



6 St Andrews Place
Regent's Park
London
NW1 4LB

t: 020 7317 5890
f: 020 7317 5899
e: fom@facocmed.ac.uk
www.facocmed.ac.uk

Registered Charity No. 1020415
UKT Registration No. 798 6004 62

SPECIALIST TRAINING CURRICULUM FOR OCCUPATIONAL MEDICINE

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TRAINING CURRICULUM IN OCCUPATIONAL MEDICINE

CONTENTS

HOW TO USE THIS CURRICULUM	3
Section 1 – Rationale.....	3
Section 2 – Content of Learning.....	3
Section 3 – The Learning Process.....	3
Section 4 – Assessment Strategy.....	3
Section 6 – Curriculum Implementation	4
Section 7 – Curriculum Review	4
Section 8 – Equality and Diversity.....	4
SECTION 1 – RATIONALE.....	5
1.1 - BACKGROUND.....	5
1.2 – AIMS AND OBJECTIVES	5
1.3 – OCCUPATIONAL MEDICINE COMPETENCIES	6
1.4 – CURRICULUM DEVELOPMENT	7
1.5 – TRAINING STRUCTURE	8
Allocation from Core Medical Training (CMT) or Acute Care Common Stem Medicine (ACCS (M)).....	9
Allocation from other Medical Specialties	9
CCT vs CESR route to specialist registration.....	10
Specialist training in a medical specialty.....	10
SECTION 2 – CONTENT OF LEARNING	13
2.1 – THE SPIRAL CURRICULUM	13
2.2 – CORE COMPETENCIES CLASSIFIED ACCORDING TO GOOD MEDICAL PRACTICE	14
GOOD CLINICAL CARE	14
MAINTAINING GOOD CLINICAL PRACTICE	22
RELATIONSHIPS WITH PATIENTS AND COMMUNICATION.....	28
WORKING WITH COLLEAGUES	31
2.3 – CORE COMPETENCIES CLASSIFIED ACCORDING TO TRAINING DOMAINS	33
SECTION 3 – THE LEARNING PROCESS.....	36
3.1 THE MODEL OF LEARNING.....	36
3.2 LEARNING EXPERIENCES	38
SECTION 4 – ASSESSMENT STRATEGY.....	40
SECTION 5 – TRAINEE SUPERVISION AND FEEDBACK	41
5.1 SUPERVISION	41
5.2 FEEDBACK	41
SECTION 6 – CURRICULUM IMPLEMENTATION	43
6.1 – TRAINING PROGRAMMES.....	43
6.2 – INTENDED USE OF CURRICULUM BY TRAINERS AND TRAINEES	43
6.3 – ENSURING CURRICULUM COVERAGE	44
6.4 – CURRICULUM MANAGEMENT	44
6.5 – RESPONSIBILITIES OF TRAINEES.....	44
SECTION 7 – CURRICULUM REVIEW.....	45
7.1 – CURRICULUM EVALUATION AND MONITORING	45
7.2 – TRAINEE INVOLVEMENT IN CURRICULUM REVIEW	45
SECTION 8 – EQUALITY AND DIVERSITY.....	46
REFERENCES	47

HOW TO USE THIS CURRICULUM

The purpose of this curriculum is to guide the training of doctors wishing to specialise in Occupational Medicine and to describe the competencies to be attained by the end of specialist training. This document is primarily for doctors training in Occupational Medicine and for their trainers. Occupational Medicine is a broad-based specialty encompassing any medical condition that may affect the working age population and thus affect fitness for work. Thus, training in Occupational Medicine involves the support of a wide range of trainers and organisations. It is also important to assure the quality of the delivery and assessment of training in training posts across the United Kingdom. This document will inform Deaneries, Programme Directors, Regional Specialty Advisers and Educational Supervisors to help to ensure that the curriculum is implemented appropriately and consistently, whilst permitting sufficient flexibility to permit local variations to take account of individual training needs and local approaches to training.

This curriculum is intended for doctors in training who have already successfully completed a Foundation programme and have attained the core competencies outlined in the Foundation Curriculum. In addition, they must have either successfully completed core medical training as physicians, usually a two-year training programme, or have successfully completed post-Foundation programme training in another discipline of medicine (such as General Practice, Psychiatry, Public Health etc.) such that can demonstrate acquisition of the competencies required to enter specialist training in Occupational Medicine.

The curriculum is set out as follows:

Section 1 – Rationale

This describes the background to the development of the curriculum, the structure of training and the purpose of the curriculum in medical training.

Section 2 – Content of Learning

This is the syllabus section of the curriculum describing the knowledge, skills and attitudes that trainees need to learn. It sets out the competencies organised under the headings of the GMC's *Good Medical Practice*. As such, it combines generic and specialist competencies in one document.

Section 3 – The Learning Process

This section discusses the model for learning and the learning for the training programme.

Section 4 – Assessment Strategy

This section outlines the systems for assessment of competence for the curriculum.

Section 5 - Trainee Supervision and Feedback

TRAINING CURRICULUM IN OCCUPATIONAL MEDICINE

This section recommends how a trainee should be supervised during the training programme and how feedback on learning should be given.

Section 6 – Curriculum Implementation

This section discusses how the management and implementation of the curriculum within the training programme will be achieved.

Section 7 – Curriculum Review

It is intended that the curriculum will be a fluid document. It will evolve as feedback is received from trainers, trainees, assessors and external stakeholders, such as employers. This section sets out how the curriculum review, evaluation and monitoring will take place.

Section 8 – Equality and Diversity

This section describes how the curriculum complies with anti-discriminatory practice.

SECTION 1 – RATIONALE

1.1 - Background

Important changes are taking place in the way in which postgraduate medical education will be organised and implemented. The Faculty of Occupational Medicine began a review of training and assessment in 2004. We believe that changes to the current arrangements are necessary in order to ensure that training is relevant to the needs of practice and that high quality training is available for all trainees. The review highlighted the need to make changes in a number of different but inter - related aspects of training. We need to continue to produce specialists in Occupational Medicine to address the mortality and morbidity associated with the workplace as well as the need to address changing demographics in the western world, with the twin challenges of ageing populations and immigration.

Training in Occupational Medicine is important for a number of reasons. First and foremost it is important because occupational diseases and work-related illnesses continue to be causes of mortality and morbidity. Each year, of the 2.2 million work-related deaths that occur globally, more than 1.7 million deaths are from work-related diseases (1). Within Europe, as in the United Kingdom, work circumstances associated with morbidity are common. A European Labour Force Survey found that, of the 5,372 per 100,000 self-reported work-related health problems in eleven countries, 2,645 per 100,000 (49%) were musculo-skeletal problems and 1,181 per 100,000 (22%) were due to stress, depression and anxiety (2). In a more recent UK Labour Force Survey, a similar pattern has been shown (3). These and a wide range of other work-related conditions present to doctors requiring a specialist assessment. It is still the case that some people are dying from previous workplace exposures and others need to be assessed with respect to their eligibility for compensation (4). Many require expert assessment to advise them and their employers about health protection and rehabilitation back to work.

Specialists in Occupational Medicine are required to meet the changing needs of business and society. In the western world organisations are faced with economic pressures to contain costs and to improve productivity. Recruitment and retention of carefully selected staff is a key issue, as is the management of sickness absence. Changing demographics, with an increasingly ageing population on one hand and economic inward migration on the other, will create challenges for occupational health practice. In future, the focus of practice is likely to extend beyond the workplace to the working population in general, due to changing work patterns including working from home, and to people of working age to facilitate improved access to the jobs market. The national importance of this can be seen by reference to strategic Government publications (5, 6).

1.2 – Aims and Objectives

The aim of the curriculum is to produce specialist occupational physicians capable of independent practice in any industry sector by the end of the

TRAINING CURRICULUM IN OCCUPATIONAL MEDICINE

training programme. Successful completion of specialist training in the UK will lead to the award of CCT (Certificate of Completion of Training). This, in turn will give eligibility for inclusion onto the medical register as a specialist. The award of a CCT indicates the completion of a PMETB-approved UK training programme. Specialist registration is the benchmark for the standard of the qualification of an occupational physician. Successful completion of training will also confer eligibility for the award of MFOM (Membership of the Faculty of Occupational Medicine) by the Faculty. Possession of MFOM will be the visible kite mark of a quality assured specialist training programme that will produce occupational physicians capable of practising within organisations such that they bring added value to the organisation.

In line with current thinking, it is not envisaged that the completion of specialist training marks the end of training, nor that new Members of the Faculty of Occupational Medicine will be experts in any particular industry sector. Further training will be required as part of a commitment to a process of life-long learning. Training for super-specialisation and continuing professional development will be required. The specialist training programme will equip occupational physicians to accommodate further professional growth.

