug toxicity, high drug resistance and treatment failure, and if lung resection is being considered.

Assessment – CBDs, mini-CEX, DOPs (administering and reading Tuberculin tests)

Skill Development			
Opportunity	**Record**	**Assessment**	**Timeframe**
Tuberculin test	Observe once	Record in *Procedures & Investigations*	SpR 1-5
IGRA test	Agree target with trainer		
Active tuberculosis	Record Cases in *Specialty Case Experience*	Complete CBD and signed off by Trainer	
Discuss any cases of managing patients with MOTT			
Discuss any case of patients with latent TB who required immunosuppressive drugs			
Attendance at 10 TB clinics	Record Attendance	*Clinics*	

Respiratory Diseases 3: Bronchiectasis, Sleep, VACC and Transplant

Non Cystic- Fibrosis Bronchiectasis

By the end of Specialist training the trainee will be able to:

1. Suspect a diagnosis of bronchiectasis based on patients symptoms
2. Confirm disease by high-resolution CT scanning
3. Appreciate that the aetiology is highly heterogenous
4. Investigate in detail the cause of bronchiectasis and whether targeted therapy is indicated e.g. GORD, ABPA, Immunoglobulin deficiency, HIV and mycobacterium avium intracellulare infection, lung resection if the disease very localised
5. Understand the role of regular sputum clearance to improve QoL and reduce exacerbation frequency
6. Prescribe appropriate antibiotics in acute exacerbations preferably based on recent sputum or BAL microbiology
7. Consider an eradication antibiotic trial for the first sputum culture positive for *Pseudomonas Aeruginosa*
8. Determine which patients may benefit from oral and/ or nebulised prophylactic antibiotics
9. Appreciate the role of pulmonary rehabilitation and lung transplantation

Skill Development			
Opportunity	**Record**	**Assessment**	**Timeframe**
Discuss cases with different aetiology/ management plan	Record Cases in *Specialty Case Experience*	CBD signed off by Trainer	SpR1-3[123]
Attend dedicated bronchiectasis clinic if available	Record Attendance	*Clinics*	SpR1-3
HRCT thorax study day		*Study Days*	
Attend 10 X-ray-meetings		*Collaborative Activities*	
Attend 1 sputum clearance training session			

Try and review imaging of each bronchiectasis patient that you encounter in the outpatient clinic and those attending for bronchoscopy

Cystic fibrosis

By the end of Specialist training the trainee will be able to:

1. Recognise that Ireland has the highest prevalence of CF in the world with 1:19 people a carrier of the gene and ~1:1400 people affected. All newborn Irish babies are now screened for this condition because of the clear benefits of an earlier diagnosis
2. Recognise that the disease is very clinically heterogenous depending on genetic mutations and that some patients present as adults
3. Confirm a diagnosis of CF based on sweat test and genetic profiling and communicate the diagnosis to patient and family and likely treatment
4. Appreciate that treatment of CF is best delivered in tertiary centres with large patient numbers and experience of transitioning teenagers to adult care
5. Treat patients focussing on sputum clearance – chest physiotherapy, nebulised DNAse, Hypertonic Saline and Bronchodilators
6. Institute appropriate anti-microbial therapy for attempted eradication therapy following first positive culture of *Staphylococcus Aureus* and *Pseudomonas Aeruginosa*
7. Institute appropriate anti-microbial therapy for acute exacerbations – choice and mode of administration depends on bacteria isolated, and commence prophylaxis with nebulised anti-pseudomonal antibiotics, macrolides and, in pre-transplant patients or patients with advanced disease, commence continual rotating IV antibiotics
8. Refer patients to tertiary centres for appropriate gene modulating treatment
9. Appreciate that patients should be segregated from each other due to cross-infection risk
10. Screen and treat for malabsorption, liver dysfunction, diabetes mellitus, ABPA
11. Give advice re fertility issues and refer to appropriate services
12. Recognise the risk of severe complications such as lung atelectasis, large volume haemoptysis, pneumothorax, distal intestinal obstruction and infection with *Burkholderia Cepacia*
13. Recognise the value of an MDT approach and close long-term follow-up including consideration of referral for lung transplantation
14. Refer to palliative care services when appropriate

Assessment – CBDs, mini-CEXs

Skill Development			
Opportunity	**Record**	**Assessment**	**Timeframe**
Discuss chronic management of CF. Discuss clinical cases to include patients on home NIV, inhaled antibiotics, receiving home IV antibiotics, gene modifying therapy and patients referred for lung transplantation and palliative care	Record Cases in *Specialty Case Experience*	Complete Case Based Discussion	SpR1
Discuss management of acute exacerbations of CF Discuss the management of patients admitted with acute exacerbations of CF to include discussion of the role of synergistic intravenous antibiotic therapy			
3-month attachment at an adult cystic fibrosis unit	Agreed with Trainer	Signed off at end of post	SpR1-3
Attend a CF MDT/ lung transplant referral meeting	Record Attendance	Collaborative Activities	
Attend 1 sputum clearance training session			

Sleep Related Disorders

By the end of Specialist training the trainee will be able to:

1. Recognise the risk factors, symptoms and signs of potential obstructive sleep apnoea (OSA) and obesity-hypoventilation syndrome (OHS)
2. Administer and interpret risk questionnaires for OSA
3. Arrange appropriate investigations for OSA and OHS including screening overnight oximetry and sleep studies
4. Refer patients with suspected periodic breathing and parasomnias for full polysomnography
5. Advise on initial treatment with non-invasive ventilation for moderate or severe OSA and OHS
6. Independently commence patients on a CPAP or BiPAP circuit
7. Liase with experts in the obesity service regarding patients with very high BMI
8. Refer appropriate patients with mild OSA to dental service for a trial of a mandibular advancement device
9. Follow up treated patients in the clinic focussing on compliance, efficacy, interface issues and weight reduction in those with high BMI

