

The Physician of Tomorrow

Curriculum for
General Internal Medicine (Acute Medicine)

Federation of the Royal Colleges of Physicians



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How to Use This Curriculum

This curriculum is for doctors training in General Internal Medicine (Acute Medicine), their tutors and Educational Supervisors. This training programme runs from entry into Core Training (Core Medical Training (CMT) or Acute Care Common Stem (Medicine) (ACCS(M)) up to the award of a Certificate of Completion of Training (CCT). Trainees must have successfully completed a Foundation Programme, or equivalent, and attained the core competencies outlined in the Foundation Curriculum¹.

The outcome of the training programme will be a clinician equipped with a broad grounding in Internal Medicine, who is able to deliver effective patient-focused care in the acute setting. General Internal Medicine (Acute Medicine) will be abbreviated in this curriculum to GIM (Acute).

This curriculum is set out as follows:

Section 1 - Rationale

This section 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.

Section 3 – The Learning Process

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

Section 4 – Assessment Strategy

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

Section 5 – Trainee Supervision and Feedback

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 training programmes will be achieved.

Section 7 – Curriculum Review

It is intended that the curriculum is a fluid document and will evolve as feedback is offered from trainers, trainees and laypersons. In this section the plans for curriculum review, evaluation and monitoring is laid out.

Section 8 – Equality and Diversity

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

Section 1 - Rationale

This curriculum defines the medical competencies, which trainees must acquire to deliver the effective practice of General Internal Medicine in the 21st century, with emphasis on the acute setting. These competencies are transferable, if required, to pursue other postgraduate training pathways, in accordance with the principles of Modernising Medical Careers.

1.1 – What is General Internal Medicine (Acute Medicine) ?

Acute medicine has been defined as ‘that part of General (Internal) Medicine concerned with the immediate and early specialist management of adult patients with a wide range of medical conditions who present in hospital as emergencies’². The specialty will concentrate on the early phase of care of the acutely ill, typically the initial 24 to 72 hours, but the competencies needed by acute physicians will be broader and will include many of the skills of the ‘general physician’ as well as the generic competencies expected of all physicians. This will apply both to those trained exclusively in acute medicine and to those trained in acute medicine with another specialty.

When applying this curriculum it is therefore important to recognise that patients who present with the symptoms or conditions included will have care needs that extend beyond the “acute phase” and that these care needs have to be met. While it may be possible, and in many cases will be desirable, to transfer the care of a patient to a different specialty, this may not be possible in all cases. The physician who has completed training in acute medicine to Level 2 must therefore be competent to accept continued responsibility for some patients beyond the acute phase, and the curriculum should be interpreted in this light. Specialist acute physicians trained to Level 3 will have an increased level of competence in managing the acute phase, but must retain the broader competencies included in Levels 1 and 2.

1.2 - Background

The acute hospital working environment has changed markedly in recent years. The older firm-based apprenticeship system has given way to working and learning in teams, with an emphasis on shared responsibilities of care and clinical governance. Previously, most doctors wishing to pursue a career in a medical specialty needed to compete for entry level SHO posts, with a requirement to pass the MRCP(UK) examination to progress to a Specialist Registrar post in a medical specialty. This training period was of variable length, lacked assessment, and many trainees did not proceed into Specialty Training.

Modernising Medical Careers (MMC) was introduced to create a more focused postgraduate training with specific outcomes related to NHS service needs. The publication of ‘Unfinished Business’ defined aspirations for a Foundation Programme that delivered doctors equipped with core competencies in good patient care, safety, management and communication³.

The reform was motivated by a desire to deliver care using more effective teamwork and a multi-disciplinary approach, with more efficient and flexible training

pathways. Furthermore, the European Working Time Directive has also impinged on older apprentice-style training and education methods. The principles outlined in 'Unfinished Business' were as follows:

- An outcome-based education process
- Defined competence
- Assessment of competence
- Promotion of lifelong learning

The structure, implementation, competencies and assessments for the Foundation Programme are defined in the Foundation Curriculum¹. These competencies reflect the desire to give trainees, early in their careers, the values and attitudes necessary to allow good interaction with patients, carers and families. Trainees completing these programmes will also be able to assess and initiate management of the acutely ill patient and have the skills to work in the modern NHS. The Foundation Programme commenced in August 2005.

There is now the need to bring the postgraduate training programme in GIM (Acute) into line with the aspirations of MMC. This new curriculum builds on the Foundation Programme and describes the training pathway through postgraduate medical training to the completion of specialist training and the award of a CCT.

1.3 - Curriculum Development

A curriculum development group, made up of members of the Federation of the Royal Colleges of Physicians and the Education Department of the Royal College of Physicians of London, was established in 2005. The members of this group have a broad UK representation and include trainees and laypersons. The main work of the group involved the definition of the style of the curriculum, the learning and assessment methods to be used, and the competencies to be achieved during training. A draft curriculum was then written and circulated to trainees' representatives, and medical Specialists Advisory Committees (SACs) for their input. All clinical members of the committee are teachers or trainees in General Internal Medicine (Acute Medicine).

Every opportunity has been taken to involve key stakeholders in the development of the curriculum at several stages prior to implementation.

Examples include:

- Discussion at College Committees (Education, Training and Examinations Board, Council), all of which include trainee and lay representation
- Presentations to the Colleges' Specialist Advisory Committee (SAC) Chairs
- Discussions with trainee representative groups
- Feedback from information gathered via College newsletters and other written documents

This curriculum is trainee-centred, and outcome-based. As this curriculum is to be followed through Core Training and Specialist Training a spiral approach has been adopted, as in the Foundation Programme. A spiral curriculum describes a learning experience that revisits topics and themes, each time expanding the sophistication

of the knowledge, attitudes and decision-making regarding that topic⁴. This approach aids reinforcement of principles, the integration of topics, and the achievement of higher levels of competency.

This revisiting of topics is key to ensuring deep learning. This principle underpins the ethos of a spiral curriculum and effective life-long learning beyond Specialty Training. In this way an individual progresses from being 'competent' to becoming 'expert'.

1.4 - Training Structure

Entry into GIM (Acute) training is possible following successful completion of a Foundation Programme.

The training in GIM (Acute) is divided into three levels as follows (see also the diagrams in Section 1.6):

Level 1: Core Medical Training (CMT) or Acute Care Common Stem (Medicine) ACCS (M) – together termed core training

This is a two-year training programme consisting of 4-6 months placements in mainly acute medicine and medical specialties. Trainees completing core training will have a solid platform in GIM (Acute) from which they can continue into Specialty Training. Successful attainment of level one competencies will be required in order to be eligible for entry into Specialty Training in any of the medical specialties, including levels 2 and 3 of GIM (Acute).

Level 2: Specialist Training (ST) in GIM (Acute)

This is a minimum two-year programme that builds on a trainee's ability to provide acute medical care in the hospital setting. Level 2 competencies are symptom based, and so concentrate on the provision of appropriate medical care in the acute setting.

Upon successful attainment of Level 2 competencies, the trainee will be certificated by the Joint Royal Colleges of Physicians Training Board in GIM (Acute).

To participate in the acute medical take as a senior medical appointment a clinician requires a CCT in any medical specialty and a certificate of level 2 competency in GIM (Acute).

Level 3: Specialist Training (ST) for CCT in GIM (Acute)

Trainees wishing to hold a CCT in GIM (Acute), and so be eligible to take up a position as a Specialist in Acute Medicine, are required to complete at least a further year of training following successful attainment of Level 2 training. Level 3 training is for those trainees wishing to achieve competencies necessary to contribute to and manage a Medical Admissions Unit as a Specialist in Acute Medicine.

The division of training into three levels ensures the trainee is following the section of the curriculum relevant to their experience and stage of learning.

1.5 - Generic Competencies

Every physician in training needs to acquire a professional, moral and legal framework for practice, as described by the GMC's *Good Medical Practice*⁵. These competencies are not specific to any particular medical specialty and are termed 'Generic Competencies'.

These competencies are defined in a separate document, the *Generic Curriculum for the Medical Specialties*, which complements the competencies of Core Medical Training, Specialist Training in GIM (Acute), and all medical specialties. This has avoided repetition of these values and competencies in each of the separate curricula.

Attainment of the competencies defined in the *Generic Curriculum for the Medical Specialties* will be essential for the award of a CCT in any of the medical specialties.

1.6 - Relationship of Postgraduate Medical Curricula

The following diagrams explain the relationship between different postgraduate medical training programmes and curricula. The *Generic Curriculum for Medical Specialties* spans training from entry into Core Medical Training, to the award of a CCT in a medical specialty, and so runs in conjunction with other medical curricula.

There are three diagrams: (1) specialist training in GIM (Acute) alone (2) dual training (3) specialist training in specialty alone (after core training - CMT or ACCS(M)). CT = Core Training; ST = Specialist Training
Generic Level 1 = Mandatory Level 1 competencies of Generic Curriculum for Medical Specialties
Generic Level 2 = Level 2 competencies of Generic Curriculum for Medical Specialties

Diagram 1: Training in Acute and Internal Medicine alone

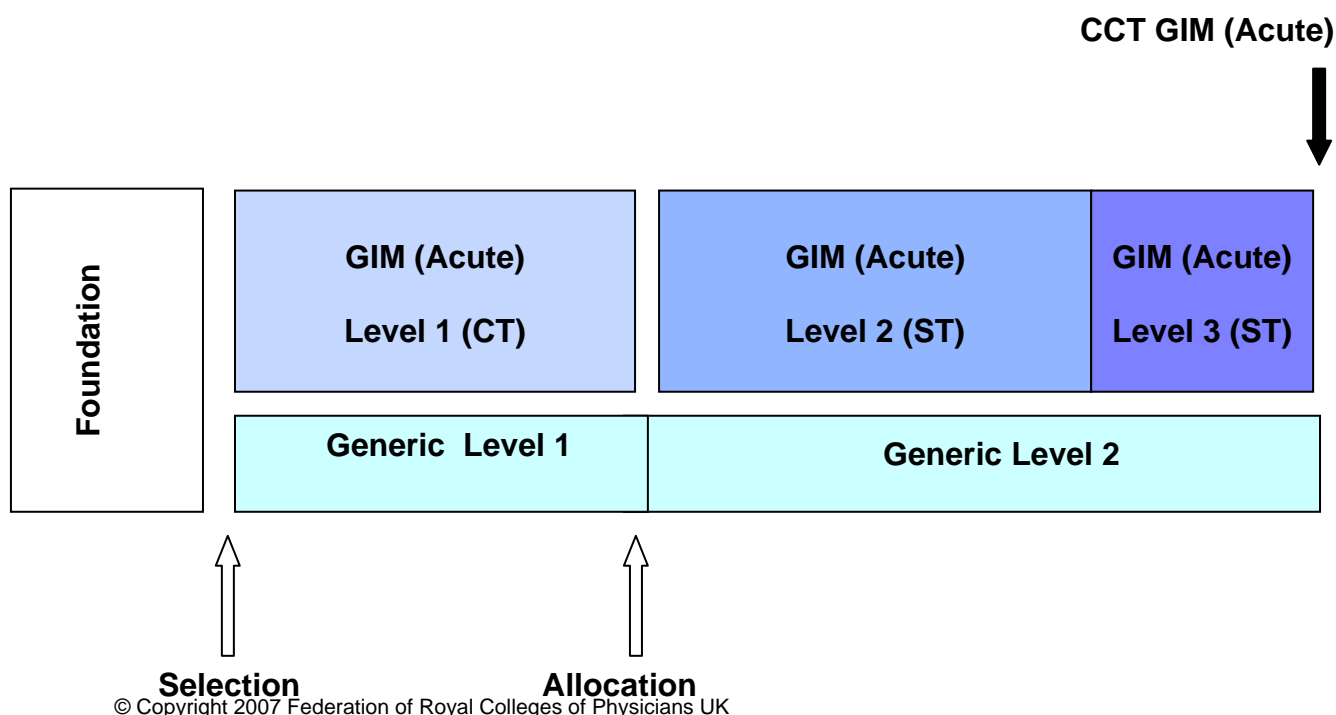


Diagram 2: Training in GIM (Acute) and another medical specialty. The organisation of level 2 Specialist Training in GIM (Acute) within specialty training is the responsibility of the specialty SAC.

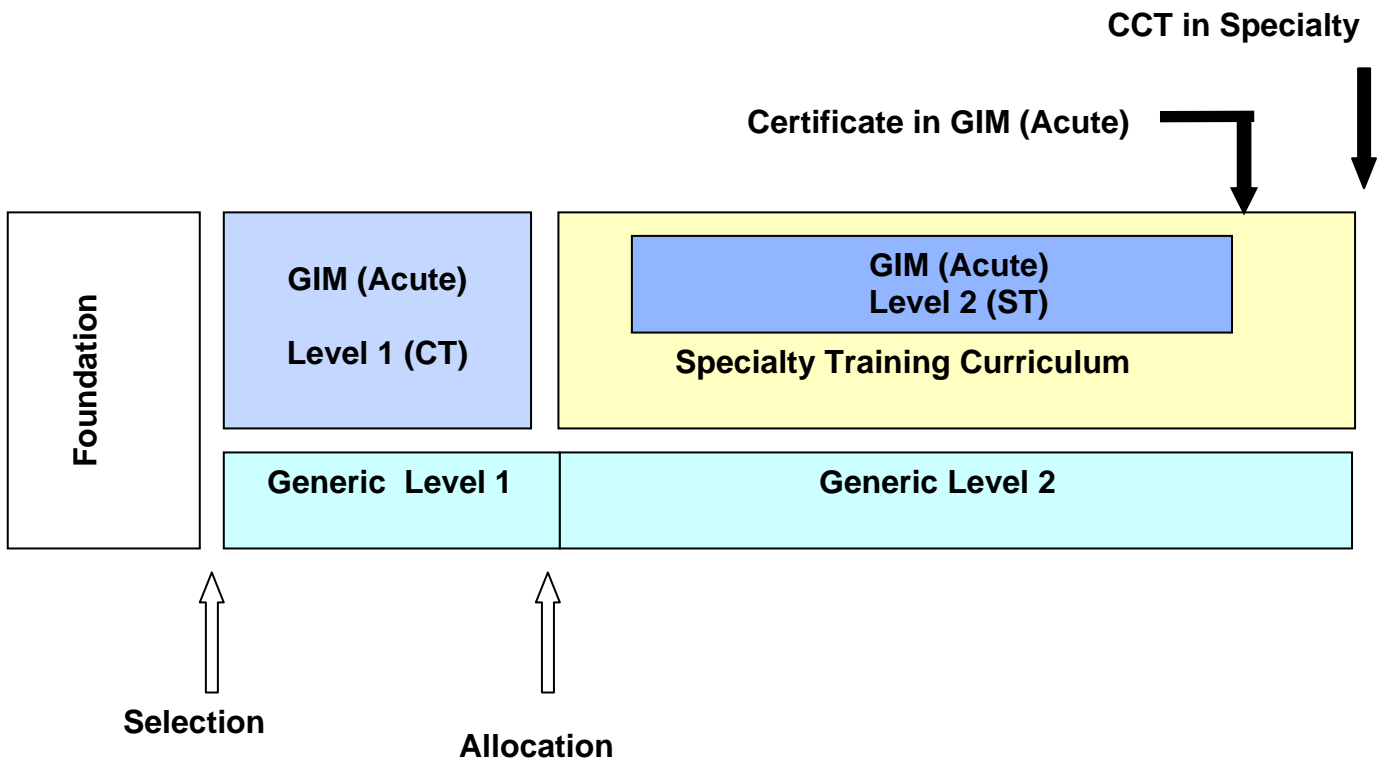
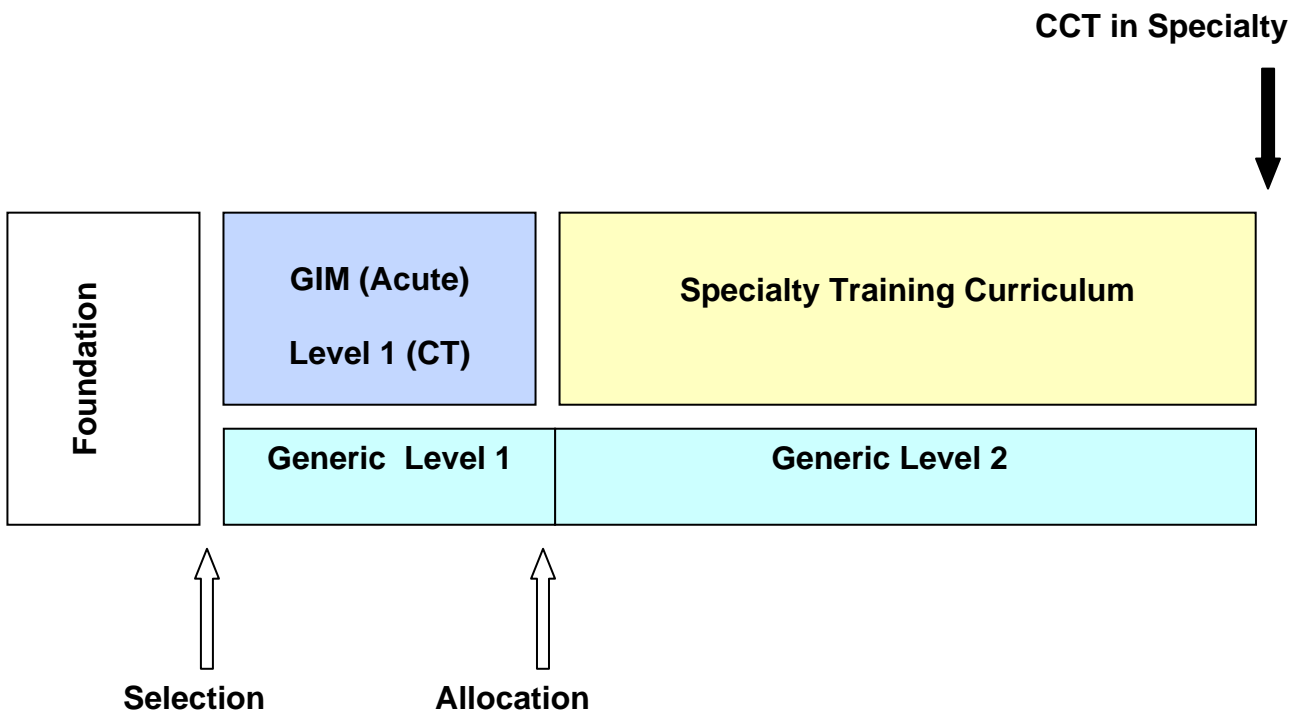


Diagram 3 : Training in another medical specialty alone



1.7 – Rotations

Core Training: Core training for acute medicine can be obtained as part of a core medical training (CMT) programme or acute care common stem programme (ACCS(M)). These two-year core training programmes will consist of 4 or 6 month placements in a variety of medical or critical care specialties and must include experience in Acute Medicine. This should take the form of at least 6 months direct involvement in the acute unselected medical take with ongoing exposure to unselected medical patients in an in-patient and out-patient environment. The programmes should be structured to fit the needs of the trainee, both in terms of training needs and career aspirations. In addition to the 6 months experience of unselected medical take it is recommended that a further six months should be spent in a specialty that provides experience of care of the acutely ill patient.

Specialty Training in GIM (Acute): The training structure for GIM (Acute) will vary between Deaneries. If the trainee is undertaking dual training in another medical specialty, then this may also influence the training structure for medicine. However, level 2 competencies require at least 2 years of experiential learning, and level 3 competencies a further year.

1.8 - Experience versus Competence

This curriculum outlines the competencies required by clinicians to practise to different levels of competence in General Internal Medicine (Acute Medicine). The time taken for competence to be achieved will vary between individuals within and across programmes. To enable construction of a training programme, however, an indicative time likely to be required for attaining competence at each level of the curriculum is outlined.

The indicative minimum time for each level of competence is shown in Section 1.4. This is a guide to the time that the majority of trainees will require to attain the necessary competencies. The indicative periods of time assume that although an individual can achieve basic competence in a specific skill, further experience is desirable to refine and improve a trainee's performance. This principle reinforces the ethos of the spiral curriculum and effective life-long learning beyond specialty training. In this way it has been shown that an individual will progress from being 'competent' to becoming 'expert'.

1.9 – Dual Accreditation

Trainees may wish to dually train and accredit General Internal Medicine (Acute) and another medical specialty to achieve two CCTs. In this case they must have applied for and successfully entered a training programme which was advertised openly as a dual training programme. This programme will need to achieve the competencies as described in both curricula and there must be agreed assessments (proposed by both SACs in GIM (Acute) and the other medical specialty, and approved by PMETB). These assessments will be those blueprinted to both curricula. It is expected that a number of assessments will be shared without a need for the trainee to repeat them separately for both curricula. Postgraduate deans wishing to advertise such programmes should ensure that they meet the requirements of both SACs.

