• Act in a time critical and efficient way to diagnose, investigate and manage stroke patients including selecting, referring for and/or administration of cerebral reperfusion therapies

• Able to supervise care of patients with stroke in an appropriate in-patient and ambulatory care setting and manage their co-morbid conditions including palliative care

• Assess, identify, investigate and institute secondary prevention measures for stroke and TIA patients in an acute and ambulatory care setting

• Identify and manage some conditions (including functional disorders) that mimic stroke including appropriate onward referral to related specialties

• Assess for and manage early, late and community rehabilitation for patients with stroke, whilst working collaboratively with other members of the MDT and community services

• Work with a multidisciplinary team to effect appropriate discharge planning

Learning outcomes – capabilities in practice (CiPs)
Specialty CiPs (Stroke Medicine)
1. Managing the care of acute stroke patients, including hyperacute care and cerebral reperfusion strategies
2. Managing the primary and secondary prevention of Stroke and Transient Ischaemic Attack
3. Managing early and late stroke rehabilitation in hospital and community settings

2.3 Training pathway

Doctors completing IM Stage 1 training will have acquired the basic proficiencies required to undertake more dedicated stroke training within a parent specialty. The new curriculum, therefore, replaces the second year of the old curriculum. The new curriculum is designed to stand alone as a dedicated year of stroke medicine subspecialty training. This refers to a year outside the parent CCT specialty, within GMC approved Stroke Medicine training posts which are quality managed by Postgraduate Deans and subject to a Specialist Year Assessment in Stroke. The Stroke subspecialty curriculum CiPs can also be adopted flexibly within other parent specialty curricula.

Completion of a three-year IMT (stage one) training programme is to become the entry criteria into the new sub-specialty of Stroke Medicine. Any trainee from a Group 1 parent specialty who has completed IM Stage 1 training (including the IMY3 year) will be eligible for stroke training. Any trainee from a Group 2 parent specialty must complete the equivalent of the IMY-3 year before they can be considered eligible for stroke training. The following are specific examples relevant to the common parent specialties.

Neurology

All three Stroke CiPs will be incorporated in to a 5-year neurology training programme with Internal Medicine. While the Stroke CiPs may not be delivered as a ‘stand-alone’ year, there

will be an indicative 6-month dedicated principal stroke medicine placement. This will be complemented by mandatory stroke training across the whole neurological programme (e.g. TIA clinics, in and out of hours exposure to cerebral reperfusion treatment and brain imaging interpretation etc). All trainees will receive a sub-specialty CCT in Stroke Medicine. The proposed training pathway is outlined in section 2.

Geriatric Medicine

Geriatric Medicine have proposed an indicative 4-year (48 month) programme with Internal Medicine. Embedding the entire stroke curriculum has not been achievable. All trainees will undertake some stroke training as part of 'core' geriatric medicine (indicative 3 month experience) but this would not equip doctors to lead a stroke service. However, the Geriatric Medicine specialty CiP ('Themes for Service') allows a further opportunity for trainees to volunteer to train in sub-specialty Stroke Medicine for a further indicative three months. It is envisaged that the 3 month core programme plus 3 month theme for service could be complemented by an additional indicative 6 months of dedicated stroke training which would extend training to 4.5 years. This remaining indicative 6 months could be undertaken as a dedicated stroke medicine subspecialty training placement. There will be flexibility on how this could be delivered. Trainees who elect to undertake the indicative 4.5-year (54 month) programme would receive a sub-specialty CCT in Stroke Medicine. The proposed training pathway is outlined in section 2.

Acute Internal Medicine (AIM)

All trainees will undertake 'basic' stroke training (indicative 3-months) within an indicative 4-year (48 month) training programme with Internal Medicine. In a similar way to Geriatric Medicine, this would not equip doctors to lead a service. There is endorsement of stroke medicine as an approved 'specialist skill'. It is envisaged that trainees undertaking this will undergo additional stroke training working towards the three Stroke Medicine CiPs (indicative 9-months with 3 months of this allowing credit towards AIM). Similarly to Geriatric Medicine, trainees who elect to undertake Stroke Medicine as a specialist skill would extend training from an indicative 4 to 4.5 years (48 – 54 months) and would receive a sub-specialty CCT in Stroke Medicine. The proposed training pathway is outlined in section 2.