Skill Development			
Opportunity	**Record**	**Assessment**	**Timeframe**
Joint reporting of sleep studies with institutional sleep physician.	Be able to interpret low to moderate complexity limited and full sleep studies; agree number with trainer	Specialty Case experience, signed off at end of post	SpR1-5
Attend 10 Sleep Clinics	Record Attendance	*Clinics*	SpR1-5

Diseases of the Chest wall and Respiratory muscles

By the end of Specialist training the trainee will be able to:

1. Identify classic chest wall deformities such as barrel chest, pectus excavatum, kyphosis including ankylosing spondylitis, scoliosis and remote TB surgical interventions
2. Appreciate that restriction caused by some of these deformities can lead to type 2 respiratory failure in later life, which can be treated very effectively with NIV
3. Recognise the symptoms of respiratory muscle weakness
4. Advise appropriate tests to assess if respiratory muscle weakness is present and how severe
5. Appreciate there may also be co-existent bulbar weakness and to screen for aspiration risk
6. Diagnose acute and chronic conditions that can cause respiratory muscle weakness including paralysed hemidiaphragm, motor neurone disease, myasthenia gravis, acute inflammatory demyelinating polyradiculoneuropathy, muscular dystrophy and myositis
7. Advise if acute non-invasive or invasive ventilation is warranted
8. Advise if long-term non-invasive ventilation is advised and arrange follow-up

Skill Development			
Opportunity	**Record**	**Assessment**	**Timeframe**
Identify common chest wall disorders	Record Cases	Record in Specialty Case Experience, signed off at end of post	SpR1-3
Examine cases of neuromuscular weakness	Record Cases and include MND and Myotonic Dystrophy		

See previous pulmonary function tests section & LTOT, non-invasive ventilation section

Pulmonary Vascular Diseases (PVD)

By the end of Specialist training the trainee will be able to:

1. Sub-group PVD into congenital anomalies, pulmonary hypertension, VTE and vasculitis
2. Diagnose AV malformations by CT angiogram and shunt fraction, and refer to interventional radiology if appropriate
3. Diagnose pulmonary hypertension; assess severity with echo, right heart catheterization and 6MWT; consider a number of potential causes; and refer to specialist centre if vasodilator therapy being considered
4. Investigate acute PE by clinical risk assessment, d-dimer estimation and CTPA if appropriate
5. Treat acute PE based on systemic blood pressure, right heart strain and myocardial stress
6. Decide if PE provoked or unprovoked and duration of therapy
7. Appreciate the role of NOACs in acute PE
8. Diagnose patients with acute vasculitis based on history, examination, imaging, serology testing ± biopsy
9. Recognise the urgency in treating acute severe haemoptysis
10. Determine the type of vasculitis – c- or p- anca positive, eosinophilic granulomatosis with polyangiitis or Behcets disease
11. Determine if there is any renal involvement and refer appropriately
12. Decide on the best treatment and monitor accordingly

Skill Development Opportunity	**Record**	**Assessment**	**Timeframe**
Discuss cases of acute PE to include risk factors, indication for acute thrombolysis and duration and means of anticoagulation	Record Cases in *Specialty Case Experience*	Complete CBD and signed off by Trainer	SpR1-3[123]
Pul hypertension - Discuss cases of PPH, CTEPH, L→R shunt			SpR1-3
Vasculitis - discuss P-ANCA, C-ANCA and EGPA cases			
Attend a pulmonary hypertension MDT meeting	Record Attendance	Collaborative experience	
Attend a VTE symposium		Study Day Attendance	
Attend a vasculitis symposium			

Lung Transplantation

By the end of Specialist training the trainee will be able to:

1. Determine that the patient has very advanced lung disease with no further treatment options available
2. Recognise indications and contra-indications for lung transplant referral
3. Recognise that potentially suitable recipients are placed on the active transplant list only after a very detailed in-patient assessment in the Mater hospital, Dublin
4. Inform patients that after a transplant they will remain on a high number of potentially toxic treatments for life and will have to commute regularly to the transplant centre
5. Detail the average early and late mortality post-transplantation
6. Detail the main threats to long-term survival after transplant particularly the development of bronchiolitis obliterans

Skill Development			
Opportunity	**Record**	**Assessment**	**Timeframe**
Know referral criteria/ contraindications for lung transplantation	Record Cases in *Specialty Case Experience*	Complete informal CBD and signed off by Trainer	SpR1-3
Know likely survival benefit of lung transplantation			
Discuss patient(s) that you referred for lung transplantation*			
Attend a pre- lung transplantation MDT meeting	Record Attendance	Collaborative Activities	
Attend a post -lung transplantation clinic		Clinics	

* there is dedicated 14 page on-line referral form to facilitate uploading all relevant patient information

ICU

An ICU attachment is not mandatory for CSCST in respiratory medicine. However, there are a limited number of Respiratory centres that offer a 2-3 month secondment to the ICU as part of the HST respiratory training attachment. If a trainee has a special interest in ICU, they may consider pursuing this as part of their OCPE allocation.