The curriculum will contain a set of core competencies that must be acquired by all trainees. It will be a, so called, "spiral curriculum" in that trainees will revisit the core competencies in each year of training as they progress from a basic level of functioning to a specialist level. The level at which trainees are assessed will increase, as their ability to manage increasingly complex occupational health scenarios develops. In addition, trainees will be encouraged to pursue aspects of training of relevance to their intended careers that takes them beyond the boundaries of core competencies. The training content of programmes will adhere to the principle of "core plus". There will be student selected options that will be assessed in the final year of training that will enable additional study in, for example, research, teaching, management or law.

As far as possible, flexibility will be built into the delivery of training based on an individual assessment of educational needs. The role of the Educational Supervisor will be a critical element of this and they will have an enhanced role in the delivery of the new curriculum. Trainees will also be expected to take an increased level of responsibility for managing their own training. They will be expected to seek out learning opportunities and meet the targets of the annual education plan, with the support of their Educational Supervisor.

1.3 – Occupational Medicine Competencies

This curriculum defines the Occupational Medicine competencies expected of an occupational physician by the end of training. The competencies are broken down in terms of knowledge, skills and attitudes, as being competent is not merely about having the appropriate knowledge or about acquiring a particular skill. Whilst these aspects of training are extremely important, effective practise in Occupational Medicine requires appropriate attitudes and behaviours towards patients/workers, colleagues, managers and other lay people and towards ones self with respect to personal development and self care.

TRAINING CURRICULUM IN OCCUPATIONAL MEDICINE

The competencies have been categorised under the headings of the GMC's *Good Medical Practice* (7), building on the interpretation of the guidance by the Faculty of Occupational Medicine (8). This demonstrates that they are grounded not only in the needs of the specialty but also the framework for practice of all doctors. *Good Medical Practice* is also the framework for undergraduate medical education and for the Foundation Programme Curriculum and it places patient safety at the core of its principles. Occupational Medicine is an applied specialty within medicine with some unique aspects of practice pertaining to the field of employment. However, it is a clinical specialty with the same duty of care towards individual patients/workers as any other clinical specialty. Doctors entering training in Occupational Medicine will have attained the core competencies of the Foundation Curriculum. In addition, they will have successfully completed core medical training as a physician, or will have undergone post-Foundation Programme training in another medical specialty and will have attained the competencies required for allocation, as set out in the person specification of the Faculty of Occupational Medicine. Thus, the competencies required for occupational physicians link to previous undergraduate and post-graduate medical training.

1.4 – Curriculum Development

The production of this curriculum has been a continuing process over some years. The Academic Committee of the Faculty of Occupational Medicine produced education and assessment strategies for Occupational Medicine in 2003. These strategies formed the basis for a series of work streams that have led to the development of the current curriculum.

The implementation of the strategies was via a number of work plan groups:

Remit of Group	Group Leader
Learning Outcomes	Professor R Agius
Training content years 1&2	Dr M Davidson
Training content years 3&4	Dr A Finn
External assessment	Dr P Raffaelli
Continuing assessment	Dr C Roythorne
Curriculum and post approval	Dr G Parker

The learning outcomes group revised the existing list of competencies. There was a review of peer-reviewed and grey literature to ascertain an evidence base for the competencies. Only a small number of papers were identified as useful for this purpose. Two modified Delphi studies have been carried out to identify and rank competencies (9,10). One study sought the opinions of academic and practising occupational physicians in Europe. The other sought the views of managers and human resources managers in the UK, targeting organisations of varying sizes in order to include representation from large employers and small to medium-sized enterprises (SMEs). A limited survey of recently trained occupational physicians was carried to ascertain their views on requisite competencies. With the kind permission of the Faculty of Occupational

TRAINING CURRICULUM IN OCCUPATIONAL MEDICINE

Medicine in Ireland, the UK competencies were compared with those of the Irish curriculum.

A full consultation of the membership of the Faculty and other key stakeholders was carried out in the autumn of 2006. This included consultation with current trainees in Occupational Medicine. Feedback from this exercise has been included in a revised set of competencies and in the final decisions about the assessment programme.

1.5 – Training Structure

Occupational Medicine is an applied specialty within medicine. Entry into training has been, historically, via many different routes. Usually, doctors entering training in Occupational Medicine have already completed general professional training, as a minimum, and many recruits have completed specialist training in other disciplines, such as general practice or other branches of hospital medicine. Recruitment from a heterogeneous pool of applicants has been a strength of occupational medicine given its broad base within the field of employment. The training structure addresses the possibility of run-through training, post-Foundation Programme training, providing a clearly defined training pathway leading to the award of CCT. It also addresses the need for diversity in recruitment within the constraints of Modernising Medical Careers (MMC) training pathways. Occupational Medicine is practised in a variety of differing organisations and only a minority of accredited specialists in Occupational Medicine in the UK are consultants in the NHS. Two-thirds of occupational medicine trainees are trained outside the NHS, either in other public sector organisations, or in the private sector.

One standard route for entry into specialist training in Occupational Medicine will follow allocation into Core Medical Training (CMT) or Acute Care Common Stem Medicine (ACCS(M)), together termed "**core training**" in acute medicine. Core training follows on from Foundation Training. Allocation into Occupational Medicine at the ST3 level will require successful completion of the previous stages and evidence that the Foundation Training and core training competencies have been achieved. Successful completion of training from ST3 onwards will lead to the award of a CCT in Occupational Medicine.

There will be alternative routes into Occupational Medicine after the beginning of training and at a later stage in the curriculum. Instead of undertaking core training in acute medicine doctors may choose to commence specialist training in a number of other disciplines - namely:

- General Practice
- Psychiatry
- Public Health
- Surgery

These separate routes of allocation are described below.

TRAINING CURRICULUM IN OCCUPATIONAL MEDICINE

Allocation from Core Medical Training (CMT) or Acute Care Common Stem Medicine (ACCS (M))

This is a two-year training programme, overseen by the Joint Royal Colleges of Physicians Training Board (JRCPTB), consisting of 4-6 month placements in PMETB-approved posts, mainly in acute medicine and medical specialties. The curricula for this stage of core training are the level 1 of the Acute Medicine (GIM) curriculum and the generic curriculum for medical specialties 2007 – i.e.

Generic Curriculum for the Medical Specialties

http://www.pmetb.org.uk/fileadmin/user/QA/Curricula/Approved_curricula/GENERAL_INTERNAL_MEDICINE_Acute_/generic_curriculum_-_may_07.pdf

The Physician of Tomorrow

Curriculum for General Internal Medicine (Acute Medicine) (GIM level 1):

http://www.pmetb.org.uk/fileadmin/user/QA/Curricula/Approved_curricula/GENERAL_INTERNAL_MEDICINE_Acute_/GIM_3_Jul_07_v.Curr_0014.pdf

Successful attainment of the competencies defined in the curricula for CMT or ACCS(M) will be required before allocation into Occupational Medicine.

Allocation from other Medical Specialties

Although for many trainees the route into Occupational Medicine training will be via core training for acute medicine (CMT or ACCS(M)), early stages of training will be possible within several other specialties, namely: general practice, psychiatry, public health, or surgery. Such training will follow the successful completion of Foundation Training and evidence of the associated competencies.

Training via this alternative route will comply with the PMETB-approved curricula for the relevant specialty and entry into Occupational Medicine training posts or programmes at ST3 will depend on evidence of the related competencies. Specifically, entry will require the competencies expected by the end of:

- a) Surgery in General (core surgical training – CST)
or
- b) Psychiatry in General (core psychiatric training – CPT)
or
- c) Phase 1 of the Faculty of Public Health training curriculum
or
- d) General practice training to the ST3 level.

As of July 2007 these competencies were defined in:

a) **CST**: Intercollegiate Surgical Curriculum Project. *General Surgery Syllabus*.
http://www.pmetb.org.uk/fileadmin/user/QA/Curricula/Approved_curricula/Surgery/General_Surgery_Syllabus_01.pdf

b) **CPT**: Royal College of Psychiatrists. *A Competency Based Curriculum for Specialist Training in Psychiatry: Core and General Module*.

TRAINING CURRICULUM IN OCCUPATIONAL MEDICINE

http://www.pmetb.org.uk/fileadmin/user/QA/Curricula/Approved_curricula/Psychiatrists/Curriculum_core_and_general_module.pdf

c) **Public health:** Faculty of Public Health. *Training Curriculum 2007.*

http://www.pmetb.org.uk/fileadmin/user/QA/Curricula/Approved_curricula/Public_Health/MASTER_PH_Curriculum_150109_01.pdf

d) **General Practice:** Royal College of General Practitioners. *Curriculum for Specialty Training for General Practice.*

<http://www.pmetb.org.uk/index.php?id=674>

A summary of the eligibility criteria at ST3 will be maintained in a person specification found at:

http://www.facocmed.ac.uk/library/docs/t_person_specOM%20ST3aug07.doc

Doctors who can demonstrate the required competencies will be eligible to apply, if places are available.