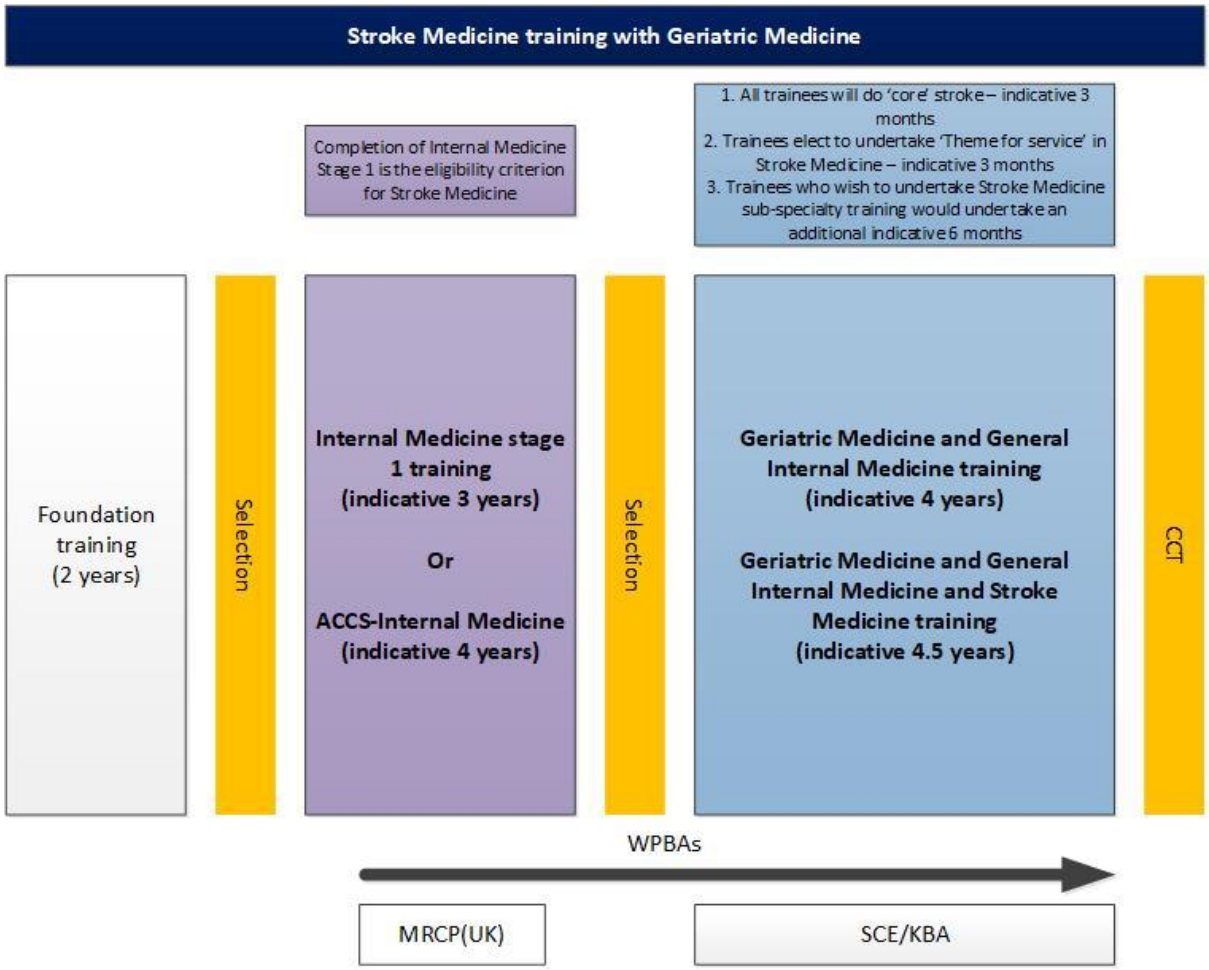
Other Physician Specialties

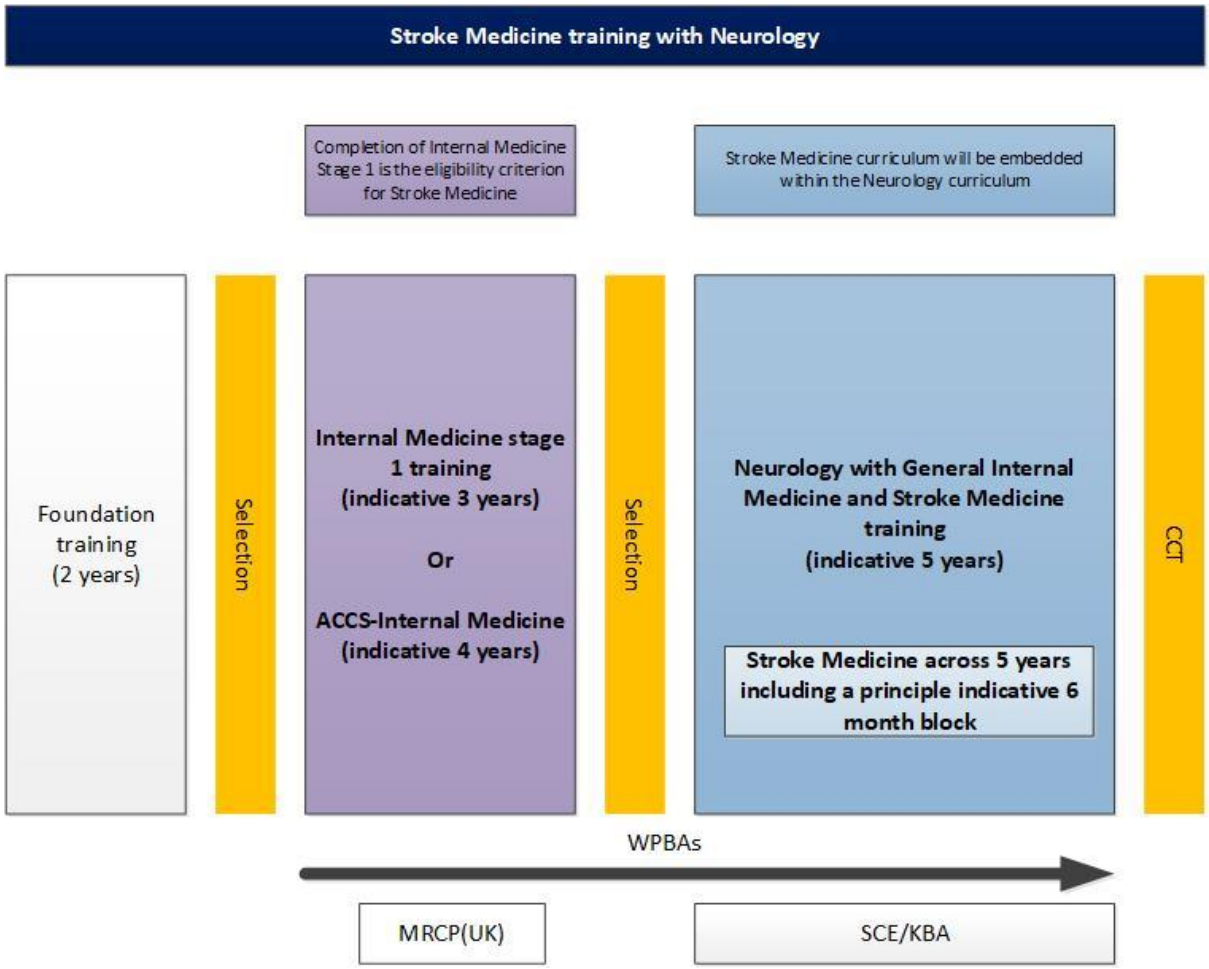
A. As the first year of stroke training has been embedded into IM stage 1, trainees from other Group 1 Physician specialties would be eligible to train in Stroke Medicine. It is envisaged that most trainees from these backgrounds would complete the equivalent of the current dedicated Stroke Medicine training year.

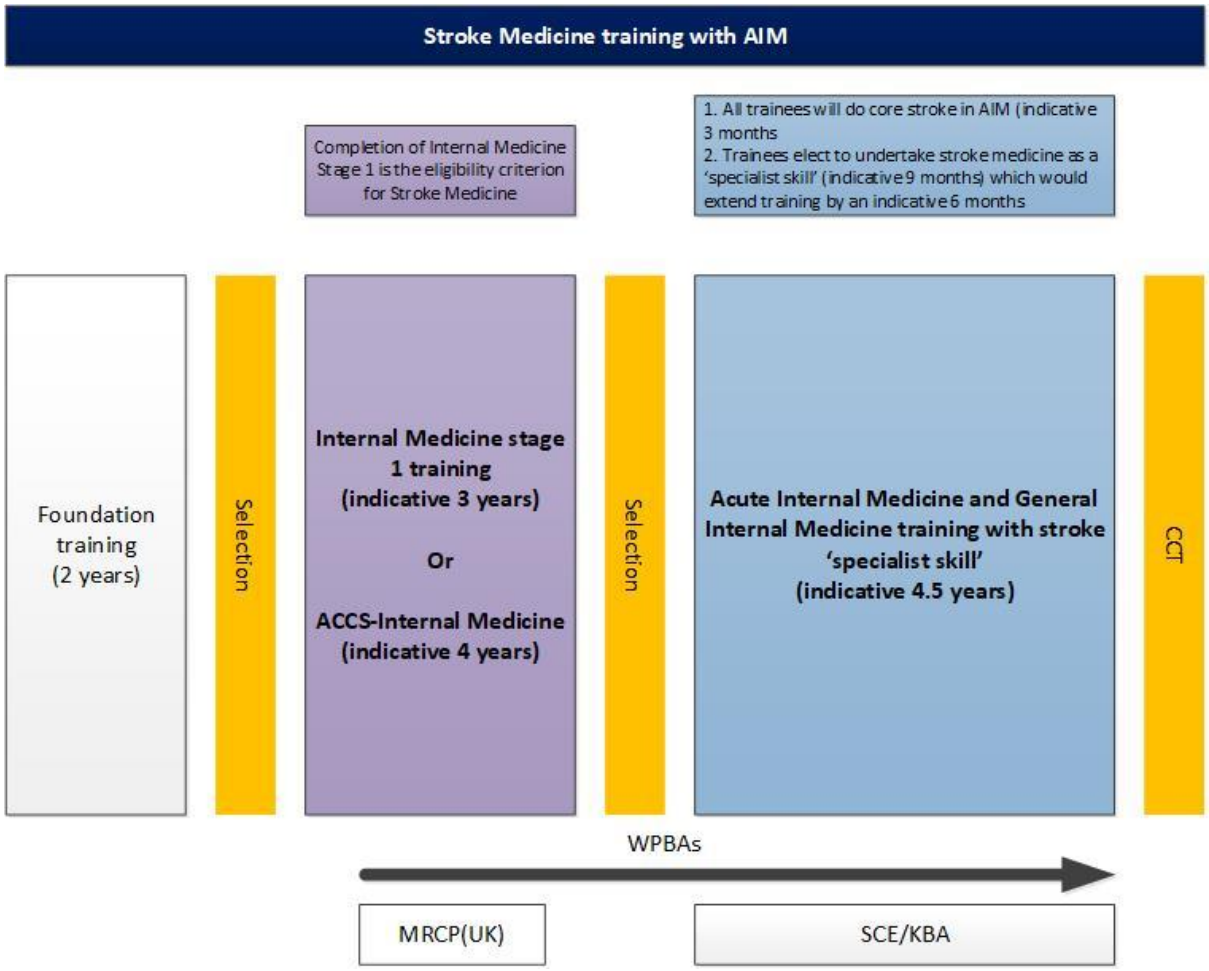
B. There is an additional opportunity for trainees in Internal Medicine stage 1 (indicative 3 years or 36 months) who may elect to train in Stroke Medicine (indicative 1 year or 12 months) and complete IM stage 2 (indicative 2 years or 24 months). The proposed training pathway is outlined in section 2.