Section 2 – The Content of Learning

This section lists the specific knowledge, skills, attitudes and behaviours to be attained throughout training in GIM (Acute).

An explanation of the levels of training is provided in section 1.4: Training Structure.

Each stage of learning in the curriculum has defined the competencies to be attained by the trainee, which are defined within the domains of knowledge, skills and attitudes. The competencies are presented in four parts:

Part 2.1 - Symptom Competencies - define the knowledge, skills and attitudes required for each level of learning for different problems with which a patient may present. These symptoms are further broken down into emergency presentations; top 20 presentations and other presentations. The top 20 presentations are listed together to emphasise the frequency with which these problems are encountered in clinical practice, and are based on medical admission unit audit data.

‘Surgical Presentations’ – Symptoms such as haematuria, rectal bleeding, and abdominal pain are traditionally managed by surgical teams. The reason that these symptoms appear in this curriculum is to recognise that often a physician is called upon to perform the initial assessment of these patients. These presentations frequently occur in the context of long-term medical illness and as a complication of medical illness. Also, the hospital-at-night team structure leads to physicians at all levels of training taking responsibility for surgical in-patients.

The role of the physician in these situations is not to take responsibility for the full management of these patients. However, a physician is expected to stabilise the patient as necessary, perform initial investigations and management if urgently required, and make a referral to the appropriate surgical team for a specialist opinion in a timely manner.

Part 2.2 - System specific competencies - define competencies to be attained by the end of core training (CMT or ACCS(M)) for each body system, and also lists the conditions and basic science of which the trainee must acquire knowledge.

Part 2.3 - Investigation competencies - lists investigations that a trainee must be able to describe, order, and interpret by the end of core training.

Part 2.4 – Procedural competencies - lists procedures that a trainee should be competent in by the end of core training. This section also lists procedures that a level 3 trainee (sole training to CCT in GIM (Acute)) should be competent in performing, and lists further procedural skills that a level 3 trainee may wish to gain competence in ('optional procedures').

Level 3 Specific Competencies

Level 3 Competencies are to be attained by the final year of Specialty Training in GIM (Acute) and are relevant for individuals who wish to practise as specialist Acute Physicians within an Acute Medical Unit. Achievement of this level of competence will result in the award of a CCT in GIM (Acute). Individuals who receive training to CCT level in a medical specialty and training in General Internal Medicine (Acute Medicine) will only be required to attain level 2 competencies in the latter, and so be certificated in GIM (Acute).

All presentations in Part 2.1 have general competencies that apply for level 3 trainees in GIM (Acute). To avoid repetition in the text, these competencies that apply to all patient presentations are listed in the following table. Where a certain symptom presentation has specific Level 3 competencies, they are defined under that particular symptom.

The concepts of the spiral curriculum still apply during the extra year of GIM (Acute) training in that the knowledge, skills, attitudes and behaviours acquired in training should continue to be revisited and honed.

General Competencies that apply to Level 3 GIM (Acute) for the Symptom Competencies of Part 2.1

	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	Varies for each symptom in Part 2.1		
Competency Level 2	Varies for each symptom in Part 2.1		
Competency Level 3	<p>Outline parameters influencing the need for in patient care and the appropriate dependency setting within the hospital</p> <p>Outline parameters for high quality ambulatory care</p> <p>Cite evidence base for best practice</p>	<p>Co-ordinate acute medical take as part of multidisciplinary team</p> <p>Recognition and active management of patient in relation to illness severity including monitoring response to intervention</p> <p>Teach evidence based best practice patient management within the acute setting</p> <p>Develop safe out patient protocols and procedures</p> <p>Co-ordinate care at home when appropriate</p> <p>Provide back up for colleagues during practical procedures (e.g. failed central venous access)</p> <p>Establish, maintain and secure a patent airway</p> <p>Teach and supervise procedural skills within the acute setting</p> <p>Recognise atypical presentations of common disease, and typical presentations of uncommon disease</p> <p>Further Skills / Procedures – see Part 2.4</p>	<p>Maintain highest standards of care through leadership, training and management throughout Acute Care service in organisation</p> <p>Promote active acute intervention when appropriate</p> <p>Promote multidisciplinary management of common medical problems including liaison with other specialties</p> <p>Promote alternatives to hospital admission when appropriate, such as out-patient care</p> <p>Adopt proactive role in identifying potential risk of infection to others</p> <p>Promote excellent use of investigative resources</p> <p>Recognise active role in healthcare resource management</p> <p>Show willingness to set up services from the acute setting (e.g. falls, DVT)</p>

Part 2.1: Symptom Based Competencies

Emergency Presentations

Cardio-Respiratory Arrest

The trainee will have full competence in the assessment and resuscitation of the patient who has suffered a cardio-respiratory arrest, as defined by the UK Resuscitation Council			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>Causes of cardio-respiratory arrest</p> <p>Recall the ALS algorithm for adult cardiac arrest</p> <p>Outline indication and safe delivery of drugs used in cardiac arrest scenarios: adrenaline, atropine, amiodarone, buffers</p>	<p>Rapidly assess the collapsed patient in terms of ABC, airway, breathing and circulation</p> <p>Perform Basic Life Support competently as defined by Resuscitation Council (UK): effective chest compressions, airway manoeuvres, bag and mask ventilation</p> <p>Competently perform further steps in advanced life support: IV drugs; safe DC shocks when indicated; identification and rectification of reversible causes of cardiac arrest</p>	<p>Recognise and intervene in critical illness promptly to prevent cardiac arrest such as peri-arrest arrhythmias, hypoxia</p> <p>Maintain safety of environment for patient and health workers</p> <p>Participate in UK Resuscitation Council approved ALS course (MANDATORY REQUIREMENT)</p> <p>Succinctly present clinical details of situation to senior doctor</p> <p>Consult senior and seek anaesthetic team support</p>
Competency Level 2	<p>Demonstrate knowledge of when advanced life support should be discontinued, in consultation with colleagues assisting with case</p>	<p>Competently lead a cardiac arrest team</p> <p>Delegate tasks to colleagues equipped with appropriate competencies</p> <p>Break bad news appropriately (see generic curriculum)</p>	<p>Demonstrate willingness to undergo UK Resuscitation Council ALS course re-certification every three years (MANDATORY REQUIREMENT)</p> <p>Recognise importance of sensitively breaking bad news to family</p>
Competency Level 3	<p>Evidence base for best practice</p>	<p>Maintain and secure a patent airway</p> <p>Teach evidence based best practice patient management</p>	<p>Adopt leadership role</p>

Shocked Patient

The trainee will be able to identify a shocked patient, assess their clinical state, produce a list of appropriate differential diagnoses and initiate immediate management			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>Identify physiological perturbations that define shock</p> <p>Identify principle categories of shock (i.e. cardiogenic, circulatory)</p> <p>Elucidate main causes of shock in each category (e.g. MI, heart failure, PE, blood loss, sepsis)</p> <p>Define sepsis syndromes</p>	<p>Recognise significance of major physiological perturbations</p> <p>Perform immediate (physical) assessment (A,B,C)</p> <p>Institute immediate, simple resuscitation (oxygen, iv access, fluid resuscitation)</p> <p>Arrange simple monitoring of relevant indices (oximetry, arterial gas analysis) and vital signs (BP, pulse & respiratory rate, temp, urine output)</p> <p>Order, interpret and act on initial investigations appropriately: ECG, blood cultures, blood count, electrolytes</p>	<p>Exhibit calm and methodical approach to assessing critically ill patient</p> <p>Adopt leadership role where appropriate</p> <p>Involve senior and specialist (e.g. critical care outreach) services promptly</p>
Competency Level 2	<p>Recognise more complex forms of shock (e.g. spinal, anaphylaxis, Addisonian crisis)</p> <p>Categorise cardiogenic shock</p> <p>Outline the indications for, and limitations of, central venous access and pressure monitoring</p>	<p>Leads major (non-traumatic) resuscitation</p> <p>Identify incipient organ failure</p> <p>Order, interpret and act on more specialist tests appropriately based on initial investigations</p> <p>Insert central line safely when indicated</p> <p>Implement protocols and care bundles appropriately e.g. septic bundles</p>	<p>Adopt leadership role</p> <p>Arrange transfer of patient to specialist team (cardiac, ICU) when appropriate</p> <p>Discuss prognosis with patient/carers</p>
Competency Level 3	<p>Outline the legal framework for organ donation</p>	<p>Expert assessment of neurological status of acutely unwell patient, including diagnosis of brainstem death</p> <p>Co-ordinate and manage care within a HDU/Level 2 setting</p>	<p>Discuss issues of donation appropriately with transplant coordinators, and family/carers of patient</p>

Unconscious Patient

<p>The trainee will be able to promptly assess the unconscious patient to produce a differential diagnosis, establish safe monitoring, investigate appropriately and formulate an initial management plan, including recognising situations in which emergency specialist investigation or referral is required</p>			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>Identify the principal causes of unconsciousness (metabolic, neurological)</p> <p>Recognise the principal sub causes (drugs, hypoglycaemia, hypoxia; trauma, infection, vascular, epilepsy, raised intra-cranial pressure, reduced cerebral blood flow, endocrine)</p> <p>List appropriate investigations for each</p> <p>Outline immediate management options</p>	<p>Make a rapid and immediate assessment including examination of coverings of nervous system (head, neck, spine) and Glasgow Coma Scale</p> <p>Initiate appropriate immediate management (A,B,C, cervical collar, administer glucose)</p> <p>Take simple history from witnesses when patient has stabilised</p> <p>Prioritise, order, interpret and act on simple investigations appropriately</p> <p>Initiate early (critical) management (e.g. control fits, manage poisoning) including requesting safe monitoring</p>	<p>Recognise need for immediate assessment and resuscitation</p> <p>Assume leadership role where appropriate</p> <p>Involve senior staff promptly</p> <p>Involve appropriate specialists to facilitate immediate assessment and management (e.g. imaging, intensive care, neurosurgeons)</p>
Competency Level 2	<p>Identify more complex causes of coma and relevant investigations</p> <p>Outline more complex management options</p>	<p>Order, interpret and act on more specialist tests based on initial investigations</p> <p>Manage transfer of patient to appropriate arena of care</p>	<p>Assume leadership role</p> <p>Involve carer/next-of-kin in decision- making process where appropriate</p> <p>Make difficult ethical choices (DNR) appropriately and sensitively</p>
Competency Level 3	<p>Detail the legal framework for organ donation</p>	<p>Perform tests for brain stem death</p>	<p>Discuss issues of donation appropriately with transplant co-ordinators, and family/carers of patient</p>

Anaphylaxis

The trainee will be able to identify patients with anaphylactic shock, assess their clinical state, produce a list of appropriate differential diagnoses, initiate immediate resuscitation and management and organise further investigations			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>Identify physiological perturbations causing anaphylactic shock</p> <p>Elucidate causes of anaphylactic shock</p> <p>Define follow-up pathways after acute resuscitation</p>	<p>Recognise clinical consequences of acute anaphylaxis</p> <p>Perform immediate physical assessment (laryngeal oedema, bronchospasm, hypotension)</p> <p>Institute resuscitation (adrenaline, oxygen, IV access, fluids)</p> <p>Arrange monitoring of relevant indices</p> <p>Order, interpret and act on initial investigations (tryptase, C1 esterase inhibitor etc.)</p>	<p>Exhibit a calm and methodical approach</p> <p>Adopt leadership role where appropriate</p> <p>Involve senior and specialist allergy services promptly</p>
Competency Level 2	<p>Recognise clinical manifestations of anaphylactic shock</p> <p>Be aware of the full range of allergies and other provoking stimuli causing anaphylactic shock</p> <p>Elucidate the management of individual patients at risk of anaphylactic shock from any cause</p>	<p>Lead major resuscitation</p> <p>Identify and manage all clinical manifestations and associations of anaphylactic shock (laryngoedema, urticaria / angioedema, hypotension and cardiac arrest)</p> <p>Institute more specialised tests based on suspected aetiology</p>	<p>Adopt leadership role</p> <p>Arrange transfer of patient to a specialist team when appropriate</p> <p>Discuss prognosis with patient/carer</p> <p>Ensure appropriate further investigation and management</p>
Competency Level 3	<p>Recall evidence base for best practice in management of acute anaphylaxis (UK Resuscitation Council)</p>	<p>Maintain and secure a patient airway in patients with laryngoedema</p>	<p>Adopt leadership and teaching role</p>

'The Top 20' – Common Medical Presentations

Abdominal Pain

The trainee will be able to assess a patient presenting with abdominal pain to produce a valid differential diagnosis, investigate appropriately, formulate and implement a management plan			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>Outline the different classes of abdominal pain and how the history and clinical findings differ between them</p> <p>Identify the possible causes of abdominal pain, depending on site, details of history, acute or chronic</p> <p>Define the situations in which urgent surgical, urological or gynaecological opinion should be sought</p> <p>Determine which first line investigations are required, depending on the likely diagnoses following evaluation</p>	<p>Elicit signs of tenderness, guarding, and rebound tenderness and interpret appropriately</p> <p>Order, interpret and act on initial investigations appropriately: blood tests; radiographs; ECG; microbiology investigations</p> <p>Initiate first line management: the diligent use of suitable analgesia; 'nil by mouth'; IV fluids; resuscitation</p>	<p>Exhibit timely intervention when abdominal pain is the manifestation of critical illness or is life-threatening, in conjunction with senior and appropriate specialists</p> <p>Recognise the importance of a multi-disciplinary approach including early surgical assessment when appropriate</p> <p>Display sympathy to physical and mental responses to pain</p> <p>Involve other specialties promptly when required</p>
Competency Level 2	<p>Define the indications for specialist investigation: ultrasound, CT, MRI, endoscopy</p> <p>Identify differences in presentation between functional symptoms and organic disease</p>	<p>Communicate with patients with functional symptoms in a comprehensible and sensitive manner</p>	<p>Recognise the prominence of the potential for non-organic illness in abdominal pain</p> <p>Recognise role of specialist pain clinics and mental health services in chronic pain</p>

Acute Back Pain

The trainee will be able to assess a patient presenting with back pain to produce a valid differential diagnosis, investigate appropriately, formulate and implement a management plan			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>Recall the causes of acute back pain</p> <p>Specify abdominal pathology that may present with back pain</p> <p>Outline the features that raise concerns as to a sinister cause ('the red flags') and lead to consideration of a chronic cause ('the yellow flags')</p> <p>Recall the indications of an urgent MRI of spine</p> <p>Outline indications for hospital admission</p>	<p>Perform examination and elicit signs of spinal cord / cauda equina compromise</p> <p>Practise safe prescribing of analgesics / anxiolytics to provide symptomatic relief</p> <p>Order, interpret and act on initial investigations appropriately: blood tests, myeloma screen, radiographs</p>	<p>Involve neurosurgical unit promptly in event of neurological symptoms or signs</p> <p>Ask for senior help when critical abdominal pathology is suspected</p> <p>Recognise the socio-economic impact of chronic lower back pain</p> <p>Participate in multi-disciplinary approach: physio, OT</p>
Competency Level 2	<p>Recall the pathophysiology of acute back pain</p> <p>Outline secondary prevention measures in osteoporosis</p>	<p>Order, interpret and act on urgent MRI of spine</p> <p>Investigate and refer appropriately when abdominal pathology is suspected</p>	<p>Involve orthopaedics / rheumatologists / physiotherapists when indicated</p> <p>Recognise impact of osteoporosis and encourage bone protection in all patients at risk</p>

Blackout / Collapse

The trainee will be able to assess a patient presenting with a collapse to produce a valid differential diagnosis, investigate appropriately, formulate and implement a management plan (see also 'Syncope' and 'Falls')			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>Recall the causes for sudden loss of consciousness (LOC)</p> <p>Differentiate the causes depending on the situation of collapse, associated symptoms and signs, and eye witness reports</p> <p>Outline the indications for temporary and permanent pacing systems</p>	<p>Elucidate history to establish whether event was LOC, fall without LOC, vertigo (with eye witness account if possible)</p> <p>Assess patient in terms of ABC and degree of consciousness and manage appropriately</p> <p>Perform examination to elicit signs of cardiovascular or neurological disease and to distinguish epileptic disorder from other causes</p> <p>Order, interpret and act on initial investigations appropriately: ECG, blood tests inc. glucose</p> <p>Manage arrhythmias appropriately as per ALS guidelines</p> <p>Institute external pacing systems when appropriate</p>	<p>Recognise impact episodes can have on lifestyle particularly in the elderly</p> <p>Recognise recommendations regarding fitness to drive in relation to undiagnosed blackouts</p>
Competency Level 2	<p>Define the recommendations concerning fitness to drive</p> <p>Define indications for detailed investigations: ECHO, tilt table testing, ambulatory ECG monitoring, EEG, neuroimaging</p>	<p>Detect and correct causes of orthostatic hypotension when possible</p> <p>Develop a management plan for acute period of care</p>	<p>Recognise problems specific to the elderly and address social needs</p> <p>Involve other specialists as appropriate: cardiology, neurology, care of the elderly</p>
Competency Level 3		<p>OPTIONAL: Insert temporary pacing wire using aseptic technique with minimal discomfort to patient</p>	

Breathlessness

The trainee will be able to assess a patient presenting with breathlessness to produce a valid differential diagnosis, investigate appropriately, formulate and implement a management plan			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>Specify the common cardio-respiratory conditions that present with breathlessness</p> <p>Explain orthopnoea and paroxysmal nocturnal dyspnoea</p> <p>Identify non cardio-respiratory factors that can contribute to or present with breathlessness</p> <p>Define basic pathophysiology of breathlessness</p> <p>List the common and serious causes of wheeze and stridor</p>	<p>Interpret history and clinical signs to list appropriate differential diagnoses: esp. pneumonia, asthma, COPD, PE, pulmonary oedema, pneumothorax</p> <p>Differentiate between stridor and wheeze</p> <p>Order, interpret and act on initial investigations appropriately: routine blood tests, oxygen saturation, arterial blood gases, chest radiograph, ECG, PEFR, spirometry</p> <p>Initiate treatment in relation to diagnosis, including safe oxygen therapy, early antibiotics for pneumonia</p> <p>Perform chest aspiration and chest drain insertion</p> <p>Recognise disproportionate dyspnoea and hyperventilation</p> <p>Recognise other causes of dyspnoea in patients with wheeze (e.g. pneumothorax) and manage appropriately</p> <p>Evaluate and advise on good inhaler technique</p>	<p>Exhibit timely assessment and treatment in the acute phase</p> <p>Recognise the distress caused by breathlessness and discuss with patient and carers</p> <p>Recognise the impact of long term illness</p> <p>Consult senior when respiratory distress is evident</p> <p>Involve Critical Care team promptly when indicated</p> <p>Exhibit non-judgemental attitudes to patients with a smoking history</p>
Competency Level 2	<p>Specify less common cardio-respiratory causes of breathlessness</p> <p>Define indications for specialist investigation</p> <p>Outline indications for CT chest, CT angiography, bronchoscopy, chest ultrasound, cardiac investigations</p> <p>Identify less common causes of wheeze</p>	<p>Formulate a management plan for acute period of care, including in the event of normal or inconclusive investigations</p> <p>Recognise indications for ventilatory support, including intubation and non-invasive ventilation</p> <p>Interpret and act on results of echocardiography</p> <p>Initiate non-invasive ventilation safely when appropriate</p> <p>Initiate appropriate palliative management of the breathless patient when appropriate</p>	<p>Recognise and relate immediate prognosis to patient and carers</p> <p>Recognise patients who would benefit from pulmonary rehabilitation</p> <p>Involve other specialty teams promptly as appropriate, eg Intensive Care, Cardiology, Respiratory, Palliative Care</p> <p>Engage patients regarding risk factor modification, eg smoking, diet</p>
Competency Level 3		<p>Modify non-invasive ventilation parameters appropriately</p> <p>Maintain and secure a patent airway</p>	