By the end of the attachment the trainee will be able to:

1. Recognise patients who need acute respiratory support including non-invasive and invasive ventilation
2. Decide which patients with advanced lung disease should be considered for invasive ventilation
3. Understand the complications of laryngeal intubation and invasive ventilation and when tracheostomy is indicated
4. Establish a diagnosis of Acute Respiratory Distress syndrome
5. Understand the pharmacology of commonly used drugs in ICU
6. Understand the role of the Multidisciplinary Team in ICU - interaction of intensivists, microbiologists, physicians and radiologists
7. Appreciate the concept of organ failure and how this impacts on duration of critical care stay and prognosis
8. Perform a bronchoscopy via ET tube or tracheostomy to treat atelectasis or provide a microbiological sample for culture

Skill Development		
Opportunity	**Assessment**	**Timeframe**
3 month secondment to intensive care unit with dedicated intensivists	*Additional Professional Experience*	SpR≥3
Mechanically ventilated patients - discuss with intensivist re chosen ventilator settings and why		
Patients with ARDS and multi-organ failure- Discuss management plans and requirement for / timing of tracheostomy		
Join the microbiology ICU ward rounds where possible		
Perform bronchoscopy for airway toileting, enhanced microbiological identification and assistance at percutaneous tracheostomy		
Accompany intensivists on discussions with relatives		
Mechanically ventilated patients - discuss with intensivist re chosen ventilator settings and why		

Programme Requirements

Activity	Requirement
Personal Goals Form	At the start of each post complete a Personal Goals form, agreed with your trainer
Gain Experience on Call	Complete Specialty Call as agreed with your trainer in all Resp Years
	Record 480 Cases on GIM Call in your GIM Year
	Record 240 Cases on Call in 2 other Dual Specialty Years
Deliver Teaching	Annually record at least 3 lectures, tutorials and instances where you have delivered bedside teaching
Research	Actively participate in research, seek to publish a paper and present research at conferences or national/international meetings
Audit	Complete and report on an audit or Quality Improvement (QI) project each year; whether to start, continue or complete.
Assessments	Complete a Quarterly Assessment/End of post assessment with your trainer four times in each year. Discuss your progress and complete the form.
End of Year Evaluation	Prepare for your end of year evaluation by ensuring your portfolio is up to date and your end of year evaluation form is initiated with your trainer.
National/International Meetings	Attend minimum of one per year of training
Attendance at In-House Activities	Each month attend at least one in-hospital teaching/collaborative activity
Grand Rounds	Attend each month and record attendance at 10 per year
Journal Club	Attend each month and record attendance at 10 per year
MDT meetings	Attend each month and record attendance at 5 per year; those outlined in your specialty requirements are included in this 5. Present at 2.
Radiology Conference	Record attendance at 20 per year
Pathology Conference	Record attendance at 10 per year
Weekly Multidisciplinary Conference	Record attendance at 30 including 10 in your GIM year
Clinics and ward rounds	Attend Clinics and Ward Rounds as agreed with your trainer, record attendance for each post.

Data OSCE	Complete the Data OSCE in year one or two of training
	Data Analysis OSCE includes: Pulmonary function testing Sleep studies Pharmacology Ventilator Settings Tuberculin skin testing Overnight Oximetry/TOSCA monitoring Echo Exercise testing Six-minute walk test Radiology Blood Gases Interpretation Pathology
Examinations	Attempt the HERMES exam in year 2 or 3 of training

General Internal Medicine Procedure Requirements

BIPAP/CPAP	Complete 10, including 1 DOPS
Emergency DC cardioversion	Complete 10, including 1 DOPS
ECG interpretation	Complete 50, including 1 DOPS
Joint aspiration	Complete 4, including 1 DOPS
Lumbar puncture	Complete 20, including 1 DOPS
Abdominal paracentesis – under ultrasound	Complete 4, including 1 DOPS
Femoral venous line placement – under ultrasound	Complete 1, including 1 DOPS
Intercostal drain Insertion – under ultrasound	Complete 1
Communication e.g. chairing care planning meeting for complex discharge, procedure consent	Complete a DOPS

Specialty Training Goals Overview

Complete the learning opportunities outlined in the specialty section for each Training Goal

Core Respiratory Skills for Patient Management	Communication skills	
	History and Examination	
	Imaging Techniques	
	Recognition of normal and abnormal respiratory physiology	
	Lung Function Testing	
	Gas Exchange and Oxygenation	
	LTOT, non-invasive ventilation	
Diagnostic and therapeutic procedures	Communication skills	
	History and Examination	
	Imaging Techniques	
Diagnosis and treatment of specific respiratory conditions	Respiratory Diseases 1: Airway diseases, ILD and Cancer	Asthma
		COPD
		Chronic Cough in non-smokers with normal lung physiology and imaging
		Occupational and Environmental Lung Disease
		Lung Cancer
		Interstitial Lung Disease (ILD)
	Respiratory Diseases 2: Pulmonary Infections	Acute respiratory infections
		Mycobacterial infection
		Latent TB
		Mycobacterium Other Than Tuberculosis (MOTT)
	Respiratory Diseases 3: Bronchiectasis, Sleep, VACC and Transplant	Non Cystic- Fibrosis Bronchiectasis
		Cystic fibrosis
		Sleep Related Disorders
		Diseases of the Chest wall and Respiratory muscles
		Pulmonary Vascular Diseases (PVD)
		Lung Transplantation
ICU (Optional)		

