

HIGHER MEDICAL TRAINING

CURRICULUM

FOR

GENERAL (INTERNAL) MEDICINE

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Joint Committee on Higher Medical Training
Royal College of Physicians
5 St Andrews Place
Regent's Park
London NW1 4LB

Tel: 020 7935 1174
Fax: 020 7486 4160
Email: HMT@rcplondon.ac.uk

This curriculum can be found on the JCHMT website:
[http:// www.jchmt.org.uk](http://www.jchmt.org.uk)

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ENTRY REQUIREMENTS

Applicants for Higher Medical Training in General (Internal) Medicine (G(I)M) must have completed a minimum of two years General Professional Training (GPT) in approved posts and obtained the MRCP (UK) or (I). During this minimum period, all time spent in GPT must involve direct patient care. At least 18 months must have involved emergency medical take and 6 of these must have been in units where emergency take is unselected.

GPT is defined as follows:

a minimum of 2 years in approved posts with direct involvement in patient care and offering a wide range of experience in a variety of specialties

18 months of the 2 years must be spent in posts providing experience in the admission and early follow-up of acute emergencies

at least 6 of these 18 months must be spent on a service or services on which the emergency take is 'unselected'

'unselected take' is defined as acute medical intake encompassing the broad generality of medicine ie not restricted to any single or small group of specialties. If any major component of acute medicine (eg cerebrovascular accidents, myocardial infarctions) is excluded from the take, this experience must be obtained in other posts. During the period on 'unselected take' trainees should have an on-call commitment which averages no less than 4 takes per month.

Non-UK graduates without the MRCP who compete for Higher Medical Training (HMT) posts must provide evidence of appropriate knowledge, training and experience, particularly in the care of acute medical conditions. A maximum of 2 years GPT can be carried forward into HMT and can thus count towards the acquisition of the Certificate of Completion of Specialist Training (CCST) in G(I)M.

Duration and organisation of training

The duration of Specialist Medical Training in General (Internal) Medicine is five years including GPT. Those seeking dual certification with another specialty will also need to fulfil the requirements of that specialty and their programme will be extended to a minimum of 7 years (2 GPT + 5 G(I)M and specialty). HMT will provide experience both in DGH(s) and in teaching hospital(s) or other major centres with academic activity. The programme to which the trainee is appointed will have named consultant trainers (Educational Supervisors). In addition, one consultant within the same region will act as Programme Director to the trainee. The majority of trainees are likely to enter programmes which combine G(I)M with another specialty and what follows is based upon the assumption that dual certification is intended. However, specialist training in G(I)M alone is a perfectly acceptable option. It may be attractive to doctors with special interest in emergency medicine or to academics who wish to combine their general medical practice with a particular research interest rather than with practice in another specialty. The training of such doctors can be completed in five years, including two years of GPT, but the overall training requirements for the award of a CCST in G(I)M are the same as for those seeking dual certification, and involving all the components in years four and five of a joint programme. As for the other single specialty programmes, G(I)M alone

programmes will have to be clearly defined. It is expected that they will include an intensive care medicine component.

In the case of those undertaking a dual programme, the first year will approximate closely to that of a former registrar job in a DGH and should normally be undertaken in a DGH. The trainee will be resident for at least 4 days per month for acute unselected medical intake. It is essential that the trainee is responsible (i.e. involved in decision making) for the continued care of general medical patients. The trainee should be responsible for not less than 10 in-patients and should undertake at least one outpatient clinic per week which must include a proportion of general medical patients and the ward follow-up clinic. This training may be undertaken on a firm or team which practices the trainee's intended main specialty or any other medical specialty. At the end of the year the trainee will have completed 3 years G(I)M, including the two years in GPT. (Whilst the expectation is that the majority of trainees will spend the first year of HMT in this way, it is not an absolute requirement. There may be circumstances in which this year of general medicine could come later in the programme).

The trainee should complete the remainder of HMT in the chosen specialty, usually a further four years. During at least 2 of these years dual training in G(I)M and the other specialty must take place in order to complete the minimum five years specialist training in G(I)M. Provided that such training has relevance to both specialties, it can count towards both CCSTs. The overlapping training must include a commitment to acute unselected medical intake with responsibility for the continuing care of patients admitted as emergencies. The trainee should once again be responsible for not less than 10 in-patients and should undertake at least one outpatient clinic per week which must include a proportion of general medical patients and the ward follow-up clinic. If the trainee is not involved in the care of patients admitted to a CCU or ITU/HDU, a 4-6 week secondment to such units must be arranged.

This dual training period would normally take place in a period of 2 years towards the end of HMT but can be spread over the entire period providing the requirements for G(I)M training as indicated in the curriculum document are met. The trainee need not be resident for training purposes during this period, but service commitments may require residence.

In some circumstances it may be difficult to arrange programmes which provide the G(I)M training outlined in the foregoing paragraphs. It will be necessary for Programme Directors, in consultation with Postgraduate Deans, to make arrangements for the provision of the necessary training experience to fulfil the requirements for certification in G(I)M. Such training must be in a post which is either part of a recognised training programme or has been approved by the SAC. The training should preferably be undertaken during the late stages of Higher Medical Training rather than early in the programme.

Up to one year of the training in General (Internal) Medicine may be in suitable posts in Geriatric Medicine where an age-related admission policy applies. Such posts must provide experience of acute medical 'take' of patients unselected other than by age. Units where acute General (Internal) Medicine and Geriatric Medicine are integrated are fully acceptable for G(I)M training. It is expected that the trainee

would be responsible for the emergency care of at least 30 patients per month. In certain circumstances up to one year of General (Internal) Medicine training may be in an approved post in Nephrology or Cardiology, provided that the SAC is satisfied that the training includes emergency care which is relevant to G(IM) and provided that the remaining training in G(IM) includes unselected Medical intake at the higher level (at least 4 days per month).

Detailed requirements for training in G(IM) are set out in the curriculum section of this document. It is important to stress that trainees must acquire practical skills which may be needed at any time in the management of medical emergencies. These must include interpretation of the electrocardiogram, basic and advanced life support, temporary cardiac pacing, placement of central venous lines, cardioversion, pleural aspiration of gas or fluid, insertion of intercostal drains and lumbar puncture.

Training Record

A Training Record will be maintained by the trainee. It will be counter-signed as appropriate by the Educational Supervisors to confirm the satisfactory fulfilment of the required training experience and the acquisition of the competencies that are enumerated in the Specialty Curriculum. It will remain the property of the trainee and must be produced at the annual assessments.

Research

Periods of full-time research will not be permitted to count towards the requirements for G(IM) though they can do so in the other specialty in the case of joint programmes. Those opting for G(IM) as a single training programme can, of course, take time out for research whilst retaining their National Training Number (NTN). Some trainees may wish to spend two or three years in research, either before entering HMT or by stepping aside from clinical training after entering a programme. This is perfectly acceptable but only one full year will count towards the joint programme (towards the specialty but not towards G(IM)). For those undertaking an extended period of research after entering a programme and obtaining their NTN, a limited amount of additional educational credit may be granted at the discretion of the SAC for clinical work relevant to the programme undertaken in the course of research beyond the initial year.

Assessment

Assessment of trainees will be based upon the standard format of annual review, including the Penultimate Year Assessment (PYA) to which particular importance attaches. Full details may be found in the Introduction to the JCHMT Handbook. The award of the CCST will be based on satisfactory completion of the entire series of annual assessments.

Flexible training

Trainees who are unable to work full-time are entitled to opt for flexible training programmes.

EC Directive 93/16/EEC requires that:

i Part-time training shall meet the same requirements as full-time training, from which it will differ only in the possibility of limiting participation in medical activities to a period of at least half of that provided for full-time trainees;

ii The competent authorities shall ensure that the total duration and quality of part-time training of specialists are not less than those of full-time trainees

The above provisions must be adhered to. Flexible trainees should undertake a pro rata share of the out of hours duties (including on-call and other out of hours commitments) required of their full-time colleagues in the same programme and at the equivalent stage.

It should be noted that as GPT counts towards the minimum five years training for a CCST in G(I)M, the above rules must apply to flexible SHO posts which are to contribute to G(I)M higher training.

For details of appointment and funding arrangements for flexible trainees, please see the revised 'Guide to Specialist Registrar Training' (February 1998).

Background and Introduction

The overall aim of training is to facilitate the development of a physician able to function as an independent consultant in General Internal Medicine.

Definition of a General Physician

A Physician who specialises in the assessment, diagnosis and management of general medical problems; particularly those involving non-specific symptoms, atypical presentations, multiple problem or system disorder.

General physician is skilled in the management of acute unselected medical emergencies and the management of patients in a holistic way, considering all psychosocial as well as medical factors for enhancing quality of life.

General physician values the continuing care of **all** patients irrespective of the nature of the patient's complaint.

In view of the breadth of experience required to manage acute unselected medical emergencies general physician will be trained in common diseases in the following systems or sub-specialities i.e. Cardiology; Respiratory medicine; Gastro-enterology and Liver disease; Infectious diseases; Endocrinology and Diabetes; Neurology; Geriatrics; Rheumatology and Rehabilitation; Medical Oncology; Palliative medicine; Genito-urinary and Renal medicine; Dermatology; Clinical Pharmacology, Therapeutics and Toxicology ; Psychological medicine and Intensive care .

In addition general physician will be trained in some aspects of related specialities e.g. Haematology and Clinical Biochemistry ;Immunology and Microbiology; Radiology and Nuclear medicine etc.

In most cases treatment is non surgical but it is essential that general physician should be able to make a total evaluation of the patient and prioritise treatment which may include surgery.

Although triage is one important aspect of the General Physician's role he/she is not simply a triage officer who transfers patients on to the most appropriate specialist but continues to co-ordinate the care for all patients involving other specialists as required.

General physician will function in a number of roles including ***clinical, counselling, educating, leading and managing***. Thus the aims of training are to develop the necessary competencies to perform these roles.