Chest Pain

The trainee will be able to assess a patient with chest pain to produce a valid differential diagnosis, investigate appropriately, formulate and implement a management plan			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>Characterise the different types of chest pain, and outline other symptoms that may be present</p> <p>List the common causes for each category of chest pain and associated features: cardiac, pleuritic, musculoskeletal, upper GI</p> <p>List respiratory causes of chest pain</p> <p>Define the pathophysiology of acute coronary syndrome and pulmonary embolus</p> <p>Identify the indications and limitations of cardiac enzymes and d dimer analysis</p> <p>Outline emergency treatments for PE</p>	<p>Interpret history and clinical signs to list appropriate differential diagnoses: esp. for cardiac pain & pleuritic pain</p> <p>Order, interpret and act on initial investigations in the context of chest pain appropriately: such as ECG, blood gas analysis, blood tests, chest radiograph, cardiac enzymes</p> <p>Commence initial emergency treatment including coronary syndromes, pulmonary embolus and aortic dissection</p> <p>Elect appropriate arena of care and degree of monitoring</p> <p>Formulate initial discharge plan</p>	<p>Perform timely assessment and treatment of patients presenting with chest pain</p> <p>Involve senior when chest pain heralds critical illness or when cause of chest pain is unclear</p> <p>Recognise the contribution and expertise of specialist cardiology nurses and technicians</p>
Competency Level 2	<p>Outline the indications for further investigation in chest pain syndromes: CT angiography, radio nucleotide scanning, angioplasty, tread mill</p> <p>Outline complications of acute coronary syndromes</p> <p>Outline indications for thrombolysis for severe PE</p>	<p>Practise safe discharge planning including a management plan post-discharge</p> <p>Arrange appropriate out-patient investigation and follow-up</p> <p>Identify complicated acute coronary syndrome cases and discuss with cardiologist</p>	<p>Involve specialist colleagues as indicated: cardiology, chest medicine</p> <p>Recommend assessment in specialist chest pain clinics when appropriate</p> <p>Recommend appropriate secondary prevention treatments and lifestyle changes on discharge</p>
Competency Level 3	<p>List less common but life threatening causes of chest pain</p>	<p>Co-ordinate expert management for life-threatening causes of chest pain</p>	

Confusion, Acute

The trainee will be able to assess an acutely confused patient to formulate a valid differential diagnosis, investigate appropriately, formulate and implement a management plan			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>List the common and serious causes for acute confusion</p> <p>Outline important initial investigations, including electrolytes, cultures, full blood count, ECG, blood gases, thyroid</p> <p>Recognise the factors that can exacerbate acute confusion e.g. change in environment, infection</p> <p>List the pre-existing factors that pre-dispose to acute confusion</p>	<p>Examine to elicit cause of acute confusion</p> <p>Perform mental state examinations (abbreviated mental test and mini-mental test) to assess severity and progress of cognitive impairment</p> <p>Recognise pre-disposing factors: cognitive impairment, psychiatric disease</p>	<p>Recognise that the cause of acute confusion is often multi-factorial</p> <p>Contribute to multi-disciplinary team management</p> <p>Recognise effects of acutely confused patient on other patients and staff in the ward environment</p>
Competency Level 2	<p>Outline indications for further investigation including head CT, lumbar puncture</p>	<p>Employ non-pharmacological methods of calming patient e.g. quieter environment</p> <p>Practise safe and minimal sedation when necessary</p>	<p>Involve other specialist teams when appropriate</p> <p>Recognise the role of specialised health workers and wards for the management of the acutely confused elderly</p>
Competency Level 3	<p>Outline pharmacological management of confused patient and associated risks</p>		

Cough

The trainee will be able to assess a patient presenting with cough to produce a valid differential diagnosis, investigate appropriately, formulate and implement a management plan			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>List the common and serious causes of cough</p> <p>Identify risk factors relevant to each aetiology including precipitating drugs</p> <p>Outline the different classes of cough and how the history and clinical findings differ between them</p> <p>State which first line investigations are required, depending on the likely diagnoses following evaluation</p>	<p>Order, interpret and act on initial investigations appropriately: blood tests, chest radiograph and PFT</p>	<p>Contribute to patients understanding of their illness</p> <p>Exhibit non-judgmental attitudes to patients with a history of smoking</p> <p>Consult seniors promptly when indicated</p> <p>Recognise the importance of a multi-disciplinary approach</p>
Competency Level 2	<p>Explain the indications for specialist investigations: Bronchoscopy and CT scan</p> <p>Recall less common causes of cough and their relevant investigations</p> <p>List causes of chronic cough in the presence of a normal chest radiograph</p>	<p>Formulate a management plan for acute period of care</p>	<p>Recognise the need for specialist chest medicine opinion</p>

Diarrhoea

The trainee will be able to assess a patient presenting with diarrhoea to produce a valid differential diagnosis, investigate appropriately, formulate and implement a management plan			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>Specify the causes of diarrhoea (secretory, infective, etc)</p> <p>Correlate presentation with other symptoms: such as abdominal pain, rectal bleeding, weight loss</p> <p>Outline the pathophysiology of diarrhoea for each aetiology</p> <p>Describe the investigations necessary to arrive at a diagnosis</p> <p>Identify the indications for urgent surgical review in patients presenting with diarrhoea</p>	<p>Evaluate nutritional and hydration status of the patient</p> <p>Assess whether patient requires hospital admission</p> <p>Perform rectal examination as part of physical examination</p> <p>Initiate investigations: blood tests, stool examination, endoscopy and radiology as appropriate</p>	<p>Seek a surgical and senior opinion when required</p> <p>Exhibit sympathy and empathy when considering the distress associated with diarrhoea and incontinence</p> <p>Demonstrate awareness of infection control procedures</p>
Competency Level 2	<p>Outline functional disorders of the bowel</p> <p>List the principle and serious infectious causes of diarrhoea and Public Health implications</p>	<p>Interpret relevant features on a plain abdominal x-ray e.g. mucosal islands</p> <p>Prescribe appropriate specific symptomatic treatments safely</p> <p>Notify Public Health authorities when appropriate</p>	<p>Recognise the indication for further specialist opinion and endoscopy</p> <p>Recognise the role of specialist staff in management: lower GI nurse, IBD nurse</p> <p>Discuss with patient likely outcomes and prognosis of condition and requirement for long term review</p>

Falls

The trainee will be able to assess a patient presenting with a fall and produce a valid differential diagnosis, investigate appropriately, formulate and implement a management plan (see also 'Syncope' and 'Blackout/Collapse')			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>Describe causes of falls and risk factors for falls, including drug and neurovascular causes</p> <p>Outline the assessment of a patient with a fall and give a differential diagnosis</p> <p>State conditions that may present as a fall</p> <p>Outline the relationship between falls risk and fractures</p> <p>Outline secondary risks of falls, such as loss of confidence, infection</p>	<p>Define the significance of a fall depending on circumstances, and whether recurrent, to distinguish when further investigation is necessary</p> <p>Identify possible secondary complications of falls</p> <p>Commence appropriate treatment including pain relief and bone prophylaxis</p>	<p>Recognise the psychological impact to an older person and their carer after a fall</p> <p>Contribute to the patients understanding as to the reason for their fall</p> <p>Discuss with seniors promptly and appropriately</p> <p>Relate the possible reasons for the fall and the management plan to patient and carers</p>
Competency Level 2	<p>State how to distinguish between syncope and fall</p> <p>Define when a single fall needs a falls risk assessment approach</p> <p>Explain the interventions to prevent falls in the community and acute hospital setting</p>	<p>Communicate with patients on falls risk and prevention</p> <p>Demonstrate a health promotion approach</p> <p>Distinguish between syncope and other causes of falls</p> <p>Demonstrate ability to decide on how far to investigate an individual</p>	<p>Recognise associated psychological problems associated with patients who fall</p> <p>Involve other specialists as necessary</p> <p>Contribute to the multidisciplinary team discussion and management appropriately, including community services</p> <p>Formulate realistic rehabilitation goals</p>
Competency Level 3		<p>Co-ordinate multidisciplinary management of falls</p>	<p>Liaise with primary care team and other community services to establish an effective falls prevention programme</p>

Fever

The trainee will be able assess a patient presenting with fever to produce a valid differential diagnosis, investigate appropriately, formulate and implement a management plan			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>Outline the physiology of developing a fever</p> <p>Recall the broad causes of fever: infection, malignancy, inflammation</p> <p>Define Pyrexia of Unknown Origin</p> <p>Recall the role of anti-pyretics</p> <p>Differentiate features of viral and bacterial infection</p> <p>Outline indications for LP in context of fever</p>	<p>Recognise the presence of septic shock in a patient, commence resuscitation and liaise with senior colleagues promptly</p> <p>Order, interpret and act on initial investigations appropriately: blood tests, cultures, CXR</p> <p>Identify the risk factors in the history that may indicate an infectious disease e.g. travel, sexual history, IV drug use, animal contact, drug therapy</p> <p>Commence appropriate empirical antibiotics when an infective source of fever is deemed likely in accordance with local prescribing policy</p>	<p>Adhere to local antibiotic prescribing policies</p> <p>Highlight importance of nosocomial infection and principles for infection control</p> <p>Consult senior in event of septic syndrome</p> <p>Discuss with senior colleagues and follow local guidelines in the management of the immunosuppressed e.g. HIV, neutropenia</p> <p>Promote communicable disease prevention: e.g. immunisations, antimalarials, safe sexual practices</p>
Competency Level 2	<p>Elucidate the investigations that may be indicated in the event of a PUO</p> <p>Recall the main causes of immunodeficiency</p> <p>Outline the principles of prophylactic antibiotics</p>	<p>Establish the likelihood of a non-infective cause for fever and investigate appropriately</p>	<p>Seek specialist advice when appropriate</p> <p>In event of PUO involve appropriate specialist</p> <p>Follow local and national guidance on notification of communicable diseases</p>
Competency Level 3		<p>Conduct appropriate investigations in cases of fever in a recent traveller</p>	<p>Liaise with tertiary infectious diseases centre as appropriate</p> <p>Keep up to date with recent public health guidance in event of pandemic / epidemic</p>

Fits / Seizure

The trainee will be able to assess a patient presenting with a fit, stabilise promptly, investigate appropriately, formulate and implement a management plan			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>Outline the causes for seizure</p> <p>Recall the common epileptic syndromes</p> <p>List the essential initial investigations following a 'first fit'</p> <p>Recall the indications for a CT head</p> <p>Describe the indications, contraindications and side effects of the commonly used anti-convulsants</p> <p>Differentiate seizure from other causes of collapse</p>	<p>Recognise and manage a patient presenting with status epilepticus</p> <p>Obtain collateral history from witness</p> <p>Promptly recognise and treat precipitating causes: metabolic, infective, malignancy</p>	<p>Recognise need for urgent referral in case of uncontrolled recurrent loss of consciousness or seizures</p> <p>Recognise the principles of safe discharge, after discussion with senior colleague</p> <p>Recognise importance of Epilepsy Nurse Specialist</p> <p>Recognise the psychological and social consequences of epilepsy</p>
Competency Level 2	<p>Outline the principles and indications for EEG and neuro-imaging</p> <p>Identify role of national guidelines on epilepsy management (e.g. NICE)</p>	<p>Order, interpret and act on results of CT head following liaison with radiology</p> <p>Recognise patient requiring airway management and Critical Care involvement and organise this</p> <p>Practise safe prescribing of anti convulsants</p> <p>Discuss the need for anti-convulsant medication and the best choice with patient</p> <p>Recognise and manage pseudo-seizures</p>	<p>Advise patient on driving, pregnancy, employment, alcohol use</p>
Competency Level 3	<p>Outline indications for artificial ventilation</p>	<p>Recognise and actively manage all forms of status epilepticus</p> <p>Manage a patient in status epilepticus requiring artificial ventilation appropriately</p>	<p>Seek prompt involvement of Critical Care team when required</p>

Haematemesis & Melaena

The trainee will be able to succinctly assess the patient with an upper GI haemorrhage to determine significance; resuscitate appropriately; and liaise with endoscopist effectively			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>Detail the anatomy of the upper GI tract</p> <p>Specify the causes of upper GI bleeding, with associated risk factors</p> <p>Outline methods of assessing the significance and prognosis of an upper GI bleed and how this impacts on importance of urgent endoscopy e.g. Rockall score</p> <p>Outline the principles of choice of IV access, fluid choice and speed of fluid administration</p> <p>Broadly outline endoscopic methods of haemostasis</p>	<p>Recognise shock or impending shock and resuscitate rapidly and appropriately</p> <p>Distinguish upper and lower GI bleeding</p> <p>Demonstrate ability to site large bore IV access</p> <p>Perform assessment to postulate cause of bleeding: in particular detect the presence of liver disease</p> <p>Safely prescribe drugs indicated in event of a likely upper GI variceal bleed: broad spectrum antibiotics, vasoconstrictor agents, acid suppression</p>	<p>Seek senior help and endoscopy or surgical input in event of significant GI bleed</p> <p>Observe safe practices in the prescription of blood products</p>
Competency Level 2	<p>Specify details of care after endoscopy to ensure the detection of a re-bleed</p> <p>Outline important measures to be undertaken after endoscopy: helicobacter eradication, acid suppression</p> <p>Outline the role of Sengstaken-Blakemore tubes</p> <p>Outline the indications for, and limitations of, central venous access and pressure monitoring</p>	<p>Safely insert central line when indicated</p> <p>Maintain adequate fluid balance with appropriate fluid replacement</p> <p>Recognise the need for specialist liver unit referral in uncontrollable variceal bleeding</p>	<p>Recognise importance of gastroenterological and / or surgical input in management and follow up</p> <p>Recognise importance of prevention of upper GI bleeding in high risk groups: elderly, critically ill, steroid therapy</p>
Competency Level 3		<p>Place a Sengstaken-Blakemore tube safely and ensure safe set up and monitoring</p>	

Headache

The trainee will be able to assess a patient presenting with headache to produce a valid differential diagnosis, investigate appropriately, formulate and implement a management plan			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>Recall the common and life-threatening causes of acute new headache, and how the nature of the presentation classically varies between them</p> <p>Understand the pathophysiology of headache</p> <p>Define the indications for urgent CT/MRI scanning in the context of headache</p> <p>Define clinical features of raised intra-cranial pressure</p>	<p>Recognise important diagnostic features in history</p> <p>Perform a comprehensive neurological examination, including eliciting signs of papilloedema, temporal arteritis, meningism and head trauma</p> <p>Order, interpret and act on initial investigations</p> <p>Perform a successful lumbar puncture when indicated with minimal discomfort to patient observing full aseptic technique</p> <p>Interpret basic CSF analysis: cell count, protein, gram stain and glucose</p> <p>Initiate prompt treatment when indicated: appropriate analgesia; antibiotics; antivirals; steroids</p>	<p>Recognise the nature of headaches that may have a sinister cause and assess and treat urgently</p> <p>Liaise with senior doctor promptly when sinister cause is suspected</p> <p>Involve neurosurgical team promptly when appropriate</p>
Competency Level 2	<p>Outline the importance of functional component to chronic headache</p> <p>Determine the role of treatment for suspected migraine</p>	<p>Practise safe discharge planning in a patient with headache</p> <p>Recognise situations when LP can proceed prior to CT scan of head</p>	<p>Seek expert opinion when treatment or diagnosis unclear</p>
Competency Level 3	<p>Outline presentation of life threatening causes of headache</p>	<p>Active intervention for life threatening headache</p>	<p>Ensure appropriate and rapid investigation of acute headache</p>

Jaundice

The trainee will be able to assess a patient presenting with jaundice to produce a valid differential diagnosis, investigate appropriately, formulate and implement a management plan			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>Outline the pathophysiology of jaundice in terms of pre-hepatic, hepatic, and post-hepatic</p> <p>List causes for each category of jaundice with associated risk factors</p> <p>Describe the need for careful prescribing in a patient with jaundice</p> <p>Outline basic investigations to establish aetiology</p> <p>Describe medical, surgical and radiological treatments</p>	<p>Take a thorough history and examination to arrive at a valid differential diagnosis</p> <p>Recognise the presence of chronic liver disease or fulminant liver failure</p> <p>Interpret basic investigations to establish aetiology: blood tests and abdominal ultrasound scanning</p> <p>Recognise complications of jaundice: sepsis and renal impairment</p>	<p>Exhibit non-judgmental attitudes to patients with a history of alcoholism or substance abuse</p> <p>Consult seniors and gastroenterologists promptly when indicated</p> <p>Contribute to the patient's understanding of their illness</p> <p>Recognise the importance of a multi-disciplinary approach</p>
Competency Level 2	<p>Recall less common causes of jaundice and their relevant investigations</p> <p>Outline the indications for liver transplantation in liver failure (including criteria for transplantation in fulminant liver failure)</p> <p>Explain the indications for specialist investigations: liver biopsy, MRI, CT, ERCP</p>	<p>Formulate a thorough list of differential diagnoses</p> <p>Recognise and manage complicating factors: sepsis, malnutrition, renal failure, coagulopathy, GI bleed, alcohol withdrawal syndrome, electrolyte derangement</p> <p>Apply measures to prevent and complications of jaundice</p> <p>Ensure appropriate area of care and monitoring</p>	<p>Recognise the need for urgent specialist opinion</p> <p>Engage patients in dialogue regarding risk factor modification: alcohol, substance abuse</p> <p>Relate to patient likely outcomes and prognosis of condition and requirement for long term review</p>
Competency Level 3		<p>Co-ordinate expert management of fulminant liver failure</p>	<p>Seek prompt involvement of Critical Care team when required</p>

Limb Pain & Swelling

The trainee will be able to assess a patient presenting with limb pain or swelling to produce a valid differential diagnosis, investigate appropriately, formulate and implement a management plan			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>Recall the causes of unilateral and bilateral limb swelling in terms of acute and chronic presentation</p> <p>Summarise the different causes of limb pain in terms of leg, arm and hand</p> <p>Outline the pathophysiology for pitting oedema, non-pitting oedema and thrombosis</p> <p>State the risk factors for the development of thrombosis</p> <p>Outline the indications, contraindications and side effects of diuretics and anti-coagulants</p> <p>Differentiate the features of limb pain and/or swelling pain due to cellulitis and DVT</p>	<p>Perform a full examination including assessment of viability and perfusion of limb and differentiate pitting oedema; cellulitis; venous thrombosis; compartment syndrome</p> <p>Recognise compartment syndrome and critical ischaemia and take appropriate timely action</p> <p>Order, interpret and act on initial investigations appropriately: blood tests, doppler studies, urine protein</p> <p>Practise safe prescribing of initial treatment as appropriate (anti-coagulation therapy, antibiotics etc)</p> <p>Prescribe appropriate analgesia</p>	<p>Liaise promptly with surgical colleagues in event of circulatory compromise (eg compartment syndrome)</p> <p>Recognise importance of thrombo-prophylaxis in high risk groups</p>
Competency Level 2	<p>Recall the management options for thrombosis in complicated situations (e.g. malignancy)</p> <p>Define and list causes for less common causes of limb pain: compartment syndrome; neuropathic pain</p>	<p>Employ preventative measures in patients at risk of developing limb swelling of any cause</p> <p>Order, interpret and act on more sophisticated investigations as appropriate (angiography, CT, ECHO)</p>	<p>Liaise with other specialities as appropriate</p> <p>Advise patient on the risks and benefits of anti-coagulation therapy</p>

Palpitations

The trainee will be able to assess a patient presenting with palpitations to produce a valid differential diagnosis, investigate appropriately, formulate and implement a management plan			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>Recall basic cardiac electrophysiology</p> <p>Define the term palpitations</p> <p>Define common causes of palpitations e.g. anxiety, drugs, thyrotoxicosis)</p> <p>List the categories of arrhythmia</p> <p>State common arrhythmogenic factors including drugs</p> <p>Outline the indications, contraindications and side effects of the commonly used anti-arrhythmic medications</p>	<p>Elucidate nature of patient's complaint</p> <p>Order, interpret and act on initial investigations appropriately: ECG, blood tests</p> <p>Recognise and commence initial treatment of arrhythmias being poorly tolerated by patient (peri-arrest arrhythmias) as per UK Resuscitation Council Guidelines</p> <p>Ensure appropriate monitoring of patient on ward</p>	<p>Consult senior colleague promptly when required</p> <p>Advise on lifestyle measures to prevent palpitations when appropriate</p>
Competency Level 2	<p>Recall the further investigations indicated after arrhythmia presents: ECHO, ambulatory monitoring</p> <p>Define treatments and advice for chronic and paroxysmal arrhythmias</p>	<p>Interpret reports of ECHO and ambulatory ECG monitoring</p> <p>Practise safe discharge decisions</p>	<p>Seek specialist advice when indicated</p>