Appendix: Outcomes and ePortfolio Summary

Recorded Activity	Frequency for Completion	Timeframe	ePortfolio Form
Communication skills 1 SpR1-3			
1 observed Ward round [123]	Agreed with Trainer	Years 1,2,3	Clinics-Directly Observed
1 observed procedural consent [1]	Successful Appraisal	Year 1	Procedures & Investigations
Attendance at Breaking Bad news study day [1]	Once	Year 1	Study Day Attendance
1 observed Breaking Bad news episode [1]	Once	Year 1	Speciality Case Experience- Observed
1 observed ceiling of care discussion [1]	Once	Year 1	Speciality Case Experience- Observed
Observed oral presentation or tutorial and 1 journal club [123]	2 Records	Years 1,2,3	Additional Professional Experience - Presentations
Attend 5 journal clubs [123]	5	Years 1,2,3	Collaborative Activities
1 observed Ward MDT meeting[1]	1	Year 1	Clinics Directly Observed
History and Examination SpR1-3			
Present new patients in clinic and post-take [123]	Minimum of 3	Years 1,2,3	Speciality Case Experience-CBD
Present patients at other forums [123]	Minimum of 3	Years 1,2,3	Speciality Case Experience
Imaging Techniques SpR1-3			
Chest radiograph - 20 clinic, 20 post-take [123]	120	Years 1,2,3	Imaging Techniques
HRCT Thorax -1 study day	Once	During Programme	Study Day attendance
HRCT Thorax- interpretation 10 OPD, 10 at ILD clinics[123]	60	Years 1,2,3	Imaging Techniques
Attend 10 ILD clinics during training	10	During Programme	Clinics
Helical CT thorax – 1 study day	Once	During Programme	Study Day attendance
Helical CT interpret 10 clinic, 20 at bronchoscopy [123]	90	Years 1,2,3	Imaging Techniques
Attend 20 lung cancer MDT meetings throughout training	20	During Programme	Collaborative Activities
CTPA- interpret 10 post take and 10 in-patients[123]	60	Years 1,2,3	Imaging Techniques
Attend 1 Image guided lung biopsy	Once	During Programme	Procedures & Investigations

Recorded Activity	Frequency for Completion	Timeframe	ePortfolio Form
Lung Function Testing SpR1 -by 2nd Quarterly Assessment			
To attend a pulmonary function testing training day	Once	Year 1	Study Day attendance
Be able to perform spirometry independently	Successful Appraisal	Year 1	Procedures & Investigations
Correctly identify obstruction, reversibility and air trapping	Successful Appraisal	Year 1	Imaging Techniques
Correctly identify restriction - pulmonary and extra-pulmonary	Successful Appraisal	Year 1	Imaging Techniques
Correctly identify combined obstruction and restriction	Successful Appraisal	Year 1	Imaging Techniques
Correctly identify reduced gas transfer	Successful Appraisal	Year 1	Imaging Techniques
Correctly identify extra thoracic obstruction	Successful Appraisal	Year 1	Imaging Techniques
Measuring lung volumes -Mechanisms	Agreed with Trainer	Year 1	Imaging Techniques
Lung Function Testing SpR1-3			
Reporting lung function with senior colleague[123]	Successful Appraisal	Years 1,2,3	Imaging Techniques
Attend Respiratory muscle strength testing	Successful Appraisal	Any Resp Yr 1-3	Speciality Case Experience
Interpret respiratory muscle strength testing[123]	Successful Appraisal	Years 1,2,3	Speciality Case Experience
Gas Exchange and Oxygenation SpR1			
Performing an ABG	Successful Appraisal	Year 1	Speciality Case Experience-Observed
ABG analysis-type 1 and type 2 respiratory failure	Successful Appraisal	Year 1	Speciality Case Experience
Calculating Alveolar arterial oxygen difference	Successful Appraisal	Year 1	Speciality Case Experience
Mixed metabolic and respiratory disturbance on blood gas analysis	Successful Appraisal	Year 1	Speciality Case Experience
Acute 02 prescription	Successful Appraisal	Year 1	Speciality Case Experience-CBD
Interpret Overnight pulse oximetry and trans-cutaneous CO2	Successful Appraisal	Year 1	Speciality Case Experience
Gas Exchange and Oxygenation SpR1-3			
Interpret and observe one 6 minute walk test	Record Once	Any Resp Yr 1-3	Procedures & Investigations-
Observe 1 CPET test	Record Once	Any Resp Yr 1-3	Procedures & Investigations-

Recorded Activity	Frequency for Completion	Timeframe	ePortfolio Form
LTOT, non-invasive ventilation SpR 1			
Prescribing long-term oxygen therapy	Successful Appraisal	Year 1	Speciality Case Experience-CBD
Instituting acute non-invasive ventilation	Successful Appraisal	Year 1	Speciality Case Experience-CBD
Setting up an acute Bipap circuit - 1 case	Record Once	Year 1	Speciality Case Experience-Observed
LTOT, non-invasive ventilation SpR 1-3			
Prescribing Chronic NIV	Successful Appraisal	Any Resp Yr 1-3	Speciality Case Experience-CBD
Sleep studies – see later section (sleep related disorders)		Any Resp Yr 1-3	Speciality Case Experience-
Bronchoscopy SpR1-3			
Indication for bronchoscopy	Agreed with Trainer	Any Resp Yr 1-3	Bronchoscopy
Number of observed bronchoscopy during training	200, Record per List	During Programme	Bronchoscopy-Record and Workplace Feedback
correctly identify the endobronchial anatomy	Successful Appraisal	Any Resp Yr 1-3	Bronchoscopy-Observed
correctly perform bronchial wash/lavage	Successful Appraisal	Any Resp Yr 1-3	Bronchoscopy-Observed
correctly perform bronchial biopsies	Successful Appraisal	Any Resp Yr 1-3	Bronchoscopy-Observed
correctly perform bronchial bushings	Successful Appraisal	Any Resp Yr 1-3	Bronchoscopy-Observed
correctly perform transbronchial lung biopsies	Successful Appraisal	Any Resp Yr 1-3	Bronchoscopy-Observed
haemostasis post sampling	Successful Appraisal	Any Resp Yr 1-3	Bronchoscopy-Observed
Final sign off- in first 6 months of 3rd clinical resp year	Successful Appraisal	Any Resp Yr 1-3	Bronchoscopy DOPS
EBUS SpR1-3			
Indications For EBUS	Record Once	Any Resp Yr 1-3	Procedures & Investigations
Witness/assist at EBUS - procedures	20	Any Resp Yr 1-3	Procedures & Investigations