CCT vs CESR route to specialist registration

Trainees who enter Occupational Medicine training after ST1, having acquired the requisite competencies elsewhere, will be awarded a CCT on successful completion of training if:

- (a) their entire training in posts and programmes in Occupational Medicine (ST3 onwards) is prospectively approved by PMETB;
AND
- (b) their ST1 and ST2 experience (ST1 to ST3 for general practice) have been gained either through (i) PMETB prospectively approved training posts or programmes, or through (ii) approved educational posts or programmes in the UK that pre-dated PMETB's establishment and which provided equivalent supervised training experience.

If any part of the training (ST1 to ST6) is **not** undertaken in an **educationally approved** post or programme, trainees may be eligible for specialist registration, but through the award of a CESR (Certificate Confirming Eligibility for Specialist Registration).

Specialist training in a medical specialty

Following completion of core training in acute medicine or training by one of the alternative routes listed above, a trainee is allocated into Occupational Medicine.

Training posts in Occupational Medicine may be various settings, most of which are outside the NHS. In some cases, training posts offer the possibility of rotation between the NHS and external organisations. However, in most cases, the additional experience required is achieved via educational attachments.

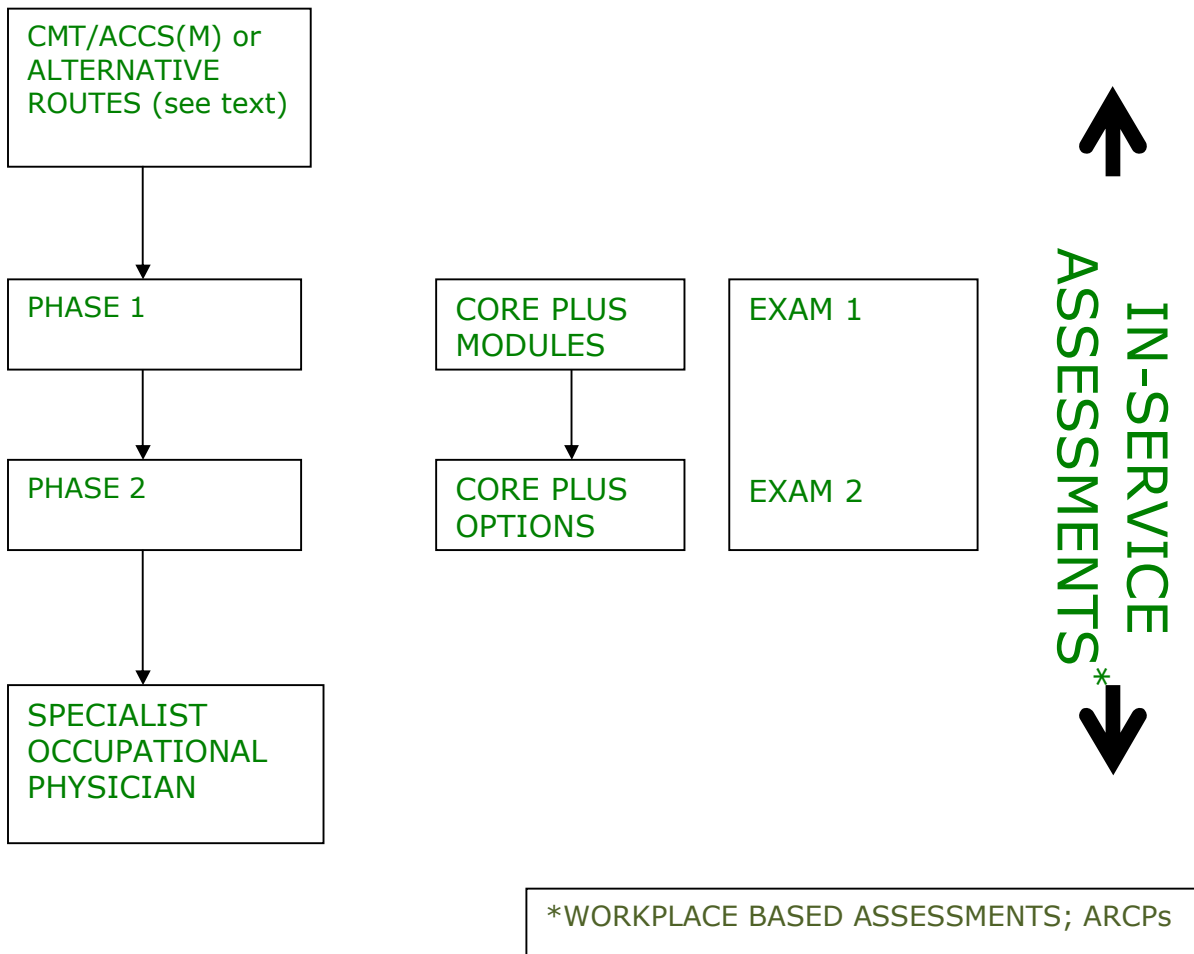
The indicative overall length of training in Occupational Medicine will be six years, two years of which will be in the early stages of training (CMT or

TRAINING CURRICULUM IN OCCUPATIONAL MEDICINE

alternative route) and four years of which will be in the later stages, after allocation into Occupational Medicine. The minimum duration of specialist training will be four years, as required by European legislation. However, training will be competency-based. Thus, the rate of progress will be determined by the ability to demonstrate competencies, rather than time spent in training. All doctors entering training will have an educational needs assessment that will inform their educational plan. The broad outline of training milestones will be as set out in Figure 1.

Phase one of training will last for approximately one year at the end of which there will be an external Faculty examination. All trainees must pass this examination to progress into phase two. The combination of the results of the examination and the workplace based assessments and Educational Supervisors' reports will identify at an early stage in training potential high fliers for fast-tracking through training, as well as trainees who are in need of additional support. Rarely, it will be possible to identify trainees who are not suited to training in Occupational Medicine.

Figure 1. Training in Occupational Medicine



SECTION 2 – CONTENT OF LEARNING

The competencies set out in this section are intended to build on the competencies attained during the Foundation Programme phase of training and either CMT training or appropriate training in another medical specialty.

2.1 – The Spiral Curriculum

The curriculum will contain a set of core competencies that must be acquired by all trainees. It will be a, so-called, “spiral curriculum” in that trainees will revisit the core competencies in each year of training as they progress from a basic level of functioning to a specialist level. The level at which trainees are assessed will increase, as their ability to manage increasingly complex occupational health scenarios develops. In addition, trainees will be encouraged to pursue aspects of training of relevance to their intended careers that takes them beyond the boundaries of core competencies. The training content of programmes will adhere to the principle of “core plus”. There will be student selected modules that will be assessed in the final year of training that will enable additional study in, for example, research, teaching, management or law.

The core competencies to be achieved during training have been set out in the curriculum in tabular form. The headings have been grouped under the headings of *Good Medical Practice* to address both generic and specialty specific competencies.

2.2 – Core Competencies classified according to Good Medical Practice

GOOD CLINICAL CARE

1 Good Occupational Medical Practice

1.1 Good Clinical Care

(i) History, Examination, Investigation & Record Keeping Skills

Competency:

To be able to carry out specialist assessment of patients by means of clinical history taking, physical examination and use of relevant investigations.

Subject Matter:	
K :	<p>Be able to:</p> <ul style="list-style-type: none"> • Define the patterns of symptoms found in patients presenting with disease, as well as the patterns related to occupational attribution. • Define the pathophysiological basis of physical signs. • Define the clinical signs found in diseases. • Define the pathophysiological basis of investigations, including those relevant to occupational attribution, and functional prognosis. • Define the indications for investigations. • Define the risks and benefits of investigations. • Outline the cost effectiveness of individual investigations.
S :	<ul style="list-style-type: none"> • Take and analyse a clinical and occupational history including an exposure history in a relevant, succinct and systematic manner. • Overcome difficulties of language, physical and mental impairment. • Use interpreters and advocates appropriately. • Perform a reliable and appropriate examination. • Interpret the results of investigations, including especially those relating to occupational attribution and functional prognosis. • Perform investigations competently where relevant. • Liaise and discuss investigations with colleagues and to order them appropriately. • Record concisely, accurately, confidentially and legibly all medical records, and date and sign all records.
A :	<ul style="list-style-type: none"> • Show empathy with and listen to patients. • Appreciate the importance and interaction of psychological and social factors in patient's disease and illness behaviour. • Respect patient's dignity and confidentiality. • Acknowledge cultural issues. • Appreciate the need for a chaperone and/or 'advocate'. • Understand the importance of multidisciplinary team working in all aspects of patient care. • Show a willingness to provide explanation to the patient as to rationale for investigations, and possible unwanted effects. • Show an understanding of the role of and respect for other health care staff.

TRAINING CURRICULUM IN OCCUPATIONAL MEDICINE

(ii) Managing Chronic Disease

Competency:

To be able to carry out assessment of patients with chronic disease or rehabilitating from acute injury or ill health and to demonstrate effective management of chronic disease states in a workplace setting.