Poisoning

The trainee will be able to assess promptly a patient presenting with deliberate or accidental poisoning, initiate urgent treatment, ensure appropriate monitoring and recognise the importance of psychiatric assessment in episodes of self harm			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>Recall indications for gastric lavage, activated charcoal and whole bowel irrigation</p> <p>Define parameters used to give clues to type of poisoning: pupils, pulse and respiration, blood pressure, temperature, glucose, seizure, coma, renal function, osmolar and anion gap</p> <p>Outline presentation and management of poisoning with: paracetamol, aspirin, opiates, alcohol, benzodiazepines, beta blockers, digoxin, carbon monoxide, anti-coagulants, tricyclics, SSRIs, amphetamines and cocaine</p> <p>Recognise importance of accessing TOXBASE and National Poisons Information Service</p>	<p>Recognise critically ill overdose patient and resuscitate as appropriate</p> <p>Take a full history of event, including collateral if possible</p> <p>Examine to determine nature and effects of poisoning</p> <p>Commence poison-specific treatments</p> <p>Order, interpret and act on initial investigations appropriately: biochemistry, arterial blood gas, glucose, ECG, and drug concentrations</p> <p>Ensure appropriate monitoring in acute period of care</p>	<p>Contact senior promptly in event of critical illness or patient refusing treatment</p> <p>Recognise the details of poisoning event given by patient may be inaccurate</p> <p>Show compassion and patience in the assessment and management of those who have self-harmed</p>
Competency Level 2	<p>Outline the principles of the relevant mental health legislation and Common Law that pertain to treatment against patients' will</p> <p>Describe role of analytical toxicology</p> <p>Define parameters prompting consideration of liver transplantation in paracetamol poisoning</p>	<p>Perform mental state examination</p> <p>Use scoring tools to assess risk of further self harm (e.g. Beck's score)</p> <p>Formulate management plan for acute period of care</p> <p>Recognise and treat complications of poisoning (e.g. aspiration)</p>	<p>Recognise importance of psychiatric review pre-discharge in deliberate self-poisoning</p> <p>Involve critical care promptly when indicated</p>
Competency Level 3			<p>Co-ordinate multiple specialty management of patient (ITU, Renal etc)</p>

Rash

The trainee will be able assess a patient presenting with an acute-onset skin rash and common skin problems to produce a valid differential diagnosis, investigate appropriately, formulate and implement a management plan			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>Define the characteristic lesions found in the acute presentation of common skin diseases</p> <p>Outline basic investigations to establish aetiology</p> <p>Identify risk factors, particularly drugs, infectious agents and allergens</p> <p>Describe possible medical treatments</p>	<p>Take a thorough focussed history & conduct a detailed examination, including the nails, scalp and mucosae to arrive at appropriate differential diagnoses</p> <p>Recognise the importance of a detailed drug history</p> <p>Recognise that anaphylaxis may be a cause of an acute skin rash</p> <p>Order, interpret and act on initial investigations appropriately to establish aetiology</p>	<p>Demonstrate sympathy and understanding of patients' concerns due to the cosmetic impact of skin disease</p> <p>Engage the patient in the management of their condition particularly with regard to topical treatments</p> <p>Reassure the patient about the long term prognosis and lack of transmissibility of most skin diseases</p>
Competency Level 2	<p>Recall less common causes of acute skin rashes, particularly infective</p> <p>Outline the indications for specialist investigations including skin biopsy</p>	<p>Apply measures to compensate for fluid loss, and to prevent and treat skin infection</p>	<p>Recognise the need for an early specialist opinion</p> <p>Recognise the social/psychological problems caused by acute skin disease</p>
Competency Level 3		<p>Implement appropriate management plan in cases of 'skin failure'</p>	

Vomiting and Nausea

The trainee will be able to assess a patient with vomiting and nausea to produce a valid differential diagnosis, investigate appropriately, formulate and implement a management plan			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>Recall the causes and pathophysiology of nausea and vomiting</p> <p>List commonly used anti-emetics and differentiate the indications for each</p> <p>Outline alarm features that make a diagnosis of upper GI malignancy possible</p>	<p>Elicit signs of dehydration and take steps to rectify</p> <p>Recognise and treat suspected GI obstruction appropriately: nil by mouth, NG tube, IV fluids</p> <p>Practise safe prescribing of anti-emetics</p> <p>Order, interpret and act on initial investigations appropriately: blood tests, radiographs</p>	<p>Involve surgical team promptly in event of GI obstruction</p> <p>Respect the impact of nausea and vomiting in the terminally ill and involve palliative care services appropriately</p>
Competency Level 2	<p>Recall the indications for further investigation: gastroscopy, CT scanning, contrast studies</p> <p>Outline medical and surgical treatment modalities</p>	<p>Recognise the features of non-organic disease</p> <p>Recommend valid treatment and advice when non-organic illness is suspected</p> <p>Recognise and treat the complications of persistent vomiting</p>	<p>Involve other specialists appropriately when indicated</p>

Weakness and Paralysis

The trainee will be able to assess a patient presenting with motor weakness to produce a valid differential diagnosis, investigate appropriately, formulate and implement a management plan (see also 'Speech Disturbance' and 'Abnormal Sensation (Paraesthesia and Numbness)')			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>Broadly outline the physiology and neuroanatomy of the components of the motor system</p> <p>Recall the myotomal distribution of nerve roots, peripheral nerves, and tendon reflexes</p> <p>Define the clinical features of upper and lower motor neurone, neuromuscular junction and muscle lesions</p> <p>Outline the common and important causes for lesions at the sites listed above</p> <p>Recall the Bamford classification of stroke, and its role in prognosis</p> <p>Outline investigations for acute presentation, including indications for urgent head CT</p>	<p>Elucidate speed of onset and risk factors for neurological dysfunction</p> <p>Perform full examination to elicit signs of systemic disease and neurological dysfunction and identify associated deficits</p> <p>Describe likely site of lesion in motor system and produce differential diagnosis</p> <p>Order, interpret and act on initial investigations for acute motor weakness appropriately</p> <p>Recognise when swallowing may be unsafe and manage appropriately</p> <p>Detect spinal cord compromise and investigate promptly</p> <p>Perform tests on respiratory function and inform senior appropriate</p>	<p>Recognise importance of timely assessment and treatment of patients presenting with acute motor weakness</p> <p>Consult senior and acute stroke service, if available, as appropriate</p> <p>Recognise patient and carers distress when presenting with acute motor weakness</p> <p>Consult senior when rapid progressive motor weakness or impaired consciousness is present</p> <p>Involve speech and language therapists appropriately</p> <p>Contribute to multi-disciplinary approach</p>
Competency Level 2	<p>Outline role of more detailed investigations depending on differential diagnosis: neuroimaging, nerve conduction studies, EMG, muscle biopsy</p> <p>Define severity markers in rapidly progressing motor weakness</p>	<p>Ensure appropriate care: thrombo-prophylaxis, pressure areas, nutrition, toileting</p> <p>Formulate valid differential diagnosis</p> <p>Formulate management plan for acute period of care</p>	<p>Involve critical care appropriately with concerns over consciousness and rapidly progressive motor weakness</p> <p>Involve specialist teams as appropriate: neurology, stroke team, nurse specialists</p> <p>Sensitively relay prognosis to patient and carers, and contribute to appropriate resuscitation decisions</p>
Competency Level 3	<p>Recall potentially reversible life threatening causes of weakness</p>	<p>Intervene promptly in life threatening causes of weakness</p> <p>Maintain and secure a patent airway</p>	

Other Important Presentations

Abdominal Mass / Hepatosplenomegaly

The trainee will be able to assess a patient presenting with an abdominal mass to produce a valid differential diagnosis, investigate appropriately, formulate and implement a management plan			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>Define the different types of abdominal mass in terms of aetiology, site, and clinical characteristics (e.g. mitotic, inflammatory)</p> <p>Describe relevant investigations related to clinical findings: radiological, surgical, endoscopy</p> <p>Identify the causes of hepatomegaly and splenomegaly</p>	<p>Elicit associated symptoms and risk factors for the presence of diseases presenting with abdominal mass, hepatomegaly and splenomegaly</p> <p>Elicit and interpret important clinical findings of mass to establish its likely nature</p> <p>Order, interpret and act on initial investigations appropriately: blood tests, imaging</p>	<p>Recognise the anxiety that the finding of an abdominal mass may induce in a patient</p> <p>Participate in multi-disciplinary team approach</p>
Competency Level 2	<p>Contrast the benefits of ultrasound and CT scanning</p>	<p>Formulate a management plan for acute period of care of a patient presenting with a mass or hepatomegaly and/or splenomegaly</p>	<p>Involve specialist teams as appropriate</p> <p>Communicate bad news in a sensitive and thoughtful manner</p>
Competency Level 3	<p>Awareness of potential acute complications of hepatomegaly and splenomegaly</p>		

Abdominal Swelling & Constipation

The trainee will be able to undertake assessment of a patient presenting with abdominal swelling or distension to produce a valid differential diagnosis, investigate appropriately, formulate and implement a management plan			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>Define the causes of abdominal swelling and their associated clinical findings</p> <p>Outline the common causes of constipation, including drugs</p> <p>Outline the pathophysiology of portal hypertension and bowel obstruction</p> <p>Outline important steps in the diagnosis of the cause of ascites, including imaging and the diagnosis of spontaneous bacterial peritonitis and malignancy</p> <p>Define alarm features that raise suspicion of colorectal malignancy</p> <p>Identify mode of action and side effects of the commonly used laxatives</p>	<p>Examine to identify the nature of the swelling, including a rectal examination, and elicit co-existing signs that may accompany ascites</p> <p>Identify risk factors for the development of ascites and constipation, including initial blood tests</p> <p>Order, interpret and act on initial investigations</p> <p>Perform a safe diagnostic and therapeutic ascitic tap with aseptic technique with minimal discomfort to the patient</p> <p>Interpret results of diagnostic ascitic tap</p> <p>Institute initial management as appropriate to the type of swelling</p>	<p>Recognise the multi-factorial nature of constipation, particularly in the elderly</p> <p>Recognise the importance of multi-disciplinary approach</p>
Competency Level 2	<p>Outline the management of ascites</p> <p>Identify the preponderance of functional causes of constipation</p>	<p>Practise safe management of ascites: diuretics, paracentesis, antibiotics</p> <p>Select appropriate second line investigations of constipation when indicated: barium enema, lower GI endoscopy</p>	<p>Involve specialists promptly when appropriate: surgery, gastroenterology, radiology, palliative care</p> <p>Discuss with patient likely outcomes and prognosis of condition</p>

Abnormal Sensation (Paraesthesia and Numbness)

The trainee will be able to assess a patient with abnormal sensory symptoms to arrive at a valid differential diagnosis, investigate appropriately, formulate and implement a management plan			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>Broadly outline the physiology and neuroanatomy of the sensory components of the nervous system</p> <p>Recall the dermatomal distribution of nerve roots and peripheral nerves</p> <p>List common and important causes of abnormal sensation and likely site of lesion in nervous system (e.g. trauma, vascular)</p> <p>Outline the symptomatic treatments for neuropathic pain</p> <p>Outline indications for an urgent head CT</p>	<p>Take a full history, including drugs, lifestyle, trauma</p> <p>Perform full examination including all modalities of sensation to elicit signs of nervous system dysfunction</p> <p>Describe likely site of lesion: central, root, mononeuropathy, or polyneuropathy</p>	<p>Recognise the distress chronic paraesthesia can cause</p> <p>Consult senior and acute stroke service, if available, as appropriate</p> <p>Contribute to multi-disciplinary approach</p>
Competency Level 2	<p>Outline indications for more specialised investigations: neuroimaging, screening blood tests for neuropathy, neurophysiology studies</p>	<p>Produce a comprehensive differential diagnosis</p> <p>Advise on effective symptomatic treatments</p> <p>Identify early spinal cord or cauda equina compression and take appropriate action</p>	<p>Involve specialist team as appropriate</p>

Aggressive / Disturbed Behaviour

The trainee will be competent in predicting and preventing aggressive and disturbed behaviour; using safe physical intervention and tranquillisation; investigating appropriately and liaising with the mental health team			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>Elucidate the factors that allow prediction of aggressive behaviour: personal history, alcohol and substance misuse, delirium</p> <p>Define acute psychosis and list its predominant features and causes</p> <p>Recall indications, contraindications and side effects of tranquillisers</p> <p>Outline the legal framework authorising interventions in the management of the disturbed or violent patient</p>	<p>Ensure appropriate arena for nursing patient with disturbed behaviour</p> <p>Ensure sufficient support is available</p> <p>Assess patient fully including mental state examination to produce a valid differential diagnosis</p> <p>Order, interpret and act on initial investigations appropriately when possible</p> <p>Practise safe rapid tranquillisation if indicated as defined in national guidelines e.g. NICE</p> <p>Recognise warning signs of incipient violent behaviour</p> <p>Ensure close monitoring following tranquillisation</p>	<p>Involve senior colleague and mental health care team promptly</p> <p>Advocate practice outlined in national guidelines (e.g. NICE) on managing violence</p>
Competency Level 2	<p>Outline de-escalation techniques that can be taken to prevent violent behaviour</p>	<p>Determine whether disturbed behaviour is a result of organic or psychiatric disease</p> <p>Formulate a management plan for the acute period of care</p>	<p>Encourage review of violent incident soon after it has occurred</p> <p>Involve mental health care team in patient management</p>

Alcohol and Substance Dependence

The trainee will be able to assess a patient seeking help for substance abuse, and formulate an appropriate management plan			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>Outline the pathophysiology of withdrawal syndromes</p> <p>Describe the medical, psychiatric and socio-economic consequences of alcohol and drug misuse</p> <p>Outline the measures taken to correct features of malnutrition, including vitamin and mineral supplementation</p> <p>Recall effects of alcohol and recreational drugs on cerebral function</p>	<p>Take a detailed medical and psychiatric history to identify physical or psychological dependence</p> <p>Examine patient to elicit complications of alcohol and substance misuse</p> <p>Obtain collateral history if possible</p> <p>Investigate as appropriate</p> <p>Practise safe prescribing of sedatives for withdrawal symptoms</p> <p>Detect and address other health issues: liver disease, malnutrition, wernicke's encephalopathy</p>	<p>Recognise the aggressive patient and manage appropriately</p> <p>Seek specialist advice when appropriate e.g. gastroenterology, intensive care, psychiatry</p>
Competency Level 2	<p>Cite local policy on service provision for in-patient and community detoxification</p> <p>Outline different sedative regimes for detoxification</p>	<p>Recognise the co-existence of psychiatric disease</p> <p>Formulate a management plan of co-existing medical problems for acute period of care</p>	<p>Identify need to counsel patient with regard of maintaining abstinence</p> <p>Liaise with psychiatric, GP and substance misuse teams as appropriate for ongoing community care</p>

Anxiety / Panic disorder

The trainee will be able to assess a patient presenting with features of an anxiety disorder and reach a differential diagnosis to guide investigation and management			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>Recall the main features of anxiety disorder</p> <p>Be familiar with national guidelines (e.g. NICE) on management of anxiety</p> <p>Elucidate the main categories of anxiety disorder: panic, generalised anxiety, phobias</p> <p>Recognise the role of depression in anxiety symptoms</p> <p>Recall organic disorders and medications than can mimic some features of anxiety disorder</p> <p>Outline broad treatment strategies for anxiety disorders</p>	<p>Assess a patient to detect organic illness</p> <p>Evaluate patient's mental state to categorise cause of symptoms as per national guidelines (e.g. NICE) on Anxiety</p>	<p>Recognise the chronicity of anxiety syndromes and the distress and disability they cause</p>
Competency Level 2	<p>Recognise the role of psychological and self help therapy in management</p> <p>Elucidate the principles of pharmacotherapy in the treatment of anxiety disorders</p>	<p>Recognise that atypical physical symptoms may herald an underlying anxiety disorder</p> <p>Involve primary care or mental health services as appropriate</p>	<p>Recommend initial treatment be undertaken in primary care setting</p> <p>Discuss with patient that the condition is treatable</p> <p>Advise patient on self-help strategies and support groups</p> <p>Share decision making with patient</p>

Bruising

The trainee will be able to assess a patient presenting with easy bruising to produce a valid differential diagnosis, investigate appropriately, formulate and implement a management plan			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>Outline the different types of easy bruising</p> <p>Identify the possible causes of easy bruising, depending on the site, age of the patient and details of the history, particularly in relation to prescribed medication</p> <p>State which first line investigations are required, depending on the likely diagnosis</p> <p>State the common clinical presentations of coagulation disorders</p>	<p>Order, interpret and act on initial investigations appropriately including blood tests, radiographs, microbiology investigations</p> <p>Initiate first line management in consultation with senior clinicians</p>	<p>Recognise the importance of a multidisciplinary approach</p> <p>Acknowledge anxiety caused by possible diagnosis of a serious blood condition</p> <p>Consult senior if there is concern bruising is manifestation of critical illness</p> <p>Recognise that trauma is an important cause of bruising and that bruising is a common problem in the elderly</p>
Competency Level 2	<p>Define the need for urgent investigations</p> <p>Identify differences in presentation between primary haematological causes of easy bruising and drug induced clotting disorders</p>	<p>Define a management plan for patients with acute coagulation disorders for the acute period of care</p> <p>Communicate with patients in whom easy bruising does not require admission</p>	<p>Demonstrate awareness of the serious consequences of a diagnosis of leukaemia</p> <p>Liaise closely with the haematology department in the early stages of the patient's care pathway</p>

Chance Findings

The trainee will be able to construct a management plan for patients referred by colleagues due to asymptomatic abnormal findings			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>Recall asymptomatic abnormal findings that may precipitate discussion with medical team: abnormal radiograph; accelerated hypertension; deranged blood tests (anaemia, calcium, urea and electrolytes, full blood count, clotting); proteinuria; microscopic haematuria; abnormal ECG; drug interactions and reactions</p> <p>State asymptomatic findings that warrant immediate assessment, admission and management</p>	<p>Elucidate finding and place it in context of particular patient</p> <p>Decide whether immediate assessment of patient is required, after discussion with senior colleague if uncertain</p> <p>Formulate an appropriate management plan for each scenario</p> <p>Order, interpret and act on further initial investigations appropriately</p> <p>Manage common metabolic presentations appropriately (hyper/hypokalaemia, hyper/hyponatraemia)</p>	<p>Refer non-urgent cases to either GP or appropriate specialist for out-patient review or investigation</p> <p>Recognise the non-specific modes by which serious illness may present</p> <p>Seek specialist advice when appropriate</p>
Competency Level 2	<p>Outline acute management for accelerated hypertension, including investigations into a secondary cause</p>	<p>Practise safe discharge planning</p> <p>Manage acute / accelerated hypertension appropriately</p>	<p>Coordinate with GP and specialist colleagues the most appropriate method of ongoing care</p>

Dialysis

The trainee will be aware of the principles, indications, and complications of Renal Replacement Therapy (RRT)			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>Outline the methods of RRT</p> <p>Elucidate the common complications of long term haemodialysis</p> <p>Recall the importance of sepsis in patients on RRT</p>	<p>Demonstrate ability to assess a patient on long term dialysis presenting to hospital to arrive at a valid differential diagnosis</p> <p>Order, interpret and act on initial investigations appropriately, recognising importance of full septic screen</p> <p>Commence initial management of patient if appropriate</p>	<p>Recognise importance of prompt senior and Renal Unit input in the management of patients on RRT</p> <p>Recognise the valuable insight patients on long term RRT have into the nature of their symptoms</p>
Competency Level 2	<p>Identify the importance of co-morbidities in patients on RRT</p>	<p>Place central venous dialysis catheter with meticulous aseptic technique</p>	<p>Involve Renal Unit for specialist input</p>
Competency Level 3	<p>Outline indications for haemofiltration as a temporary measure</p>		

Dyspepsia

The trainee will be able to assess a patient presenting with heartburn to produce a valid differential diagnosis, investigate appropriately, formulate and implement a management plan			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>Define dyspepsia and recall principle causes</p> <p>Recall the lifestyle factors that contribute to dyspepsia</p> <p>State the indications for endoscopy as stated in national guidelines (e.g. NICE)</p> <p>Recall indications, contraindications and side effects of acid suppression and mucosal protective medications</p> <p>Recall the role of H Pylori and its detection and treatment</p> <p>Define alarm symptoms of upper GI malignancy</p>	<p>Identify alarm symptoms indicating urgent endoscopy referral</p> <p>Investigate as appropriate: H pylori testing, endoscopy</p>	<p>Respect findings of previous endoscopy when patients have exacerbation of symptoms</p>
Competency Level 2	<p>Outline non-ulcer dyspepsia</p> <p>Outline indications for oesophageal pH monitoring and manometry</p> <p>Outline surgical procedures for acid reflux</p> <p>Outline Barrett's oesophagus and principles of management</p>	<p>Formulate management plan for peptic ulceration and non-ulcer dyspepsia for acute period of care</p> <p>Institute appropriate management: lifestyle advice; test and treat; endoscopy referral</p>	<p>Encourage patient to follow lifestyle advice, and use minimal effective doses of acid suppression medication</p> <p>Recognise National Guidelines on dyspepsia e.g. NICE</p>