Recorded Activity	Frequency for Completion	Timeframe	ePortfolio Form
Pleural Ultrasound/procedures SpR1-3			
Differentiate Transudate and Exudates	Agreed with Trainer	Any Resp Yr 1-3	Procedures & Investigations-
Supervised Pleural USS	30	Any Resp Yr 1-3	Procedures & Investigations-Observed
Thoracocentesis – supervised ultrasound-guided	10	Any Resp Yr 1-3	Procedures & Investigations-Observed
Intercostal tube insertion via Seldinger technique -supervised	10	Any Resp Yr 1-3	Procedures & Investigations-Observed
Final sign off- in first 6 months of 3rd clinical resp year	Successful Appraisal	Any Resp Yr 1-3	Procedures & Investigations-Observed
Asthma SpR1-3			
Asthma diagnosis - recognise obstruction and reversibility	Agreed with Trainer	Any Resp Yr 1-3	Speciality Case Experience
Management of 1 acute severe asthma attack [123]	Successful Appraisal	Years 1,2,3	Speciality Case Experience-CBD
Management of asthma patients in an outpatient setting [123]	Successful Appraisal	Years 1,2,3	Speciality Case Experience-CBD
Observe and interpret 1 mannitol inhalation test	Record Once	Any Resp Yr 1-3	Speciality Case Experience
Observe and interpret 1 histamine or metacholine inhalation test	Record Once	Any Resp Yr 1-3	Speciality Case Experience
Attend 10 severe asthma clinics	10	Any Resp Yr 1-3	Clinics
COPD SpR1			
Aetiological factors	Agreed with Trainer	Any Resp Yr 1-3	Speciality Case Experience
Management of acute exacerbations of COPD inc acute NIV	Successful Appraisal	Any Resp Yr 1-3	Speciality Case Experience-CBD
COPD SpR1-3			
Discuss management of patients with chronic COPD[123]	Successful Appraisal	Years 1,2,3	Speciality Case Experience-CBD
1 observed ceiling of care discussion [1] (see communication)	Once	Year 1	Speciality Case Experience-Observed
Chronic Cough SpR1-3			
Aetiology – discuss common causes and treatment[123]	Successful Appraisal	Years 1,2,3	Speciality Case Experience-CBD
Treatment failure – Discuss cases of treatment failure [123]	Successful Appraisal	Years 1,2,3	Speciality Case Experience-CBD
Palliative treatment - discuss palliative treatments cough[123]	Successful Appraisal	Years 1,2,3	Speciality Case Experience-CBD

Recorded Activity	Frequency for Completion	Timeframe	ePortfolio Form
Occupational and Environmental Lung Disease SpR1-3			
Attend study day early in training	Once	Any Resp Yr 1-3	Study Day Attendance
Asthma history taking - always consider Occupational causes	Successful Appraisal	Any Resp Yr 1-3	Speciality Case Experience-CBD
Discuss cases of acute hypersensitivity pneumonitis	Successful Appraisal	Any Resp Yr 1-3	Speciality Case Experience-CBD
Discuss Asbestos lung disease	Successful Appraisal	Any Resp Yr 1-3	Speciality Case Experience-CBD
Other inorganic lung diseases	Successful Appraisal	Any Resp Yr 1-3	Speciality Case Experience-CBD
Lung Cancer - SpR1-3			
SCLC and NSCLC - Discuss local and advanced cases[123]	Successful Appraisal	Years 1,2,3	Speciality Case Experience-CBD
Rapid access lung cancer clinic - attend at least 20 clinics during training	20	Any Resp Yr 1-3	Clinics
Lung cancer MDT meetings - attend at least 20 during training	20	Any Resp Yr 1-3	Collaborative Activities
Further training - joint thoracic clinics, survivorship clinics	Agreed with Trainer	Any Resp Yr 1-3	Clinics
Interstitial Lung Disease (ILD) SpR1-3			
IPF – Discuss patients -1 NSIP, 1 UIP [123]	Successful Appraisal	All Resp Years	Speciality Case Experience-CBD
Sarcoidosis - Discuss cases [123]	Successful Appraisal	All Resp Years	Speciality Case Experience-CBD
HRCT thorax – study day (see imaging section)	Once	Any Resp Yr 1-3	Study Day Attendance
Attendance at 10 ILD clinics	10	Any Resp Yr 1-3	Clinics
Attendance at 10 ILD MDT meetings	10	Any Resp Yr 1-3	Collaborative Activities
Discuss other ILDs encountered	Agreed with Trainer	Any Resp Yr 1-3	Speciality Case Experience
Pneumonia SpR 1-3			
Classification of pneumonia	Agreed with Trainer	Any Resp Yr 1-3	Speciality Case Experience-
Discussion post-take	Successful Appraisal	Any Resp Yr 1-3	Speciality Case Experience-CBD
Chest x-ray Interpretation -20 post-take (see imaging section)[123]	60	All Resp Years	Imaging Techniques-Workplace Discussion