Principal Areas of Competence

- Clinical expertise and judgement
- Ability to establish effective relationships with patients
- Leadership and personal management skills

- Organisation, Planning and Service management skills
- Education and mentoring abilities
- Quality standards, effectiveness, research and development skills

a) **Clinical Expertise and Judgement**

i) Basic Clinical Skills-

The ability to obtain a reliable history and elicit abnormal physical signs.

The ability to interpret findings and the results of investigations.

The ability to perform the defined practical procedures needed for the management of medical emergencies.

ii) Clinical Reasoning –

The ability to assess and diagnose complex medical problems, particularly those involving multiple systems, and determine their relative priority

iii) Expert Management –

The ability to investigate clinical problems in a prioritised, systematic, well informed and cost effective way.

The ability to recognise and manage all major medical emergencies and other acute presentations of illness affecting concurrently one or more organ systems.

This should include the administration of all necessary immediate care and be in an appropriate evidence-based way.

Expertise in the ongoing care and management of chronic diseases including preventive and public health medicine and the community aspects of disease.

The ability to determine the appropriate time and conditions when referral to another specialist is indicated or transfer to a specialist unit.

The ability to manage patients in a holistic way, considering all psycho-social as well as medical factors for improving quality of life.

The ability to plan and achieve successful patient discharge from hospital, including knowledge of the various discharge options.

The ability to determine when the emphasis of treatment should change from the curative to the palliative in patients whose prognosis is limited.

b) **Establishing Effective Doctor / Patient Relationships**

i) Communication Skills –

The ability to promote trust and cooperation, and to help patients cope with distressing or other emotions.

And to demonstrate the following skills: - active listening;

Understanding the need for and enabling the ventilation of feelings;

Warmth, support and empathy;

Respect; guidance; partnership.

The ability to educate and motivate patients towards co-operating with advice. and to demonstrate the following skills: elicitation of existing views/ knowledge;

offering clear explanation and instruction; checking understanding; evaluating problems; using positive attribution and praise.

The ability to deal with special situations e.g. breaking bad news to patients and relatives; other sensitive issues; preparation for threatening procedures; obtaining informed consent; Conducting family conferences; dealing with complaints etc.

ii) Ethical principles –

The observation of clear ethical principles such as the respect and dignity of patients; their right to privacy and confidentiality; Their right to the best possible care; Their right to autonomy and informed consent; Their right to decline treatment or to take part in teaching or research etc.

c) Leadership and personal management skills

i) Personal achievement—

The ability to exercise independent judgement and clinical self-confidence. The ability to be self-directed and to achieve objectives. The ability to have high internal standards and a desire to improve. The ability to maintain effective work performance under pressure when appropriate and to cope with ones own emotions. The ability to accept and act on constructive criticism

ii) Interpersonal skills ---

The ability to initiate, build and maintain good relationships, both one to one and in groups. The ability to lead by example. The ability to put oneself in the place of another and correctly interpret their concerns and feelings. The ability to calculate in advance the likely effect of ones words or actions on an individual or group in order to bring about a desired effect. The ability to time ones actions or interventions in order to maximise their effectiveness.

iii) Managing others ---

The ability to get others to work effectively by planning and delegating work. The ability to coach and supervise others and give clear feedback about performance, good or bad.

d) Organisation, Planning and Service Management skills

The ability to conduct and administer a general medical service, including seeing patient referrals, dictating letters, summaries and reports etc. The ability to liaise and work effectively with professional colleagues, particularly general practitioners and members of the multidisciplinary team. The ability to participate in committee work concerned with planning and organising services. The ability to supervise and work with a medical Secretary. The ability to develop a strategic view and advise NHS management on the needs and direction of the service.

e) Education and Mentoring Skills

i) Being a Role Model—

The ability to set an example of good practice and be respected as a Physician.

ii) Educational Supervision—

The ability to motivate, demonstrate and explain, particularly the reasons for clinical decisions. The ability to build relationships with trainees. The ability to use appropriate teaching methods and styles. The ability to assess the performance of trainees

f) Quality Standards, Effectiveness, Research and Development Skills.

The ability to plan and conduct clinical audit studies of aspects of the G (I) M service in order to improve service quality. The ability to present the results of audit or research papers to both small and large audiences. The ability to evaluate research publications to assess their importance. The ability to reflect on clinical practice and plan future educational needs. To maintain an expert knowledge of the diagnosis and treatment of a broad range of common acute disorders through systematic continuing professional development.

AIMS AND OBJECTIVES

At the completion of specialist training the Specialist Registrar will have ***Demonstrated their competence in all the above listed abilities*** to the satisfaction of their supervising consultants and/or their educational supervisor.

In particular they should be able to ***demonstrate*** the following objectives -

- Their willingness to manage and care for patients irrespective of the nature of the patients' problems.
- Their breadth of clinical experience and competence in the management of the full spectrum of acute unselected medical emergencies.
- Their skills of diagnostic reasoning in the management of patients with complex problems, non-specific symptoms, atypical presentations and multi-system disorder.
- Their ability to demonstrate the knowledge, skills and attitudes contained in the following syllabus section of this document.
- Their ability to perform the specified list of practical procedures in this document.
- Their willingness to participate in the work of the multidisciplinary team.

SYLLABUS

Generic Skills

Aims:

To provide trainees with the knowledge, skills and attitudes required to deliver a high standard care to patients with general medical problems. The following areas are generic to all physicians irrespective of their speciality.

Objective:

At the completion of training the trainee should be able to ***demonstrate the knowledge, skills and attitudes*** outlined in the following sections.

- Good Clinical Care:
 - History taking, examination and note keeping
 - Time management and decision making
 - Basic life support
- Communication Skills
- Maintaining Good Medical Practice:
 - Learning
 - Evidence, audit and guidelines
 - Ethics and legal issues
 - Maintaining Trust
 - Professional behaviour
 - Patient education and disease prevention
 - Working with Colleagues
 - Teaching and Training

1.1 GOOD CLINICAL CARE

A) HISTORY, EXAMINATION & NOTEKEEPING SKILLS:

Aim: To provide the trainee with the knowledge, skills and attitudes to be able to take a history and examine patients, as well as keep an accurate medical record.

Subject	Knowledge	Skills	Attitudes
History	Symptom patterns Alarm symptoms	Identify and synthesise problems Take a history in difficult circumstances e.g.: When English is not the patient's first language, Confused patients, Deaf patients How to formulate a differential diagnosis	Recognise the impact of physical problems on psychological and social well being Show empathy with the patient
Examination	Patterns and physiological basis of physical signs	Explain examination procedure and minimise patient discomfort Elicit signs and use instruments appropriately	Be aware of patient dignity, confidentiality and cultural/ethnic issues The relatives rights and responsibilities The need for a chaperone.
Note keeping, letters etc	Structure of: Medical notes Discharge letters Discharge summaries Outpatient letters	Record accurately and legibly in the medical notes including: History Examination Summary Differential diagnosis Initial investigation and management plan Investigation results and action taken Conversations e.g. between team members and patient / relatives Date and sign each entry (with time of first contact) Mouse and keyboard skills and ability to use email and the internet	Ensure that notes are accessible to all members of the team and patients /relatives under certain circumstances Timely dictation and cost-effective use of medical secretary time Recognise the benefits of: Prompt communication with primary care New technology e.g. fax, email etc

B) TIME MANAGEMENT AND DECISION MAKING

Aim: To provide trainees with the knowledge, skills and attitudes to manage time and problems effectively.

Subject	Knowledge	Skills	Attitudes
Time management	Which patients / tasks take priority	Start with the most important tasks Work more efficiently as clinical skills develop Recognise when he/she is falling behind and re-prioritises or calls for help	Have realistic expectations of tasks to be completed by self and others Consult and work as part of a team
Decision making	Clinical priorities for investigation and management	Analyse and manage clinical problems	Be flexible and willing to change

C) BASIC LIFE SUPPORT

Aim: To provide trainees with the knowledge skills and attitudes to perform basic life support.

Subject	Knowledge	Skills	Attitudes
Basic life support	Elements of basic life support	How to assess a collapsed patient Maintain an adequate airway and perform effective cardiopulmonary resuscitation	Keep calm Have the ability to enable others to do the same.

1.2 COMMUNICATION SKILLS

Aim: To provide the trainee with the knowledge, skills and attitudes to be able to communicate effectively with patients and colleagues in the circumstances outlined below.

Circumstance	Knowledge	Skills	Attitudes
Within a consultation	How to structure the interview to identify the patient's: Concerns / problem list Expectations Understanding Acceptance	Listen Use open questioning followed by appropriate closed questions Avoid jargon and use familiar language Use interpreters appropriately Give clear information and feedback to patients and share information with relatives when appropriate	Recognise the importance of: Involving patients in decisions Offering choices Respecting patients views
Breaking bad news	How to structure the interview and where it should take place Normal bereavement reactions Awareness of organ donation procedure and role of local transplant co-ordinators	Avoid jargon and use familiar language Encourage questions Avoid conveying unrealistic optimism	Act with empathy, honesty and sensitivity
Complaints	Awareness of the local complaints procedure, of the individual, shared and organisational responsibilities.	Deal with dissatisfied patients / relatives	Act with honesty and sensitivity

1.3. MAINTAINING GOOD MEDICAL PRACTICE

A) LEARNING:

Subject	Knowledge	Skills	Attitudes
Life long learning	Define continuing professional development Understand the role of appraisal and of assessment	Recognise and use learning opportunities Maximise the potential of study leave	Be: Eager to learn Willing to learn from colleagues

B) EVIDENCE, AUDIT AND GUIDELINES:

Aim: To provide trainees with the knowledge, skills and attitudes to use evidence, guidelines and audit to benefit patient care.

Subject	Knowledge	Skills	Attitudes
Evidence based medicine (EBM)	Principles of EBM Types of clinical trial	Critical appraisal of evidence Competent use of databases e.g. Medline, the library and the internet	Keen to use evidence to support patient care
Audit	The audit loop Data sources for audit	Involvement in on-going audit and undertake all aspects of the audit cycle Gain informed consent from patients for audit	Recognise the relevance of audit to: Benefit patient care Clinical governance
Guidelines	Problems and benefits of guidelines Methods of determining best practice	Ability to use local guidelines Be involved in guideline generation and evaluation	Recognise individual patient needs when using guidelines

C) ETHICS AND LEGAL ISSUES:

Aim: To provide trainees with the knowledge and skills to cope with ethical and legal issues which occur during the management of patients with general medical problems.