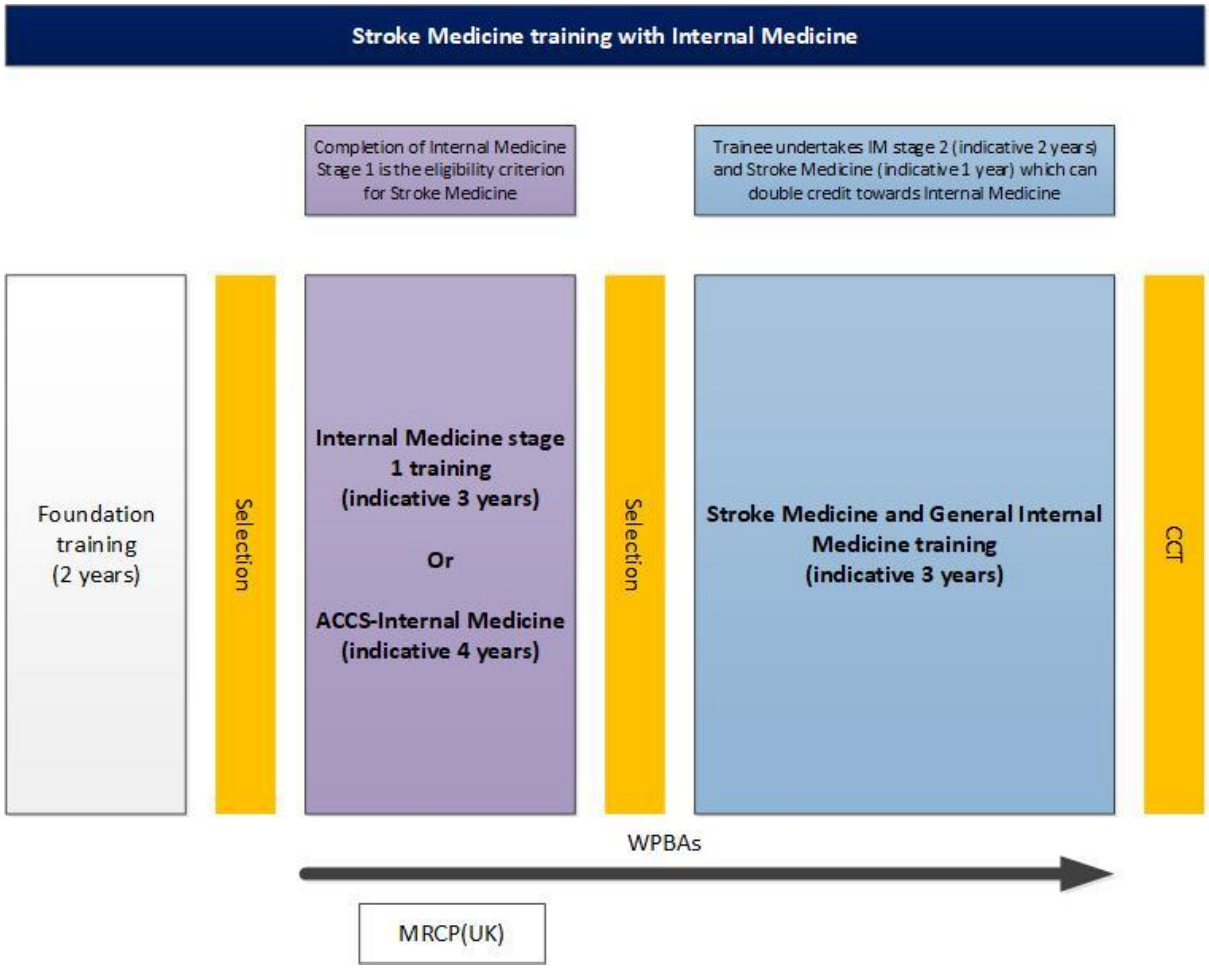
Group 2 Specialties

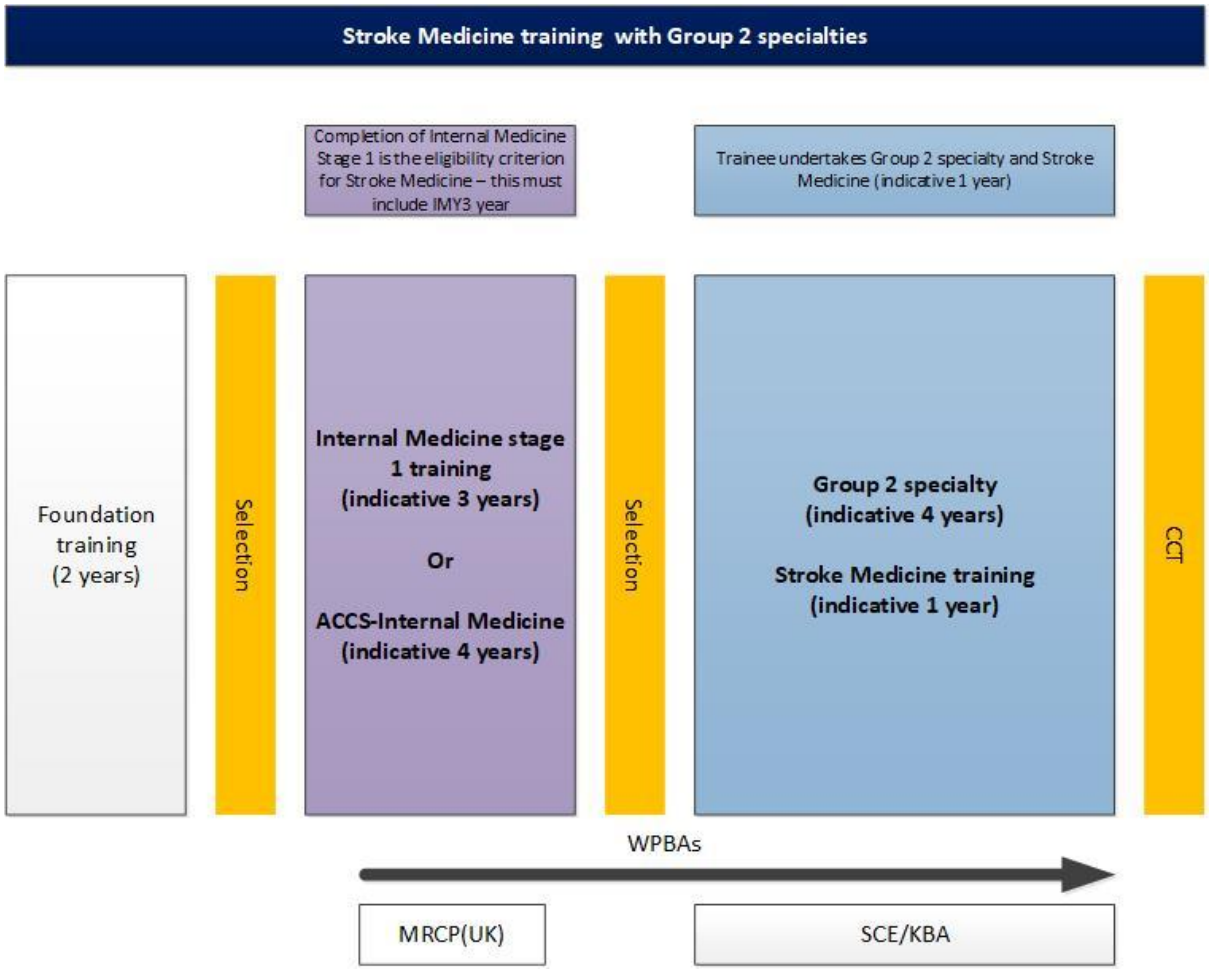
The general principle is that there should be no barrier preventing a trainee from a group 2 specialty undertaking stroke training provided they complete an IMY3 year.




Stroke Medicine training with Neurology
Completion of Internal Medicine Stage 1 is the eligibility criterion for Stroke Medicine
Stroke Medicine curriculum will be embedded within the Neurology curriculum
Foundation training (2 years)
Selection
Internal Medicine stage 1 training (indicative 3 years)
Or
ACCS-Internal Medicine (indicative 4 years)
Selection
Neurology with General Internal Medicine and Stroke Medicine training (indicative 5 years)
Stroke Medicine across 5 years including a principle indicative 6 month block
CCT
WPBAs
MRCP(UK)
SCE/KBA


Stroke Medicine training with AIM
Completion of Internal Medicine Stage 1 is the eligibility criterion for Stroke Medicine
1. All trainees will do core stroke in AIM (indicative 3 months
2. Trainees elect to undertake stroke medicine as a 'specialist skill' (indicative 9 months) which would extend training by an indicative 6 months
Foundation training (2 years)
Selection
Internal Medicine stage 1 training (indicative 3 years)
Or
ACCS-Internal Medicine (indicative 4 years)
Selection
Acute Internal Medicine and General Internal Medicine training with stroke 'specialist skill' (indicative 4.5 years)
CCT
WPBAs
MRCP(UK)
SCE/KBA


Stroke Medicine training with Internal Medicine
Completion of Internal Medicine Stage 1 is the eligibility criterion for Stroke Medicine
Trainee undertakes IM stage 2 (indicative 2 years) and Stroke Medicine (indicative 1 year) which can double credit towards Internal Medicine
Foundation training (2 years)
Selection
Internal Medicine stage 1 training (indicative 3 years)
Or
ACCS-Internal Medicine (indicative 4 years)
Selection
Stroke Medicine and General Internal Medicine training (indicative 3 years)
CCT
WPBAs
MRCP(UK)



2.4 Duration of training

With the new IM curriculum, all trainees who have completed IM stage 1 will have achieved the basic stroke medicine capabilities. Previously, only a subset of medical specialties would allow trainees to undertake sub-specialty stroke training. Now, the new curriculum will allow any trainee in medicine who has completed the IM stage 1 to apply for the specialist year in stroke.

The new stroke curriculum covers an indicative period of one year. How this is achieved can be very flexible. The new curriculum will contain 3 CiPs.

1. Managing the care of acute stroke patients, including hyperacute care and cerebral reperfusion strategies
2. Managing the primary and secondary prevention of Stroke and Transient Ischaemic Attack
3. Managing early and late stroke rehabilitation in hospital and community settings

We have not set indicative times for each CiP. The curriculum will be capability based and trainees will be able to gain competencies in stroke without having to work exclusively in the stroke service.

Example 1.
A neuro-rehabilitation ward is likely to have several stroke patients. Therefore, a trainee looking after patients in such a ward is very likely to develop capabilities in managing stroke rehabilitation.

Example 2.
A trainee who is not in a dedicated period of stroke training but who is undertaking an out of hours rota that involves seeing patients undergoing cerebral reperfusion therapy (e.g. intravenous thrombolysis) under supervision and is responsible for their management on the stroke unit could still have such experience recognised.