Recorded Activity	Frequency for Completion	Timeframe	ePortfolio Form
Mycobacterial infection SpR1-3			
Tuberculin test - observe 1	Once	Year 1	Procedures & Investigations-
IGRA test - discuss the basic science behind this test	Agreed with Trainer	Any Resp Yr 1-3	Procedures & Investigations-
Managing active tuberculosis -Discuss patients	Successful Appraisal	Any Resp Yr 1-3	Speciality Case Experience-CBD
Discuss managing patients with MOTT	Successful Appraisal	Any Resp Yr 1-3	Speciality Case Experience-CBD
Discuss managing latent TB /immunosuppressive drugs	Successful Appraisal	Any Resp Yr 1-3	Speciality Case Experience-CBD
Attendance at 10 TB clinics	10	Any Resp Yr 1-3	Clinics
Non Cystic- Fibrosis Bronchiectasis SpR1-3			
Discuss cases with different aetiology/ management plan[123]	Successful Appraisal	All Resp Years	Speciality Case Experience-CBD
Attend dedicated bronchiectasis clinic if available	Agreed with Trainer	Any Resp Yr 1-3	Clinics
HRCT thorax – study day (see imaging section)	Once	Any Resp Yr 1-3	Study Day Attendance
Attend 10 x ray-meetings- (see imaging section)	10	Any Resp Yr 1-3	Collaborative activities
Attend 1 sputum clearance training session*	Once	Any Resp Yr 1-3	Study Day Attendance
			Collaborative Activities-MDT Meeting
Cystic fibrosis SpR1-3			
3 month attachment at an adult cystic fibrosis unit	Agreed with Trainer	Any Resp Yr 1-3	
Discuss chronic management of CF [1]	Successful Appraisal	Year 1	Speciality Case Experience-CBD
Discuss management of acute exacerbations of CF[1]	Successful Appraisal	Year 1	Speciality Case Experience-CBD
Attendance at 1 CF MDT/ lung transplant referral meeting	1	Any Resp Yr 1-3	Collaborative Activities-
Attend 1 sputum clearance training session*	Once	Any Resp Yr 1-3	Collaborative Activities-MDT Meeting
Sleep Related Disorders SpR1-3			
Joint reporting of sleep studies with institutional sleep physician	Agreed with Trainer	Any Resp Yr 1-3	Speciality Case Experience-Observed
Attendance at 10 sleep clinics	10	Any Resp Yr 1-3	Clinics

Recorded Activity	Frequency for Completion	Timeframe	ePortfolio Form
Diseases of the Chest wall and Respiratory muscles			
Please see PFTs section & LTOT, non-invasive ventilation section	Agreed with Trainer	Any Resp Yr 1-3	Speciality Case Experience
Identify common chest wall disorders	Successful Appraisal	Any Resp Yr 1-3	Speciality Case Experience-CBD
Discuss cases of MND, Myotonica Dystrophica, AIPD, CIPD	Successful Appraisal	Any Resp Yr 1-3	Speciality Case Experience-CBD
Attend 1 MND clinic	1	Any Resp Yr 1-3	Clinics
Pulmonary Vascular Diseases (PVD) SpR1-3			
Discuss cases of acute PE[123]	Successful Appraisal	All Resp Years	Speciality Case Experience-CBD
Pul hypertension - Discuss cases of PPH, CTEPH, L→R shunt	Successful Appraisal	Any Resp Yr 1-3	Speciality Case Experience-CBD
Attendance at 1 pulmonary hypertension MDT meeting	1	Any Resp Yr 1-3	Collaborative Activities
Vasculitis - discuss P-ANCA, C-ANCA and EGPA cases	Successful Appraisal	Any Resp Yr 1-3	Speciality Case Experience-CBD
Attend 1 VTE symposium	1	Any Resp Yr 1-3	Study Day Attendance
Attend 1 vasculitis symposium	1	Any Resp Yr 1-3	Study Day Attendance
Lung Transplantation SpR1-3			
Know referral criteria/ contraindications for lung transplantation	Agreed with Trainer	Any Resp Yr 1-3	Speciality Case Experience
Know likely survival benefit of lung transplantation	Agreed with Trainer	Any Resp Yr 1-3	Speciality Case Experience
Discuss patient(s) that you referred for lung transplantation	Successful Appraisal	Any Resp Yr 1-3	Speciality Case Experience-CBD
Attendance at one pre- lung transplantation MDT meeting	1	Any Resp Yr 1-3	Collaborative Activities
Attendance at one post -lung transplantation clinic	1	Any Resp Yr 1-3	Clinics