Subject Matter:	
K :	<p>Be able to understand:</p> <ul style="list-style-type: none"> • The clinical presentation and natural history of patients with chronic disease. • And recognise the consequences of therapeutic use of drugs, or of misuse or abuse of drugs or other substances on health, safety and performance. • The psychological, social, domestic as well as occupational impact of chronic disease. • The role of rehabilitation services and the occupational physician's contribution. • The concept of quality of life and how it can be assessed.
S :	<p>Be able to:</p> <ul style="list-style-type: none"> • Assess capacity for work and prognosis through a comprehensive clinical and workplace based approach. • Set long term realistic goals and rehabilitation management including monitoring and reassessment plans in consultation with the patient. • Act as an advocate in negotiations with support services. • Advise on reasonable workplace adjustments. • Assess suitability for ill health retirement.
A :	<ul style="list-style-type: none"> • Appreciate the effects of chronic disease states on fitness for work and on quality of life. • Appreciate the importance of listening to patients and of supportive relationships with patients with chronic disease, and relevant stakeholders in their care and management.

1.2 Time Management & Decision making

Competency:

To demonstrate that the knowledge, skills and attitudes are used to manage time and problems effectively.

Subject Matter:	
K :	<p>Be able to understand:</p> <ul style="list-style-type: none"> • The need for action and how to initiate that action. • Which activities take priority. • The priorities and perspectives of relevant stakeholders i.e. management and workforce. • The importance of completing tasks in a timely manner and communicating with others if this will not be possible.
S :	<ul style="list-style-type: none"> • Start with the most important tasks. • Work more efficiently as clinical skills develop. • Recognise when he/she is falling behind and reprioritise or call for help.
A :	<ul style="list-style-type: none"> • Have realistic expectations of tasks to be completed by self and others. • Be willing to consult and work as part of a team. • Be flexible and willing to change as situations progress.

TRAINING CURRICULUM IN OCCUPATIONAL MEDICINE

1.3 Information

(i) Education & Disease Prevention

Competency:

To ensure that the knowledge, skills and attitudes are used to educate patients and others in a workplace setting effectively.

Subject Matter:	
K :	<p>Be able to understand:</p> <ul style="list-style-type: none"> • The strategies to improve adherence to health related initiatives. • Principles of 1^o & 2^o prevention and screening. • The socio-economic, lifestyle, genetic and other risk factors for disease. • The impact of individual behaviour and lifestyle factors on health and well-being. • Relevant legislation and support services. • The methods of data collection and their limitations. • The criteria, schemes and methods for the statutory and/or voluntary reporting of occupational and/or work-related disease.
S :	<ul style="list-style-type: none"> • Assess an individual patient's risk factors. • Encourage participation in appropriate disease prevention or screening programmes. • Advise on lifestyle changes. • Involve other health care workers, prevention and liaison services as appropriate.
A :	<ul style="list-style-type: none"> • Encourage patients' access to further information and support groups including appropriate workplace support e.g. employee assistance programmes. • Act in a non-judgemental manner. • Suggest patient support groups as appropriate. • Respect patient choice.

(ii) Health promotion

Competency:

To assess the need for, organise, deliver and evaluate health promotion in a range of working environments.

Subject Matter:	
K :	<ul style="list-style-type: none"> • Major health risks relevant to working populations. • Principles of health promotion and education. • Health promotion agencies and sources of information.
S :	<ul style="list-style-type: none"> • Assess needs for health promotion in a workforce. • Give advice on nutritional and other healthy lifestyle issues. • Organise, provide and evaluate health promotion programmes. • To participate in the delivery of health education in a range of settings. • To liaise with other health professionals.

TRAINING CURRICULUM IN OCCUPATIONAL MEDICINE

(iii) Information Management

Competency:

To demonstrate competence in the use and management of health information.

Subject Matter:	
K :	Be able to understand: <ul style="list-style-type: none">• How to retrieve and utilise data recorded in clinical systems.• The main local and national projects and initiatives in information technology and its application.• The range of possible uses for clinical data and information and appreciate the dangers and benefits of aggregating clinical data.
S :	<ul style="list-style-type: none">• Demonstrate competent use of a database, spreadsheet word processing programmes.• Define how to undertake searches and access web sites and health related databases.• To apply the principles of confidentiality and their implementation in terms of clinical practice in the context of information technology.
A :	<ul style="list-style-type: none">• Demonstrate the acquisition of new attitudes in patient consultations in order to make maximum use of information technology.• Demonstrate appropriate techniques to be able to share information on computer with the patient in a constructive manner.

TRAINING CURRICULUM IN OCCUPATIONAL MEDICINE

1.4 General Principles of Assessment & Management of Occupational Hazards to Health

Competency:

(i) *To correctly carry out specialist assessment and management of Occupational Hazards to Health in a range of working environments.*

Subject Matter:	
K :	<p>Be able to understand:</p> <ul style="list-style-type: none"> • Physical, chemical, biological, ergonomic, psychosocial and other hazards to health in the workplace, and the illnesses, which they cause. • Sources of information on and methods of evaluating and controlling risk. • Principles of toxicology, physical (including thermal, noise, vibration and radiation) hazards, occupational hygiene and ergonomics. • Occupational health standards, biological monitoring and the principles of health surveillance. • Clinical features and investigation of occupational diseases. • Emergency treatment of acute poisoning, physical and other injury at work. • The principles of health risk management in the workplace.
S :	<ul style="list-style-type: none"> • Undertake assessments of working environment, recognise hazards, and provide preliminary advice. • Undertake quantitative measurements, arrange and interpret more detailed measurements and advise on control measures. • Recognise those situations where specialist assessment of the working environment is needed and be able to seek and evaluate advice. • Diagnose work related ill health and provide advice on prognosis, prevention and management. • Carry out and evaluate health surveillance including biological monitoring for workers exposed to occupational hazards. • Customise assessments to subgroups (such as pregnant women) and to individuals. • Evaluate and advise on first aid facilities in the workplace. • Describe and discuss, with examples, the implementation of health risk management in the workplace. • Negotiate effective occupational health interventions.
A :	<ul style="list-style-type: none"> • A commitment to liaison with safety representatives, safety officers, occupational hygienists, ergonomists and other specialists in the assessment of working environments.

TRAINING CURRICULUM IN OCCUPATIONAL MEDICINE

Competency:

(ii) To be able to assess health problems and disease and evaluate fitness for work. Potentially any health problem might have to be assessed, but those seen more commonly in occupational health practice relate to **Mental health, Ergonomics, HAVS (Hand-Arm vibration Syndrome), Toxicology, Rheumatology, Respiratory Medicine, Dermatology, Cardiology and ENT**. An example for mental health is given below.

Subject Matter:	
K :	<p>Be able to understand:</p> <ul style="list-style-type: none"> • The spectrum of mental health disorders and presenting symptoms. • The range of appropriate interventions to assist those with mental health issues. • The changing nature of work. • How good management practice can help to reduce work-related health issues. • The key components of a mental health policy. • The Role of the Occupational physician in mental health issues at work. • The importance of a multidisciplinary approach to mental health issues at work. • Individual susceptibility and coping strategies. • Mental health issues and the law.
S :	<ul style="list-style-type: none"> • Be able to identify relevant symptoms of mental illness in the workplace. • Be able to assist others in identifying relevant symptoms. • Be able to access appropriate support for employees via counselling, EAP or other support services. • Draft a policy on mental health and the workplace. • To advise others on relevant legislation. • To assist in the implementation of appropriate workplace interventions and rehabilitation.
A :	<ul style="list-style-type: none"> • Work in conjunction with professional colleagues and other advisors. • Have a non-judgemental attitude. • Provide a supportive environment. • Be aware of relevant symptoms in one's self or colleagues and act appropriately.

TRAINING CURRICULUM IN OCCUPATIONAL MEDICINE

1.5 Assessment of Disability and Fitness for Work

Competency:

To be able to assess functional capacity and evaluate fitness for work.

Subject Matter:	
K :	<p>Be able to understand:</p> <ul style="list-style-type: none"> • Principles of assessing fitness for work. • Statutory requirements of fitness for specific jobs. • Principles and practice of rehabilitation and redeployment at work. • Principles and practice of ergonomics as applied to job task adjustment. • Individual and general factors affecting sickness absence. • Principles of social welfare and other disability benefits. • Ill health retirement and pension scheme functioning. • Impact, scope and application of Disability Legislation in the workplace.
S :	<ul style="list-style-type: none"> • Perform clinical assessment of disability and fitness for work at pre-employment and post-illness/injury. (With special reference to cardio-respiratory, rheumatologic and mental health assessments, whilst recognising the importance of assessing all relevant systems) • Assess capability for work in those with a disablement/impairment. • Manage cases suitable for rehabilitation and resettlement. • Advise on impairment, disability, fitness for work, rehabilitation and redeployment. • Liaise with other health professionals in assessing capability for work. • Advise on sickness absence and ill health retirement.
A :	<ul style="list-style-type: none"> • Work in conjunction with professional colleagues and other advisors.