Dysuria

The trainee will be able to assess a patient presenting with dysuria to produce a valid differential diagnosis, investigate appropriately, formulate and implement a management plan			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>Recall anatomy of the genito-urinary tract</p> <p>Elucidate the causes of dysuria in males and females</p> <p>Outline the pathophysiology of infective causes of urethritis</p> <p>Outline the principles of management</p>	<p>Take a full history, including features pertaining to sexual health</p> <p>Initiate appropriate treatment if appropriate</p> <p>Order, interpret and act on initial investigations</p>	<p>Recognise the need for specialist Genito-urinary input when appropriate</p> <p>Participate in sexual health promotion</p> <p>Use microbiology resources in the management of patients with dysuria when appropriate</p>
Competency Level 2	<p>Outline general measures to prevent recurrent urinary tract infection</p>	<p>Apply knowledge of local microbiological advice in commencing appropriate treatment</p>	<p>Recognise the need for Urological input in appropriate cases of Urinary Tract Infection</p>

Genital Discharge and Ulceration

The trainee will be able to assess a patient presenting with genital discharge or ulceration to produce a valid differential diagnosis, investigate appropriately, formulate and implement a management plan			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>List the disorders that can present with genital discharge</p> <p>List the disorders that can present with genital ulceration</p> <p>Outline the investigations necessary: urinalysis; urethral smear and culture in men; high vaginal and endo-cervical swab in women, genital skin biopsy</p>	<p>Take a full history that includes associated symptoms, sexual, menstrual and contraceptive history and details of previous STDs</p> <p>Perform full examination including inguinal lymph nodes, scrotum, male urethra, rectal examination, speculum</p> <p>Be able to pass a speculum competently and sensitively without discomfort to the patient</p>	<p>Recognise the re-emergence of sexually transmitted diseases</p> <p>Recognise the importance of contact tracing</p> <p>Promote safe sexual practices</p> <p>Advocate the presence of a chaperone during assessment</p>
Competency Level 2	<p>Outline the systemic modes of presentation of sexually transmitted diseases</p> <p>Outline the complications of untreated STDs</p> <p>Outline causes of non-infective urethritis</p> <p>Recall and recognise genital skin diseases including squamous cell carcinoma and lichen sclerosis</p>	<p>Formulate a management plan</p> <p>Prescribe appropriate anti-microbials after consultation with microbiology or genito-urinary medical team</p>	<p>Involve genito-urinary medical team as appropriate</p> <p>Recognise importance of offering screening of other sexually transmitted diseases following counselling: HIV, hepatitis, syphilis</p>

Haematuria

The trainee will be able to assess a patient with haematuria to produce a valid differential diagnosis, investigate appropriately, formulate and implement a management plan			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>Recall the anatomy of the urinary tract</p> <p>Outline the causes of microscopic and macroscopic haematuria</p> <p>Determine whether glomerular cause is likely, and indications for a nephrology opinion</p>	<p>Perform a focussed examination, including a rectal examination</p> <p>Demonstrate when a patient needs urological assessment and investigation</p> <p>Order, interpret and act on initial investigations such as: urine culture, cytology and microscopy; blood tests</p>	<p>Involve renal unit when rapidly progressive glomerulonephritis is suspected</p>
Competency Level 2	<p>Broadly outline the pathophysiology of glomerulonephritis</p> <p>Outline the indications for renal biopsy</p>	<p>Undertake appropriate investigations when glomerulonephritis is suspected</p> <p>Choose appropriate mode of imaging: USS, CT, IVP</p>	<p>Involve appropriate specialist colleagues when indicated</p> <p>Discuss with patient likely outcomes and prognosis of condition and requirement for long term review</p>

Haemoptysis

The trainee will be able to assess a patient presenting with haemoptysis to produce valid differential diagnosis, investigate appropriately, formulate and implement a management plan			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>Identify the common and life threatening causes of haemoptysis: bronchitis, pneumonia, PE and carcinoma</p> <p>Describe initial treatment including fluids and oxygen management</p>	<p>Perform a detailed history and physical examination to determine an appropriate differential diagnosis</p> <p>Order, interpret and act on initial investigations appropriately: routine bloods, clotting screen, chest radiograph and ECG, sputum tests</p> <p>Initiate treatment including indications for starting or withholding anticoagulants and antibiotics</p>	<p>Involve seniors and respiratory physicians as appropriate</p>
Competency Level 2	<p>Elucidate unusual causes of haemoptysis as indicated by presentation</p> <p>Define need for specialist investigations</p> <p>Identify indications for specialist investigations, eg bronchoscopy, CT chest, CT angiography, angiography</p>	<p>Formulate a thorough differential diagnosis, including systemic causes</p>	<p>Recognise need for timely specialist opinion including Respiratory, Renal and Rheumatology when appropriate</p> <p>Promote outpatient management under care of respiratory team when appropriate</p>

Head Injury

The trainee will be able to assess a patient with traumatic head injury, stabilise, admit to hospital as necessary and liaise with appropriate colleagues, recognising local and national guidelines (e.g. NICE)			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>Recall the pathophysiology of concussion</p> <p>Outline symptoms that may be present</p> <p>Outline the indications for hospital admission following head injury</p> <p>Outline the indications for urgent head CT scan as per national guidelines (e.g. NICE)</p> <p>Recall short term complications of head injury</p>	<p>Instigate initial management: ABC, cervical spine protection</p> <p>Assess and classify patient in terms of GCS and its derivative components (E,V,M)</p> <p>Take a focused history and a full examination to elicit signs of head injury and focal neurological deficit</p> <p>Manage short term complications, with senior assistance if required: seizures, airway compromise</p> <p>Advise nurses on appropriate frequency and nature of observations</p>	<p>Recognise advice provided by national guidelines on head injury (e.g. NICE)</p> <p>Ask for senior and anaesthetic support promptly in event of decreased consciousness</p> <p>Involve neurosurgical team promptly in event of CT scan showing structural lesion</p> <p>Recommend indications for repeat medical assessment in event of discharge of patient from hospital</p> <p>Participate in safe transfer procedures if referred to tertiary care</p>
Competency Level 2	<p>Outline the indications for MRI post head injury</p> <p>Recall the long term complications of head injury</p>	<p>Decide on appropriate venue of care: discharge, ward, HDU</p> <p>Practise safe discharge decisions</p>	<p>Recognise importance of multi-disciplinary rehabilitation following head injury</p> <p>Advise patient on possible chronic symptoms following head injury</p> <p>Advise indications for intubation and ventilation as per national guidelines (e.g. NICE)</p> <p>Recommend GP follow up routinely at one week following discharge from hospital</p>

Hoarseness and Stridor

The trainee will be able to assess a patient presenting with symptoms of upper airway pathology to produce a valid differential diagnosis, investigate appropriately, formulate and implement a management plan (see also 'wheeze')			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>Explain the mechanisms of hoarseness and stridor</p> <p>List the common and serious causes for hoarseness and stridor</p>	<p>Differentiate hoarseness, stridor and wheeze</p> <p>Assess severity: cyanosis, respiratory rate and effort</p> <p>Perform full examination, eliciting signs that may co-exist with stridor or hoarseness e.g. bovine cough, Horner's syndrome, other neurological signs, fever</p> <p>Order, interpret and act on initial investigations appropriately: blood tests, blood gas analysis, chest radiograph, flow volume loops, FEV₁/peak flow ratio</p>	<p>Involve senior and anaesthetic team promptly in event of significant airway compromise</p> <p>Involve specialist team as appropriate: respiratory team, ENT or neurological team</p>
Competency Level 2	<p>Outline the significance of the timing of the stridor within the respiratory cycle</p> <p>Outline the indications for further investigations: CT, laryngoscopy, MRI, lung function testing</p> <p>Outline use of helium/oxygen mixture for critical stridor</p>	<p>Initiate appropriate anti-microbial therapy if infective cause is suspected</p> <p>Formulate management plan for acute period of care</p> <p>Recognise potential need for urgent tracheostomy and liaise with appropriately skilled colleague promptly</p>	<p>Involve specialist teams as appropriate</p>

Hypothermia

The trainee will be able to assess a patient presenting with hypothermia to establish the cause, investigate appropriately, formulate and implement a management plan			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>Define hypothermia and its diagnosis</p> <p>Outline perturbations caused by hypothermia, including ECG and blood test interpretation</p> <p>List the causes of hypothermia</p> <p>List complications of hypothermia</p>	<p>Employ the emergency management of hypothermia as per ALS guidelines</p> <p>Correct any predisposing factors leading to hypothermia</p> <p>Request appropriate monitoring of the patient</p>	<p>Recognise the often multi-factorial nature of hypothermia in the elderly and outline preventative approaches</p> <p>Recognise seriousness of hypothermia and act promptly to re-warm</p> <p>Recognise that death can only usually be certified after re-warming</p>
Competency Level 2	<p>Differentiate submersion and immersion and outline the management of each</p> <p>Outline methods of rewarming in severe hypothermia</p>	<p>Recognise and treat the complications of hypothermia</p> <p>Prevent complications of hypothermia</p>	<p>Anticipate problems on discharge to prevent recurrence in consultation with multi-disciplinary team</p>

Immobility

The trainee will be able to assess a patient with immobility to produce a valid differential diagnosis, investigate appropriately, and produce a management plan			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>Describe the risk factors and causes of immobility</p> <p>Explain the role of multidisciplinary team</p> <p>Define the basic principles of rehabilitation</p> <p>Describe the conditions causing immobility which may be improved by treatment and or rehabilitation</p>	<p>Take appropriate and focussed collateral history from carers/family/GP</p> <p>Construct problem list following assessment</p> <p>Discuss the role of the multidisciplinary team in management of these patients</p> <p>Formulate appropriate management plan including medication, rehabilitation and goal setting.</p> <p>Identify conditions leading to acute presentation to hospital</p> <p>Order, interpret and act on relevant initial investigations appropriately to elucidate a differential diagnosis</p>	<p>Recognise the importance of a multidisciplinary approach and specialist referral as appropriate</p> <p>Display ability to discuss plans with patients and or carers</p> <p>Recognise the anxiety and distress caused to patient and carers by underlying condition and admission to hospital</p>
Competency Level 2	<p>Explain the methods for improving mobility in hospital and community</p> <p>Outline the local mechanisms available for managing patients with reduced mobility between primary and secondary care</p> <p>Describe the different interventions for helping with mobility and their appropriate place in management</p>	<p>Perform evaluation of functional status including ADL and cognitive status, mobility including gait and balance</p> <p>Identify key features in history and examination which may indicate an unusual or remediable cause for the immobility</p> <p>Discharge planning understanding of the resources available for older people within the community</p>	<p>Chair team meetings with goal setting and communication with patients and relatives sensitively</p> <p>Demonstrate ability to discuss and explain goals at an appropriate level to the patient and or carer and with empathy</p> <p>Demonstrate willingness to liaise with primary care and community services</p> <p>Describe appropriate use of rapid response teams, day hospital, hospital at home, long term care, respite care, step down/ step up facilities and home rehabilitation</p>

Involuntary Movements

The trainee will be able to assess a patient presenting with involuntary movements to produce a valid differential diagnosis, investigate appropriately, formulate and implement a management plan			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>Differentiate and outline the differential diagnoses of parkinsonism and tremor: be aware of myoclonus, and other less common movement disorders</p> <p>Outline the main drug groups used in the management of movement disorders</p>	<p>Assess including a full neurological examination to produce a valid differential diagnosis</p>	<p>Exhibit empathy when considering the impact to quality of life of patient and carers movement disorders can have</p> <p>Recognise importance of multi-disciplinary approach to management</p> <p>Recognise the importance of specialist referral</p>
Competency Level 2	<p>Outline the investigations indicated to reach a diagnosis</p>	<p>Formulate a management plan for acute period of care: social support, drugs, OT, physiotherapy</p>	<p>Recommend support services and patient organisations</p> <p>Involve specialist nurse / neurologist if appropriate</p>

Joint Swelling

The trainee will be able to assess a patient presenting with joint pain or swelling to produce a valid differential diagnosis, investigate appropriately, formulate and implement a management plan			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>Outline the generic anatomy of the different types of joint</p> <p>Differentiate mono-, oligo-, and polyarthritis and list principle causes for each</p> <p>Elucidate the importance of co-morbidities in the diagnosis of joint swelling</p> <p>Outline treatment options for chronic arthritides: disease modifying drugs, analgesia, physiotherapy</p>	<p>Recognise the importance of history for clues as to diagnosis</p> <p>Perform a competent physical examination of the musculo-skeletal system using both the GALS screening examination and the regional examination technique (REMS)</p> <p>Elicit and interpret extra-articular signs of joint disease</p> <p>Order, interpret and act on initial investigations appropriately: blood tests, radiographs, joint aspiration, cultures</p> <p>Perform knee aspiration using aseptic technique causing minimal distress to patient</p> <p>Interpret plain radiographs of swollen joints</p> <p>Practise safe prescribing of analgesics for joint disease</p>	<p>Recognise that monoarthritis calls for timely joint aspiration to rule out septic cause</p> <p>Recognise and facilitate the need for surgical intervention in septic arthritis</p> <p>Recognise importance of multi-disciplinary approach to joint disease: physio, OT, social services</p>
Competency Level 2	<p>Outline the clinically pertinent complications of diseases of the musculoskeletal system and their treatments</p>	<p>Recognise when joint swelling heralds the presentation of a systemic disease and treat appropriately</p>	<p>Involve rheumatology or orthopaedic team when indicated</p>

Lymphadenopathy

The trainee will be able to assess a patient presenting with lymphadenopathy to produce a valid differential diagnosis, investigate appropriately, formulate and implement a management plan			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>Outline the anatomy and physiology of the lymphatic system</p> <p>Recall the causes of generalised and local lymphadenopathy in terms of infective, malignant, reactive and infiltrative</p> <p>Outline the investigations indicated when tuberculosis is considered</p>	<p>Elicit associated symptoms and risk factors for the presence of diseases presenting with lymphadenopathy</p> <p>Examine to elicit the signs of lymphadenopathy and associated diseases</p> <p>Order, interpret and act on initial investigations appropriately</p> <p>Initiate treatment if appropriate</p>	<p>Recognise patient concerns regarding possible cause for lymphadenopathy</p> <p>Recognise the need for senior and specialist input</p> <p>Recognise the association of inguinal lymphadenopathy with STDs, assess and refer appropriately</p>
Competency Level 2	<p>Outline more specialised investigations as appropriate</p> <p>Outline the indications for lymph node biopsy</p> <p>Differentiate methods for obtaining lymphoid tissue</p>	<p>Perform a fine needle aspiration using aseptic technique with minimal discomfort to patient</p> <p>Formulate a management plan for acute period of care</p>	<p>Follow local and national guidance on notification of communicable diseases</p> <p>Break bad news to patient and family sensitively in event of serious diagnosis</p> <p>Recognise importance of a multi-disciplinary team in assessment and management of patients presenting with lymphadenopathy</p>

Loin Pain

The trainee will be able to assess a patient presenting with loin pain to produce a valid differential diagnosis, investigate appropriately, formulate and implement a management plan			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>List the common and serious causes of loin pain and renal colic</p> <p>Outline other symptoms that may classically accompany loin pain and renal colic</p> <p>Outline indications and contraindications for an urgent IVU</p>	<p>Elucidate risk factors for causes of loin pain</p> <p>Perform full examination to elicit signs of renal pathology</p> <p>Order, interpret and act on initial investigations appropriately: blood tests, urinalysis, urine culture and microscopy, radiographs, ultrasound</p> <p>Prescribe appropriate analgesia safely</p> <p>Commence appropriate antibiotics when infective cause is likely</p> <p>Recognise co-existing renal impairment promptly</p>	<p>Involve senior and renal team if there is associated renal impairment</p> <p>Involve urology team as appropriate</p> <p>Recognise local guidelines in prescribing antibiotics</p>
Competency Level 2	<p>List causes for acute papillary necrosis</p> <p>Outline indications for more specialised investigations: CT, urine cytology</p>	<p>Interpret more detailed investigations: IVU, abdominal ultrasound</p> <p>Identify scenarios in which referred pain is likely</p> <p>Formulate management plan for acute period of care</p>	<p>Involve other specialists as appropriate</p> <p>Recognise the importance of familial disorders in the origin of renal pain e.g. adult polycystic kidney disease</p>

Medical Complications During Acute Illness and Following Surgical Procedure

The trainee will be able to assess, investigate and treat medical problems arising post-operatively and during acute illness and recognise importance of preventative measures			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>List common medical complications occurring in post-operative and unwell patients and how they present</p> <p>Explain reasons for medical problems frequently presenting atypically post-operatively</p> <p>Recall investigations indicated in different scenarios: short of breath, chest pain, respiratory failure, drowsiness, febrile, collapse, GI bleed</p>	<p>Recognise critically ill patient and instigate resuscitative measures</p> <p>Assess patient with history and examination to form differential diagnosis</p> <p>Initiate treatment when appropriate in consultation with the surgical team</p> <p>Institute measures for thrombosis prophylaxis when appropriate, as per national or local guidelines</p>	<p>Recognise importance of thrombo-embolic complications and prophylaxis during acute illness and in post-operative period</p> <p>Recognise the importance of measures to prevent complications: DVT prophylaxis, effective analgesia, nutrition, physiotherapy, gastric protection</p> <p>Call for senior help when appropriate</p> <p>Respect opinion of referring surgical team</p>
Competency Level 2	<p>Identify factors which put patients at increased risk of developing medical complications of surgery and acute illness</p>	<p>Formulate diagnosis and a management plan for acute period of care</p> <p>Encourage preventative measures: thrombo-prophylaxis, physiotherapy, adequate analgesia</p>	<p>Involve surgical team in decision making processes</p>

Medical Problems in Pregnancy

The trainee will be competent in the assessment, investigation and management of the common and serious medical complications of pregnancy			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>Outline the normal physiological changes occurring during pregnancy</p> <p>List the common medical problems occurring in pregnancy</p> <p>Identify the unique challenges of diagnosing medical problems in pregnancy</p> <p>Recall safe prescribing practices in pregnancy</p>	<p>Recognise the critically ill pregnant patient, initiate resuscitation measures and liaise promptly with senior and obstetrician</p> <p>Take a valid history from a pregnant patient</p> <p>Examine a pregnant patient competently</p> <p>Produce a valid list of differential diagnoses</p> <p>Initiate treatment if appropriate</p>	<p>Recognise the importance of thrombo-embolic complication of pregnancy</p> <p>Communicate with obstetric team throughout the diagnostic and management process</p> <p>Discuss case with senior promptly</p> <p>Seek timely gastroenterology opinion in cases of significant jaundice</p>
Competency Level 2	<p>Elucidate the use of radiographs, CT and radio nucleotide scanning</p>	<p>Formulate a management for acute period of care: pre-eclampsia, eclampsia, suspected PE, infection, heart failure, diabetes mellitus, asthma, epilepsy</p>	<p>Recognise the importance of respiratory medicine input for thrombo-embolic disease</p> <p>Recognise that patients with long-term conditions need specialist medical input before and throughout the pregnancy</p> <p>Discuss with patient likely outcomes and prognosis of condition</p> <p>Seek expert advice when prescribing in pregnancy</p>

Memory Loss (Progressive)

The trainee will be able to assess a patient with progressive memory loss to determine severity, differential diagnosis, investigate appropriately, and formulate management plan			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>Define the clinical features of dementia that differentiate from focal brain disease, reversible encephalopathies, and pseudo-dementia</p> <p>List the principle causes of dementia</p> <p>Recall factors that may exacerbate symptoms: drugs, infection, change of environment, biochemical abnormalities, constipation</p>	<p>Take an accurate collateral history wherever possible</p> <p>Perform a full examination looking for reversible causes of cognitive impairment and neurological disease</p> <p>Demonstrate ability to use tools measuring cognitive impairment at the bedside</p> <p>Order, interpret and act on initial investigations appropriately to determine reversible cause such as: blood tests, cranial imaging, EEG</p> <p>Detect and rectify exacerbating factors</p>	<p>Demonstrate a patient sensitive approach to interacting with a confused patient and their carers</p> <p>Recognise that a change of environment in hospital can exacerbate symptoms and cause distress</p> <p>Recommend support networks to carers</p> <p>Participate in multi-disciplinary approach to care: therapists, elderly care team, old age psychiatrists, social services</p> <p>Consider need for specialist involvement</p>
Competency Level 2	<p>Outline causes for young onset chronic confusion or memory loss</p>	<p>Interpret assessment and investigations to make appropriate diagnosis of dementia</p>	<p>Involve neurologists or psychiatrists in elderly care when appropriate</p> <p>Recognise the legal implications of dementia</p>

Micturition (Difficult)