Recorded Activity	Frequency for Completion	Timeframe	ePortfolio Form
Intensive care medicine - ≥ 3rd clinical resp year			
This is not mandatory for CCST in respiratory medicine			
3 month secondment to ICU with dedicated intensivists	Agreed with Trainer	During Programme	Additional Professional Experience
Discuss modes of mechanical ventilation in different patients	Successful Appraisal	During Programme	Additional Professional Experience -CBD
Discuss need and timing of tracheostomy	Agreed with Trainer	During Programme	Additional Professional Experience
Discuss management of patients with ARDS and multi-organ failure	Successful Appraisal	During Programme	Additional Professional Experience -CBD
Attend microbiology ward rounds - 2 per week	Agreed with Trainer	During Programme	Additional Professional Experience
Perform bronchoscopy in ICU	Agreed with Trainer	During Programme	Bronchoscopy-Observed
Accompany intensivists on discussions with relatives	Agreed with Trainer	During Programme	Additional Professional Experience
HERMES Examination SpR1, GIM1, SpR2			
Mandatory in first 3 years of scheme		by year 3	Course Attendance
Clinical Audit (or QIP) SpR1 GIM1, SpR2, SpR3			
1 Mandatory audit/QIP[1234]	4	All Clinical Years	Audit and QI
General Medicine Procedures			
Abdominal paracentesis under ultrasound guidance	Successful Appraisal	During Programme	Procedures & Investigations-Observed
ECG Interpretation	Successful Appraisal	During Programme	Procedures & Investigations-Observed
Emergency DC cardioversion	Successful Appraisal	During Programme	Procedures & Investigations-Observed
Emergency care of tracheostomy	Successful Appraisal	During Programme	Procedures & Investigations-Observed
Femoral venous lines with ultrasound guidance	Successful Appraisal	During Programme	Procedures & Investigations-Observed
Intercostal drain under ultrasound guidance	Successful Appraisal	During Programme	Procedures & Investigations-Observed
Lumbar puncture	Successful Appraisal	During Programme	Procedures & Investigations-Observed
Non-invasive Ventilation	Successful Appraisal	During Programme	Procedures & Investigations-Observed
Pleural and ascitic fluid aspiration under ultrasound	Successful Appraisal	During Programme	Procedures & Investigations-Observed
Note: The *Imaging techniques* and *Lung function tests* can be recorded on the specialty case experience form or the imaging techniques form, both count the same towards experience. Multiple outcomes can be captured in the one case and one CBD where appropriate. *Training is only required once			

APPENDICES

This section includes two appendices to the Curriculum.

The first one is about Assessment (i.e. Workplace Based Assessments, Evaluations etc).

The second one is about Teaching Attendance (i.e. Taught Programme, Specialty-Specific Learning Activities and Study Days)

ASSESSMENT APPENDIX

Workplace-Based Assessment and Evaluations

The expression "workplace-based assessments" (WBA) defines all the assessments used to evaluate Trainees' daily clinical practices employed in their work setting. It is primarily based on the observation of Trainees' performance by Trainers. Each observation is followed by a Trainer's feedback, with the intent of fostering reflective practice.

Relevance of Feedback for WBA

Although "assessment" is the keyword in WBA, it is necessary to acknowledge that feedback is an integral part and complementary component of WBA. The main purpose of WBA is to provide specific feedback for Trainees. Such feedback is expected to be:

- **Frequent**: the opportunities to provide feedback are preferably given by directly observed practice, but also by indirectly observed activities. Feedback is expected to be frequent and should concern a low-stake event. Rather than being an assessor, the Trainer is an observer who is asked to provide feedback in the context of the training opportunity presented at that moment.
- **Timely**: preferably, the feedback should be a direct conversation between Trainer and Trainee in a timeframe close to the training event. The Trainee should then record the feedback on ePortfolio in a timely manner.
- **Constructive**: the recorded feedback would inform both Trainee's practice for future performance and committees for evaluations. Hence, feedback should provide Trainees with behavioural guidance on how to improve performance and give committees the context that leads to a rating, so that progression or remediation decisions can be made.
- **Actionable**: to improve performance and foster behavioural change, feedback should include practical and contextualised examples of both Trainee's strengths and areas for improvement. Based on these examples, it is necessary to outline a realistic action plan to direct the Trainee towards remediation/improvement.

Types of WBAs in use at RCPI

There is a variety of WBAs used in medical education. They can be categorised into three main groups: *Observation of performance*; *Discussion of clinical cases*; *Feedback; Mandatory Evaluations*.

As WBAs at RCPI we use *Observation of performance* via MiniCEX and DOPS; *Discussion of clinical cases* via CBD; *Feedback* via Feedback Opportunity.

andatory Evaluations are bound to specific events or times of the academic year, for these at RCPI we use: Quarterly Assessment/End of Post Assessment; End of Year Evaluation; Penultimate Year Evaluation; Final Year Evaluation.

Recording WBAs on ePortfolio

It is expected that WBAs are logged on an electronic portfolio. Every Trainee has access to an individual ePortfolio where they must record all their assessments, including WBAs. By recording assessments on this platform, ePortfolio serves both the function to provide an individual record of the assessments and to track Trainees' progression.

Formative and Summative Assessment

The Trainee can record any WBA either as formative or summative with the exception of the *Mandatory Evaluations* (Quarterly/End of Post, End of Year, Penultimate Year, Final Year evaluations).
If the WBA is logged as formative, the Trainee can retain the feedback on record, but this will not be visible to an assessment panel, and it will not count towards progression. If the WBA is logged as summative it will be regularly recorded and it will be fully visible to assessment panels, counting towards progression.

Specialty-Specific Examination

Trainees are encouraged strongly to sit the **Harmonised Education in Respiratory Medicine for European Specialists (HERMES)** exam before the end of their second clinical respiratory year (no later than year 3 in the GIM/Respiratory programme). We would also encourage the results of this test to be made available to the two National Specialty Directors.