Subject	Knowledge	Skills	Attitudes
Informed consent	Process for gaining informed consent	Give appropriate information in a manner patients understand and be able to consent patients	Recognise the patient's needs as an individual
Confidentiality	Strategies to ensure confidentiality Awareness of the 'Caldicott Guardian'	Use and share all information appropriately Avoid discussing one patient in front of another	Respect the right to confidentiality
Legal issues, particularly those relating to: Death certification Role of the Coroner / Procurator Fiscal Mental illness Advance directives and living wills DVLA	Legal responsibilities of completing death certificates Types of deaths to be referred to the Coroner / Procurator Fiscal Process for section under the mental health act Conditions that patients should report to the DLVA	Completion of death certificates Liaison with the Coroner / Procurator Fiscal Check whether the patient has an advance directive or living will	Show attention to detail and recognise pressures of time Respect living wills and advance directives Act with compassion at all times

1.4. MAINTAINING TRUST

A) PROFESSIONAL BEHAVIOUR:

Aim: To ensure that trainees develop the knowledge, skills and attitudes to act in a professional manner at all times.

Subject	Knowledge	Skills	Attitudes
Continuity of care	Relevance of continuity of care	Ensure satisfactory completion of reasonable tasks at the end of the shift/day with appropriate handover Make adequate arrangements to cover leave	Recognise the importance of: Punctuality Attention to detail
Doctor-patient relationship	Aspects of a professional relationship	Avoid unnecessary personal comments Ensure all discussion / examination is relevant Deal with inappropriate behaviour in patients, e.g. aggression, violence, sexual harassment	Adopt a non-discriminatory attitude to all patients and recognise their needs as individuals
Recognises own limitations	Extent of own limitations and when to ask for advice	Summarise cases and ask relevant questions when seeking advice from others	Willing to consult and have respect for colleagues
Stress	The effects of stress	Develop coping mechanisms for stress	Recognise the manifestations of stress on self & others
Relevance of outside bodies	The relevance to professional life of: The Royal Colleges, GMC, Postgraduate Dean, Defence unions, BMA, STA/MESB		Be open to constructive criticism Accept professional regulation

B) PATIENT EDUCATION AND DISEASE PREVENTION:

Aim: To provide the trainee with the knowledge, skills and attitudes to be able to educate patients effectively.

Subject	Knowledge	Skills	Attitudes
Educating patients about: Disease Investigations Therapy	Natural history of common diseases Investigation procedure Possible alternatives / choices Strategies to improve adherence to therapies	Ability to give information to patients clearly Encourage questions Negotiate individual treatment plans including action to be taken if patient deteriorates or improves	Involve patients in developing mutually acceptable investigation and treatment plans Encourage patients to access: Further information Patient support groups
Environmental & lifestyle risk factors	Risk factors for disease including: Diet Exercise Social deprivation Occupation Substance abuse	Advise on lifestyle changes Involve other health care workers as appropriate	Have a non-judgemental approach
Smoking	Effects of smoking on health Implications of addiction Smoking cessation strategies	Advise on smoking cessation and supportive measures Identify 'ready to quit' smokers	Recognise the importance of support during smoking cessation
Alcohol	Effects of alcohol on health and psycho-social well being Local support groups /agencies	Advise on drinking cessation/moderation	Suggest patient support groups as appropriate

Epidemiology & screening	Data collection methods and their limitations Notifiable diseases Principles of 1 ^o & 2 ^o prevention & screening	Assess an individual patient's risk factors Encourage participation in appropriate disease prevention or screening programmes	Recognise the: Positive & negative aspects of prevention Importance of patient confidentiality Respect patient choice
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C) WORKING WITH COLLEAGUES:

Aim: To provide trainees with the knowledge, skills and attitudes to enable them to work successfully with colleagues.

Circumstance	Knowledge	Skills	Attitudes
Interactions between: Members of a team Hospital & GP Hospital & other agencies e.g. social services	Roles and responsibilities of team members How teams work effectively	Delegate, show leadership and supervise safely Safe Handover Should be able to communicate effectively with other team members.	Be conscientious Respect colleagues Recognise own limitations

1.5. TEACHING AND TRAINING:

Aim: To provide Trainees with the knowledge, skills and attitudes to become life-long learners and teachers.

Subject	Knowledge	Skills	Attitudes
Teaching	How adults learn Learner-centred approach	Communicate and share information one-to-one and in small groups Always seek feedback	Recognise all opportunities for teaching Demonstrate willingness, enthusiasm and patience to teach
Formal presentations	Features of an effective presentation	Presentation skills to small groups e.g. journal club Present material in different presentation media	Be confident and not intimidated when presenting Embrace new technology

2.0 CROSS-SPECIALTY PROBLEMS

A. Management of the 'take'

Aim: To provide the trainee with the knowledge and skills to be able to safely manage the general medical 'take'.

Subject	Knowledge	Skills
'Take' management	Medical indications for urgent investigation and therapy Skills and capabilities of members of the 'on-take' team When to seek help	Ability to prioritise Effectively interact with other health care professionals Keep patients and relatives informed Receive referrals appropriately Cope with stress Delegate effectively and safely Keep an accurate patient list Hand over safely

B. Discharge Planning

Aim: To provide the trainee with the knowledge and skills to be able to plan difficult discharges for patients, particularly those who are elderly.

Subject	Knowledge	Skills
Discharge planning	Impact of physical problems on activities of daily living Roles and skills of members of the multidisciplinary team including nurses, O.T.'s, Physios, discharge co-ordinators and social workers Impact of unnecessary hospitalisation Family dynamics and socio-economic factors influencing success of discharge Support available in primary care	Recognise when in-patient care is not required Partake in discharge planning meetings Liaison and communication with patient, family and primary care Write reports for appropriate bodies

C. Resuscitation

See Generic Skills for basic life support

Aim: To provide the trainee with the knowledge and skills to be able to take part in advanced cardiac life support, feel confident to lead a resuscitation team under supervision and use the local protocol for deciding when not to resuscitate patients.

Subject	Knowledge	Skills
Advanced cardiac life support	Advanced cardiac life support algorithms Role and side effects of commonly used anti-arrhythmic and cardiac support drugs	Recognise critically ill patients. Recognise cardiac arrhythmias Perform emergency defibrillation Keep calm
Lead a cardiac arrest team	Role and responsibilities of the team leader	Safe and effective communication and delegation Keep calm
Do not resuscitate orders (DNR)	Local and national protocols for DNR orders Legal and ethical considerations	Support patients and families Respect living wills and advance directives Act with empathy and sensitivity Breaking bad news – see generic skills

D. Nutrition

Aim: To provide the trainee with the knowledge and skills in the nutritional issues listed below.

Subject	Knowledge	Skills
Nutritional status	Impact of: Disease on nutritional status Malnutrition on clinical outcomes	Assessment of nutritional status Recognise cultural and religious issues
Nutrition support	Principles and routes of nutrition support Role of nutrition support team	Identify those needing nutrition support or advice Recognise: The skills of others e.g. specialist nurses, pharmacist and dieticians When to consult nutrition support team

2.1 CROSS-SPECIALTY CLINICAL SCENARIOS

Aim: To provide the trainee with the knowledge and skills to be able to assess and manage acutely patients presenting as general medical emergencies with the problems outlined below. For each scenario trainees should in particular gain knowledge and skills to:

- Assess symptoms and signs
- Formulate a differential diagnosis
- Select appropriate investigations and accurately interpret investigation reports.
- Communicate the diagnosis and prognosis – see generic skills.
- Institute appropriate treatment recognising indications, contraindications and side effects.

Problem	Knowledge	Skills
	Causes: Organic Psychiatric	Initiate investigations to explore the differential diagnosis Recognise: Role of nutritional assessment Psychiatric problems
Breathlessness	Causes Respiratory Cardiac Others (anaemia, psychological neuromuscular etc)	Initiate investigations to explore the differential diagnosis
Lethargy	Causes	Initiate investigations to explore the differential diagnosis Recognise psychological distress / depression
Weight gain	Causes Risks associated with obesity Initial management strategies for weight reduction	Assessment of dietary intake Recognise psychological distress / depression
Nausea and vomiting	Causes Actions, contraindications and side effects of major groups of anti-emetics	Identify and alleviate cause if possible
Pressure sores	Causes How to prevent	Immediate assessment and management

2.2 CARDIOLOGY CLINICAL SCENARIOS

Aim: To provide the trainee with the knowledge and skills to be able to assess and manage acutely patients presenting with the cardiac problems outlined below. For each scenario trainees should in particular gain knowledge and skills to:

- Assess symptoms and signs
- Formulate a differential diagnosis
- Select appropriate investigations and accurately interpret investigation reports
- Communicate the diagnosis and prognosis – see generic skills.
- Institute appropriate treatment recognising indications, contraindications and side effects

A. On take and ward based scenarios:

Problem	Knowledge	Skills
(i) Chest pain	Causes: Cardiac/vascular Respiratory Gastrointestinal Loco motor Psychological Appropriate analgesia and routes of administration	Initiate investigations to explore the differential diagnosis
(ii) Acute coronary syndromes	ECG changes Complications Indications and complications of thrombolysis, anti-anginals and anti-thrombotic therapies Indications for stress testing/coronary angiogram Strategies for primary and secondary prevention	Recognise need for urgent assessment and prompt treatment with thrombolysis when indicated Management of complications: Arrhythmias Pulmonary oedema Hypotension Use CCU protocols/guidelines