The trainee will be able to assess a patient presenting with difficulty in micturition to produce a valid differential diagnosis, investigate appropriately, formulate and implement a management plan			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>Outline causes of difficulty in micturating in terms of oliguria and urinary tract obstruction</p> <p>Recall techniques that allow oliguria and bladder outflow obstruction to be differentiated</p> <p>Recall the investigation and management of prostatic cancer</p>	<p>Examine to elicit signs of renal disease, bladder outflow obstruction and deduce volaemic status of patient</p> <p>Differentiate oliguric pre-renal failure; acute renal failure and post renal failure</p> <p>Order, interpret and act on initial investigations appropriately: urinalysis, abdominal ultrasound, bladder scanning, urine culture and microscopy</p> <p>Initiate treatment when indicated</p> <p>Perform catheterisation using aseptic technique with minimal discomfort to patient</p> <p>Recognise incipient shock and commence initial treatment</p>	<p>Recognise the importance of recognising and preventing renal impairment in the context of bladder outflow obstruction</p> <p>Liaise with senior in event of oliguria heralding incipient shock</p> <p>Liaise promptly with appropriate team when oliguria from bladder outflow obstruction is suspected (urology, gynaecology)</p>
Competency Level 2	<p>Outline indications for more detailed investigation: abdominal and pelvic ultrasound, CT, urine cytology, urodynamics</p> <p>Outline the use of drugs commonly used for prostatic symptoms</p>	<p>Recognise indications for supra-pubic catheterisation and refer appropriately</p> <p>Formulate management plan for acute period of care</p> <p>Recognise and manage complications of urinary catheterisation</p>	<p>Involve specialist teams appropriately</p> <p>Participate in multi-disciplinary approach to care of patients with long term or intermittent catheterisation</p>

Neck Pain

The trainee will be able to assess a patient presenting with neck pain to produce a valid differential diagnosis, investigate appropriately, formulate and implement a management plan			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	Outline the common and serious causes of neck pain in terms of meningism; tender mass; musculoskeletal; vascular	<p>Take a full history, including recent trauma</p> <p>Perform a full examination to elicit signs that may accompany neck pain</p> <p>Order, interpret and act on initial investigations appropriately: blood tests, plain radiographs, thyroid function</p> <p>Recognise meningitis and promptly initiate appropriate investigations and treatment with consultation with senior</p> <p>Practise appropriate prescribing of analgesia</p>	Consult senior colleague promptly in the event of focal neurological signs or critical illness
Competency Level 2	Outline indications for more specialised tests: CT, lumbar puncture, MRI	Formulate a management plan for the acute period of care	Involve other specialist teams as appropriate

Physical Symptoms in Absence of Organic Disease

The trainee will be able to assess and appropriately investigate a patient to conclude that organic disease is unlikely, counsel sensitively, and formulate an appropriate management plan			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	List symptoms that commonly have a non-organic component	<p>Take a full history, including associated symptoms of anxiety or depression and past medical assessments</p> <p>Perform full examination including mental state</p> <p>Recognise the hyperventilation syndrome</p>	<p>Adopt attitude that presentation has organic cause until otherwise proven, and assess and investigate as appropriate</p> <p>Consult senior promptly when appropriate</p> <p>Strive to establish underlying precipitants to non-organic presentations: life stresses, hypochondriacism</p> <p>Appreciate the implications of unnecessary tests in terms of cost and iatrogenic complications</p>
Competency Level 2	<p>Differentiate somatisation disorders from malingering</p> <p>Recognise the phenomenon of excessive symptoms in the context of established disease e.g. breathlessness in well controlled asthma</p>	<p>Safely determine after appropriate work up that a patient is likely have a non-organic cause for their presentation</p> <p>Identify underlying psychiatric disease: psychosis, depression, or anxiety</p> <p>Formulate a management plan for acute period of care</p>	<p>Recognise the pattern of repetition that non-organic presentations can have</p> <p>Respect the distress the mode of presentation may be causing</p> <p>Adopt a non-judgemental sensitive attitude when engaging in counselling a patient over the likelihood of non-organic disease</p> <p>Involve psychiatric services when appropriate</p> <p>Recognise the importance of the Primary Care team in assessment and management</p> <p>Recognise the cultural differences in somatoform disorders</p>

Polydipsia

The trainee will be able to assess a patient presenting with polydipsia to produce a valid differential diagnosis, investigate appropriately, formulate and implement a management plan			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>Understand mechanisms of thirst</p> <p>Identify common causes of polydipsia</p>	<p>Identify other pertinent symptoms e.g. nocturia</p> <p>Order, interpret and act on initial investigations appropriately</p> <p>Initiate adequate initial therapy</p>	<p>Sympathetically explain likely causes of polydipsia to patient</p> <p>Use appropriate aseptic techniques for invasive procedures and to minimise healthcare acquired infection.</p>
Competency Level 2	<p>Detailed knowledge of homeostatic mechanisms for fluid balance and defects that occur</p>	<p>Maintain appropriate basic therapy and introduce advanced treatment when required.</p>	<p>Seek specialist opinion from relevant specialist after cause for polydipsia determined when appropriate</p> <p>Communicate bad news sensitively and thoughtfully</p>

Polyuria

The trainee will be able to assess a patient presenting with polyuria to produce a valid differential diagnosis, investigate appropriately, formulate and implement a management plan			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>Define true polyuria</p> <p>Outline the causes of polyuria (in terms of osmotic, diabetes insipidus etc)</p> <p>Outline the pathophysiology of diabetes insipidus</p> <p>Elucidate the principles of treating new onset diabetes mellitus, hypercalcaemia</p>	<p>Identify other pertinent symptoms</p> <p>Perform full examination to assess volaemic status, and elicit associated signs</p> <p>Order, interpret and act on initial investigations appropriately</p> <p>Calculate and interpret serum and urine osmolarity</p> <p>Commence treatment as appropriate</p>	<p>Consult senior colleague as appropriate</p>
Competency Level 2	<p>Outline investigation and treatment of diabetes insipidus</p>	<p>Formulate a management plan for acute period of care</p> <p>Manage fluid balance in polyuric chronic renal failure and polyuric phase of acute renal failure</p>	<p>Involve specialist teams as appropriate</p>

Pruritus

The trainee will be able to assess a patient presenting with itch to produce a valid differential diagnosis, investigate appropriately, formulate and implement a management plan			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>Recall principle causes in terms of infestations, primary skin diseases, systemic diseases (e.g. lymphoma), liver disease, pregnancy</p> <p>Outline the principles of treating skin conditions</p> <p>Outline the indications of and side effects of topical steroids and differentiate their different potencies</p>	<p>Examine to elicit signs of a cause for pruritus</p> <p>Describe accurately any associated rash</p> <p>Formulate a list of differential diagnoses</p> <p>Order, interpret and act on initial investigations appropriately</p> <p>Recognise the presentation of skin cancer</p>	<p>Recognise the need for specialist dermatological input</p> <p>Recognise the need for other specialists in pruritus heralding systemic disease</p>
Competency Level 2	<p>Outline the indications for a skin biopsy</p>	<p>Formulate a management plan for acute period of care</p> <p>Prescribe symptomatic remedies</p>	<p>Advise on lifestyle measures to prevent dermatological disease</p>

Rectal Bleeding

The trainee will be able to assess a patient with rectal bleeding to identify significance differential diagnosis, investigate appropriately, formulate and implement a management plan			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>Recall the causes of bleeding per rectum</p> <p>Outline indications for surgical review</p> <p>Outline the treatments indicated in acute colitis</p>	<p>Perform examination including rectal examination</p> <p>Recognise and appropriately treat the shocked patient including consultation with surgical colleague</p> <p>Order, interpret and act on initial investigations appropriately</p> <p>Distinguish upper and lower GI bleeding</p>	<p>Liaise with senior and surgical team when appropriate</p> <p>Recognise role of IBD nurse when patient with known IBD presents</p>
Competency Level 2	<p>Recall indications for sigmoidoscopy / colonoscopy</p> <p>Outline possible imaging modalities: contrast studies, CT, angiography, capsule, endoscopy</p> <p>Define principle infective causes of rectal bleeding their treatments</p>	<p>Institute first line treatment when it is likely bleeding heralds an exacerbation of colitis: aminosalicylates, steroids, thrombosis prophylaxis</p>	<p>Involve gastroenterology and/or surgical teams promptly when indicated</p>

Skin and Mouth Ulcers

The trainee will be able to assess a patient presenting with skin or mouth ulceration to produce a valid differential diagnosis, investigate appropriately, formulate and implement a management plan (see also Dermatology in Section 2 for Skin Tumour competencies)			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>List the common and serious causes of skin (especially leg) or mouth ulceration</p> <p>Outline the classification of skin ulcers by cause</p> <p>Outline the pathophysiology, investigation and management principles of diabetic ulcers</p> <p>Recognise association between mouth ulceration and immunobullous disease</p>	<p>Recognise likely skin and oral malignancy</p> <p>Recognise life threatening skin rashes presenting with ulcers, commence treatment and involve senior</p> <p>Assess and formulate immediate management plan for diabetic foot ulceration</p> <p>Order, interpret and act on initial investigations appropriately</p>	<p>Recognise the importance of prevention of pressure ulcers and diabetic ulcers</p> <p>Participate in multi-disciplinary team: nurse specialists, podiatrist</p>
Competency Level 2	<p>Outline the indications for biopsy and immunofluorescence studies</p>	<p>Construct a comprehensive list of differential diagnoses</p> <p>Formulate a management plan for acute period of care</p>	<p>Involve specialist team as appropriate</p>

Speech Disturbance

The trainee will be able to assess a patient with speech disturbance to produce a valid differential diagnosis, investigate appropriately, formulate and implement a management plan			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>Define Dysphonia, dysarthria and dysphasia</p> <p>Recall the neuro-anatomy relevant to speech and language</p> <p>Differentiate receptive and expressive dysphasia</p> <p>List causes for dysphonia, dysarthria and dysphasia</p>	<p>Take a history from a patient with speech disturbance</p> <p>Examine patient to define nature of speech disturbance and elicit other focal signs</p> <p>List differential diagnoses following assessment</p> <p>Order, interpret and act on initial investigations appropriately</p>	<p>Recognise the role of speech and language therapy input</p> <p>Recognise the relationship between dysarthria and swallowing difficulties and advise patients and carers accordingly</p> <p>Involve stroke team or neurology promptly as appropriate</p>
Competency Level 2	<p>Outline more detailed investigations: neurophysiology, neuroimaging</p>	<p>Formulate a management plan for acute period of care</p>	<p>Discuss with patient likely outcomes and prognosis of condition and requirement for long term review</p>

Suicidal Ideation

The trainee will be able to take a valid psychiatric history to elicit from a patient suicidal ideation and underlying psychiatric pathology; assess risk; and formulate appropriate management plan			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>Outline the risk factors for a suicidal attempt</p> <p>Outline the common co-existing psychiatric pathologies that may precipitate suicidal ideation</p> <p>Outline the indications, contraindications and side effects of the major groups of psychomotor medications</p> <p>Outline the powers that enable assessment and treatment of patients following self harm or self harm ideation as defined in the Mental Health Act</p>	<p>Take a competent psychiatric history</p> <p>Be familiar with scoring tools to assess risk of further self harm (eg Beck's score)</p> <p>Elicit symptoms of major psychiatric disturbance</p> <p>Obtain collateral history when possible</p> <p>Recognise and manage appropriately anxiety and aggression</p>	<p>Liaise promptly with psychiatric services if in doubt or when high risk of repeat self harm is suspected</p> <p>Recognise the role of the Self Harm Team prior to discharge</p> <p>Ensure prompt communication is maintained with community care on discharge (GP, CPN)</p>
Competency Level 2	<p>Outline the principles of the relevant Mental Health Act</p>	<p>Discharge to appropriate setting patients who have been deemed to be at low risk of repeat suicidal attempt</p> <p>Formulate a management plan for patients with co-existing psychiatric disease: medications, counselling</p>	<p>Recognise the importance of ongoing input by health services following discharge</p>

Swallowing Difficulties

The trainee will be able to assess a patient with swallowing difficulties to produce a valid differential diagnosis, investigate appropriately, formulate and implement a management plan			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>Outline the physiology of swallowing</p> <p>Recall the causes of swallowing problems</p> <p>Differentiate between neurological and GI causes</p> <p>Outline investigative options: contrast studies, endoscopy, manometry, CT</p> <p>Outline the pathophysiology, staging, and therapeutic options of oesophageal malignancy</p> <p>Define odynophagia and list causes</p>	<p>Elicit valid history, detecting associations that indicate a cause: weight loss, aspiration, heartburn</p> <p>Examine a patient to elicit signs of neurological disease, malignancy and connective tissue disease</p> <p>Be able to evaluate whether patient is safe to eat or drink by mouth</p>	<p>Recognise importance of multi-disciplinary approach to management</p>
Competency Level 2	<p>Identify curative and palliative treatment options for oesophageal malignancy</p> <p>Outline treatment options in achalasia</p>	<p>Select appropriate initial mode of investigation</p>	<p>Liaise with gastroenterologist, neurologist or palliative care promptly as appropriate</p>

Syncope & Pre-syncope

The trainee will be able to assess a patient presenting with syncope to produce a valid differential diagnosis, investigate appropriately, formulate and implement a management plan (see also 'blackouts/collapse')			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>Define syncope</p> <p>Outline the pathophysiology of syncope depending on situation (vaso-vagal, cough, effort, micturition, carotid sinus hypersensitivity)</p> <p>Differentiate from other causes of collapse in terms of associated symptoms and signs, and eye witness reports</p> <p>Outline the indications for cardiac monitoring</p>	<p>Take thorough history from patient and witness to elucidate episode</p> <p>Differentiate pre-syncope from other causes of 'dizziness'</p> <p>Assess patient in terms of ABC and degree of consciousness and manage appropriately</p> <p>Perform examination to elicit signs of cardiovascular disease</p> <p>Order, interpret and act on initial investigations appropriately: blood tests ECG</p>	<p>Recognise impact episodes can have on lifestyle particularly in the elderly</p> <p>Recognise recommendations regarding fitness to drive in relation to syncope</p>
Competency Level 2	<p>Define the recommendations concerning fitness to drive</p> <p>Outline tests used in the investigation of syncope: ECHO, tilt table testing</p>	<p>Develop a management plan for acute period of care</p>	<p>Recognise the need for specialised input e.g. falls and syncope specialist</p> <p>Recognise problems specific to the elderly and address social needs</p>

Unsteadiness / Balance Disturbance

The trainee will be able to assess a patient presenting with unsteadiness or a disturbance of balance to produce a valid list of differential diagnoses, investigate appropriately, formulate and implement a management plan			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>Outline the neuro-anatomy and physiology relevant to balance, coordination and movement</p> <p>Define and differentiate types of vertigo and list causes</p> <p>Define and differentiate sensory and cerebellar ataxia and list causes</p>	<p>Take history from patient and attempt to define complaint as either pre-syncope, vertigo or unsteadiness</p> <p>Perform full physical examination to elicit signs of neurological, inner ear or cardiovascular disease including orthostatic hypotension</p> <p>Describe an abnormal gait accurately</p> <p>Recognise intoxication</p> <p>Initiate basic investigations and urgent treatment with vitamins when appropriate</p>	<p>Recognise the importance of multi-disciplinary approach: physio, OT</p>
Competency Level 2	<p>Outline more complex investigations: neuroimaging, neurophysiology, audiometry</p>	<p>Perform bedside tests for vertigo: the Hallpike manoeuvre</p> <p>Formulate a management plan for acute period of care</p>	<p>Involve appropriate specialists as indicated</p>

Visual Disturbance (diplopia, visual field deficit, reduced acuity)

To assess the patient presenting with a visual disturbance to produce a valid differential diagnosis, investigate appropriately, formulate and implement a management plan			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>Broadly outline the basic anatomy and physiology of the eye and the visual pathways</p> <p>Define the different types of visual field defect and list common causes</p> <p>Define diplopia and list common causes</p> <p>List common causes for reduced visual acuity</p>	<p>Perform full examination including acuity, eye movements, visual fields, fundoscopy, related cranial nerves and structures of head & neck</p> <p>Formulate differential diagnosis</p> <p>Order, interpret and act on initial investigations appropriately</p>	<p>In case of acute visual loss recognise early requirement for review by Ophthalmology team</p> <p>Recognise rapidly progressive symptoms and consult senior promptly</p> <p>Recognise anxiety acute visual symptoms invoke in patients</p>
Competency Level 2	<p>Outline indications for more specialised investigation: neuroimaging, visual evoked potentials, lumbar puncture, optometry assessment</p> <p>Outline implications for driving of visual field loss</p>	<p>Produce comprehensive differential diagnosis</p> <p>Formulate management plan for acute period of care</p>	<p>Involve specialists appropriately: ophthalmology, neurology, neurosurgery, stroke team</p>

Weight Loss

The trainee will be able to assess a patient presenting with unintentional weight loss to produce a valid differential diagnosis, investigate appropriately, formulate and implement a management plan			
	Knowledge	Skills	Attitudes and Behaviour
Competency Level 1	<p>List the common causes for weight loss (in terms of psychosocial, neoplasia, gastroenterological etc)</p> <p>Outline the indications and complications for nutritional supplements, and enteral feeding including PEG/NG feeding</p>	<p>Take a valid history highlighting any risk factors for specific disorders presenting with weight loss, and a thorough social history</p> <p>Examine fully to elucidate signs of disorders presenting with weight loss, and also assess degree of malnutrition</p> <p>Order, interpret and act on initial screening investigations</p> <p>Initiate nutritional measures including enteral preparations when appropriate</p> <p>Pass a fine bore NG feeding tube and ensure correct positioning</p>	<p>Recognise multi-factorial aspect of weight loss, especially in the elderly</p> <p>Recognise prominence of psychosocial factors, with collateral history where possible</p> <p>Liaise with nutritional services appropriately</p>
Competency Level 2	<p>Outline more detailed investigations depending on context e.g. coeliac serology</p> <p>Outline indications and complications of parenteral feeding</p>	<p>Order, interpret and act on serological tests as a guide of degree of malnutrition in severe weight loss: e.g. phosphate, trace elements, albumin, iron studies</p> <p>Recognise and treat re-feeding syndrome</p>	<p>Involve specialist teams appropriately: gastroenterology, elderly care, psychiatry</p> <p>Recommend nutritional advice with the support of nutritional services, including adequate social support</p>

Part 2.2: System Specific Competencies

This curriculum has described the competencies required to practise GIM (Acute) in a patient-centred way by listing the common ways in which a patient can present. In so doing, certain important competencies have not been mentioned. This section considers each system in turn, alphabetically, and lists the competencies, clinical conditions and clinical science required for each system. However, it is not intended that this is a description of the specialties in which these competencies are to be attained. For example, experience of asthma can be gained in the community, emergency setting and many medical wards, rather than solely on a respiratory ward.

Common and / or Important Problems

Learning to manage each mode of presentation does not avoid the need for a trainee to have a solid grounding of knowledge in specific medical conditions. It is also the case that patients very often already have a 'diagnostic label', for example a GP referring 'a breathless patient with heart failure'. In the age of better patient education and patient involvement in their chronic disease management, frequently today's clinician needs to refer to disease-specific knowledge earlier in the consultation.

Therefore, listing the specific conditions aims to advise the trainee on the conditions that require detailed comprehension. The list also gives a guide to the topics that will form the basis for formal and work-place assessments.

A framework for the knowledge required for specific conditions is set out below, and should continue to improve with time in line with the principles of a spiral curriculum:

- Definition
- Pathophysiology
- Epidemiology
- Features of History
- Examination findings
- Differential Diagnosis
- Investigations indicated
- Detailed initial management and principles of ongoing management (counselling, lifestyle, medical, surgical, care setting and follow up)
- Complications
- Prevention (where relevant to condition)

Clinical science

As trainees proceed through training they must pass formal summative assessments, the most notable of which is the MRCP(UK) examination. Part 1 of this examination in particular investigates knowledge of the science that underpins clinical medicine. This section of the curriculum defines the broad areas of clinical science that the trainee is expected to recall. This encourages a trainee's deeper learning of some of the clinical concepts that have already been described in this curriculum, and offers an insight into the content of knowledge-based assessments.