Specific examples from the common parent specialties follow.

- Neurology

All neurology trainees will complete stroke within an indicative 5 year neurology and IM training programme. Trainees may still take a year out to complete the stroke curriculum as a dedicated stroke medicine training period. In these cases, trainees should identify with their trainers early how they wish to complete the stroke curriculum: within the training programme or as a dedicated training period. Neither will result in an extension to training.

- Geriatric Medicine

As identified above, Geriatric Medicine trainees could complete dual training in with stroke in an indicative 4.5 year programme. Alternatively, they could take a year of dedicated training. The latter could extend their training by up to 12 months. During dedicated Stroke Medicine training trainees could request that the year of stroke training provide credit for the '3 month core programme' plus '3 month theme for service' in the geriatric medicine curriculum. If granted, training may only be extended an additional indicative 6 months.

- Acute Internal Medicine (AIM)

As identified above, Acute Internal Medicine trainees could complete dual training with stroke in an indicative 4.5 year programme. Alternatively, they could take a year of dedicated Stroke Medicine training. The latter could extend their training by up to 12 months. During dedicated Stroke Medicine training trainees could request that the year of stroke training provide credit for the '3 month core programme' in the AIM curriculum plus 3 months' for AIM. If granted, training may only be extended an additional 6-months

- Pathway with Internal Medicine alone

These trainees would complete their full training in in Internal Medicine stage 2 and Stroke Medicine in an indicative 3 years.

- Other group 1 Physician Specialties

These trainees would undertake stroke training as a stand-alone year and complete the equivalent dedicated Stroke Medicine training . This would extend their training by an indicative 1 year (12 months).

- Group 2 Physician Specialties

These trainees **must** complete the IMY3 year of Internal Medicine stage 1. They would then be eligible to be considered for the dedicated stroke medicine training year during their higher training. For example, in Rehabilitation Medicine this would extend their training by two years compared to Rehabilitation Medicine trainees not undertaking stroke (one year IMT Stage 1 Year 3 and an indicative 1 year in stroke).

There will be options for those trainees who demonstrate exceptionally rapid development and acquisition of capabilities to complete training more rapidly than the current indicative time although it is recognised that clinical experience is a fundamental aspect of development as a good physician. (Guidance on completing training early will be available on the JRCPTB website). There may also be a small number of trainees who develop more slowly and will require an extension of training in line the Reference Guide for Postgraduate Specialty Training in the UK (The Gold Guide)[1].

2.5 Flexibility and accreditation of transferable capabilities

The curriculum supports flexibility and transferability of outcomes across related specialties and disciplines, reflecting key interdependencies between this curriculum and other training programmes, outlined below.

The curriculum incorporates and emphasises the importance of the generic professional capabilities (GPCs). GPCs will promote flexibility in postgraduate training as these common capabilities can be transferred from specialty to specialty. Additionally, all group 1 specialties share the internal medicine clinical capabilities.

Previously in stroke training, many trainees had to take a year out from their parent specialty and training could only be effected in stand-alone posts (‘the sub-specialty year’). The unintended consequence of this was that a lot of high-quality training in stroke went un-recognised in parent specialties and the number of trainees considered to be day one competent in stroke medicine as consultants was very low. Additional extended training times of up to 12 months in some specialties (Geriatric Medicine) anecdotally made stroke training unattractive.

The new curriculum will allow far more flexibility and recognise transferable skills. The curriculum will be built on the platform of IM Stage 1. Stroke competencies are recognised in that curriculum and many of the competencies required to complete IM stage 1 will be directly of value to the care of stroke patients. This will allow any trainee who has completed IM Stage 1 year to be in a position to apply for stroke medicine. This will greatly increase the pool of potential stroke trainees.

Therefore, Stroke Medicine sub-specialty training promotes flexibility on a number of levels (not exhaustive):

1. The move of the first year of stroke training into IM Stage 1 promoting shorter training times and enabling a wider cohort of physician trainees to be in a position to undertake Stroke Medicine subspecialty training, providing more flexible career options
2. Promoting a training pathway for Internal Medicine (IM stage 2) and stroke training
3. Adaptability of the three Stroke CiPs into different parent specialty curricula offering different training models – from embedding the full curriculum to dedicated bespoke training periods while maintaining the same standards of training
4. A recognition of overlapping knowledge, skills and behaviours within training that will contribute towards recognised training in IM, parent specialty and the Stroke Medicine curricula reducing additional training time burden
5. Promoting less than full-time training for all trainees through flexibility in curriculum delivery.

There is a strong aim to promote flexibility to build a happy, healthy, motivated and sustainable workforce of the future.

2.6 Less than full-time training

Trainees are entitled to opt for less than full-time training programmes. Less than full-time 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.

Less than full-time trainees should assume that their clinical training will be of a duration pro-rata with the time indicated/recommended, but this should be reviewed in accordance with the Gold Guide.

2.7 Generic Professional Capabilities and Good Medical Practice

The GMC has developed the Generic professional capabilities (GPC) framework[2] with the Academy of Medical Royal Colleges (AoMRC) to describe the fundamental, career-long, generic capabilities required of every doctor. The framework describes the requirement to develop and maintain key professional values and behaviours, knowledge, and skills, using a common language. GPCs also represent a system-wide, regulatory response to the most common contemporary concerns about patient safety and fitness to practise within the medical profession. The framework will be relevant at all stages of medical education, training and practice.

[2] Generic professional capabilities framework

The nine domains of the GMC's Generic Professional Capabilities

Good medical practice (GMP)[3] is embedded at the heart of the GPC framework. In describing the principles, duties and responsibilities of doctors the GPC framework articulates GMP as a series of achievable educational outcomes to enable curriculum design and assessment.

The GPC framework describes nine domains with associated descriptor outlining the 'minimum common regulatory requirement' of performance and professional behaviour for those completing a CCT or its equivalent. These attributes are common, minimum and generic standards expected of all medical practitioners achieving a CCT or its equivalent.

The nine domains and subsections of the GPC framework are directly identifiable in the IM curriculum. They are mapped to each of the generic and clinical CiPs, which are in turn mapped to the assessment blueprints. This is to emphasise those core professional capabilities that are essential to safe clinical practice and that they must be demonstrated at every stage of training as part of the holistic development of responsible professionals.

This approach will allow early detection of issues most likely to be associated with fitness to practise and to minimise the possibility that any deficit is identified during the final phases of training.

[3] Good Medical Practice

3 Content of Learning

The curriculum is spiral and topics and themes will be revisited to expand understanding and expertise. The level of entrustment for capabilities in practice (CiPs) will increase as an individual progresses from needing direct supervision to able to entrusted to act unsupervised.

3.1 Capabilities in practice

CiPs describe the professional tasks or work within the scope of the specialty and internal medicine. CiPs are based on the concept of entrustable professional activities[4] which use the professional judgement of appropriately trained, expert assessors as a defensible way of forming global judgements of professional performance.

Each CiP has a set of descriptors associated with that activity or task. Descriptors are intended to help trainees and trainers recognise the knowledge, skills and attitudes which should be demonstrated. Doctors in training may use these capabilities to provide evidence of how their performance meets or exceeds the minimum expected level of performance for their year of training. The descriptors are not a comprehensive list and there are many more examples that would provide equally valid evidence of performance.

Many of the CiP descriptors refer to patient centred care and shared decision making. This is to emphasise the importance of patients being at the centre of decisions about their own treatment and care, by exploring care or treatment options and their risks and benefits and discussing choices available.

Additionally, the clinical CiPs repeatedly refer to the need to demonstrate professional behaviour with regard to patients, carers, colleagues and others. Good doctors work in partnership with patients and respect their rights to privacy and dignity. They treat each patient as an individual. They do their best to make sure all patients receive good care and treatment that will support them to live as well as possible, whatever their illness or disability. Appropriate professional behaviour should reflect the principles of GMP and the GPC framework.

In order to complete training and be recommended to the GMC for the award of CCT and entry to the specialist register, the doctor must demonstrate that they are capable of unsupervised practice in all generic and clinical CiPs. Once a trainee has achieved level 4 sign off for a CiP it will not be necessary to repeat assessment of that CiP if capability is maintained (in line with standard professional conduct).

This section of the curriculum details the three sub-specialty CiPs for Stroke Medicine. The expected levels of performance, mapping to relevant GPCs and the evidence that may be

[4] Nuts and bolts of entrustable professional activities

used to make an entrustment decision are given for each CiP. The list of evidence for each CiP is not prescriptive and other types of evidence may be equally valid for that CiP.

3.2 Generic capabilities in practice

The six generic CiPs are embedded in each specialty curriculum and are not relevant specifically to the sub-specialty curriculum of stroke medicine.

3.3 Clinical capabilities in practice

The eight IM clinical CiPs describe the clinical tasks or activities which are essential to the practice of Internal Medicine. They are embedded in each specialty curriculum and are not relevant specifically to the sub-specialty curriculum of stroke medicine.