(iii) Dizziness or syncope	Causes: Cardiac Neurological ENT Endocrine Others	Initiate investigations to explore the differential diagnosis
(iv) Heart failure	Causes, precipitating factors and prognosis Drug indications, contraindications and side effects Complications	Initiate investigations to identify the cause
(v) Arrhythmias	ECG patterns of narrow and broad complex tachycardias and bradycardias Indications, contraindications and side effects of: Anti-arrhythmic drugs Anti-coagulation Indications for temporary pacing	Recognise and correctly identify arrhythmias Ability to perform carotid sinus massage, explain the Valsalva manoeuvre and perform DC Cardio version Management of arrhythmias causing acute haemodynamic compromise
(vi) Endocarditis	Indications and limitations of echocardiography Complications Correct use of antibiotics and anticoagulation Strategies for prevention	Recognise the role of cardiac surgeons and microbiologists

(vii) Haemodynamic disturbances	<p>Causes</p> <p>Indications for: Emergency imaging including echocardiogram and CT A fluid challenge</p> <p>Indications, and complications of insertion of a central venous line</p> <p>Indications, contraindications and side-effects of inotropes</p>	<p>Recognise the need for: Rapid assessment Specialist nursing care / monitoring</p> <p>Breaking bad news - see generic section</p>
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B. Out-patient based scenarios:

Problem	Knowledge	Skills
(i) Stable angina	<p>Risk factors</p> <p>Indications, contraindications and side effects of 1st line agents</p> <p>Strategies for primary and secondary prevention</p>	<p>Recognise when to consult to consider exercise stress test or coronary angiogram</p>
(ii) Hypertension	<p>Causes</p> <p>Indications, contraindications and side effects of 1st line agents</p> <p>Complications</p>	<p>Discuss necessity for long term treatment</p>
(iii) Palpitations	<p>Causes</p>	<p>Initiate investigations to explore the differential diagnosis</p>

(iv) Heart failure	Causes and precipitating factors Best use of appropriate drugs. Complications	Initiate investigations to identify the cause
(v) Valvular heart disease	Complications Indications for anticoagulation and antibiotics in valvular heart disease	Appropriate use of echocardiography Explain to patients the risk/benefit ratios of treatments including anti-coagulation

2.3 CLINICAL PHARMACOLOGY CLINICAL SCENARIOS

A) Aim: To provide the trainee with the knowledge and skills to be able to assess and manage acutely patients presenting as general medical emergencies with the problems outlined below. For each scenario trainees should in particular gain knowledge and skills to:

- Assess symptoms and signs
- Formulate a differential diagnosis
- Select appropriate investigations and accurately interpret investigation reports
- Communicate the diagnosis and prognosis – see generic skills.
- Institute appropriate treatment recognising indications, contraindications and side effects

Problem	Knowledge	Skills
(i) Drug overdose	Initial management of overdose of: Aspirin Paracetamol Antidepressants Opiates Benzodiazepines Digoxin B-blockers Methods to prevent absorption / enhance elimination	Assessment and emergency care of the unconscious patient Use of the poisons advice centre Assessment of mental state - see psychiatry section

(ii) Illicit drug use	Physical and psychological effects of: Opiates Amphetamines MDMA Cocaine Cannabis Initial management strategy for acutely ill patients who have taken the above drugs	Suspect illicit drug use Acquire an accurate history of ingestion Use of the poisons advice centre
(iii) Poisoning	Effects of poisons ingested accidentally or purposefully including: Paraquat Carbon monoxide	Use of the poisons advice centre

B. Aim: To provide the trainee with the knowledge and skills to be able to prescribe drugs safely.

Problem	Knowledge	Skills
(i) Therapeutics	Drug interactions including drugs which alter: Absorption Metabolism including induction and inhibition of liver p450 iso-enzymes Elimination Drugs which require therapeutic monitoring	Liaison with ward pharmacist Use formularies and other sources of information Report adverse effects

C. Aim: To provide the trainee with the knowledge and skills to be able to assess and manage patients presenting as general medical out patients requiring steroids.

Problem	Knowledge	Skills
(i) Steroid treatment	Indications Side-effects Strategies to prevent/minimise osteoporosis	Educating/counselling patients about risk/benefit profile – see generic skills Appropriate use of steroid leaflet, card, and medic alert

2.4 DERMATOLOGY CLINICAL SCENARIOS

Aim: To provide the trainee with the knowledge and skills to be able to assess and manage acutely patients presenting with the dermatology problems outlined below. For each scenario trainees should in particular gain knowledge and skills to:

- Assess symptoms and signs
- Formulate a differential diagnosis
- Select appropriate investigations and accurately interpret investigation reports
- Communicate the diagnosis and prognosis – see generic skills.
- Institute appropriate treatment recognising indications, contraindications and side effects

A. On take and ward based scenarios:

Problem	Knowledge	Skills
(i) Skin failure e.g. toxic epidermal necrolysis, erythroderma	Causes Emergency management Complications	Assess mucosal involvement and systemic effects including estimation of fluid requirements Start initial treatment rapidly Recognise when to consult dermatology, ophthalmology
(ii) Urticaria, Angio-oedema, Anaphylaxis	Precipitating circumstances and associated conditions Complications	Assessment of airway competence and management of upper airway obstruction Initiate rapid treatment
(iii) Cellulitis	Causal microbial agents: antibiotic rationale Associated conditions	Differential diagnosis from venous thrombosis Recognise need for nursing skills for local treatments including dressings
(iv) Cutaneous drug reactions	Patterns and common precipitants Serious complications e.g. Stevens Johnson syndrome	Assess mucosal involvement

(v) Herpes zoster and disseminated herpes simplex	Patterns Complications Treatment options	Recognise: High risk patients Severe infections When to consult other specialty e.g. ophthalmology
(vi) Acute Cutaneous vasculitis	Causes Complications	Assess systemic involvement

B. Outpatient based scenarios:

Problem	Knowledge	Skills
(i) Pruritus	Causes and associated conditions including: Infestation Primary skin disease Systemic disease Management options	Initiate investigations to explore the differential diagnosis Identify contacts and refer to infection team if scabies diagnosed
(ii) Psoriasis and eczema	Patterns and clinical variants Indications, contraindications and side effects of first line therapies Serious complications	Describe and record patterns Recognise: The role of the dermatology nurse Psychosocial effects
(iii) Skin cancer	Effects of UV exposure on skin Risk factors Features and initial management of: Basal cell carcinoma Squamous cell carcinoma Melanoma	Differentiate from common benign tumours Recognise when to consult other specialty Advise on prevention e.g. strategies for UV protection

(iv) Manifestations of systemic disease affecting skin, hair or nails	Cutaneous signs in Endocrine and metabolic disease Gastrointestinal disease Malignancy Connective tissue disease Immunosuppression TB and sarcoid	Recognise the underlying disease
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2.5 DIABETES AND ENDOCRINOLOGY CLINICAL SCENARIOS

Aim: To provide the trainee with the knowledge and skills to be able to assess and manage acutely patients presenting with the diabetic and endocrinology problems outlined below. For each scenario trainees should in particular gain knowledge and skills to:

- Assess symptoms and signs
- Formulate a differential diagnosis
- Select appropriate investigations and accurately interpret investigation reports
- Communicate the diagnosis and prognosis – see generic skills.
- Institute appropriate treatment recognising indications, contraindications and side effects

A. On take and ward based scenarios:

Problem	Knowledge	Skills
(i) Diabetic ketoacidosis (DKA)	Precipitating circumstances Complications Strategy for long term follow-up	Prescribe fluids, insulin and potassium appropriately including need for repeated review
(ii) Non-ketotic hyperosmolar coma (HONK) / severe hyperglycaemia	Precipitating circumstances Prevention and treatment of complications	Prescribe fluids, insulin and potassium appropriately including need for repeated review
(iii) Hypoglycaemia	Precipitating circumstances	Measurement of blood glucose Rapidly administer glucose / 20% dextrose / glucagon if indicated

(iv) "Ill" or perioperative Diabetic	Effect of disease process / procedure on glycaemic control Effect of poor glycaemic control on disease processes / procedure	Monitoring and management of insulin and oral hypoglycaemic agents whilst patients are fasting
(v) Acute adrenocortical insufficiency	Hypothalamo-pituitary-adrenal axis – function and assessment Causes Complications	Emergency management Initiate investigations to establish the diagnosis and identify the cause
(vi) Hyper/hypocalcaemia	Causes Complications	Initiate investigations to identify the cause Management – see also oncology section
(vii) Hyponatraemia	Causes Complications	Ability to assess severity and volume status and initiate appropriate fluid balance management Initiate investigations to identify the cause

B. Out-patient based scenarios:

Problem	Knowledge	Skills
(i) Diabetes (New)	Diagnostic criteria Pathophysiological differences between Type I and Type II diabetes and recognition of insulin dependence Monitoring glycaemic control and effects of diet and exercise Strategies for primary and secondary prevention of complications Role of diabetes specialist nurse	Use of glucose tolerance test Rational management of oral hypoglycaemic agents and insulin regimes Patient education including individualised plan for therapy agreed by patient-see generic skills

Initiate investigations to explore the differential diagnosis

**Assess need for:
'Nil by mouth'
IV fluid replacement / resuscitation**

Liaison with surgeons when appropriate

(ii) Diabetes (Complications)	<p>Long term complications:</p> <p>Macrovascular IHD / stroke / peripheral vascular disease</p> <p>Microvascular Eye / kidney / nerves</p> <p>Diabetic foot</p> <p>Infections</p> <p>Relationship of complications to glycaemic control and other factors</p>	Recognise when to consult other specialty
(iii) Dyslipidaemia	<p>Classification</p> <p>Complications and effects on natural history of other diseases</p> <p>Role of diet</p> <p>Indications, contraindications and side effects of lipid lowering agents</p>	<p>Interpretation of lipid biochemistry results</p> <p>Take accurate family history</p>
(iv) Thyroid dysfunction	<p>Pathophysiological effects of thyroid dysfunction</p> <p>Causes</p>	<p>Interpretation of thyroid function tests</p> <p>Initiate investigations to establish the diagnosis and identify any underlying cause</p>