TRAINING CURRICULUM IN OCCUPATIONAL MEDICINE

1.6 Environmental Issues Related to Work Practice

Competency:

To be able to recognise and advise on health risks in the general environment arising from industrial activities.

Subject Matter:	
K :	<p>Be able to understand:</p> <ul style="list-style-type: none"> • Physical, chemical and biological hazards to health arising in the environment from industrial activities. • Basic toxicology of environmental pollutants. • Methods for assessing and controlling environmental hazards and major industrial accidental hazards. • Principles of integrated pollution control and incident control. • The role of other professional groups with an interest in environmental health. • Dangerous Substances (storage, packaging, labelling and conveyance). • Relevant legislation to protect the environment from industrial pollution.
S :	<p>Describe or demonstrate how to:</p> <ul style="list-style-type: none"> • Be able to recognise and advise on the management of health risks from, and the control of hazardous exposure in the general environment arising from industrial activities. • Be able to liaise with other specialists responsible for environmental and community health, including public health physicians and environmental health officers. • Be able to identify sources of information on environmental hazards and their control. • Be able to liaise with emergency personnel in the event of an industrial incident. • Carry out an environmental impact assessment in so far as applicable to human health as directly determined by industrial activity, and to recognise and recruit other specialist input as appropriate.
A :	<ul style="list-style-type: none"> • Cooperate and liaise with health professionals and other colleagues, and organisations. • Respect the integrity of the environment.

MAINTAINING GOOD CLINICAL PRACTICE

2.1 Learning

Competency:

To develop a commitment to the concept of life long learning.

Subject Matter:	
Life Long Learning	
K :	Be able to understand: • Continuing professional development.
S :	• Recognise and use learning opportunities and learning skills. • To use the potential of study leave to keep oneself up to date.
A :	Be: • Self-motivated. • Eager to learn. Show: • Willingness to learn from colleagues. • Willingness to accept criticism.

TRAINING CURRICULUM IN OCCUPATIONAL MEDICINE

2.2 Research

Competency:

To demonstrate an effective involvement with a research project and to undertake research and have a good knowledge of research methodology.

Subject Matter:	
K :	<p>Be able to understand:</p> <ul style="list-style-type: none"> • How to design a research study. • How to use appropriate statistical methods. • The principles of research ethics. • How to write a scientific paper. • Sources of research funding. • The principles and application of epidemiological methods in research and in problem solving • The application of medical statistics and the interpretation of statistical analysis methods in scientific research. • Computer based systems for data collection and analysis. • Ethical considerations in research.
S :	<ul style="list-style-type: none"> • Be able to define a problem in terms of needs for an evidence base. • Be able to undertake systematic literature search. • Be able to undertake a systematic and critical appraisal and review of scientific literature. • Be able to produce an evidence based digest of the literature. • Be able to frame questions to be answered by a research project. • Be able to develop protocols and methods for research. • Be able to execute an appropriate study design. • Plan data collection for simple surveys including sample selection and methods of recording and storing data. • Be able to use databases. • Be able to accurately analyse data statistically. • Have good written and verbal presentation skills. • Present investigation and results in the format of a research based report. • Be able to write a scientific paper for peer-reviewed publication.
A :	<ul style="list-style-type: none"> • Demonstrate curiosity and a critical spirit of enquiry, and where appropriate a critical attitude towards current practice. • Acceptance of the need for critical review and for research so as to found a solid base for good practice. • Ensure patient confidentiality. • Demonstrate knowledge of the importance of ethical approval and patient consent for clinical research. • Respect individual confidentiality when presenting data. • Disposition to cooperation and liaison with statisticians and other research colleagues.

TRAINING CURRICULUM IN OCCUPATIONAL MEDICINE

2.3 Clinical Governance

Competency:

To demonstrate an understanding of the context, the meaning and the implementation of Clinical Governance.

Subject Matter:	
K :	Be able to understand: <ul style="list-style-type: none"> • The key strands of Clinical Governance. • The working of the National Health Service. • Relevant Health & Safety policy. • The concept of risk assessment, measurement of risk, and risk perception. • The principles of evidence based medicine. • Methods of determining best practice.
S :	Describe and demonstrate how to: <ul style="list-style-type: none"> • Critically appraise medical data research. • Practise evidence based medicine. • Be able to handle and deal with complaints in a focused and constructive manner. • Develop and institute clinical guidelines and integrated care pathways. Be aware of advantages and disadvantages of guidelines. • Report and investigate critical incidents. • Take appropriate action if you suspect you or a colleague may not be fit to practise. • Confidentially and authoritatively discuss risks with patients to obtain informed consent. • Be able to balance risk and benefits with patients.
A :	<ul style="list-style-type: none"> • Be an active participant in clinical governance. • Be actively involved in audit cycles. • Respect patient's privacy, dignity and confidentiality. • Be prepared to learn from experience, errors and complaints. • Share best practice with others. • Willingness to use guidelines as appropriate.

TRAINING CURRICULUM IN OCCUPATIONAL MEDICINE

2.4 Role specific competencies

Competency:

To demonstrate the capacity to apply specialist competencies in Occupational Medicine to a particular workplace.

Subject Matter:	
K :	<p>Be able to understand:</p> <ul style="list-style-type: none"> The determinants of role specific competency, especially: type of industry, type of jobs and hence 'exposures', demography of workforce, culture within the society, sector, employers and employees.
S :	<ul style="list-style-type: none"> To be able to identify the knowledge and skills gaps pertaining to specific roles in particular workplaces at different levels: Society, the professional specialty, the occupational health service and the individual specialist. To be able to identify steps necessary to fill those gaps. To implement an exemplar activity to fill a role specific knowledge gap (critical literature search and review and/or original research, to contribute to the evidence base). To be able to devise an occupational health service level agreement and personal specification applicable to the specific role.
A :	<ul style="list-style-type: none"> To accept that specialist competencies have to be transferred to specific roles in the light of the underlying context. To accept the need for further personal development in order to fulfil specific roles.

TRAINING CURRICULUM IN OCCUPATIONAL MEDICINE

2.5 Occupational health in a global market

Competency:

To be able to determine the impact of the broader socio-political and cultural influence on occupational health practice.

Subject Matter:	
K :	<p>Be able to understand:</p> <ul style="list-style-type: none"> • The role of the EU in shaping OH practice in the UK. • Organisation of occupational health services across the EU. • How legislation and practice in the UK are influenced by global developments. • Changes in the pattern of occupational disease. • The implications for health of global travel. • The role of WHO, ILO and other similar bodies. • The implications of biological, chemical, nuclear terrorism and emerging risks to health and safety of employees. • The importance of Fair Trade initiatives to health and well being of other communities.
S :	<ul style="list-style-type: none"> • To advise managers and others of their legal obligations under EU directives. • To ensure professional practice is compliant with relevant health and safety and employment law. • To identify relevant symptoms of disease from employees returning from foreign travel. • To provide appropriate advice to travellers on health and safety.
A :	<ul style="list-style-type: none"> • Respond appropriately to cultural differences in health promotion and disease management. • Keep updated on government guidance on health impacts related to global threats to health and safety. • Enthusiasm to develop new skills relevant to the changing needs of occupational health.

TRAINING CURRICULUM IN OCCUPATIONAL MEDICINE

2.6 Teaching & Educational Supervision

Competency:

To demonstrate the knowledge, skills and attitudes to provide appropriate teaching, learning and assessment.

Subject Matter:	
K :	Be able to understand: <ul style="list-style-type: none">• Adult learning needs and styles.• Range and structure of teaching strategies.• The principles of evaluation.• The principles of assessment.• Formative and summative assessment methods.• The principles and structure of appraisal.
S :	Demonstrate how to: <ul style="list-style-type: none">• Identify learning outcomes.• Construct educational objectives.• Design and deliver an effective teaching event or short course.• Teach large and small groups effectively.• Select and use appropriate teaching resources.• Give constructive effective feedback.• Evaluate programmes and events.• Use appropriate assessment methods.• Conduct effective appraisals.
A :	<ul style="list-style-type: none">• Demonstrate a professional attitude towards teaching.• Show commitment to teach.• Demonstrate a learner centred approach to teaching.• Be honest and objective when assessing performance.• Show respect for the person being assessed.

RELATIONSHIPS WITH PATIENTS AND COMMUNICATION

3.1 Ethical/legal issues

Competency:

To ensure that knowledge and skills are used to cope with ethical and legal issues that occur in occupational health practice in a range of workplace settings.