3.4 Sub-Specialty capabilities in practice

The specialty CiPs describe the clinical tasks or activities which are essential to the practice of Stroke Medicine. The CiPs have been mapped to the nine GPC domains to reflect the professional generic capabilities required to undertake the clinical tasks.

Satisfactory sign off will require educational supervisors to make entrustment decisions on the level of supervision required for each CiP and if this is satisfactory for the stage of training, the trainee can progress. More detail is provided in the programme of assessment section of the curriculum.

KEY

ACAT	Acute care assessment tool	ALS	Advanced Life Support
CbD	Case-based discussion	DOPS	Direct observation of procedural skills
GCP	Good Clinical Practice	Mini IPX	Mini Imaging Assessment
Mini-CEX	Mini-clinical evaluation exercise	MCR	Multiple consultant report
MSF	Multi source feedback	PS	Patient survey
QIPAT	Quality improvement project assessment tool	TO	Teaching observation

Specialty CiPs	
1. Managing the care of acute stroke patients, including hyperacute care and cerebral reperfusion strategies.	
Descriptors	• Demonstrates knowledge of anatomy, physiology, blood supply and pathophysiology as relevant to TIA, stroke (including its subtypes) and common stroke mimics

	• Able to conduct an up-to-date hyper-acute stroke clinical assessment efficiently (including face to face and virtually [e.g. telemedicine]) with appropriate use of imaging to safely deliver treatment including cerebral reperfusion strategies where indicated • Able to demonstrate a recognition and management of complications relating to cerebral reperfusion strategies • Able to perform a comprehensive, specialist assessment, investigate and treat patients with stroke or mimic syndromes relevant to the patient's age, comorbidities and clinical presentation • Able to manage comorbidities and risk factors relevant to stroke appropriately. • Able to apply principles of early multi-professional assessment to understand the physical, psychological and social impact of stroke on patients and work collaboratively with the stroke unit multidisciplinary team to guide management strategies including positioning, hydration, nutrition, continence, risk factor modification and participation in rehabilitation • Able to use up-to-date knowledge of evidence, guidelines, appropriate monitoring and measurement scales (including NIHSS and mRS) to guide management and anticipate early complications e.g. malignant MCA syndrome • Able to recognise and manage the deteriorating stroke patient including the introduction of palliative care (e.g. communicating prognostic uncertainty)
GPCs	Domain 1: Professional values and behaviours Domain 2: Professional skills Domain 3: Professional knowledge Domain 5: Capabilities in leadership and team working Domain 6: Capabilities in patient safety and quality improvement Domain 7: Capabilities in safeguarding vulnerable groups Domain 8: Capabilities in education and training Domain 9: Capabilities in research and scholarship
Evidence to inform decision	**ACAT** Acute care assessment tool **CbD** Case-based decision **Mini-CEX** Mini-clinical evaluation exercise **Mini-IPX** Mini-Imaging Interpretation Exercise **MSF** Multi source feedback **QIPAT** Quality improvement project assessment tool **DOPS-Cerebral Reperfusions** Direct observation of procedural skills **MCR** Multiple consultant report **PS** Patient survey **Educational Supervisor report**
2. Managing the primary and secondary prevention of stroke and Transient Ischaemic Attack	

Descriptors	• Demonstrates knowledge of the different pathophysiological mechanisms, disease processes and causes that underlie the clinical syndrome of stroke (and its subtypes) • Able to conduct an urgent clinical evaluation and prioritise safely: initiating appropriate investigations in a timely manner, interpreting the results and communicating the management plan effectively (including face to face and virtually [e.g. telemedicine]) • Able to provide an accurate diagnosis and appropriate comprehensive management of patients with suspected TIA or stroke including identification of vascular risk factors and lifestyle modification • Able to identify conditions that mimic TIA and stroke and manage these effectively or make an appropriate referral • Able to manage comorbidities and risk factors relevant to TIA and stroke in an outpatient clinic (including tolerating uncertainty where investigation or intervention may not have high utility or benefit). • Awareness of up-to-date primary and secondary prevention treatment strategies for TIA and stroke (including knowledge and application of national guidance) • Able to prioritise referrals received through different mechanisms (e.g. electronic, telephone, in person) and by all healthcare professionals • Able to provide appropriate driving, vocational and social advice for patients with TIA or stroke working in partnership where necessary with the stroke multidisciplinary team
GPCs	Domain 1: Professional values and behaviours Domain 2: Professional skills Domain 3: Professional knowledge Domain 4: Capabilities in health promotion and illness prevention Domain 5: Capabilities in leadership and teamworking Domain 7: Capabilities in safeguarding vulnerable groups Domain 8: Capabilities in education and training Domain 9: Capabilities in research and scholarship
Evidence to inform decision	**ACAT** Acute care assessment tool **CbD** Case-based decision **Mini-CEX** Mini-clinical evaluation exercise **Mini-IPX** Mini-Imaging Interpretation Exercise **MSF** Multi source feedback **QIPAT** Quality improvement project assessment tool **MCR** Multiple consultant report **PS** Patient survey **Educational Supervisor report**
3. Managing early and late stroke rehabilitation in hospital and community settings	

Descriptors	• Understands the anatomy and pathophysiology of stroke with regard to patterns of recovery relevant to stroke subtypes and other factors to guide planning and expectations for an individual's recovery • Demonstrates an understanding of the diverse factors that can influence outcome including problems often associated with non-dominant hemisphere stroke (e.g. higher mental function), neuropsychiatric consequences, post stroke pain and spasticity • Appropriately manages common post stroke complications (seizures, thromboembolism, dysphagia, dehydration, shoulder girdle dysfunction, spasticity) and takes into account how these may affect participation in rehabilitation • Ensures rehabilitation is individualised, patient focused and recognises how the consequences of stroke disability can impact on participation in rehabilitation • Co-ordinates the multidisciplinary team to optimise post stroke recovery, participation in goal setting, measurement of rehabilitation outcome, and participation in national audit • Demonstrates good communication and understanding with patients and families and identifies carer's long-term needs and participation in goal planning • Demonstrates an understanding of medico-legal issues relating to clinically assisted nutrition and hydration in patients both with and without capacity • Contributes to and leads effective discharge planning to support transition to the community and facilitate life after stroke, including engaging with social services that may help optimise on-going recovery and/or provide support including impact on function, vocation and driving. • Understands the impact of ethnicity and socioeconomic patient backgrounds on stroke severity, prognosis and rehabilitation outcomes. • Able to recognise and manage the deteriorating stroke patient including the introduction of palliative care (e.g. communicating prognostic uncertainty)
GPCs	Domain 1: Professional values and behaviours Domain 2: Professional skills Domain 3: Professional knowledge Domain 5: Capabilities in leadership and team working Domain 6: Capabilities in patient safety and quality improvement Domain 7: Capabilities in safeguarding vulnerable groups Domain 8: Capabilities in education and training Domain 9: Capabilities in research and scholarship
Evidence to inform decision	**ACAT** Acute care assessment tool **CbD** Case-based decision **GCP** Good Clinical Practice

	Mini-CEX Mini-clinical evaluation exercise **MSF** Multi source feedback **QIPAT** Quality improvement project assessment tool **MCR** Multiple consultant report **PS** Patient survey **Educational Supervisor report**

3.5 Presentations and conditions

The table below details the key presentations and conditions of Stroke Medicine. Each of these should be regarded as a clinical context in which trainees should be able to demonstrate CiPs and GPCs. In this spiral curriculum, trainees will expand and develop the knowledge, skills and attitudes around managing patients with these conditions and presentations. The patient should always be at the centre of knowledge, learning and care.

Trainees must demonstrate core bedside skills, including information gathering through history and physical examination and information sharing with patients, families and colleagues.

Treatment care and strategy covers how a doctor selects drug treatments or interventions for a patient. It includes discussions and decisions as to whether care is focused mainly on curative intent or whether the main focus is on symptomatic relief. It also covers broader aspects of care, including involvement of other professionals or services.

Particular presentations, conditions and issues are listed either because they are common or serious (having high morbidity, mortality and/or serious implications for treatment or public health).

For each condition/presentation, trainees will need to be familiar with such aspects as aetiology, epidemiology, clinical features, investigation, management and prognosis. Our approach is to provide general guidance and not exhaustive detail, which would inevitably become out of date.