2.6 GASTROENTEROLOGY CLINICAL SCENARIOS

Aim: To provide the trainee with the knowledge and skills to be able to assess and manage acutely patients presenting with the gastroenterology problems outlined below. For each scenario trainees should in particular gain knowledge and skills to:

- Assess symptoms and signs
- Formulate a differential diagnosis
- Select appropriate investigations and accurately interpret investigation reports
- Communicate the diagnosis and prognosis – see generic skills.
- Institute appropriate treatment recognising indications, contraindications and side effects

A. On Take and ward based scenarios:

Problem	Knowledge	Skills
(ii) Diarrhoea (Acute)	Causes Indications for isolation Indications and contraindications for antibiotics, steroids and anti-diarrhoeal agents Diagnosis and initial management of acute severe colitis	Initiate investigations to explore the differential diagnosis Management of diarrhoea including infectious and non-infectious causes Correction of fluid and electrolyte imbalance
(iii) Gastrointestinal bleeding	Causes Indications and complications of: Transfusion of blood products Insertion of a central venous line Urgent endoscopy Local guidelines and indicators of rebleeding risk	Urgent and rapid assessment of: Haemodynamic state Co-morbid disease Likelihood of variceal bleeding Immediate management of hypovolaemic shock
(iv) Abdominal distension	Causes	Initiate investigations to explore the differential diagnosis

(v) Jaundice	<p>Causes including precipitating or exacerbating drugs</p> <p>Indications for: Liver biopsy ERCP</p>	<p>Recognise the presence of chronic liver disease and/or fulminant liver failure</p> <p>Initiate investigations to look for cause</p> <p>Recognise, prevention and management of: Sepsis including cholangitis Renal impairment</p>
(vi) Decompensated cirrhosis and fulminant liver failure	<p>Causes and precipitants</p> <p>Specific complications including: Encephalopathy Sepsis Fluid and electrolyte disturbance Renal impairment Hypoglycaemia Coagulopathy Bleeding Malnutrition Lactic acidosis</p>	<p>Initiate investigations to establish the diagnosis and identify the cause</p> <p>Prevention/management of complications (as listed in knowledge)</p> <p>Avoidance of precipitating / exacerbating drugs</p> <p>Recognise need to discuss referral to Liver Unit early</p>
(vii) Alcohol withdrawal syndrome	<p>Strategies for prevention and Management</p> <p>Complications</p> <p>Acute and long term effects of alcohol excess</p>	<p>Recognise need for: Correction of vitamin deficiencies Nutritional assessment Other specialty or service e.g. psychiatry or social services</p>

B. Out-patient scenarios

Problem	Knowledge	Skills
(i) abdominal pain, dyspepsia or reflux symptoms	Causes Local and national guidelines for investigation and management Indications, contraindications and side effects of 1 st line therapies Role of H Pylori	Initiate investigations to explore the differential diagnosis
(ii) Chronic diarrhoea	Causes	Initiate investigations to explore the differential diagnosis
(iii) Dysphagia	Causes: Organic Functional	Recognise need for: Rapid assessment Nutritional assessment Surgical input when appropriate Initiate investigations to explore the differential diagnosis
(iv) GI cancer	Principles of staging Indications for surgery	Recognise need for: Rapid assessment Nutritional assessment Other specialty when appropriate e.g. oncology, surgery Breaking bad news - see generic skills
(v) Rectal bleeding	Causes	Proctoscopy Initiate investigations to explore the differential diagnosis
(vi) Irritable bowel syndrome	Diagnostic criteria Indications, contraindications and side effects of 1 st line agents	Balanced approach to investigation Sensitivity to psychological distress
(vii) Iron deficiency anaemia – see also Haematology	Causes: Bleeding Dietary Malabsorption Roles / risks of blood transfusion	Initiate investigations to establish the diagnosis and identify the cause

(vii) Coeliac disease	Associated conditions	Recognise role of dietician
(viii) Inflammatory bowel disease	Differences between ulcerative colitis, Crohn's disease and infectious colitis Indications and side effects of 1 st line agents Complications including acute severe colitis	Individualised treatment plan - see generic skills Recognise the role of: Nutritional assessment Specialist nurses
(ix) Chronic liver disease	Causes Strategies for prevention of viral hepatitis Complications	Interpret viral serology reports and understand their implications Recognise: Patients who may require referral to Liver Unit The role of nutritional assessment

2.7 GENITO-URINARY MEDICINE CLINICAL SCENARIOS

Aim: To provide the trainee with the knowledge and skills to be able to assess and manage acutely patients presenting with genitourinary problems outlined below. Trainees should in particular gain knowledge and skills to:

- Assess symptoms and signs
- Formulate a differential diagnosis
- Select appropriate investigations and accurately interpret investigation reports
- Communicate the diagnosis and prognosis – see generic skills.
- Institute appropriate treatment based on knowledge of indications, contraindications and side effects

. On take and ward based scenarios:

Problem	Knowledge	Skills
(i) HIV	<p>Natural history</p> <p>Common presentations of immunodeficiency and opportunistic infection</p> <p>Markers of disease progression</p> <p>Principles and side effects of anti-retroviral therapy</p> <p>Principles of universal precautions, safe disposal of sharps, management of per-cutaneous injury including HIV post-exposure prophylaxis</p>	<p>Take a sexual history</p> <p>HIV pre-test counselling</p> <p>Recognise associated sexually or parenterally transmitted diseases</p>

2.8 GERIATRIC MEDICINE CLINICAL SCENARIOS

Aim: To provide the trainee with the knowledge and skills to be able to assess and manage acutely patients, particularly those who are elderly, presenting with the problems outlined below. For each scenario trainees should in particular gain knowledge and skills to:

- Assess symptoms and signs
- Formulate a differential diagnosis
- Select appropriate investigations and accurately interpret investigation reports
- Communicate the diagnosis and prognosis – see generic skills.
- Institute appropriate treatment based on knowledge of indications, contraindications and side effects

A. On take and ward based scenarios:

Problem	Knowledge	Skills
(i) Acute confusion	Causes including the effects of drugs Impact of the physical environment	Emergency management of agitation Use the mini-mental test score Initiate investigations to explore the differential diagnosis Recognise underlying cognitive impairment or psychiatric disease
(ii) Falls	Risk factors including the effects of polypharmacy Strategies for prevention Complications	Initiate investigations identify an underlying cause Multidisciplinary team working - see generic skills
(iii) Hypothermia	Risk factors Complications	Initiate emergency management and monitoring Initiate investigations identify an underlying cause
(iv) Deterioration in mobility (“Off legs”)	Precipitating circumstances Effects of polypharmacy	Gait assessment including the ‘Get up and go’ test Recognise: Social breakdown Psychiatric problems Need for multidisciplinary team

(v) Urinary incontinence	<p>Causes</p> <p>Urinary tract infection - microbial pathogens: antibiotic rationale</p> <p>Management options</p>	<p>Recognise:</p> <p>Need for pelvic examination</p> <p>When investigation is appropriate</p> <p>Psycho-social impact</p> <p>Exclude and treat underlying problems e.g. UTI</p>
(vi) Stroke	<p>Causes and risk factors</p> <p>Indications and complications of anti-thrombotic strategies</p> <p>Complications</p> <p>Preventative strategies (primary & secondary)</p> <p>Acute stroke management</p> <p>Care across the community/hospital interface</p>	<p>Recognise:</p> <p>Social and psychological impact</p> <p>Importance of rehabilitation</p> <p>Role of multidisciplinary team</p> <p>Patients requiring supportive treatment only</p> <p>Use stroke unit protocols/guidelines</p> <p>Assessment of functional abilities</p> <p>Ability to diagnose transient ischaemic attack</p>

B. Outpatient and Day/Community hospital based scenarios:

(vi) Dementia	<p>Organic causes</p> <p>Natural history and prognosis</p>	<p>Use the mini-mental test score and geriatric depression score</p> <p>Initiate investigations to identify an underlying cause</p> <p>Recognise:</p> <p>Social and psychological effects</p> <p>When to consult old age psychiatry</p> <p>Breaking bad news - see generic skills</p>
(vii) Parkinson's disease	<p>Neurotransmitter abnormalities</p> <p>Diagnostic criteria</p> <p>Natural history</p> <p>Indications and side-effects of drug therapy</p>	<p>Recognise the social and psychological effects including associated depression</p> <p>Involve the multi-disciplinary team</p> <p>Management</p>

2.9 HAEMATOLOGY CLINICAL SCENARIOS

Aim: To provide the trainee with the knowledge and skills to be able to assess and manage acutely patients presenting with the haematology problems outlined below. For each scenario trainees should in particular gain knowledge and skills to:

- Assess symptoms and signs
- Formulate a differential diagnosis
- Select appropriate investigations and accurately interpret investigation reports
- Communicate the diagnosis and prognosis – see generic skills.
- Institute appropriate treatment based on knowledge of indications, contraindications and side effects.