Subject Matter:	
K :	<p>To have read and understood the guidance on ethics from the Faculty of Occupational Medicine.</p> <p>Be able to understand:</p> <ul style="list-style-type: none"> • The process for gaining informed consent for clinical and research activities. • Strategies to ensure privacy and confidentiality. • Responsibilities relating to data protection. • The legal responsibilities of completing medical reports & certificates. • Responsibilities in serious criminal matters.
S :	<ul style="list-style-type: none"> • Give appropriate information in a manner patients understand and be able to gain informed consent from patients and allow disclosure when appropriate. • Appropriate use of written and verbal material. • Be able to obtain suitable evidence or know whom to consult if in doubt.
A :	<ul style="list-style-type: none"> • Consider the patient's needs as an individual. • Respect the patient's right to confidentiality.

3.2 Maintaining Trust

(i) Professional behaviour

Competency:

To ensure that the knowledge, skills and attitudes are used to act in a professional manner at all times.

Subject Matter:	
K :	<p>Be able to understand and describe:</p> <ul style="list-style-type: none"> • The relevance of continuity of care. • All aspects of a professional relationship. • The importance of boundaries in professional relationships. • How to deal with challenging behaviour. • The extent of one's own limitations and know when and from whom to seek advice in matters of personal actions, competence, health and fitness. • The importance of personal well being in relation to physical and psychological health, and the potential impact of substance misuse. • The support facilities for doctors and other health professionals. • The role and relevance to professional and regulatory bodies. • One's responsibilities to the public.
S :	<ul style="list-style-type: none"> • Reflect on own practice by participation in an appraisal and audit process • Recognise the situations when appropriate to involve regulatory and professional bodies • Recognise when personal health takes priority over work pressures and be able to take the necessary time off. • Ensure satisfactory completion of reasonable tasks with appropriate handover including documentation. • Develop appropriate relationships that facilitate solutions to patients' problems. • Deal appropriately with behaviour falling outside the boundary of the agreed or ethical doctor patient relationship.
A :	<ul style="list-style-type: none"> • Be willing to admit mistakes and limitations and to consult and seek advice. • Recognise personal health as an important issue. • Be willing to seek advice from other relevant health professionals on personal health issues. • Accept professional regulation. <p>Recognise the importance of:</p> <ul style="list-style-type: none"> • Adopting a non-discriminatory attitude to all patients and recognise their needs as individuals. • Seeking to identify the health care belief of the patient. • Acknowledging patient rights to accept or reject advice. • Securing equity of access to health care resources for all, especially minority groups.

TRAINING CURRICULUM IN OCCUPATIONAL MEDICINE

3.3 Communication Skills

Competency:

To be able to communicate effectively with patients, employers, employees' representatives and professional colleagues in a range of working environments.

Subject Matter:	
K :	<p>Be able to understand:</p> <ul style="list-style-type: none"> • How to structure the interview to identify the patient's: <ul style="list-style-type: none"> - concerns - expectations - understanding - acceptance • The importance of informed consent. • The need to share information openly with others, but within ethical, professional and legal constraints of confidentiality. • The local complaints procedures. • Systems of independent review. • Organisation of occupational health services and the health service in UK and the role of the Health and Safety Executive and other statutory authorities. • Organisation and role of other health and safety professionals and disciplines. • Ethical guidelines for communications between occupational physicians, doctors, managers and others.
S :	<ul style="list-style-type: none"> • Listen to patients and other stakeholders. • Use open questions followed by appropriate closed questions. • Be able to communicate both orally and in writing to patients and others in a manner that they understand, avoiding jargon. • Give clear information and feedback to patients and share information with employers when appropriate. • Provide appropriate information on impact and prognosis. • Manage dissatisfied patients/ relatives. • Anticipate potential problems. • Prepare written reports on a range of topics for a range of groups including managers, unions (e.g. for safety representatives) and health professionals. • Be able to effectively participate in Committees and to act as a chairperson. • Make clear oral presentations to a range of audiences using audiovisual equipment. • <u>Apply ethical principles when communicating with others about individuals.</u>
A :	<ul style="list-style-type: none"> • Act with empathy, honesty fairness and sensitivity. • Act in a timely and professional manner recognising your role in the organisation. • Be impartial when providing advice to managers/employers.

WORKING WITH COLLEAGUES

4.1 Team Working & Leadership Skills

Competency:

To demonstrate the ability to respect others, work in multidisciplinary teams and within a management structure, as well as to have the necessary leadership skills.

Subject Matter:	
K :	<p>Be able to understand:</p> <ul style="list-style-type: none"> • Roles and responsibilities of team members and other relevant specialisms. • How a team works effectively. • Own professional status and specialist competence.
S :	<ul style="list-style-type: none"> • Respect skills and contribution of colleagues to be conscientious and work constructively. • Demonstrate the ability for objective setting; lateral thinking; planning; motivating; organising; setting example; influencing and negotiation skills. • Delegate, show leadership and supervise safely. • Recognise when input from another specialty is required for individual patients. • Ability to prioritise activity and review progress. • Ability to be an effective team player.
A :	<ul style="list-style-type: none"> • Recognise own limitations. • Demonstrate enthusiasm; integrity; courage of convictions, imagination, determination, energy; and professional credibility. • Respect colleagues, including non-medical professionals, and recognise good advice. • Accept that ethical standards and professional good practice take precedence over financial or other conflicts of interest.

TRAINING CURRICULUM IN OCCUPATIONAL MEDICINE

4.2 Management

Competency:

To have sufficient knowledge of the principles and practices of management and industrial relations to be an effective occupational physician in a range of occupational settings.

Subject Matter:	
K :	<p>Be able to understand:</p> <ul style="list-style-type: none"> • Principles and practice of management. • Industrial relations and the role of employers, unions and others. • Basic financial arrangements for business including budgets. • Techniques for needs assessments and marketing of occupational health services. • Management structures in different organisations. • Principles of audit in a business and professional healthcare context. • The principles of selection and appointment of staff. • Staff management, team-working and appraisal of performance. • Excellence in service delivery and the concept of quality. • Record management systems.
S :	<ul style="list-style-type: none"> • Be able to demonstrate personal responsibility for aspects of management within a department of Occupational Medicine or equivalent in an independent practice. • Be able to strategically plan and set objectives for delivering an occupational health service including negotiating and managing a budget. • Evaluate the effectiveness and quality of an occupational health service. • Be able to work with managers, supervisors, employees and employees' representatives. • Participate in audit relevant to the needs of the business. • Be able to market an occupational health service. • Define the roles of staff in providing an occupational health service and formulate job descriptions. • Be able to collect and use information in the management of health and safety at work.
A :	<ul style="list-style-type: none"> • Be impartial when providing advice to managers/employers.

2.3 – Core Competencies classified according to training domains

The core competencies form the basis for training delivery and assessment. As a guide to the *delivery* of training the competencies have been organised according to several training *domains*. These domains reflect the nature of practice of occupational physicians. Training pathways will be developed locally by training posts, in conjunction with STCs. The training pathways will specify training content, preferred teaching and training methods and methods of assessment.

The training domains are:

Clinical Practice
Rehabilitation
Clinical Governance
Framework for Practice
Promoting Work Ability
Research and teaching
Business
Personal Professional Development

The bullet points below cross-reference with the tables of competencies. They are **illustrative** rather than definitive. Actual interpretation of the competencies will take place in the development of the training pathways.

The core competencies are:

1) CLINICAL PRACTICE

- History, examination, investigation & record keeping skills
- Managing chronic disease
- Disease prevention
- Information management
- General principles of assessment & management of occupational hazards to health
- Environmental issues related to work practice
- Communication skills
- Team working and leadership skills
- Ethical/legal issues

2) REHABILITATION

- Disability & rehabilitation
- Managing chronic disease
- Assessment of disability and fitness for work

3) CLINICAL GOVERNANCE

- Concepts of clinical effectiveness
- Evidence-based clinical practice
- Clinical audit

TRAINING CURRICULUM IN OCCUPATIONAL MEDICINE

- Monitoring and investigation of untoward incidents, errors and near misses (root cause analysis)
- Complaints management
- Cost-effectiveness of occupational health interventions
- Effective management of Occupational Health Services
- Training and education of occupational health staff

4) FRAMEWORK FOR PRACTICE

- Definition and scope of occupational health
- Definition of Occupational Medicine and its scope and context within occupational health
- Occupational Health Services: the OH team, functions and management
- Ethics, communication and relationships with professional colleagues
- Law in occupational health: system, statutes and civil law
 - health and safety
 - disability discrimination legislation
 - employment law
- Employment organisations, industrial relations and trades unions
- Government departments:
 - Department for Work and Pensions
 - Eligibility for Benefit
 - Pension schemes
 - Health & Safety Executive and Appointed Doctor Scheme
 - Department of Health, NHS, Public Health, NHS Plus
 - Policy initiatives
- General comparison of UK and other EU national systems; role, structure and function of the European Commission, ILO, WHO
- Sources of advice and information
 - Key web sites and e-mail discussion groups
 - Search strategies for occupational health literature
 - Publications

5) PROMOTING WORK ABILITY

- Principles and practice of workplace-based health promotion
- Understanding and assessing the needs of the ageing workforce
- Contribution of Occupational Health Services to promoting work ability via collaboration with other health professionals and targeted occupational health interventions

6) RESEARCH AND TEACHING

- Essentials of teaching
- Teaching and educational supervision
- Research

7) BUSINESS

- Management of Occupational Health Services
- Finance and business planning
- Marketing
- Occupational health in a global market
- Tendering for business
- Negotiating contracts/service level agreements
- Outsourcing
- Management reports and presentation to boards
- Industry specific training

8) PERSONAL PROFESSIONAL DEVELOPMENT

- Time management and decision making
- Reflective practice
- Life long learning
- Maintaining trust
- European development
- Elective study

SECTION 3 – THE LEARNING PROCESS

This section describes how learning can be achieved to accomplish the outcomes of the curriculum.