WORKPLACE-BASED ASSESSMENTS	
***CBD |** Case Based Discussion*	This assessment is developed in three phases: 1. Planning: The Trainee selects two or more medical records to present to the Trainer who will choose one for the assessment. Trainee and Trainer identify one or more training goals in the Curriculum and specific outcomes related to the case. Then the Trainer prepares the questions for discussion. 2. Discussion: Prevalently, based on the chosen case, the Trainer verifies the Trainee's clinical reasoning and professional judgment, determining the Trainee's diagnostic, decision-making and management skills. 3. Feedback: The Trainer provides constructive feedback to the Trainee. It is good practice to complete at least one CBD per quarter in each year of training.
***DOPS |** Direct Observation of Procedural Skills*	This assessment is specifically targeted at the evaluation of procedural skills involving patients in a single encounter. In the context of a DOPS, the Trainer evaluates the Trainee while they are performing a procedure as a part of their clinical routine. This evaluation is assessed by completing a form with pre-set criteria, then followed by direct feedback. It is good practice to complete at least one assessment per quarter in each year of training.
***MiniCEX |** Mini Clinical Examination Exercise*	The Trainer is required to observe and assess the interaction between the Trainee and a patient. This assessment is developed in three phases: 1. The Trainee is expected to conduct a history taking and/or a physical examination of the patient within a standard timeframe (15 minutes). 2. The Trainee is then expected to suggest a diagnosis and management plan for the patient based on the history/examination. 3. The Trainer assesses the overall Trainee's performance by using the structured ePortfolio form and provides constructive feedback. It is good practice to complete at least one assessment per quarter in each year of training.
Feedback Opportunity	Designed to record as much feedback as possible. It is based on observation of the Trainees in any clinical and/or non-clinical task. Feedback can be provided by anyone observing the Trainee (peer, other supervisors, healthcare staff, juniors). It is possible to turn the feedback into an assessment (CDB, DOPS or MiniCEX)
MANDATORY EVALUATIONS	
***QA |** Quarterly Assessment*	As the name suggests, the Quarterly Assessment recurs four times in the academic year, once every academic quarter (every three months). It frequently happens that a Quarterly Assessment coincides with the end of a post, in which case the Quarterly Assessment will be substituted by completing an End of Post Assessment. In this sense the two Assessments are interchangeable, and they can be completed using the same form on ePortfolio. However, if the Trainee will remain in the same post at the end of the quarter, it will be necessary to complete a Quarterly Assessment. Similarly, if the end of a post does not coincide with the end of a quarter, it will be necessary to complete an End of Post Assessment to assess the end of a post. This means that for every specialty and level of training, a minimum of four Quarterly Assessment and/or End of Post Assessment will be completed in an academic year as a mandatory requirement.
***EOPA |** End of Post Assessment*	
***EOYE |** End of Year Evaluation*	The End of Year Evaluation occurs once a year and involves the attendance of an evaluation panel composed of the National Specialty Directors (NSDs); the Specialty Coordinator attends too, to keep records of and facilitate the meeting. The assigned Trainer is not supposed to attend this meeting unless there is a valid reason to do so. These meetings are scheduled by the respective Specialty Coordinators and happen sometime before the end of the academic year (between April and June).
***PYE |** Penultimate Year Evaluation*	The Penultimate Year Evaluation occurs in place of the End of Year Evaluation, in the year before the last year of training. It involves the attendance of an evaluation panel composed of the National Specialty Directors (NSDs) and an External Member who is a recognised expert in the Specialty outside of Ireland; the Specialty Coordinator attends too, to keep records of and facilitate the meeting. The assigned Trainer is not supposed to attend this meeting unless there is a valid reason to do so.
***FYE |** Final Year Evaluation*	In the last year of training, the End of Year Evaluation is conventionally called Final Year Evaluation, however, its organisation is the same as an End of Year Evaluation.

TEACHING APPENDIX

RCPI Taught Programme

The new RCPI Taught Programme consists of a series of modular elements spread across the years of training.

Delivery will be a combination of self-paced online material, live virtual tutorials, and in-person workshops, all accessible in one area on the RCPI's virtual learning environment (VLE), RCPI Brightspace.

The live virtual tutorials will be delivered by Tutors related to this specialty and they will use specialty-specific examples throughout each tutorial. Trainees will be assigned to a tutorial group and will remain with their tutorial group for the duration of HST.

Trainees will receive their induction content and timetable ahead of their start date on HST. Trainees must plan the time to complete their requirements and must be supported with the allocation of study leave or appropriate rostering.

As the HST Taught Programme is a mandatory component of HST, it is important that Trainees are released from service to attend the Virtual Tutorials and, where possible facilitated with the use of teaching space in the hospital.

Specialty-Specific Learning Activities (Courses & Workshops)

Trainees will also complete specialty-specific courses and/or workshops as part of the programme.

Trainees should always refer to their training Curriculum for a full list of requirements for their HST programme. When not sure, Trainees should contact their Programme Coordinator.

Study Days

Study days vary from year to year, they comprise a rolling schedule of hospital-provided topic-specific educational days and national/international events selected for their relevance to the HST Curriculum.

Attend 6 in every year, including those specified in the specialty section requirements. Years 1 - 3: Attend 3 GIM study days per year: 2 'core' and 1 'non-core' and 3 Respiratory Medicine study days per year. General Internal Medicine specialty year (Minimum of 6 GIM study days: 3 'core' and 3 'non-core') Years 4 – 5: Attend 6 approved study days per year.

Respiratory Medicine & GIM Teaching Attendance Requirements

RCPI Taught Programme

Year 1

- Quarter 1 - Finding Your Place
  - online content + virtual tutorial
- Quarter 2 - Quality Improvement
  - online content
- Quarter 3 - Leadership and Communication
  - online content + virtual tutorial
- Quarter 4 - Research
  - online content + research clinic

Year 2 and Year 3

to be confirmed

Specialty-Specific Learning Activities

Specialty Courses

Ultrasound Course (Desirable)

EBUS Simulation Course (Desirable)

Hospital-Based Courses

- ACLS
- NIHSS Stroke Scale (recommended)

Study Days

Trainees are expected to attend the majority of the study days available and

at least 6 per training year