Allergy

Competencies

- Recognise when specialist allergy opinion is required.
- Be aware of the management and subsequent investigation of patients presenting with immune mediated medical emergencies: anaphylaxis, laryngoeedema, urticaria, angioedema

Common or Important Allergy Problems

- Anaphylaxis
- Recognition of common allergies; introducing occupation associated allergies
- Food, drug, latex, insect venom allergies
- Urticaria and angioedema
- Indications and contraindications for, and therapeutic scope of allergen immunotherapy
- Indications for, and limitations of skin prick testing and in vitro tests for allergen-specific IgE

Clinical Science

- Mechanisms of allergic sensitisation: primary and secondary prophylaxis
- Natural history of allergic diseases
- Mechanisms of action of anti-allergic drugs and immunotherapy
- Principles and limitations of allergen avoidance

Cancer and Palliative Care

Competencies

- Take an accurate pain history
- Perform full physical examination without causing undue pain or distress to patient
- Recognise the terminally ill often present with problems with multi-factorial causes
- Recognise associated psychological and social problems
- Investigate appropriately
- Recognise when specialist oncology or palliative care opinion is needed
- Outline treatment principles with drawbacks: surgery, chemotherapy and radiotherapy
- Break bad news to patient and family with cancer in sensitive and appropriate manner
- Contribute to discussions on decisions not to resuscitate with patient, carers, family and colleagues appropriately and sensitively ensuring patients interests are paramount
- Recognise the dying phase of terminal illness
- Manage symptoms in dying patients appropriately
- Practise safe use of syringes drivers
- Recognise importance of hospital and community Palliative Care teams
- Recognise that referral to specialist palliative care is appropriate for patients with other life threatening illnesses, as well as those with cancer

Common or Important Oncology Problems:

- Hypercalcaemia
- SVC obstruction
- Spinal cord compression
- Neutropenic sepsis
- Common cancers (presentation, diagnosis, staging, treatment principles): lung, bowel, breast, prostate, stomach, oesophagus, bladder)

Common or Important Palliative Care Problems:

- Pain: appropriate use, analgesic ladder, side effects, role of radiotherapy
- Constipation
- Breathlessness
- Nausea and vomiting
- Anxiety and depressed mood

Clinical Science:

- Principles of oncogenesis and metastatic spread
- Apoptosis
- Principles of staging
- Principles of screening
- Pharmacology of major drug classes in palliative care: anti-emetics, opioids, NSAIDs, agents for neuropathic pain, bisphosphonates, laxatives, anxiolytics

Cardiovascular Medicine

Competencies

- Recognise when specialist Cardiology opinion is indicated
- Outline risk factors for cardiovascular disease
- Counsel patients on risk factors for cardiovascular disease
- Outline methods of smoking cessation of proven efficacy (see below)

Common and / or important Cardiac Problems:

- Arrhythmias
- Ischaemic Heart Disease: acute coronary syndromes, stable angina, atherosclerosis
- Heart Failure
- Hypertension – including investigation and management of accelerated hypertension
- Valvular Heart Disease
- Endocarditis
- Aortic dissection
- Syncope
- Dyslipidaemia

Clinical Science:

- Anatomy and function of cardiovascular system
- Physiological principles of cardiac cycle and cardiac conduction
- Homeostasis of the circulation
- Atherosclerosis
- Pharmacology of major drug classes: beta blockers, alpha blockers, ACE inhibitors, ARBs, anti-platelet agents, thrombolysis, inotropes, calcium channel antagonists, potassium channel activators, diuretics, anti-arrhythmics, anti-coagulants, lipid modifying drugs, nitrates, centrally acting anti-hypertensives

Clinical Genetics

Competencies

- Recognise the organisation and role of Clinical Genetics and when to seek specialist advice
- Take and interpret a complete family history
- Recognise the anxiety caused to an individual and their family when investigating genetic susceptibility to disease
- Recognise the importance of skilled counselling in the investigation of genetic susceptibility to disease
- Recognise basic patterns of inheritance
- Understand the ethical implications of molecular testing and screening: confidentiality, screening children, pre-symptomatic testing
- Estimate risk for relatives of patients with mendelian disease
- Recognise the differing attitudes and beliefs towards inheritance

Common and / or Important problems:

- Down syndrome
- Turner syndrome
- Huntington disease
- Haemochromatosis
- Marfan syndrome
- Klinefelter syndrome
- Familial cancer syndromes
- Familial cardiovascular disorders

Clinical Science:

- Structure and function of human cells, chromosomes, DNA, RNA and cellular proteins
- Principles of inheritance: mendelian, sex-linked, mitochondrial
- Principles of pharmacogenetics
- Principles of mutation, polymorphism, trinucleotide repeat disorders
- Principles of genetic testing including metabolite assays, clinical examination and analysis of nucleic acid (e.g. PCR)

Clinical Pharmacology

Competencies

- Practise safe prescribing
 - Effects of: renal or liver impairment; old age; pregnancy
 - Outline importance of drug interactions and role CYP450 isoenzymes
 - Outline drugs requiring therapeutic monitoring
- Use national and local guidelines on appropriate and safe prescribing (BNF, NICE)
- Write a clear and unambiguous prescription
- Engage patients in discussions on drug choice, and side effects
- Recognise range of adverse drug reactions to commonly used drugs
- Use Yellow Card report scheme for adverse drug reactions
- Liaise effectively with pharmacists
- Discuss therapeutic changes with patient and discuss with GP promptly and comprehensively
- Competently formulate management plan for poisoning and adverse drug reactions
- Demonstrate appropriate use of a toxicology database (eg Toxbase)
- Calculate glomerular filtration rate

Common and / or Important problems:

- Corticosteroid treatment: short and long-term complications, bone protection, safe withdrawal of corticosteroids, patient counselling regarding avoid adrenal crises
- Specific treatment of poisoning with:
 - Aspirin,
 - Paracetamol
 - Tricyclics anti-depressants
 - Beta-blockers
 - Carbon monoxide
 - Opiates
 - Digoxin
 - Benzodiazepines
 - SSRI

Clinical Science:

- Drug actions at receptor and intracellular level
- Principles of absorption, distribution, metabolism and excretion of drugs
- Effects of genetics on drug metabolism
- Pharmacological principles of drug interaction
- Outline the effects on drug metabolism of: pregnancy, age, renal and liver impairment

Dermatology

Competencies

- Accurately describe skin lesions following assessment
- Skin Tumours
 - Outline the clinical features and presentation of melanoma, squamous cell carcinoma and basal cell carcinoma
 - List diagnostic features for the early detection of malignant melanoma
 - Recognise and manage suspected skin tumours when they may be an incidental finding
 - Recognise the association between timely biopsy / excision of melanoma and survival
 - Arrange prompt skin biopsy when appropriate
 - Counsel patients on preventative strategies for skin tumours (e.g. avoiding excess UV exposure); and the diagnostic features for the early detection of malignant melanoma
- Recognise when specialist Dermatology opinion is indicated
- Recognise when a patient's presentation heralds a systemic disease
- Suspect and treat meningococcal septicaemia when a purpuric rash accompanies systemic illness

Common and / or Important Problems:

- Cellulitis
- Cutaneous drug reactions
- Psoriasis and eczema
- Skin failure: eg erythryoderma, toxic epidermal necrolysis
- Urticaria and angio-oedema
- Cutaneous vasculitis
- Herpes zoster and Herpes Simplex infections
- Skin tumours (see above for more specific competencies)
- Skin infestations
- Dermatomyositis
- Scleroderma
- Lymphoedema

Clinical Science:

- Structure and function of skin, hair and nails
- Pharmacology of major drug classes: topical steroids, immunosuppressants

Diabetes & Endocrine Medicine

Competencies

- Elucidate a full diabetic medical history

- Recall diagnostic criteria for Diabetes Mellitus
- Assess diabetic patient to detect long term complications
- Formulate and appropriate management plan, including newly diagnosed and established diabetic patients to prevent short and long term complications
- Outline common insulin regimes for type 1 diabetes
- Outline drug management of type 2 diabetes: oral hypoglycaemics, glitazones, primary and secondary vascular preventative agents
- Recognise vital importance of patient education and a multidisciplinary approach for the successful long-term care of diabetes
- Recognise when specialist Endocrine or Diabetes opinion is indicated

Common and / or Important Diabetes Problems:

- Diabetic ketoacidosis
- Non-acidotic hyperosmolar coma / severe hyperglycaemia
- Hypoglycaemia
- Care of the acutely ill diabetic
- Peri-operative diabetes care

Common or Important Endocrine Problems:

- Hyper/Hypocalcaemia
- Adrenocortical insufficiency
- Hyper/Hyponatraemia
- Thyroid dysfunction
- Dyslipidaemia
- Endocrine emergencies: myxoedema coma, thyrotoxic crisis, Addisonian crisis, hypopituitary coma, pheochromocytoma crisis

Clinical Science:

- Structure and function of hypothalamus, pituitary, thyroid, adrenals, gonads, parathyroids, pancreas
- Outline the structure and function of hormones
- Principles of hormone receptors, action, secondary messengers and feedback
- Pharmacology of major drug classes: insulin, oral antidiabetics, thyroxine, anti-thyroid drugs, corticosteroids, sex hormones, drugs affecting bone metabolism

Gastroenterology and Hepatology

Competencies

- Understand the role of specialised diagnostic and therapeutic endoscopic procedures
- Recognise when specialist Gastroenterology or Hepatology opinion is indicated
- Recognise when a patient's presentation heralds a surgical cause and refer appropriately
- Perform a nutritional assessment and address nutritional requirements in management plan
- Outline role of specialist multi-disciplinary nutrition team

Common or Important Problems:

- Peptic Ulceration and Gastritis
- Gastroenteritis
- GI malignancy (oesophagus, gastric, hepatic, pancreatic, colonic)
- Inflammatory bowel disease
- Iron Deficiency anaemia
- Acute GI bleeding
- Acute abdominal pathologies: pancreatitis, cholecystitis, appendicitis, leaking abdominal aortic aneurysm
- Functional disease: irritable bowel syndrome, non-ulcer dyspepsia
- Coeliac disease
- Alcoholic liver disease
- Alcohol withdrawal syndrome
- Acute liver dysfunction: jaundice, ascites, encephalopathy
- Liver cirrhosis
- Gastro-oesophageal reflux disease
- Nutrition: indications, contraindications and ethical dilemmas of nasogastric feeding and PEG tubes, IV nutrition, re-feeding syndrome
- Parenteral feeding
- Gall stones
- Viral hepatitis
- Auto-immune liver disease
- Pancreatic cancer

Clinical Science:

- Structure and function of salivary glands, oesophagus, stomach, small bowel, colon, rectum, liver, biliary system, pancreas
- Principles of the physiology of alimentary tract: motility, secretion, digestion, absorption
- Bile metabolism
- Principles of action of liver
 - Laboratory markers of liver, pancreas and gut dysfunction
 - Pharmacology of major drug classes: acid suppressants, anti-spasmodics, laxatives, anti-diarrhoea drugs, aminosalicylates, corticosteroids, immunosuppressants, infliximab, pancreatic enzyme supplements

Haematology

Competencies

- Recognise when specialist Haematology opinion is indicated
- Practise safe prescribing of blood products, including appropriate patient counselling
- Outline indications, contraindications, side effects and therapeutic monitoring of anticoagulant medications

Common and / or Important Problems:

- Bone marrow failure: causes and complications
- Bleeding disorders: DIC, haemophilia
- Thrombocytopaenia
- Anticoagulation treatment: indications, monitoring, management of over-treatment
- Transfusion reactions
- Anaemia: iron deficient, megaloblastic, haemolysis, sickle cell,
- Thrombophilia: classification; indications and implications of screening
- Haemolytic disease
- Myelodysplastic syndromes
- Leukaemia
- Lymphoma
- Myeloma
- Myeloproliferative disease
- Inherited disorders of haemoglobin (sickle cell disease, thalassaemias)
- Amyloid
- Principles of Bone Marrow Transplantation

Clinical Science:

- Structure and function of blood, reticuloendothelial system, erythropoietic tissues
- Haemoglobin structure and function
- Haemopoiesis
- Metabolism of iron, B12 and folate
- Coagulation

Immunology

Competencies

- Recognise the role of the Clinical Immunologist

Common or Important Problems:

- Anaphylaxis (see also 'Allergy')

Clinical Science:

- Structure and function of reticuloendothelial system
- Innate and adaptive immune responses
- The Complement System: structure and function
- Principles of Hypersensitivity
- Principles of transplantation

Infectious Diseases

Competencies

- Elucidate risk factors for the development of an infectious disease including contacts, travel, animal contact and sexual history
- Recognise when specialist Microbiology or Infectious Diseases opinions are indicated
- Recognise when a patient is critically ill with sepsis, promptly initiate treatment and liaise with critical care and senior colleagues
- Outline spectrum of cover of common anti-microbials, recognising complications of inappropriate use
- Use local anti-microbial prescribing guidelines, including therapeutic drug monitoring when indicated
- Recognise importance of immunisation and Public Health in infection control, including reporting notifiable diseases
- Outline principles of prophylaxis eg anti-malarials

Common and / or Important Problems:

- Fever of Unknown origin
- Complications of sepsis: shock, DIC, ARDS
- Common community acquired infection: LRTI, UTI, skin and soft tissue infections, viral exanthema, gastroenteritis
- CNS infection: meningitis, encephalitis, brain abscess
- Imported fever
- HIV and AIDS including ethical considerations of testing
- Infections in immuno-compromised host
- Tuberculosis
- Anti-microbial drug monitoring
- Endocarditis
- Common genito-urinary conditions: non-gonococcal urethritis, gonorrhoea, syphilis

Clinical Science:

- Mechanisms of organism pathogenesis
- Host response to infection
- Principles of vaccination
- Pharmacology of major drug classes: penicillins, cephalosporins, tetracyclines, aminoglycosides, macrolides, sulphonamides, quinolones, metronidazole, anti-tuberculous drugs, anti-fungals, anti-malarials, anti-helminthics, anti-virals

Medicine in the Elderly

Competencies

- Elucidate in older patients co-morbidities, activities of daily living, social support, drug history and living environment
- Assess mental state and tests of cognitive function
- Recognise the frequent presence of multiple factors contributing to presentation
- Recognise when specialist Medicine in the Elderly opinion is indicated
- Recognise importance of multi-disciplinary assessment
- Contribute to effective multi-disciplinary discharge planning
- Perform a nutritional assessment and address nutritional requirements in management plan
- Set realistic rehabilitation targets
- Rationalise individual drug regimens to avoid unnecessary poly-pharmacy
- Contribute to discussions on decisions not to resuscitate with patient, carers, family and colleagues appropriately, and sensitively ensuring patients interests are paramount
- Recognise the role of Intermediate Care, and practise prompt effective communication with these facilities
- Recognise the often multi-factorial causes for clinical presentation in the elderly and outline preventative approaches
- Recognise that older patients often present with multiple problems (e.g. falls and confusion, immobility and incontinence)

Common or Important Problems:

- Deterioration in mobility
- Acute confusion
- Stroke and transient ischaemic attack
- Falls
- Age related pharmacology
- Hypothermia
- Continence problems
- Dementia
- Movement diseases including parkinson's disease
- Depression in the elderly
- Osteoporosis
- Malnutrition
- Osteoarthritis

Clinical Science:

- Effects of ageing on the major organ systems
- Normal laboratory values in older people

Musculoskeletal System

Competencies

- Accurately describe the examination features of musculoskeletal disease following full assessment
- Recognise when specialist Rheumatology opinion is indicated
- Outline the indications, contraindications and side effects of the major immunosuppressive drugs used in rheumatology including corticosteroids
- Recognise the need for long term review in many cases of rheumatological disease and their treatments
- Recognise importance of eg multidisciplinary approach to rheumatological disease including physio, OT
- Use local / national guidelines appropriately e.g. osteoporosis

Common or Important Problems:

- Septic arthritis
- Rheumatoid arthritis
- Osteoarthritis
- Seronegative arthritides
- Crystal arthropathy
- Osteoporosis – risk factors, and primary and secondary prevention of complications of osteoporosis
- Polymyalgia and temporal arteritis
- Acute connective tissue disease: systemic lupus erythematosus, scleroderma, poly- and dermatomyositis, Sjogren's syndrome, vasculitides

Clinical Science:

- Structure and function of muscle, bone, joints, synovium
- Bone metabolism
- Pharmacology of major drug classes: NSAIDs, corticosteroids, immunosuppressants, colchicines, allopurinol, bisphosphonates

Neurology

Competencies

- Define the likely site of a lesion within the nervous system following full assessment
- Recognise when specialist Neurology opinion is indicated
- Recognise when a patient's presentation heralds a neurosurgical emergency and refer appropriately

Common or Important Problems:

- Acute new headache
- Stroke and transient ischaemic attack
- Sub-arachnoid haemorrhage
- Coma

- Central Nervous System infection: encephalitis, meningitis, brain abscess
- Raised intra-cranial pressure
- Sudden loss of consciousness including seizure disorders (see also above syncope etc)
- Acute paralysis: Guillian Barre, myasthenia gravis, spinal cord lesion
- Multiple sclerosis
- Motor neurone disease

Clinical Science:

- Structure and function of the central, peripheral and sympathetic nervous systems
- Physiology of nerve conduction
- Principles of neurotransmitters
- Structure and physiology of visual, auditory, and balance systems
- Cerebral automaticity
- Anatomy of cerebral blood supply
- Brain death
- Pathophysiology of pain
- Speech and language
- Pharmacology of major drug classes: anxiolytics, hypnotics inc. benzodiazepines, anti-epileptics, anti-parkinson drugs (anti-muscarinics, dopaminergics)

Psychiatry

Competencies

- Be able to take a full medical and relevant psychiatric history
- Be able to perform a mental state examination
- Recognise when specialist Psychiatric opinion is indicated
- Recognise when a patient's presentation heralds organic illness and manage appropriately
- Recognise role of community mental health care teams

Common and /or Important Problems:

- Suicide and parasuicide
- Acute psychosis
- Substance dependence
- Depression

Clinical Science:

- Structure and function of limbic system and hippocampus
- Principles of substance addiction, and tolerance
- Principles of neurotransmitters
- Pharmacology of major drug classes: anti-psychotics, lithium, tricyclic antidepressants, mono-amine oxidase inhibitors, SSRIs, venlafaxine, donepezil, drugs used for addiction (bupropion, disulpharam, acamprosate, methadone)

Public Health & Health Promotion

Competencies

- **Smoking**
 - Outline the effects of smoking on health
 - Promote smoking cessation
 - Recognise the need for support during cessation attempts
 - Recognise and utilise specific Smoking Cessation health professionals
- **Alcohol**
 - Recall safe drinking levels
 - Recognise the health and psychosocial effects of alcohol
 - Recommend support networks for problem drinkers
 - Outline appropriate detoxification programme and methods to retain abstinence
- **Obesity**
 - Recognise medical impact of obesity
 - Outline good dietary practices
 - Promote regular exercise
 - Recommend specialist dietician input as appropriate
 - Define principles of therapeutic interventions in morbid obesity
- **Nutrition**
 - Recognise the public health problem of poor nutrition
 - Perform basic nutritional assessment
 - Identify patients with malnutrition and instigate appropriate management
 - Recognise importance of dietician input and follow-up
 - Define principles of enteral and parenteral feeding
 - Outline the ethical issues associated with nutrition
- **Sexual behaviour**
 - Promote safe sexual practices
- **Substance abuse**
 - Recognise the health and psychosocial effects of substance abuse
 - Recommend support networks
- **Social Deprivation**
 - Recognise the impact of social deprivation on health
- **Occupation**
 - Recognise the impact of occupation on health
 - Outline the role of Occupational Health consultants
- **Exercise**
 - Define the health benefits of regular exercise
 - Promote regular exercise

- **Mental Health**
 - Recognise the interaction of mental and physical health
 - Recommend appropriate treatment and support facilities

Renal Medicine

Competencies

- Formulate a differential diagnosis for the patient following assessment
- Formulate and appropriate management plan
- Discuss with patient likely outcomes and prognosis of condition and requirement for long term review
- Differentiate pre-renal failure, renal failure and urinary obstruction
- Recognise when specialist Nephrology or Urology opinion is indicated
- Identify patients who are at high risk of renal dysfunction in event of illness or surgery, and institute preventative measures

Common and / or Important Problems:

- Acute renal failure
- Chronic renal failure
- Glomerulonephritis
- Nephrotic syndrome
- Urinary tract infections
- Urinary Calculus
- Renal replacement therapy
- Disturbances of potassium, acid/base, and fluid balance (and appropriate acute interventions)

Clinical Science:

- Structure and function of the renal and urinary tract
- Homeostasis of fluid, electrolytes and acid base
- Urine composition
- Measurement of renal function
- Metabolic perturbations of acute, chronic, and end-stage renal failure and associated treatments

Respiratory Medicine

Competencies

- Recognise when specialist Respiratory opinion is indicated
- Safe oxygen prescribing
- Principles of short and long term oxygen therapy
- Outline the different delivery systems for respiratory medications

- Outline methods of smoking cessation of proven efficacy
- Counsel patients in smoking cessation appropriately
- Take a thorough Occupational History to identify risk factors for lung disease

Common and / or Important Respiratory Problems:

- COPD
- Asthma
- Pneumonia
- Pleural disease: Pneumothorax, pleural effusion, mesothelioma
- Lung Cancer
- Respiratory failure and methods of respiratory support
- Pulmonary embolism and DVT
- Tuberculosis
- Interstitial lung disease
- Obstructive sleep apnoea
- Cystic fibrosis
- Bronchiectasis
- Respiratory failure and cor pulmonale
- Pulmonary hypertension

Clinical Science:

- Anatomy and function of respiratory system (airways, lungs, chest wall)
- Physiology of gas exchange: ventilation, perfusion, ventilation and perfusion matching
- Acid-base homeostasis
- Principles of lung function measurement
- Pharmacology of major drug classes: bronchodilators, inhaled corticosteroids, leukotriene receptor antagonists, immunosuppressants

Part 2.3: Investigation Competencies

Listed below are the investigations that the trainee is expected to be able to outline the indications for and interpret by the end of Core Medical Training. The second list on page 96 states the investigations that the trainee should know the indications for, and how the investigation is carried out. A detailed interpretation is not expected, as these investigations usually require specialist interpretation (eg histology, radiology). However, the reports of such tests should be interpreted in the clinical context.