3.1 The Model of Learning

Trainees will achieve the competencies described in the curriculum through a variety of learning methods. There will be a balance of different modes of learning from formal teaching programmes to experiential learning “on the job”. The proportion of time allocated to different learning methods may vary depending on the nature of the training post and the individual needs of trainees. Individual training posts will produce a prospectus describing the different learning methods to be used. Flexibility in the approach to training will be a cornerstone of the curriculum, to allow a tailored approach based on individual learning styles and needs, as well as the constraints of particular training posts.

The following guide to the allocation of time for learning should be used to inform the development of prospectuses. This is for an indicative four-year training programme.

Approximately 704 days ($4 \times 44 \times 4 = 704$) for work-based experiential learning. The content of work-based experiential learning will be decided locally but will include active participation in:

- occupational health clinics. After initial induction, trainees will begin the clinical assessment of patients/workers referred to the occupational health department. The degree of responsibility taken by the trainee will increase as their competency increases. Cases will be selected by the trainer, who will review the outcomes of assessment, including the letters written to managers.
- hazard and risk assessment of in the workplace¹. After induction, trainees will be encouraged to visit and assess a large variety of workplaces. Reports of assessments will be discussed with the trainer. Selected reports of workplace assessments will form part of the evidence for the Annual Review of Competence Progression (ARCP).
- meetings with managers and human resources advisers. This will take place initially in the presence of the trainer. As experience increases meetings may take place without the trainer being present. The content and outcomes of meetings should be discussed with the trainer.
- meetings with health and safety practitioners. This should take place early in the training to introduce trainees to the wider occupational health team.
- meetings with Trades Union officials. Such meetings should normally be in the presence of the trainer, or, if not, with the approval of the trainer.
- health and safety committees. Presence should be a routine part of training.
- other relevant committees.

¹ The competency of assessing risks arising in work activities and places of work. This should not be confused with the performance of so-called Workplace-Based Assessments to assess the outcomes of training.

TRAINING CURRICULUM IN OCCUPATIONAL MEDICINE

- multidisciplinary working in the occupational health service. Trainees should experience the work of the other members of the occupational health team.
- vocational rehabilitation of individual workers. This is fundamental to the role of the occupational physician and should begin at a very early stage of training, under supervision of the trainer. This is the entrée to many of the other aspects of training. Cases should be discussed regularly with the trainer.
- preventive occupational health activities, including health surveillance and the promotion of work ability.
- clinical governance.
- the management of occupational health services, including the management of personnel, contracts and tendering for contracts. This aspect of training may not be possible until a later stage of training and direct experience may not be possible in some training posts. Trainees should be given the opportunity to gain experience in other occupational health services or via training courses, if this is the case.

40 days for appropriate off-the-job education (4 x 10 days of study leave). This can be used in a variety of ways that include:

- Attendance at relevant courses, linked to educational and personal development plans.
- Attendance at regional and national specialty meetings, such as those organised by the Faculty of Occupational Medicine, the Society of Occupational Medicine, the Royal Society of Medicine and Specialist Associations (ANHOPS, ALAMA, etc.).
- Examination preparation courses.
- Private study.

144 days ring-fenced for other education and training activities. (4 x 36 days). This might include local postgraduate meetings. The content of these meetings will be determined locally and should be approved by the Educational Supervisor. Suggested activities include:

- Case presentations
- Research and audit projects
- Lectures and small group teaching
- Clinical skills demonstrations and teaching
- Critical appraisal and evidence based medicine and journal clubs
- Joint specialty meetings e.g. rheumatology, orthopaedics, psychiatry, respiratory medicine, dermatology, rehabilitation medicine, toxicology, occupational hygiene, health and safety.

Other activities could be:

- Secondment to other training organisations
- Independent self-directed learning. Trainees will use this time in a variety of ways depending upon their stage of learning. Suggested activities include:
 - Preparation for assessment and examinations
 - Appraisal, feedback and reflection
 - Reading
 - Maintenance of personal portfolio
 - Audit and research projects

- Achieving personal learning goals beyond the essential, core curriculum

3.2 Learning Experiences

This section identifies the types of situations in which a trainee will learn.

Learning from practice – Trainees will spend a large proportion of work-based experiential learning involved in supervised clinical occupational health practice in occupational health services and in a variety of workplaces. There should be opportunities to work within several different types of organisation either on rotation or via arranged limited period attachments. Examples of settings might include healthcare organisations, such as the NHS, manufacturing industry, construction, utilities, transport, retail, higher education, Local Authorities and the M.O.D. Experience in addressing occupational health issues within a primary care setting (staff and patients) is desirable, but not essential. Experience of practice within large group occupational health services will be important to ensure exposure to both in-house and out-sourced occupational health services.

Work in different settings exposes trainees to a variety of management and communication styles, different teams, and a range of occupational and environmental hazards. As such this supports the development of several curriculum competencies from Section 2.2 – especially 1.4, 1.6, 2.3, 2.4, 3.3 and 4.2, but also 1.2, 1.3iii and 4.1.

It is important to remember that learning does not just take place in clinics. Occupational physicians function in many settings within organisations, such as the shop floor, in meetings with managers or human resources advisors, or in committees. Training plans should include a wide range of educational settings with suitable methods of assessing performance. Learning in practice will be closely supervised until competencies are achieved. Formal and informal feedback on performance should occur at the end of specific clinical sessions or following defined occupational health activities. This should be available from the wider occupational health team and not just from the trainer. This will be recorded in the log book which will be used to inform appraisal and the RITA process.

Learning from peers – There are many opportunities to learn with other trainees. However, some occupational health training posts may be relatively isolated and so there should be active planning to ensure that shared learning experiences with peers is part of the training prospectus. Examples might include postgraduate teaching sessions or attendance at meetings of professional associations.

Learning in formal situations – There is an active programme of organised conferences and meetings in Occupational Medicine within the UK. Attendance at, at least some of these, each year, should be part of the personal development plan. Most trainees will be expected to enrol with university departments for courses of academic study.

Personal study – Time will be provided for personal study.

TRAINING CURRICULUM IN OCCUPATIONAL MEDICINE

Specific teacher inputs - Individual units within a teaching programme will identify, in the prospectus, where specific teacher inputs will be provided. These will vary from programme to programme. Enrolment with a university training provider will cover many specific inputs in preparation for formal examination. Each trainee will be allocated a named Educational Supervisor, who may or may not also be the trainee's Clinical Supervisor. The Educational Supervisor will monitor and review progress against the agreed educational plan and will assist in identifying the need for additional teacher inputs.

SECTION 4 – ASSESSMENT STRATEGY

The domains of *Good Medical Practice* will be assessed using an integrated package of workplace-based assessments and examinations of knowledge and clinical skills, which will sample across the domains of the curriculum – knowledge, skills and attitudes. The assessments will generate structured feedback for trainees. Assessment tools will be both formative and summative and will be selected on the basis of their fitness for purpose.

Two examinations will be set by the Faculty, based on MCQ component of the current Diploma of Occupational Medicine and elements of the current AFOM (Associate of the Faculty of Occupational Medicine); and the requirement to complete a research dissertation will continue, as set out in our Assessment Framework.

However, new emphasis will be given to workplace-based assessments as tests of what a trainee *does* and a means of driving learning. Other assessment methods will explore other tiers of the Miller pyramid – specifically, MCQs in the year 1 examination, as a test of knowledge (“*knows*”), structured short questions in the year 4 examination (“*knows how*”), and OSPE in the year 4 examination (“*shows how*”).

Workplace-based assessment tools will include mini-CEX (mini-Clinical Examination Exercise), Case-based Discussions (CBD), DOPS (Direct Observation of Procedural Skills), MSF (multi-source feedback), and the Sheffield Instrument for the Assessment Letters (SAIL). The Federation of the Royal Colleges of Physicians has piloted several of these methods (Mini-CEX, DOPS and MSF) and demonstrated their validity and reliability. The reliability of Mini-CEX has also been evaluated by other researchers, and SAIL has been assessed for its validity and reliability in the context of correspondence between health care professionals. Further developmental and validation work is envisaged.

An assessment blueprint will map the assessment methods on to the curriculum in an integrated way and a strategy has been devised to ensure that there is appropriate sampling across the curriculum.