A. On take and ward based scenarios:

Problem	Knowledge	Skills
(i) Bone marrow failure	Causes Specific complications including: Sepsis Bleeding Local guidelines	Recognise patients requiring: Isolation Blood product transfusion Prophylactic anti-microbial agents Referral to haematology
(ii) Sickle cell crisis	Precipitating circumstances Complications: Sepsis Aplasia Acute sequestration Haemolysis	Manage fluid balance and analgesia Liaison with haematology
(iii) Disseminated intravascular coagulopathy and other bleeding disorders	Diagnostic criteria Associated conditions and complications	Initiate investigations to identify underlying cause Initiate emergency management

(iv) Transfusion of blood products	Indications for blood products Complications including: Transfusion reactions Transmission of infection	Safe prescription of blood products Explain benefits / risks to patients
(v) Anticoagulation	Indications for: Thrombolysis, Heparins, Oral anti-coagulants How to monitor anticoagulation including recommendations for: Target INR and APTT Duration of therapy	Start and adjust dose of anti-coagulant Manage over-anticoagulation

B. Out-patient based scenarios

Problem	Knowledge	Skills
(vi) Anaemia	Classification and how to differentiate the likely causes: Bleeding Haematinic deficiency Haemolysis Haemoglobinopathy Bone marrow problems Complications Role of replacement therapy	Initiate investigations to establish the diagnosis and identify the cause
(vii) Thrombophilia	Classification Content of a thrombophilia screen Role of anti-coagulation	Explain benefits/risks of anti-thrombotic strategies to patients

2.10 INFECTION CLINICAL SCENARIOS

Aim: To provide the trainee with the knowledge and skills to be able to assess and manage acutely patients presenting with the infection problems outlined below. For each scenario trainees should in particular gain knowledge and skills to:

- Assess symptoms and signs
- Formulate a differential diagnosis
- Select appropriate investigations and accurately interpret investigation reports
- Communicate the diagnosis and prognosis – see generic skills.
- Institute appropriate treatment based on knowledge of indications, contraindications and side effects

Problem	Knowledge	Skills
(i) Sepsis syndrome [for neutropenic sepsis see 2.1.(ii)]	Sites of origin Microbial causes: antibiotic rationale Definition of Toxic Shock Syndrome	Initiate investigations to establish the diagnosis Recognise and initiate immediate management of: Hypotension Pulmonary oedema Adult respiratory distress syndrome Disseminated intravascular coagulopathy (DIC)
(ii) PUO	Microbial causes: antibiotic rationale	Obtain accurate contact/travel/occupational/ sexual/pet history Initiate investigations to establish the diagnosis Recognise when repeated investigations are appropriate
(iii) Rigors	Microbial causes: antibiotic rationale Initial management strategy including: Correction /prevention of dehydration Antibiotic rationale	Initiate investigations to establish the diagnosis
(iv) Malaria	Geographical distribution Indications and side effects of anti-malarial drugs	Obtain accurate travel history Recognise importance of examining repeated blood films Recognise when to consult tropical medicine

(v) Food poisoning	Causative organisms Natural history Isolation and infection control procedures	Notification of cases Recognise and treat Haemolytic Uraemic Syndrome
(vi) Overseas sepsis	Likely microbial causes: anti-microbial agent rationale for geographical area	Take a travel, sexual and vaccination/prophylaxis history Initiate investigations to establish the diagnosis Recognise when to consult tropical medicine
(vii) Multi-resistant organisms	Multi-resistant organisms: antibiotic rationale for: Staphylococcus aureus (MRSA) Enterococci Mycobacteria (see Respiratory Medicine) Site of origin Isolation and infection control procedures	Use strategies to ensure patient adherence to therapy Recognise when specialist microbiological advice required
(viii) Antibiotics	Spectrum of cover, common side-effects and necessity for monitoring for the major groups of antibiotics: β Lactams Tetracyclines Macrolides Aminoglycosides Quinolones Trimethoprim Metronidazole Anti-tuberculous drugs Anti-malarial drugs Anti-viral drugs	Assessment of “allergy” Use of local antibiotic policy Appropriate requesting and ability to interpret: Antibiotic levels Microbial sensitivities

2.11 MEDICAL ONCOLOGY CLINICAL SCENARIOS

Aim: To provide the trainee with the knowledge and skills to be able to assess and manage acutely patients presenting with the oncology problems outlined below. For each scenario trainees should in particular gain knowledge and skills to:

- Assess symptoms and signs
- Formulate a differential diagnosis (including associated tumour type)
- Select appropriate investigations and accurately interpret investigation reports
- Communicate the diagnosis and prognosis – see generic skills.
- Institute appropriate treatment recognising indications, contraindications and side effects.

A. On take and ward based scenarios:

Problem	Knowledge	Skills
(i) Malignant hypercalcaemia	Long term therapeutic options	Initial emergency management - particularly correction of dehydration Consider in all patients with malignancy
(ii) Neutropenic sepsis	Patients at risk Features of specific infections Appropriate: Microbiological samples Broad spectrum antibiotics Isolation and infection control procedures Supportive measures	Initiate management urgently Recognise need for repeated review and monitoring
(iii) SVC obstruction (iv) Spinal cord compression (v) Tumour lysis syndrome	Preventative measures	Initial emergency management Recognise patients requiring urgent therapy
(vi) Hickman line	Indications and complications	Care of lines including taking samples Line removal

(vii) Intercurrent illness in patients with malignancy	<p>Specific complications of therapy: Toxicity Renal impairment and failure Drug interactions</p> <p>Specific complications of disease: Local invasion Distant metastases Paraneoplastic manifestations</p>	<p>Recognise importance of quality of life</p> <p>Keep patients and families informed and listen to their concerns - see generic skills</p> <p>Consult on appropriateness of resuscitation</p>
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B. Out-patient based scenarios:

Problem	Knowledge	Skills
(i) Lung, breast, colon cancer and carcinoma of unknown primary	<p>Risk factors</p> <p>Natural history</p> <p>Principles and methods of cancer staging</p> <p>Understand the principles, indications and complications of: Surgical treatment Chemotherapy Radiotherapy Endocrine therapy</p>	<p>Recognise warning symptoms / signs</p> <p>Need for rapid assessment</p> <p>Breaking bad news - see generic skills</p> <p>Recognise when to consult appropriate specialists including palliative care</p>
(ii) Metastatic cancer	<p>Routes of dissemination of common cancers</p> <p>Management strategies for patients with bony, liver, pleural and cranial metastases</p>	<p>Breaking bad news - see generic skills</p> <p>Recognise when to consult appropriate specialist</p> <p>Recognise the importance of symptom control – see palliative care</p>

2.12 NEUROLOGY CLINICAL SCENARIOS

Aim: To provide the trainee with the knowledge and skills to be able to assess and manage acutely patients presenting with the neurology problems outlined below. For each scenario trainees should in particular gain knowledge and skills to:

- Assess symptoms and signs
- Formulate a differential diagnosis
- Select appropriate investigations and accurately interpret investigation reports
- Communicate the diagnosis and prognosis – see generic skills.
- Institute appropriate treatment recognising indications, contraindications and side effects.

A. On take and ward based scenarios:

Problem	Knowledge	Skills
(i) Headache	Causes	Initiate investigations to explore the differential diagnosis
(ii) Stroke	Causes and risk factors Indications and complications of anti-thrombotic strategies Complications Preventative strategies (primary & secondary)	Recognise: Social and psychological impact Importance of rehabilitation Role of multidisciplinary team Patients requiring supportive treatment only Use stroke unit protocols/guidelines
(iii) Status epilepticus	Precipitating circumstances Complications Indications for intubation and ventilation	Emergency management
(iv) Subarachnoid haemorrhage	Risk factors Timing and value of lumbar puncture if indicated	Recognise atypical presentations Liaison with neurologist/ neurosurgeon

(v) Meningitis, Encephalitis Brain abscess	Microbial causes: antibiotic/antiviral rationale Indications and contraindications to lumbar puncture Complications Procedure for notification, contact tracing and primary prevention with antibiotics	Liaison with microbiology Recognise Co-morbidity e.g. HIV Urgency for treatment
(vi) Coma	Glasgow Coma Scale Causes Indications for intubation and ventilation	Emergency management including urgent treatment of remedial causes Initiate investigations to explore the differential diagnosis
(vii) Raised intra-cranial pressure	Anatomy of CSF circulation Causes Complications	Initiate investigations to explore the differential diagnosis Liaison with neurologist/neurosurgeon
(viii) Acute neuropathy e.g. Guillain Barre syndrome	Precipitating circumstances Methods of monitoring progression Complications	Measurement of vital capacity
(ix) Acute onset or deterioration of Multiple Sclerosis	Precipitating circumstances Complications	Recognise need for: Liaison with neurologist Urgent rehabilitation and return to home environment

B. Outpatient scenarios:

Problem	Knowledge	Skills
(i) Headache	How to differentiate between the likely causes including: Benign chronic headaches Migraine Cluster headaches Trigeminal neuralgia Raised intracranial pressure Giant cell arteritis (see rheumatology) Management options	Recognising those patients requiring: Urgent investigation Limited investigation
(ii) Stroke and transient ischaemic attacks	Risk factors Treatment strategies	Recognise need for: Investigation Acute treatment
(iii) Epilepsy	Classification and diagnostic criteria Precipitating circumstances Indications for and side-effects of anti-epileptic drugs	Recognise social stigma and psychological effects Advise patients about driving regulations
(iv) Multiple sclerosis	Diagnostic criteria Broad concepts of treatment options Natural history and prognosis	Recognise psychological effects Recognise role for multidisciplinary team

2.13 PALLIATIVE MEDICINE CLINICAL SCENARIOS

Aim: To provide the trainee with the knowledge and skills to be able to assess and manage acutely patients presenting with the palliative care problems outlined below. For each scenario trainees should in particular gain knowledge and skills to:

- Assess symptoms and signs

- Formulate a differential diagnosis
- Select appropriate investigations and accurately interpret investigation reports
- Communicate the diagnosis and prognosis – see generic skills.
- Institute appropriate treatment recognising indications, contraindications and side effects.

Problem	Knowledge	Skills
(i) Pain	Causes of pain in advanced cancer Analgesia - WHO classification - Mode of action - Possible routes - Step up approach (ladder) - Side-effects Indications for adjunctive therapies e.g. radiotherapy, sedatives	Ability to take a pain history Identify and alleviate cause if possible Recognise co-morbid psychological and social problems Use local protocols and liaison with pain control team
(ii) Constipation	Associated and exacerbating conditions Therapeutic strategies	Recognise acute and chronic bowel obstruction
(iii) Breathlessness	Causes Empirical therapies	Appropriate selection and use of interventions to alleviate cause Appropriate use of opiate therapy Recognise panic and treat accordingly

2.14 PSYCHIATRY CLINICAL SCENARIOS

Aim: To provide the trainee with the knowledge and skills to be able to assess and manage acutely patients presenting with the psychiatric problems outlined below. For each scenario trainees should in particular gain knowledge and skills to:

- Assess symptoms and signs
- Formulate a differential diagnosis
- Select appropriate investigations and accurately interpret investigation reports
- Communicate the diagnosis and prognosis – see generic skills.
- Institute appropriate treatment recognising indications, contraindications and side effects.