Clinical area	Presentations	Conditions/Issues
Acute Stroke or Mimic	Weakness unilateral or bilateral Inattention Dysarthria Dysphasia Dysphagia Vertigo Unsteadiness Monocular Visual loss	Acute Cerebral Infarction Acute Intracerebral Haemorrhage TIA Cerebral Amyloidosis Transient Amnesias Acute and remote seizure(s) Cerebral Venous Thrombosis Migraine Syncope

Clinical area	Presentations	Conditions/Issues
	Visual Field impairment Altered sensation Sudden unconsciousness	Subdural Haemorrhage Subarachnoid Haemorrhage Amaurosis Fugax Space Occupying Lesion Bell's Palsy Functional Neurological Disorder Facial mononeuropathy Peripheral neuropathy Vestibular disorders Systemic / Metabolic disorders
Primary or Secondary Prevention of Stroke, Transient Ischaemic Attack or Mimic	Weakness unilateral or bilateral Inattention Dysarthria Dysphasia Dysphagia Vertigo Unsteadiness Visual Loss Altered sensation Cognitive decline	Acute Cerebral Infarction Acute Intracerebral Haemorrhage TIA Central retinal artery occlusion Cerebral Amyloidosis Transient Amnesias Acute and remote seizure(s) Migraine Syncope Subdural Haemorrhage Space Occupying Lesion Bell's Palsy Atrial Fibrillation Cervical Arterial disease Cardiac disease Vascular cognitive impairment
Medical Care and Rehabilitation following stroke	Incontinence of urine Incontinence of faeces Oral feeding failure Immobility, including problems with standing and transfers Communication problems Disorders of conduct and behaviour Spasticity Pain Seizures Disorders of mood Musculoskeletal complications of neurological disease Visual Loss	Cerebral infarction Intracerebral haemorrhage Pneumonia Incontinence Post Stroke Pain Post Stroke Depression Post Stroke Epilepsy Vascular cognitive impairment Venous thromboembolic disease Upper motor neurone syndrome

Clinical area	Presentations	Conditions/Issues
	Disorders of perception and visuospatial neglect Abnormal Sensation Disorders of cognition Fatigue Complications of immobility	

3.6 Practical procedures

There are no specific practical procedures that are mandatory for stroke medicine at CCT level. Trainees may wish to gain expertise in botulinum toxin injection to manage spasticity or insertion of feeding tubes but these are not considered routine mandatory procedures.

4 Learning and Teaching

4.1 The training programme

The organisation and delivery of postgraduate training is the responsibility of the Health Education England (HEE), NHS Education for Scotland (NES), Health Education and Improvement Wales (HEIW) and the Northern Ireland Medical and Dental Training Agency (NIMDTA) – referred to from this point as 'deaneries'. A training programme director (TPD) will be responsible for coordinating the specialty training programme. In England, the local organisation and delivery of training is overseen by a school of medicine.

Progression through the programme will be determined by the Annual Review of Competency Progression (ARCP) process and the training requirements for each indicative year of training are summarised in the ARCP decision aid (available on the JRCPTB website).

The sequence of training should ensure appropriate progression in experience and responsibility. The training to be provided at each training site is defined to ensure that, during the programme, the curriculum requirements are met and also that unnecessary duplication and educationally unrewarding experiences are avoided.

The following provides a guide on how training programmes should be focused in each training year in order for trainees to gain the experience and develop the capabilities to the level required. Trainees will have an appropriate clinical supervisor and a named educational supervisor. The clinical supervisor and educational supervisor may be the same person.

Mandatory training

- There is no mandatory training specific to stroke

Recommended training

- Training in acute reperfusion therapy
- Use of scales and other tools for the assessment of stroke patients
    - National Institutes of Health Stroke Scale NIHSS
    - ASPECTS
    - BARTHEL
    - Modified Rankin Scale mRS
    - Course in Stroke reperfusion therapy
- Training in Neurovascular brain imaging- e.g. CT, MRI and angiography techniques
- Spasticity and Botulinum toxin injection treatment

Palliative and end of life care

Palliative and end of life care is a core component of the Internal Medicine (IM) curriculum and trainees will continue to develop their knowledge and skills throughout specialty training. Palliative and end of life care is one of the eight clinical Capabilities in Practice. Palliative care is very pertinent to stroke and experience of end of life care can be achieved during attachments to the stroke service

4.2 Teaching and learning methods

The curriculum will be delivered through a variety of learning experiences and will achieve the capabilities described in the syllabus through a variety of learning methods with a sound educational theory basis. There will be a balance of different modes of learning from formal teaching programmes to work based learning. The proportion of time allocated to different learning methods may vary depending on the nature of the attachment within a rotation.

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

Work-based experiential learning - The content of work-based experiential learning is decided by the local faculty for education but includes active participation in:

i. Medical clinics including specialty clinics

The educational objectives (not exhaustive) of attending clinics are:

- To be able to differentiate TIA from other mimic conditions
- To be able to identify functional disorders and institute appropriate management
- To be able to use a variety of methods to assess patients (including virtual clinics)
- To understand the management of chronic diseases in stroke patients
- To be able to manage vascular comorbidities and institute prevention strategies
- To be able to assess a patient in a defined time-frame
- To interpret and act on the referral letter to clinic
- To propose an investigation and management plan in a setting different from the acute medical situation

- To review and amend existing investigation plans
- To write an appropriate consultation letter to the referrer and, when appropriate the patient
- To communicate with the patient and where necessary relatives and other health care professionals.

These objectives can be achieved in a variety of settings including; hospital, day care facilities; community care facilities and virtual practices. A clinic might be primarily run by a specialist nurse (or other qualified health care professionals) rather than a consultant physician. After initial induction, trainees will review patients in clinic settings, under direct supervision. The degree of responsibility taken by the trainee will increase as competency increases. Trainees should see a range of new and follow-up patients and present their findings to their clinical supervisor. Communication written by the trainee should also be reviewed and feedback given.

The number of patients that a trainee should see in each clinic is not defined, neither is the time that should be spent in clinic, but as a guide this should be a minimum of two hours.

Clinic experience should be used as an opportunity to undertake supervised learning events and reflection.

ii. Reviewing patients with consultants

It is important that trainees have an opportunity to present at least a proportion of the patients whom they have admitted to their consultant for senior review in order to obtain timely feedback of performance (this may be as a WBA such as an ACAT, mini-CEX or CBD). This may be accomplished when working on a take shift along with a consultant, or on a post-take ward round with a consultant.

iii. Personal ward rounds and provision of ongoing clinical care on specialist medical ward attachments

Every patient seen on the ward, in outpatients or virtually, provides a learning opportunity which will be enhanced by following the patient through the course of their illness. The experience of the evolution of patients' problems over time is a critical part both of the diagnostic process as well as management. Patients seen should provide the basis for critical reading and reflection on clinical problems.

iv. Ward rounds by more senior doctors or practitioners

Every time a trainee observes another senior doctor / specialist practitioner in stroke seeing a patient or their relatives there is an opportunity for learning. Ward rounds (including post-take) should be led by a more senior doctor and include feedback on clinical and decision-making skills to provide this opportunity.

v. Multidisciplinary team meetings

There are many situations where clinical problems are discussed with clinicians in other disciplines. These provide excellent opportunities for observation of clinical reasoning.

Trainees have supervised responsibility for the care of inpatients. This includes day-to-day review of clinical conditions, record keeping, and the initial management of the acutely ill patient with referral to and liaison with clinical colleagues as necessary. The degree of responsibility taken by the trainee will increase as their capability increases. There should be appropriate levels of clinical supervision throughout training, with increasing clinical independence and responsibility.

vi. Palliative and end of life care

Trainees in stroke medicine will see patients with palliative care needs and a range of life-limiting illnesses *in addition* to stroke, including cancer, frailty, multi-morbidity, dementia and organ failure. They will gain expertise in:

- Managing difficult physical symptoms;
- Managing psychological, spiritual and existential distress for patients and those close to them;
- Addressing complex social issues for patients at the end of life (including facilitating preferences for place of care and death);
- Managing challenging symptoms in the dying patient;
- Identifying those in need of proactive or enhanced bereavement support;
- Managing palliative care patients out of hours.
- Knowing when to involve the specialist palliative care team

Trainees will also have the opportunity to:

- Enhance skills in recognising the patient with limited reversibility of their medical condition and the dying patient;
- Improve understanding of the range of interventions that can be delivered in acute and non-acute settings (e.g. community, hospice or care home);
- Increase confidence in developing and communicating appropriate advance care plans, including DNACPR and treatment escalation decisions;
- Increase confidence in providing a senior opinion where there is conflict regarding a patient's goals of care;
- Increase confidence in working in an advisory/liaison role, e.g. in hospital or community, providing advice to other multiprofessional teams.

vii. Formal postgraduate teaching

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

Suggested activities include:

- a programme of formal regular teaching sessions
- case presentations

- research, audit and quality improvement projects
- lectures and small group teaching
- Grand Rounds
- clinical skills demonstrations and teaching
- critical appraisal and evidence-based medicine and journal clubs
- joint specialty meetings
- attendance at training programmes organised on a deanery or regional basis, which are designed to cover aspects of the training programme outlined in this curriculum.

viii. Learning with peers

There are many trainee opportunities for social learning with their peers. Local postgraduate teaching opportunities allow trainees of varied levels of experience to come together for small group sessions.

ix. Independent self-directed learning

Trainees will use this time in a variety of ways depending upon their stage of learning. Suggested activities include:

- Reading journals
- Using web-based material such as e-Learning for Healthcare (e-LfH)
- Maintaining of personal portfolio (self-assessment, reflective learning, personal development plan)
- Audit, quality improvement and research projects
- Achieving personal learning goals beyond the essential, core curriculum

x. Formal study courses

Time to be made available for formal courses is encouraged, subject to local conditions of service. Examples include management and leadership courses and communication courses, which are particularly relevant to patient safety and experience.