SECTION 5 – TRAINEE SUPERVISION AND FEEDBACK

This section of the curriculum describes how trainees will be supervised and how they will receive feedback on performance. The Specialist Training Handbook will provide further details.

5.1 Supervision

All training posts recognised and accredited by the Faculty of Occupational Medicine to provide specialist training will need to ensure appropriate standards of clinical governance and meet the relevant Health and Safety standards for clinical areas. This will normally be assured where training is taking place in NHS institutions such as hospital trusts but evidence of similar standards will be required where training is provided outside the NHS.

Trainees will work with a level of clinical and educational supervision commensurate with their clinical experience and level of competence. This will be the responsibility of the relevant Educational Supervisor. In keeping with the principles of *Good Medical Practice* trainees will know that they must limit their clinical practice to within their level of clinical competence and seek help and support without hesitation. Trainees will be able to seek support from other specialists in occupational health who are not necessarily clinically qualified but who can advise on non-clinical aspects of practice, such as health and safety legislation or workplace exposure assessment. Occupational health nurses are independent specialists who can provide excellent advice and support to trainees.

5.2 Feedback

Regular and timely feedback on performance is essential for successful work-based experiential learning. To train as a consultant occupational physician, a doctor must develop the ability to seek and respond to feedback on clinical practice from a wide range of individuals to meet the requirements of *Good Medical Practice* and revalidation.

Specific details of who should give feedback and the timing in relation to training placements will be the responsibility of deanery STCs and the programme director. Best practice guidance will be provided by the Faculty of Occupational Medicine in the form of a Guide to the curriculum in the Specialty Training Handbook, a model learning and training agreement for deaneries, supervisors and trainees, and written guidance on the conduct and use of workplace-based assessments. Emphasis will be given to the need for:

- An initial appraisal meeting shortly at the start of a training placement to establish learning goals.
- An interim appraisal meeting to discuss progress against the learning goals.
- An appraisal meeting towards the end of the training placement to agree which learning goals have been achieved.
- Regular (at least monthly) meetings with the trainer.
- Regular (at least quarterly) quarterly meetings focussed on educational appraisal, receiving feedback and setting educational goals.

TRAINING CURRICULUM IN OCCUPATIONAL MEDICINE

- Structured written feedback from clinical attachments.
- Appropriately structured written feedback from other departmental staff – Multi-source Feedback (MSF) – to include medical staff, nursing staff, managerial, clerical and secretarial staff, and managers or human resource advisors in the employing organisation. MSF will be an integral element of the workplace-based assessment framework.
- Immediate feedback from assessors conducting other forms of workplace-based assessment (forms are designed to be completed jointly by the trainee and assessor, and include a record of what went well, what needs to improve and agreed action plans).
- Feedback from patients/workers obtained from staff surveys or audits.
- Feedback from Faculty examinations, including suggestions for remediation if a trainee has been unsuccessful.

The results of such feedback will be discussed with the trainee's Educational Supervisor during appraisals. Evidence that feedback has been sought and responded to will be documented in the trainee logbook and will form part of the annual ARCP.

SECTION 6 – CURRICULUM IMPLEMENTATION

This section of the curriculum provides an indication of how it managed locally and at the level of training posts.

6.1 – Training Programmes

The organisation of training programmes will be the responsibility of the local supervisors in association with the Postgraduate Medical deaneries. Coordination of local postgraduate medical will have the following terms of reference:

- Recruitment of trainees into specialist Occupational Medicine at ST3 level, including overseas recruitment.
- Oversee the quality of training posts.
- Interface with other deanery Schools of Medicine/Transitional Boards (Scotland).
- Ensure adequate provision of appropriate educational events.
- Ensure curriculum implementation across training programmes
- Oversee workplace-based assessment process, supported by the Faculty of Occupational Medicine.
- Coordinate the ARCP process.
- Provide adequate and appropriate career advice.
- Provide systems to identify and assist doctors with training difficulties
- Provide flexible training.
- Ensure the appropriate provision of potential to progress into an academic career.

6.2 – Intended use of curriculum by trainers and trainees

The full curriculum is a paper-based document. However, it will be accessible via the Faculty web site in the same way as current training and assessment information is available. The web page will allow access to the Specialty Training Handbook and will include:

- Recruitment
- Selection
- Core competencies and learning outcomes
- Assessment types and methods
- Study guide
- Logbook
- ARCP preparation

Each trainee will be given a copy of the curriculum and a logbook upon enrolling in training in Occupational Medicine. Trainees will use the curriculum to develop learning objectives, self-assess accomplishment in different areas of the curriculum and reflect on learning experiences.

6.3 – Ensuring Curriculum Coverage

The details of how the curriculum is covered in any individual training programme and unit is the responsibility of the trainer, in association with deanery STC and programme director. However, guidance on sampling will be provided for educational supervisors by the Faculty of Occupational Medicine. The need to show how trainees are progressing in their achievement of learning outcomes will be a strong driver in ensuring that all the curriculum objectives are met. Special emphasis will be given to educational supervision by a trained supervisor to ensure that there is appropriately focussed monitoring and review of the progress with training.

6.4 – Curriculum management

Curriculum management in posts and attachments within programmes

Management of the curriculum at a local level is the responsibility of the trainer, PD², ES³ and deanery STC⁴.

Curriculum management across programmes as a whole

There are very few training programmes in Occupational Medicine. Management of the curriculum at a deanery level is the responsibility of the deanery STC, the PD, supported by the SAC⁵ of the Faculty of Occupational Medicine. Strategic management of the curriculum at a national level is the responsibility of the SAC of the Faculty of Occupational Medicine, which contains the lead Postgraduate Dean for Occupational Medicine.

6.5 – Responsibilities of trainees

This curriculum puts the emphasis on learning rather than teaching. Trainees are responsible for their own learning and the utilisation of opportunities for learning throughout their training. The workplace-based assessment process will also be trainee-led, supported by the trainer and local faculty.

² PD – Programme Director for occupational medicine in a deanery

³ ES – Educational Supervisor

⁴ Specialty Training Committee

⁵ Specialty Advisory Committee

SECTION 7 – CURRICULUM REVIEW

This is the responsibility of the Specialist Advisory Committee (SAC) of the Faculty of Occupational Medicine. It will be informed by feedback from a number of parties, including the Assessment Committee, the chief examiners, the Regional Speciality Advisors, Programme Directors, lead dean, educational supervisors and the Trainees Forum.

7.1 – Curriculum evaluation and monitoring

Formal evaluation will take place during the pilot stage of curriculum, the early stages of implementation and annually during the first 5 years of full implementation. Evaluation will continue periodically thereafter, probably every 5 years.

Evaluation will consist of:

- Trainee questionnaire
- Educational Supervisor and Programme Director/RSA questionnaire
- Feedback from ARCPs
- Results from College examinations and workplace-based assessments

Details of the evaluation will include:

- The relevance of the learning outcomes to clinical practice
- The balance of work-based experiential learning
- Opportunities for off-the-job learning
- Quality of training in individual units
- Quality of formal training opportunities
- Feasibility of assessments within training programmes
- Complaints

Monitoring will be the responsibility of the SAC through the deanery Specialist Training Committees and Programme Directors. The main monitoring tool will be the trainee logbooks and the annual ARCP.

Timetable for curriculum updating:

Date	Rationale	Responsibility
Aug 2009	Half way period in core curriculum	Academic Committee
Aug 2011	End of core curriculum	Academic Committee
2016	After completion of second cycle	Academic Committee

7.2 – Trainee involvement in curriculum review

Trainee involvement in curriculum review will be facilitated through:

- Involvement of trainees in deanery STC
- The trainee forum
- Direct feedback and evaluation via Faculty questionnaire
- Informal feedback during appraisal, ARCP, Faculty meetings, etc

SECTION 8 – EQUALITY AND DIVERSITY

Compliance with anti-discriminatory practice will be assured through the Faculty equality and diversity policy:

- Monitoring of recruitment processes
- Ensuring all Educational Supervisors, RSAs, Programme Directors, Examiners and Faculty Officers have attended appropriate training sessions prior to appointment or within 12 months of taking up post
- Ensuring trainees have an appropriate, confidential and supportive route to report examples of inappropriate behaviour of a discriminatory nature
- Monitoring of Faculty examinations
- Ensuring all assessments discriminate on objective and appropriate criteria and do not unfairly disadvantage trainees because of gender, ethnicity, sexual orientation or disability.

The Faculty believes that equality of opportunity is fundamental to the many and varied ways in which individuals become involved with it, either as members of staff and Officers, as advisers from the medical profession, as members of the Faculty's professional bodies or as doctors in training and examination candidates. Accordingly, it warmly welcomes contributors and applicants from as diverse a population as possible, and actively seeks to recruit people to all its activities regardless of race, religion, ethnic origin, disability, age, gender or sexual orientation.

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