On take and ward based scenarios:

Problem	Knowledge	Skills
(i) Parasuicide	Risk factors for suicide Local protocols for liaison with psychiatric services	Evaluation of suicide risk Identify co-morbid psychiatric problems
(ii) Acute psychosis	Associated circumstances Initial management options including drug indications, contraindications and side effects	Assessment of mental state Initiate investigations to identify organic cause
(iii) Opiate dependence	Opiate withdrawal syndrome including prevention/management Complications of intravenous injecting	Management of the aggressive patient Identify co-morbid psychiatric problems
(iv) Bereavement	Stages of bereavement reactions Support services available locally	Recognise atypical grief reactions
(v) Depression	Risk factors Management options including side effects and interactions of anti-depressants	Initiate investigations to exclude organic cause Recognise depression in patients presenting with physical symptoms Liaison with psychiatric services

2.15 REHABILITATION MEDICINE CLINICAL SCENARIOS

Aim: To provide the trainee with the knowledge and skills to be able to assess and manage acutely patients presenting with general medical problems requiring rehabilitation.

Problem	Knowledge	Skills
Rehabilitation especially for: Neurological disorders Arthritis Musculo-skeletal disorders Cardiopulmonary disorders Limb amputations	Define: Impairment Disability Handicap Factors predicting rehabilitation potential Strategies to prevent/treat: Spasticity, contractures, deformity Pain Incontinence Aggressive behaviour	Goal setting Recognise impact of: Cognitive function Family/support Psycho-social factors Nutrition Work in a multidisciplinary rehabilitation team

2.16 RENAL MEDICINE CLINICAL SCENARIOS

Aim: To provide the trainee with the knowledge and skills to be able to assess and manage acutely patients presenting with the renal problems outlined below. For each scenario trainees should in particular gain knowledge and skills to:

- Assess symptoms and signs
- Formulate a differential diagnosis
- Select appropriate investigations and accurately interpret investigation reports
- Communicate the diagnosis and prognosis – see generic skills.
- Institute appropriate treatment recognising indications, contraindications and side effects.

A. On take and ward based scenarios:

Problem	Knowledge	Skills
(i) Acute renal failure	Features distinguishing from acute on chronic renal failure Causes Indications for haemofiltration and peritoneal or haemodialysis Indications and complications of renal biopsy	Assessment of severity and identification of complications Initiate investigations to identify the cause Liaison with Renal Unit
(ii) Hyper- & hypokalaemia	Causes Indications for urgent treatment and monitoring	Immediate emergency management
(iii) Severe urinary tract infection/ pyelonephritis	Causal microbial agents: antibiotic rationale Complications	Assessment of severity Recognise when to consult other specialty e.g. urology
(iv) Nephrotic syndrome	Causes Indications and complications of renal biopsy Complications	Initiate investigations to identify the cause
(v) Disturbance of fluid and/ or acid base balance	Constitution of and indications for common IV fluid solutions Precipitating circumstances, investigation and initial management of: Metabolic acidosis Metabolic alkalosis	Recognition of under- and over-hydration Assessment of severity of acid-base disturbance Identification of complications
(vi) Drugs and renal disease	Effect of common drugs on renal function Effect of renal impairment on commonly prescribed drugs	Recognise drug induced renal disease Consults when necessary if prescribing for patients with renal disease

(vii) Patients on renal replacement therapy	<p>Modalities and factors influencing choice of RRT</p> <p>Natural history, prognosis, short-term and long-term complications of RRT</p> <p>Side-effects of immunosuppressive drug regimes</p>	<p>Use appropriate sites for venous access</p> <p>Liaison with Renal Unit</p>
(viii) Patients with renal transplants	Rationale for the use and side effects of commonly used immunosuppressants	<p>Assessment of infection in immunosuppressed patients</p> <p>Liaison with Renal Unit</p>

B. Out-patient based scenarios:

Problem	Knowledge	Skills
(i) Proteinuria Haematuria	Causes	Initiate investigations to explore the differential diagnosis
(ii) Chronic renal failure	<p>Causes and natural history</p> <p>Complications</p> <p>Indications for and complications of renal biopsy</p> <p>Indications for and modes of dialysis</p>	<p>Initiate investigations to identify the cause</p> <p>Identification of patients with:</p> <p>Anaemia</p> <p>Bone disease</p> <p>Nutritional deficiency</p> <p>Liaison with Renal Unit</p>

2.17 RESPIRATORY MEDICINE CLINICAL SCENARIOS

Aim: To provide the trainee with the knowledge and skills to be able to assess and manage acutely patients presenting with the respiratory problems outlined below. For each scenario, trainees should gain particular knowledge and skills to:

- Assess symptoms and signs
- Formulate a differential diagnosis
- Select appropriate investigations and accurately interpret investigation reports
- Communicate the diagnosis and prognosis – see generic skills.
- Institute appropriate treatment recognising indications, contraindications and side effects.

On take and ward based scenarios:

Problem	Knowledge	Skills
(i) Acute severe asthma	British Thoracic Society (BTS) guidelines including discharge policy	Recognition of acute severe asthma Use of peak flow meter Recognise patients requiring ventilation
(ii) Chronic Obstructive Pulmonary Disease (COPD)	Role of smoking in aetiology BTS guidelines Safe oxygen therapy Management of specific complications including: Respiratory failure Right ventricular failure Polycythaemia	Use of spirometer Interpretation of pulmonary function tests Recognise patients requiring: - Nasal ventilation - Intubation and IPPV Assessment for long term oxygen therapy
(iii) Pneumonia	Microbial causes: antibiotic rationale Markers of severity Features suggesting TB	Recognise and treat co-morbidity e.g. COPD, HIV etc
(iv) Respiratory failure	Causes Indications for ventilation: nasal or by intubation	Recognise patients requiring: Urgent assessment and treatment Assisted ventilation
(v) DVT/PE	Causes, risk factors and preventative measures BTS guidelines Indications for thrombolysis, anticoagulation herapeutic radiology and surgery	Recognise underlying associated diseases e.g. malignancy, thrombophilia

(v) Pleural disease (pneumothorax and effusion)	Causes / associated diseases BTS guidelines Complications Indications and complications of aspiration and intercostal drain insertion	Perform aspiration Insertion and management of an intercostal drain
(vi) Haemoptysis	Causes: Respiratory Cardiac	Initiate investigations to explore the differential diagnosis Recognise need for rapid assessment and investigation
(vii) Asthma (outpatient)	BTS guidelines - step approach Complications of drugs used Exacerbating features	Recognise need for individualised management plan Use of peak flow meter and diary
(viii) COPD (outpatient)	BTS guidelines Management of: Respiratory failure Right ventricular failure Polycythaemia Avoidance of exacerbating features e.g. smoking Indications for domiciliary nebulisers and oxygen therapy	Recognise need for individualised management plan Interpretation of pulmonary function tests
(ix) Lung cancer See also Medical Oncology	Risk factors Diagnostic algorithm	Breaking bad news - see generic skills

(x) Pulmonary TB	<p>Risk factors including those for multi-resistant mycobacteria</p> <p>Complications and their management</p> <p>Side effects of drugs</p> <p>Need for contact tracing</p>	Notification of cases
(xi) Interstitial lung disease and fibrosis	<p>Causes</p> <p>Specific complications and their management: Right ventricular failure Respiratory failure Pulmonary hypertension Treatment options</p>	Recognise occupational disease

2.18 RHEUMATOLOGY CLINICAL SCENARIOS

Aim: to provide the trainee with the knowledge and skills to be able to assess and manage acutely patients presenting with the rheumatology problems outlined below. For each scenario trainees should in particular gain knowledge and skills to:

- Assess symptoms and signs
- Formulate a differential diagnosis
- Select appropriate investigations and accurately interpret investigation reports
- Communicate the diagnosis and prognosis – see generic skills.
- Institute appropriate treatment recognising indications, contraindications and side effects.

A. On take and ward based scenarios:

Problem	Knowledge	Skills
(i) Acute mono-arthritis	Causes and disease associations Indications for: Surgical drainage Physiotherapy	Initiate investigations to explore the differential diagnosis Recognise underlying joint or bone disease
(ii) Acute polyarthritis	Causes and disease associations Indications for physiotherapy	Recognise when to consult rheumatology
(iii) Acute low back pain	Causes: Malignant Septic Locomotor Renal /urological Neurological causes	Initiate investigations to explore the differential diagnosis Recognise: Underlying systemic, joint or bone disease When to consult other specialty e.g. orthopaedics, neurosurgery
(iv) Polymyalgia rheumatica & temporal arteritis	Indications for: Temporal artery biopsy Steroids	Initiate investigations to explore the differential diagnosis Recognition of need for physio /occupational therapy
(v) Acute connective tissue disease	Including: Systemic lupus erythematosus Scleroderma Poly- and dermatomyositis Sjogren's syndrome	Recognise: Side effects of drugs including immunosuppressants When to consult rheumatology

B. Outpatient scenarios:

Problem	Knowledge	Skills
(i) Osteoarthritis	Patterns of disease Indications for surgery	Recognise: Effects of handicap Role of multidisciplinary team
(ii) Rheumatoid arthritis	Patterns of disease and multisystem involvement Indications for and side effects of drugs Complications	Recognise: Effects of handicap Role of multidisciplinary team Liaison with other specialty e.g. rheumatology, orthopaedics
(iii) Crystal arthropathy: Gout and Pseudogout	Patterns of disease Complications	Initiate and monitor therapy
(iv) Osteoporosis	Risk Factors Strategies for: Prevention Management including both drugs and lifestyle changes	Recognise patients at risk and how to minimise of risk – for steroids see clinical pharmacology Use national/local guidelines

SELECTION AND INTERPRETATION OF INVESTIGATIONS

Aim: to produce Physicians who are competent to select, request and interpret reports of commonly used investigations required for diagnosis and management of patients with general medical problems.