4.3 Academic training

The four nations have different arrangements for academic training and doctors in training should consult the local deanery for further guidance.

Trainees may train in academic medicine as an academic clinical fellow (ACF), academic clinical lecturer (ACL) or equivalent in the parent specialty.

Some trainees may opt to do research leading to a higher degree without being appointed to a formal academic programme. This new curriculum should not impact in any way on the facility to take time out of programme for research (OOPR) but as now, such time requires discussion between the trainee, the TPD and the Deanery as to what is appropriate together with guidance from the appropriate SAC that the proposed period and scope of study is sensible.

4.4 Taking time out of programme

There are a number of circumstances when a trainee may seek to spend some time out of specialty training, such as undertaking a period of research or taking up a fellowship post. All such requests must be agreed by the postgraduate dean in advance and trainees are advised to discuss their proposals as early as possible. Full guidance on taking time out of programme can be found in the Gold Guide.

4.5 Acting up as a consultant

A trainee coming towards the end of their training may spend up to three months "acting-up" as a consultant, provided that a consultant supervisor is identified for the post and satisfactory progress is made. As long as the trainee remains within an approved training programme including Stroke Medicine, the GMC does not need to approve this period of "acting up" and their original CCT date will not be affected. More information on acting up as a consultant can be found in the Gold Guide.

5 Programme of Assessment

5.1 Purpose of assessment

The purpose of the programme of assessment is to:

- assess trainees' actual performance in the workplace
- enhance learning by providing formative assessment, enabling trainees to receive immediate feedback, understand their own performance and identify areas for development
- drive learning and enhance the training process by making it clear what is required of trainees and motivating them to ensure they receive suitable training and experience
- demonstrate trainees have acquired the GPCs and meet the requirements of GMP
- ensure that trainees possess the essential underlying knowledge required for their specialty
- provide robust, summative evidence that trainees are meeting the curriculum standards during the training programme;
- inform the ARCP and / or Specialist Year Assessment (SYA) in Stroke; identifying any requirements for targeted or additional training where necessary and facilitating decisions regarding progression through the training programme;
- identify trainees who should be advised to consider changes of career direction.

5.2 Programme of Assessment

Our programme of assessment refers to the integrated framework of exams, assessments in the workplace and judgements made about a learner during their approved programme of training. The purpose of the programme of assessment is to robustly evidence, ensure and clearly communicate the expected levels of performance at critical progression points in, and to demonstrate satisfactory completion of training as required by the curriculum.

The programme of assessment is comprised of several different individual types of validated and reliable assessment tools. A range of assessments is needed to generate the evidence required for global judgements to be made about satisfactory performance, progression in, and completion of, training. All assessments, including those conducted in the workplace, are linked to the relevant curricular learning outcomes (e.g. through the blueprinting of assessment system to the stated curricular outcomes).

The programme of assessment emphasises the importance and centrality of professional judgement in making sure learners have met the learning outcomes and expected levels of performance set out in the approved curricula. Assessors will make accountable, professional judgements. The programme of assessment also includes how professional judgements are used and collated to support decisions on progression and satisfactory completion of training. Assessment tools are chosen based on the situation in which they are used (e.g. Mini-IPX for brain imaging assessment; CbD for a single patient encounter) but critically allows timely and structured feedback for trainees and can be used in a formative and summative way.

Assessment will take place throughout the training programme to allow trainees continually to gather evidence of learning and to provide formative feedback. Those assessment tools which are not identified individually as summative will contribute to summative judgements about a trainee's progress as part of the programme of assessment. The number and range of these will ensure a reliable assessment of the training relevant to their stage of training and achieve coverage of the curriculum.

Reflection and feedback are an integral component to all SLEs and WBPAs. In order for trainees to maximise benefit, reflection and feedback should take place as soon as possible after an event. Every clinical encounter can provide a unique opportunity for reflection and feedback and this process should occur frequently. Feedback should be of high quality and should include an action plan for future development for the trainee. Both trainees and trainers should recognise and respect cultural differences when giving and receiving feedback.

5.3 Assessment of CiPs

Assessment of CiPs involves looking across a range of different skills and behaviours to make global decisions about a learner's suitability to take on particular responsibilities or tasks.

Clinical supervisors and others contributing to assessment will provide formative feedback to the trainee on their performance throughout the training year. This feedback will include a global rating in order to indicate to the trainee and their educational supervisor how they are progressing at that stage of training. To support this, workplace based assessments and multiple consultant reports will include global assessment anchor statements.

Global assessment anchor statements

- Below expectations for this year of training; may not meet the requirements for critical progression point
- Meeting expectations for this year of training; expected to progress to next stage of training
- Above expectations for this year of training; expected to progress to next stage of training

Towards the end of the training year, trainees will make a self-assessment of their progression for each CiP and record this in the eportfolio with signposting to the evidence to support their rating.

The educational supervisor (ES) will review the evidence in the eportfolio including workplace based assessments, feedback received from clinical supervisors (via the Multiple Consultant Report) and the trainee's self-assessment and record their judgement on the trainee's performance in the ES report, with commentary.

For **generic CiPs**, the ES will indicate whether the trainee is meeting expectations or not using the global anchor statements above. Trainees will need to be meeting expectations for the stage of training as a minimum to be judged satisfactory to progress to the next training year.

For **clinical and specialty CiPs**, the ES will make an entrustment decision for each CiP and record the indicative level of supervision required with detailed comments to justify their entrustment decision. The ES will also indicate the most appropriate global anchor statement (see above) for overall performance.

Level descriptors for clinical and specialty CiPs

Level	Descriptor
Level 1	**Entrusted to observe only** – no provision of clinical care
Level 2	**Entrusted to act with direct supervision**: The trainee may provide clinical care, but the supervising physician is physically within the hospital or other site of patient care and is immediately available if required to provide direct bedside supervision
Level 3	**Entrusted to act with indirect supervision**: The trainee may provide clinical care when the supervising physician is not physically present within the hospital or other site of patient care, but is available by means of telephone and/or electronic media to provide advice, and can attend at the bedside if required to provide direct supervision
Level 4	**Entrusted to act unsupervised**

The ARCP and / or SYA will be informed by the ES report and the evidence presented in the e-portfolio. The ARCP or SYA panel will make the final summative judgement on whether

the trainee has achieved the generic outcomes and the appropriate level of supervision for each CiP related to stroke. The ARCP panel will determine whether the trainee can progress to the next year/level of training in accordance with the Gold Guide. ARCPs will be held for each training year. The final ARCP will ensure trainees have achieved level 4 in all CiPs for the critical progression point at completion of training.

In Stroke Medicine, trainees who complete a specialist period of time in dedicated Stroke Medicine training will have that year or period of time assessed by an SYA (Specialist Year Assessment) panel. Trainees who are completing the stroke curriculum embedded in their parent specialty curriculum (e.g. neurology) will have an ARCP. The ARCP panel must have a member who is an ES in stroke medicine and reports to the local Stroke TPD.

5.4 Critical progression points

There will be a key progression point on entry and on completion of specialty training. Trainees will be required to be entrusted at level 4 in all CiPs in order to achieve an ARCP outcome 6 and be recommended for a CCT.

The educational supervisor report will make a recommendation to the ARCP panel as to whether the trainee has met the defined levels for the CiPs and acquired the procedural competence required for each year of training. The ARCP panel will make the final decision on whether the trainee can progress to the next year/level of training [see section 5.6].

The outline grids below set out the expected level of supervision and entrustment for the IM clinical CiPs and the specialty CiPs and include the critical progression points across the whole training programme.

Table 1: Outline grid of levels expected for Internal Medicine clinical capabilities in practice (CiPs)
Not applicable to stroke medicine

Table 2: Outline grid of levels expected for Stroke Medicine specialty capabilities in practice (CiPs)

Levels to be achieved by the end of each training year for sub specialty CiPs

Level descriptors
Level 1: Entrusted to observe only – no clinical care
Level 2: Entrusted to act with direct supervision
Level 3: Entrusted to act with indirect supervision
Level 4: Entrusted to act unsupervised

The full stroke curriculum will be embedded in the neurology curriculum and partly embedded in Geriatrics and AIM. Therefore, level 4 should be achieved somewhere between ST7 and ST8.

Specialty CiP	CRITICAL PROGRESSION	ST4	ST5	ST6	ST7 or ST8	CRITICAL PROGRESSION
Managing the care of acute stroke patients, including hyperacute care and cerebral reperfusion strategies		2	2	2	4	
Managing the primary and secondary prevention of stroke and Transient Ischaemic Attack		2	2	2	4	
Managing early and late stroke rehabilitation in hospital and community settings		2	2	2	4	

5.5 Evidence of progress

The following methods of assessment will provide evidence of progress in the integrated programme of assessment. The requirements for each training year/level are stipulated in the ARCP decision aid (www.jrcptb.org.uk).