Outline the Indications for, and Interpret the Following Investigations:

Biochemistry

- Basic blood biochemistry: urea and electrolytes, liver function tests, bone biochemistry, glucose, magnesium
- Cardiac biomarkers and cardiac-specific troponin
- Creatine kinase
- Thyroid function tests
- Inflammatory markers: CRP / ESR
- Arterial Blood Gas analysis
- Cortisol and short Synacthen test
- HbA1C
- Lipid profile
- Amylase
- Drug levels: paracetamol, salicylate, digoxin, antibiotics, anti-convulsants

Haematology

- Full blood count
- Coagulation screen
- Haemolysis screen
- D dimer
- Blood film report
- Haematinics

Microbiology / Immunology

- Blood / Sputum / urine culture
- Fluid analysis: pleural, cerebro-spinal fluid, ascitic
- Urinalysis and urine microscopy
- Auto-antibodies
- H. Pylori testing

Radiology

- Chest radiograph
- Abdominal radiograph
- Joint radiographs (knee, hip, hands, shoulder, elbow, dorsal spine, ankle)

Physiological

- ECG
- Peak flow tests
- Full lung function tests

Outline Principles of the Following Investigations:

Biochemistry

- Urine catecholamines
- Sex hormones (FSH, LH, testosterone, oestrogen and progesterone) & Prolactin
- Specialist endocrine suppression or stimulation tests (dexamethasone suppression test; insulin tolerance test; water deprivation test, glucose tolerance test and growth hormone)

Microbiology / Immunology

- Coeliac serology screening
- Viral hepatitis serology
- Myeloma screen
- Stool testing
- HIV testing

Radiology

- Ultrasound
- Detailed imaging: Barium studies, CT, CT pulmonary angiography, high resolution CT, MRI
- Imaging in endocrinology (thyroid, pituitary, adrenal)
- Renal imaging: ultrasound, KUB, IVU, CT

Physiological

- Echocardiogram
- 24 hour ECG monitoring
- Ambulatory blood pressure monitoring
- Exercise tolerance test
- Cardiac perfusion scintigraphy
- Tilt testing
- Neurophysiological studies: EMG, nerve conduction studies, visual and auditory evoked potentials

Medical Physics

- Bone scan
- Bone densitometry
- Scintigraphy in endocrinology
- V/Q scanning

Endoscopic Examinations

- Bronchoscopy
- Upper and lower GI endoscopy
- ERCP

Pathology

- Liver biopsy
- Renal biopsy
- Bone marrow and lymph node biopsy
- Cytology: pleural fluid, ascitic fluid, cerebro-spinal fluid, sputum

Part 2.4: Procedural Competencies

The trainee is expected to be competent in performing the following procedures by the end of core training (CMT or ACCS(M)). The trainee must outline the indications for these interventions. For invasive procedures, the trainee must recognise the indications for the procedure, the importance of valid consent, aseptic technique, safe use of local anaesthetics and minimising patient discomfort. During Specialist Training (Levels 2 and 3) the trainee should be competent at the instruction, appraisal and assessment of junior doctors in the performance of these procedures.

- Venepuncture
- Cannula insertion, including large bore
- Arterial blood gas sampling
- Lumbar Puncture
- Pleural tap and aspiration
- Intercostal drain insertion: Seldinger technique
- Ascitic tap
- Abdominal paracentesis
- Central venous cannulation
- Initial airway protection: chin lift, guedel airway, nasal airway, laryngeal mask
- Basic and, subsequently, advanced cardiorespiratory resuscitation
- DC cardioversion
- Urethral catheterisation
- Nasogastric tube placement
- Electrocardiogram
- Knee aspiration
- Temporary cardiac pacing by internal wire or external pacemaker
- Skin Biopsy (this is not mandated for all trainees but opportunities to become competent in this technique should be available especially for trainees who subsequently wish to undertake specialist dermatology training)

For sole higher training in Acute Medicine (Level 3 Competencies)

Level 3 Procedural Competencies

- Endo-tracheal Intubation and safe airway protection
- Sengstaken-Blakemore Tube

Choice of additional Level 3 skills

- Transvenous temporary pacing*
- Upper GI endoscopy*
- Echocardiography*
- Abdominal ultrasound*

- Bronchoscopy*
- Critical care training as defined by Intercollegiate Board for Critical Care Medicine
- Diploma in Medical Education
- Remote and Rural Medicine expertise

* These are suggested additional skills and procedures in which a Specialist Acute Physician may wish to train. There must be robust arrangements for training, assessment of competence, and maintenance of competence as defined by the relevant authority for each procedure (e.g. JAG for endoscopy).

Furthermore, it is important that an individual trainee should recognise that continued exposure to, and practise of, a procedural skill is the only way to sustain competence in that skill. The choice of procedural skill should therefore be made whilst taking into account, which is most likely to be required by the health service after training is complete. Discussion with the programme director or Educational Supervisor is recommended when making this decision. In any event it is recommended that trainees chose only one of the skills listed in which to achieve competence.

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

This section describes the model of learning appropriate to GIM (Acute).

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 attachment within a rotation.

There must be robust arrangements for quality assurance in place to ensure consistent implementation of the curriculum (see Sections 5 and 6).

Work-Based Experiential Learning - The content of work-based experiential learning is decided by the local faculty for education (defined in Section 6 of this curriculum) but includes active participation in:

For Core Training (CMT or ACCS(M)) and Specialist Training:

- **Medical clinics including specialties**, including rapid access clinics. After initial induction, trainees will review patients in outpatient clinics, under direct supervision. The degree of responsibility taken by the trainee will increase as competency increases. As experience and clinical competence increase trainees will assess 'new' and 'review' patients and present their findings to their clinical supervisor.
- **Unselected Acute Medical takes**
- **Post-take consultant ward-rounds**
- **Personal ward rounds and provision of ongoing clinical care** on General or specialist medical ward attachments. Every patient seen, on the ward or in out-patients, provides a learning opportunity, which will be enhanced by following the patient through the course of their illness: the experience of the evolution of patients' problems over time is a critical part both of the diagnostic process as well as management. Patients seen should provide the basis for critical reading and reflection of clinical problems.
- **Consultant-led ward rounds.** Every time a trainee observes another doctor, consultant or fellow trainee, seeing a patient or their relatives there is an opportunity for learning. Ward rounds, including those post-take, should be led by a consultant and include feedback on clinical and decision-making skills.
- **Procedural teaching.** All trainees are encouraged to take a procedural skills course in the clinical skills lab setting. Further highly supervised procedural experience can be obtained through the use of simulators (where appropriate and available) and staged delivery on selected patients. As competence in specific procedural skills is gained, the level of supervision will decrease until independent practice is achieved. Assessment of progress will involve workplace-based assessment (DOPS,

direct observation of procedural skills). Level 2 trainees would be expected to teach and supervise procedural skills in which they themselves are competent, to Foundation and Core Medical trainees.

- **Multi-disciplinary team meetings.** There are many situations where clinical problems are discussed with clinicians in other disciplines. These provide excellent opportunities for observation of clinical reasoning.
- **Specialist provision of clinical care** for patients on High Dependency Units and coronary care units (Specialist Training only)

Some learning outcomes may be best achieved in some programmes by active participation in, or attendance at, clinics in related specialties e.g. neurology, rheumatology, dermatology, and relevant surgical specialties.

Each local faculty for education will define the programme of learning activities.

Trainees have supervised responsibility for the care of in-patients. This includes day-to-day review of clinical conditions, note keeping, and the initial management of the acutely ill patient with referral to and liaison with clinical colleagues as necessary. The degree of responsibility taken by the trainee will increase as competency increases. There should be appropriate levels of clinical supervision throughout training with increasing clinical independence and responsibility as learning outcomes are achieved (see Section 5: Feedback and Supervision).

Formal Postgraduate Teaching – The content of these sessions are determined by the local faculty of medical education and will be based on the curriculum. There are many opportunities throughout the year for formal teaching in the local postgraduate teaching sessions and at regional, national and international meetings. Many of these are organised by the Royal Colleges of Physicians. Suggested activities include:

- A programme of formal bleep-free regular teaching sessions to cohorts of trainees (e.g. a weekly core training hour of teaching within a Trust)
- Case presentations
- Research and audit projects
- Journal clubs
- Lectures and small group teaching
- Grand rounds
- Clinical skills demonstrations and teaching
- Critical appraisal and evidence based medicine and journal clubs
- Joint specialty meetings e.g. neurology, radiology, pathology, rheumatology
- Bedside teaching, such as training for the MRCP(UK) clinical exam, particularly covering problem areas identified by trainees. This may be timetabled or *ad hoc* teaching.
- Attendance at training programmes organised on a deanery or regional basis, which are designed to cover aspects of the training programme outlined in this curriculum. This programme should run on a three-year cycle

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
- Reading journals
- Reading, including web-based material
- Maintenance of personal portfolio (self-assessment, reflective learning, personal development plan)
- Audit and research projects
- Achieving personal learning goals beyond the essential, core curriculum

Formal Study Courses - Time to be made available for formal courses is encouraged, subject to local conditions of service. Examples include courses promoting recognition of the acutely sick patient e.g. IMPACT, recognised Acute Medicine courses, practical skills courses, appropriately structured and resourced revision courses for MRCP(UK), ALS courses.

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 practice in hospital and community settings. Learning will involve closely supervised clinical practice until competences are achieved. The learning environment will be in, Medical Assessment Units, General and Specialist Medical wards, A/E and critical care environments and outpatient clinics. Opportunities for informal and formal feedback on performance should occur during and at the end of clinical sessions as part of a structured appraisal process defined in the accompanying portfolio (see Section 3.3: Work based experiential learning).

Distributed and Concentrated Practice - Training programme directors within local faculties of education will decide upon the details of clinical attachments.

Core training is distributed across medical specialties with emphasis on opportunities to practise in the Acute Medicine setting.

Specialist training should include concentrated practice in Acute Medicine including direct contribution to the acute take. As the trainee acquires competence in this area of training the of emphasis of training should change such that more senior trainees take a supervisory and educational role for junior medical colleagues as well as continuing to hone their own clinical skills. These individuals should also have the opportunity to practise in high dependency and coronary care units.

Learning with Peers - There are many opportunities for trainees to learn with their peers. Local postgraduate teaching opportunities allow trainees of varied levels of experience to come together for small group learning. Examination preparation encourages the formation of self-help groups and learning sets.

Learning in Formal Situations - There are many opportunities throughout the year for formal teaching in the local postgraduate teaching sessions and at regional, national and international meetings. Many of these are organised by the Royal Colleges of Physicians.

Personal Study - Time will be provided during training for personal study. It may be possible for longer periods of private study to be offered as part of study leave.

Specific Teacher inputs - Individual units within a teaching programme will identify specific teacher inputs. These will vary from programme to programme. Recommendations for good practice are identified in the learning portfolio.

Examples are:

- Each trainee must have a clinical supervisor for each attachment for work-based experiential teaching
- Specialty teaching in a clinical environment from a recognised specialist
- Advanced Life support teaching from a recognised training provider
- Procedural skills teaching delivered by a skilled specialist in both work-based setting and on formal courses

Section 4 – Assessment Strategy

The domains of Good Medical Practice will be assessed using an integrated package of workplace-based assessments and examination of knowledge and clinical skills, which will sample across the domains of the curriculum (e.g. knowledge, skills and attitudes). The assessments will be supported by structured feedback for trainees within the training programme of GIM (Acute). Assessment tools will be both formative and summative and will be selected on the basis of their fitness for purpose.

It is likely that the workplace-based assessment tools will include mini-CEX (mini-Clinical Examination Exercise), DOPS (Direct Observation of Procedural Skills) and MSF (multi-source feedback). The Federation of the Royal Colleges of Physicians has piloted these methods and has demonstrated their validity and reliability. It is proposed that the examination and assessment of knowledge will utilise elements of the MRCP(UK) examination, relevant to the level of training. There will be a specialty-specific knowledge examination for those seeking a CCT in GIM (Acute).

A trainee's ability to conduct an acute medical take appropriately will be the subject of an assessment tool still in development.

An assessment blueprint will be developed which will map the assessment methods on to the curriculum in an integrated way. The blueprint will ensure that there is appropriate sampling across the curriculum. It is expected that the blueprinting exercise will have been completed by September 2006.

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 learning portfolio for physicians in training outlines the mechanisms for supervision and appraisal in more detail.

5.1 - Supervision

All training in GIM (Acute) should be conducted in institutions with appropriate standards of clinical governance and that meet the relevant Health and Safety standards for clinical areas. Training placements must also comply with the European Working Time Directive for trainee doctors.

Trainees must work with a level of clinical supervision commensurate with their clinical experience and level of competence. This is the responsibility of the relevant clinical supervisor after discussion with the trainee's Educational Supervisor and the designated clinical governance lead. In keeping with the principles of Good Medical Practice, trainees should know that they must limit their clinical practice to the level of their clinical competence and should seek help and support without hesitation.

The Educational Supervisor, when meeting with the trainee, should discuss issues of clinical governance, risk management and any report of any untoward clinical incidents involving the trainee. The Educational Supervisor should be part of the clinical specialty team. Thus if the clinical directorate (clinical director) have any concerns about the performance of the trainee, or there were issues of doctor or patient safety, these would be discussed with the Educational Supervisor. These processes, which are integral to trainee development, must not detract from the statutory duty of the trust to deliver effective clinical governance through its management systems.

The Educational Supervisor is integral to the appraisal process. This is discussed in more detail in the training portfolio. A trainee appraisal with the Educational Supervisor will include feedback on performance, review of outcomes of assessments, induction to posts and career advice. The Postgraduate deaneries should recognise the active role of Educational Supervisor in training and offer appropriate support.

5.2 - Feedback

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

The local education faculty will establish clear processes for feedback, with close liaison with designated Educational Supervisors.

Constructive feedback should be provided throughout training in both formal and informal settings. Opportunities for feedback will arise during appraisal meetings, when trainees are undergoing workplace-based assessments, in the workplace setting, and through discussions with supervisors, trainers, assessors and those within the team.

Best practice guidance for the appraisal process is provided by the Royal Colleges of Physicians in the training portfolio (in the Appraisal Section).

This guidance emphasises the need for:

- An initial appraisal meeting shortly after the start of a training placement to establish learning objectives and construct a personal development plan
- An interim appraisal meeting to discuss progress against the learning objectives
- An appraisal meeting towards the end of the training placement to reflect on the learning achievements during the attachment with reference to the initial learning objectives within the personal development plan.
- Structured written feedback from clinical supervisors
- Appropriately structured written feedback from medical colleagues and departmental staff (multi-source feedback, MSF) to include nursing staff, managerial, clerical and secretarial staff and medical staff in relevant directorates e.g. radiology, anaesthesia. This is collated by the Educational Supervisor to form the basis of a discussion with the trainee.
- Feedback on performance in recent workplace-based assessments to inform future development

It is recommended the above guidance apply irrespective of the duration of that particular attachment. Evidence that feedback has been received and subject to reflection by the trainee will be recorded in the portfolio, and discussed at the regular appraisals with the trainee's supervisor.

Section 6 – Curriculum Implementation

This section of the curriculum provides an indication of how the curriculum is managed locally and within programmes.

6.1 - Training Programmes

The organisation of training programmes for core training (CMT or ACCS (M)), and specialist training in GIM (Acute) is the responsibility of the postgraduate deaneries.

The Deaneries are currently establishing appropriate programs for postgraduate medical training in their regions. These schemes will be known as Schools of Medicine in England, Wales and Northern Ireland and Transitional Board Schemes in Scotland. In this curriculum, they will be referred to as local Faculties for medical education. The role of the Faculties will be to coordinate local postgraduate medical training, with terms of reference as follows:

- Oversee recruitment and induction of trainees from Foundation to core training - CMT or ACCS(M)), and from core training into Specialty Training
- Allocate trainees into particular rotations for core training appropriate to their training needs and wishes
- Oversee the quality of training posts provided locally
- Interface with other Deanery Specialty Training faculties (General Practice, Anaesthesia etc)
- Ensure adequate provision of appropriate educational events
- Ensure curricula implementation across training programmes
- Oversee the workplace-based assessment process within programmes
- Coordinate the RITA process for trainees
- Provide adequate and appropriate career advice
- Provide systems to identify and assist doctors with training difficulties
- Provide flexible training
- Recognise the potential of specific trainees to progress into an academic career

6.2 - Intended Use of Curriculum by Trainers and Trainees

This curriculum, the accompanying curriculum (*Generic Curriculum for Medical Specialties*) and learning portfolio are web-based documents which are available from the Joint Royal Colleges of Physicians Training Board (JRCPTB) website.

Each trainee will be given copies of the curricula and portfolio upon enrolling as a Core Medical Trainee with the JRCPTB.

Each trainee will engage with the curriculum by maintaining a portfolio. The trainee will use the curriculum to develop learning objectives, self-assess accomplishment in disparate 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 training unit is the responsibility of the local faculty of education in consultation with the Federation of Royal Colleges of Physicians. The need to show how trainees are progressing in their attainment of competencies will be a strong driver in ensuring that all the curriculum objectives are met.

6.4 - 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 is also trainee led.

6.5 - Curriculum management

Local management of the curriculum is the responsibility of the local faculty of education.

Coordination of the Curriculum at national and regional level is the joint responsibility of the Deaneries and the Federation of Royal Colleges of Physicians, with robust arrangements for quality assurance of training.

Section 7 – Curriculum Review

7.1 - The Curriculum Pilot

The curriculum (including assessments and portfolio), with the *Generic Curriculum for Medical Specialties*, is being piloted in one Deanery for CMT programmes between August 2006 and August 2007. These trainees will enter the CMT pilot having just completed pilot Foundation programmes.

The pilot evaluation will be conducted by the Education Department at the London Royal College of Physicians in collaboration with the members of the Federation of Royal Colleges of Physicians Curriculum Review Committee. The process will consist of direct contact with trainers, tutors, administrative staff, and members of the Deanery School of Medicine such as the CMT Programme Director.

7.2 - Curriculum evaluation and monitoring

The Federation of Royal Colleges of Physicians Curriculum Review Committee will oversee evaluation of this curriculum, the accompanying *Generic Curriculum for Medical Specialties*, and the portfolio. The curricula should be regarded as living documents and the committee will ensure that it will be able to respond swiftly to new developments. The outcome of these evaluations will inform the future development of the curricula.

This Federation committee will consist of representatives from the SAC for GIM (Acute) and the sub-committee of JRCPTB responsible for CMT; lay persons; and trainees.

Formal evaluation will take place during the pilot stage of curriculum implementation and during the first year of full implementation. Evaluation will continue (as indicated from the early evaluations) during the first five years of GIM (Acute) Training. Evaluation will continue periodically thereafter, probably every 5 years.

Evaluation of the curriculum will seek to ascertain:

- Learner response to the curriculum
- Modification of attitudes and perceptions
- Learner acquisition of knowledge and skills
- Learner's behavioural change
- Change in organisational practice

Evaluation methods will include:

- Trainee questionnaire
- College representative and Programme Director questionnaire
- Focused discussions with Educational Supervisors, trainees and, Programme Directors and Postgraduate Deans

Monitoring will be the responsibility of the Programme Directors within the local faculties for education.

7.3 - Trainee involvement in Curriculum Review

Trainee involvement in curriculum review will be facilitated through:

- Involvement of trainees in local faculties of education
- Trainees involvement in the Federation of Royal Colleges of Physicians Curriculum Committee
- Informal feedback during appraisal, RITA, College meetings

Section 8 – Equality and Diversity

The Royal Colleges of Physicians will comply, and ensure compliance, with the requirements of equality and diversity legislation, such as the:

- Race Relations (Amendment) Act 2000
- Disability Discrimination Act 1995
- Special Educational Needs and Disabilities Act 2001
- Data Protection Acts 1984 and 1998

The Federation of the Royal Colleges of Physicians believes that equality of opportunity is fundamental to the many and varied ways in which individuals become involved with the Colleges, either as members of staff and Officers; as advisers from the medical profession; as members of the Colleges' 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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