A. Investigations commonly requested for General Medical Emergency Patients

Aim: To provide the trainee with the knowledge and skills to be able to select, request appropriately and accurately interpret reports of the frequently used investigations, used to manage general medical patients, listed below. For all investigations it is vital that trainees recognise abnormalities which require immediate action.

Investigation	Knowledge	Skills
Full blood count Urea and electrolytes Blood glucose Cardiac markers Liver function tests Amylase Calcium and phosphate Coagulation studies Arterial blood gases Serology Autoantibodies ESR/CRP	Circumstances requiring urgent results Normal ranges	Use results reporting system Record and tabulate where appropriate Interpret results Recognise abnormalities Requiring immediate action
12 lead ECG	Normal ECG intervals Patterns for common abnormalities	Use of ECG machines including how to connect limb and chest leads Recognise: Normal variants Abnormally connected leads When to repeat

Chest Xray Abdominal Xray	Circumstances requiring: Urgent results Particular views Normal findings Xray appearances of common abnormalities	Communicate well with radiologists, radiographers and other staff Recognise: the need for radiological advice
Microbiological samples	Type of samples and collection method required Specificity and sensitivity	Interpret results

B) Less Frequently used Investigations

Aim: To provide the trainee with the knowledge and skills to be able to select, request appropriately and accurately interpret reports from each of the following investigations used in the investigative setting to manage general medical patients:

- | | |
|--|--|
| Echocardiography (transthoracic) | 24 hour ECG monitoring and cardiomemo |
| Exercise ECG | Elective upper GI endoscopy |
| Ultrasound scans | Pulmonary function tests |
| V Q scans | Bone scans |
| Cardiac catheterisation and coronary angiography | Other vessel angiography |
| Transoesophageal echocardiogram | Pharmacological stress testing and nuclear cardiology stress testing |
| Skin biopsy | Emergency upper GI endoscopy |
| Colonoscopy | Bronchoscopy |
| Contrast studies have gastrointestinal and urinary tract | Endoscopic Retrograde Cholangiopancreatography |
| CT scans / MRI scans | Bone marrow examination |
| DTPA renal scans | Renal and liver biopsies |
| DEXA scans | |

PRACTICAL PROCEDURES

AIMS:

To produce physicians who are competent and confident to perform common practical procedures required for diagnosis and management of patients with general medical problems.

OBJECTIVES:

A. GENERIC KNOWLEDGE AND SKILLS:

For each procedure trainees should:

- Know indications and contraindications

And be able to:

- Explain the procedure to the patient including possible complications and gain informed consent
- Prepare the required equipment including a sterile field
- Position the patient and give premed / sedation as required, involving the anaesthetist where appropriate
- Adequately prepare the skin including local anaesthetic
- Arrange appropriate aftercare / monitoring
- Safely dispose of equipment including sharps
- Document the procedure, including labelling of samples and instructions for monitoring post procedure
- Record complications

METHODS OF LEARNING:

In general trainees should be trained in practical procedures by:

- Reading up on the theory or studying virtual training packages on the internet
- Observing first hand
- If observed performing the procedure by a competent practitioner who has recent relevant experience of the procedure. For invasive procedures (*) prior practice in a clinical skills lab/manikin is desirable. Trainees should have access to a clinical skills lab.

B. SPECIFIC KNOWLEDGE AND SKILLS FOR PROCEDURES:

Procedure	Knowledge	Skills
Elective DC cardioversion	Necessity of synchronised shock Starting voltage Number of shocks	Safe use of defibrillator
Central venous lines	Anatomical markers for central veins Strategies to ensure measurements are accurate	Safe cannulation of vein Seldinger technique Secure line in place / review position on Xray Connect manometer & measure CVP
Use of temporary cardiac pacing box and wire - See central line cannulation	Use of flotation device / safe use of fluoroscopy (radiation protection course) Anatomical markings / fluoroscopic appearances of a good right ventricular position	Manipulation of wire to right ventricle Secure line in place Use of pacing box and external pacer including connection & settings
Lumbar puncture	Anatomical markers Appropriate timing of procedure	Safe puncture Measurement of CSF pressure Removal of samples and interpretation of results
Tracheostomy management	Tube care Infection risk	Safe tube change
Pleural and ascitic fluid aspiration	Safe approach	Puncture pleural / ascitic space Withdrawal of fluid
Nasal support ventilation	Principles of BIPAP and CPAP Monitoring and limitations	Mask fitting Understanding of pressures

Intercostal drain	Anatomical markings How an underwater seal functions	Safe blunt dissection to pleural space and insertion of intercostal tube Connection to underwater seal and secure in place Assessment and management of a drain Safe removal of the tube
Knee joint aspiration	Anatomical markers of joint space	Safe puncture of joint Removal of samples

TEACHING METHODS AND SUGGESTED LEARNING OPPORTUNITIES.

Adults learn by

- Reflecting and building upon their own experiences
- Identifying what they need to learn
- Being involved in planning their education and training
- Evaluating the effectiveness of their education and training

For trainees to maximise their learning opportunities it is important that they work in a suitable learning environment. This includes **encouragement for self-directed learning** as well as **recognising the learning potential in aspects of every day work**, and adopting a **positive attitude** to training. Active involvement in-group **discussion** is an important way for doctors to share their understanding and experiences. A good educational programme should include such small group sessions and encourage a supportive open atmosphere so that no one is allowed to feel foolish.

The necessary knowledge, skills and attitudes required to achieve competence in the above listed abilities will be acquired during successive clinical attachments to **recognised training programmes**.

The training programmes must be able to provide the following facilities-

- Close, thorough educational supervision
- A positive attitude to training and self-directed learning
- Comprehensive clinical case-mix and case load of in-patient, outpatient and emergency medicine.
- A full range of support services and special units e.g. ITU, HDU, and CCU etc.
- Postgraduate courses to complement the 'hands on' experience
- Adequate Library and Skills centre, preferably including access to video-taped interview facilities

The following list of learning opportunities offers guidance only and is not meant to be comprehensive.

A. Experiential learning opportunities:

1. Ward based learning, including post-take rounds. A consultant physician should lead Ward rounds and include feedback of clinical, and decision making skills.
2. Outpatient clinics or Day Hospital/ Community visits should provide the trainee with the opportunity to assess both new and follow-up patients and to discuss these with the consultant supervisor.

Clinical competencies (i.e. clinical skills, clinical reasoning, expert management, communication skills, application of ethical principles)

And some interpersonal skills will be **acquired and formatively assessed** during Normal working on the clinical attachment.

B. Small group learning opportunities:

- Case presentations and small group discussion, particularly of difficult cases
- Participation in journal clubs, audit or research presentations
- Resuscitation skills review including simulation with mannequins.
- Video consultation with subsequent small group discussion.

C. External Courses

- Regional training days
- RCP Advanced Medicine or other Postgraduate courses
- Formal training in communication skills

D. One to One teaching

- Discussion between trainer and trainee of selected cases/ or local protocols
- Video consultation with subsequent discussion with trainer
- Training in practical procedures

E. Personal Study

- Reading books and journals
- Computer based learning
- Maintaining a reflective Diary

F. Others

Participation in Audit, guideline generation, project work, committee work etc.

Trainees will be expected to assume responsibility for continuing self-directed learning, self-assessment and reflection on their learning experiences. They will therefore be expected to provide evidence of such learning to their supervisor, maintaining a Reflective Diary of their learning experiences/activity as part of their training record.

Management skills including leadership, organisation, planning, audit and research methodology etc. and **Educational or mentoring skills** will be learnt on specific courses or attachments.

ASSESSMENT

There will be two types of assessment -a regular review of the trainee's progress to provide feedback or **Formative Assessment/ Appraisal** and an end of year / attachment review of progress or **Summative Assessment**.

a) Formative Assessment/ Appraisal

The supervising consultant or educational supervisor will review the trainees progress using a standard assessment form which will grade the performance of each of the main competencies. The trainee will also be observed as competent in undertaking the core practical procedures. These reviews will take place at appropriate intervals according to the needs of the individual trainee. Normally the reviews would be expected to occur at three times per year. In addition the trainee will provide evidence of their private study, learning activity and reflective practice during the previous period. The supervisor may obtain reports from **other staff** including colleagues from other specialities, nurses and paramedical staff, in order to assist the assessment process.

The trainee will be expected to lead and conduct a ward round and a multi-disciplinary meeting while being observed by the trainer so that their leadership, communication and management skills can be assessed.

b) Summative Assessment

The final assessment by the supervisor of each yearly attachment will formally be graded and submitted to the JCHMT as - 0 - not yet done; 1 - reached CCST standard; 2 - satisfactory; 3 - targeted training in this area; 4- needs repeat training.

If the formative assessments have previously demonstrated deficiencies in any particular competence, **the trainee will be assessed again in that area** with the appropriate method. This might include one or more of the following- a 'grey case' discussion, data interpretation, observed or videotaped communication skills session, observed ward round, case presentation or subject review etc.

Trainees who fail to achieve a satisfactory standard overall or who fail to improve will be referred to the Deanery training committee.

ROLE OF THE EDUCATIONAL SUPERVISOR

The supervisor has a key role in the supervision of the trainee's clinical activity and the regular assessment of their abilities.

The supervisor should therefore have the following skills and attributes-

To be a mentor and role model. He/she will normally be a consultant physician with responsibilities for acute general medical emergency services but need not be the trainee's immediate supervising consultant.

To be available and capable of appraising the trainee on an ongoing basis.

To be able to ensure that an appropriate environment is provided for the trainee to gain the necessary clinical experience and education.

To be significantly involved directly and by delegation, in the supervision of the clinical activity of the trainee to ensure that accurate assessments can be made of the trainees abilities in the following-

Personal organisation and time management;

Patient assessment and clinical management;

Practical clinical abilities;

Interactions with patients, relatives and carers;

Bedside manner;

Inter professional relationships including managing others;

Educational achievements and knowledge level;

Awareness of ethical principles;

Self-education in clinical, research, management and technology (e.g. IT) themes;

The assessment of the trainee should be evolutionary and related to the stage of training.

The written report from the supervisor that is to be included in the training record should include comment on all the above areas of accomplishment.