Trainees who take dedicated Stroke Medicine training to complete the stroke curriculum will undergo a Specialty Year Assessment (SYA) towards the end of that period. The SYA panel will comprise appropriate members of the Stroke SSAC or past members who remain active in training. Trainees who are completing the stroke curriculum embedded in their parent specialty curriculum (e.g. neurology) will have an ARCP. The ARCP panel must have a member who is an ES in stroke medicine and reports to the local Stroke TPD.

Summative assessment

Examinations and certificates

- Not applicable to Stroke

Workplace based assessment (WPBA)

- Direct Observation of Procedural Skills (DOPS) – cerebral reperfusion

Formative assessment

Supervised Learning Events (SLEs)

- Acute Care Assessment Tool (ACAT)
- Case-Based Discussions (CbD)
- mini-Clinical Evaluation Exercise (mini-CEX)

WPBA

- Direct Observation of Procedural Skills (DOPS) – formative (as above)
- Multi-Source Feedback (MSF)
- Patient Survey (PS)
- Quality Improvement Project Assessment Tool (QIPAT)
- Teaching Observation (TO)
- Mini-Imaging Interpretation Exercise (Mini IPX)

Supervisor reports

- Multiple Consultant Report (MCR)
- Educational Supervisor Report (ESR)

These methods are described briefly below. More information and guidance for trainees and assessors are available in the e-portfolio and on the JRCPTB website (www.jrcptb.org.uk).

Assessment should be recorded in the trainee's eportfolio. These methods include feedback opportunities as an integral part of the programme of assessment.

Acute Care Assessment Tool (ACAT)
The ACAT is designed to assess and facilitate feedback on a doctor's performance during their practice on the acute medical take. It is primarily for assessment of their ability to prioritise, to work efficiently, to work with and lead a team, and to interact effectively with nursing and other colleagues. It can also be used for assessment and feedback in relation to care of individual patients. Any doctor who has been responsible for the supervision of the acute medical take can be the assessor for an ACAT.

Case-based Discussion (CbD)
The CbD assesses the performance of a trainee in their management of a patient to provide an indication of competence in areas such as clinical reasoning, decision-making and application of medical knowledge in relation to patient care. It also serves as a method to document conversations about, and presentations of, cases by trainees. The CbD should focus on a written record (such as written case notes, out-patient letter, and discharge summary). A typical encounter might be when presenting newly referred patients in the out-patient department.

mini-Clinical Evaluation Exercise (mini-CEX)
This tool evaluates a clinical encounter with a patient to provide an indication of competence in skills essential for good clinical care such as history taking, examination and clinical reasoning. The trainee receives immediate feedback to aid learning. The mini-CEX can be used at any time and in any setting when there is a trainee and patient interaction and an assessor is available.

Mini IPX. Mini-Imaging Assessment
This tool evaluates an observed radiology interpretation/reporting episode. The mini-IPX can be used at any time and in any setting when an assessor is available. Assessors must be trained in giving feedback and understand the role of assessment and a different assessor should be used for each mini-IPX wherever possible. Learners should agree the timing, problem and assessor, although assessors may also carry out unscheduled assessments. Learners should receive immediate feedback to aid learning.

Direct Observation of Procedural Skills (DOPS)
A DOPS is an assessment tool designed to evaluate the performance of a trainee in undertaking a practical procedure, against a structured checklist. The trainee receives immediate feedback to identify strengths and areas for development. DOPS can be undertaken as many times as the trainee and their supervisor feel is necessary (formative). A trainee can be regarded as competent to perform a procedure independently after they are signed off as such by an appropriate assessor (summative).

Multi-source feedback (MSF)
This tool is a method of assessing generic skills such as communication, leadership, team working, reliability etc, across the domains of Good Medical Practice. This provides systematic collection and feedback of performance data on a trainee, derived from a

number of colleagues. ‘Raters’ are individuals with whom the trainee works, and includes doctors, administrative staff, and other allied professionals. Raters should be agreed with the educational supervisor at the start of the training year. The trainee will not see the individual responses by raters. Feedback is given to the trainee by the Educational Supervisor.

Patient Survey (PS)
A trainee’s interaction with patients should be continually observed and assessed. The Patient Survey provides a tool to assess a trainee during a consultation period. The Patient Survey assesses the trainee’s performance in areas such as interpersonal skills, communication skills and professionalism.

Quality Improvement Project Assessment Tool (QIPAT)
The QIPAT is designed to assess a trainee's competence in completing a quality improvement project. The QIPAT can be based on review of quality improvement project documentation or on a presentation of the quality improvement project at a meeting. If possible the trainee should be assessed on the same quality improvement project by more than one assessor.

Teaching Observation (TO)
The TO form is designed to provide structured, formative feedback to trainees on their competence at teaching. The TO can be based on any instance of formalised teaching by the trainee which has been observed by the assessor. The process should be trainee-led (identifying appropriate teaching sessions and assessors).

Supervisors reports

Multiple Consultant Report (MCR)
The MCR captures the views of consultant supervisors based on observation on a trainee's performance in practice. The MCR feedback and comments received give valuable insight into how well the trainee is performing, highlighting areas of excellence and areas of support required. MCR feedback will be available to the trainee and contribute to the educational supervisor’s report.

Educational supervisors report (ESR)
The ES will periodically (at least annually) record a longitudinal, global report of a trainee’s progress based on a range of assessment, potentially including observations in practice or reflection on behaviour by those who have appropriate expertise and experience. The ESR will include the ES’s summative judgement of the trainee’s performance and the entrustment decisions given for the learning outcomes (CiPs). The ESR can incorporate commentary or reports from longitudinal observations, such as from supervisors or formative assessments demonstrating progress over time.

5.6 Decisions on progress (ARCP and SYA)

The decisions made at critical progression points and upon completion of training should be clear and defensible. They must be fair and robust and make use of evidence from a range

of assessments, potentially including exams and observations in practice or reflection on behaviour by those who have appropriate expertise or experience. They can also incorporate commentary or reports from longitudinal observations, such as from supervisors or formative assessments demonstrating progress over time.

Periodic (at least annual) review should be used to collate and systematically review evidence about a doctor's performance and progress in a holistic way and make decisions about their progression in training. The annual review of progression (ARCP) process supports the collation and integration of evidence to make decisions about the achievement of expected outcomes.

Assessment of CiPs involves looking across a range of different skills and behaviours to make global decisions about a learner's suitability to take on particular responsibilities or tasks, as do decisions about the satisfactory completion of presentations/conditions and procedural skills set out in this curriculum. The outline grid in section 5.4 sets out the level of supervision expected for each of the clinical and specialty CiPs. The requirements for each year of training are set out in the ARCP decision aid (www.jrcptb.org.uk).

The ARCP process is described in the Gold Guide. Deaneries are responsible for organising and conducting ARCPs. The evidence to be reviewed by ARCP panels should be collected in the trainee's eportfolio.

As a precursor to ARCPs, JRCPTB strongly recommend that trainees have an informal eportfolio review either with their educational supervisor or arranged by the local school of medicine. These provide opportunities for early detection of trainees who are failing to gather the required evidence for ARCP.

There should be review of the trainee's progress to identify any outstanding targets that the trainee will need to complete to meet all the learning outcomes for completion training approximately 12-18 months before CCT. This should include an external assessor from outside the training programme.

In order to guide trainees, supervisors and the ARCP panel, JRCPTB has produced an ARCP decision aid which sets out the requirements for a satisfactory ARCP outcome at the end of each training year and critical progression point. The ARCP decision aid is available on the JRCPTB website www.jrcptb.org.uk.

Poor performance should be managed in line with the Gold Guide.

5.7 Assessment blueprint

The tables below show the possible methods of assessment for each CiP. It is not expected that every method will be used for each competency and additional evidence may be used to help make a judgement on capability.

KEY

ACAT	Acute care assessment tool	CbD	Case-based discussion
DOPS	Direct observation of procedural skills	Mini-CEX	Mini-clinical evaluation exercise
MCR	Multiple consultant report	MSF	Multi source feedback
PS	Patient survey	QIPAT	Quality improvement project assessment tool
Mini-IPX	Mini-Imaging Assessment	TO	Teaching observation

Blueprint for WPBAs mapped to CiPs

Learning outcomes	**ACAT**	**CbD**	**DOPS**	**MCR**	**Mini -CEX**	**MSF**	**PS**	**QIPAT**	**TO**	**Mini-IPX**
Specialty CiPs										
Managing the care of acute stroke patients, including hyperacute care and cerebral reperfusion strategies	√	√	√	√	√	√				√
Managing the primary and secondary prevention of stroke and Transient Ischaemic Attack	√	√	√	√	√	√	√			√
Managing early and late stroke rehabilitation in hospital and community settings	√	√	√	√	√	√				

There is no knowledge based assessment (SCE/diploma) required for stroke medicine

6 Supervision and feedback

This section of the curriculum describes how trainees will be supervised, and how they will receive feedback on performance. For further information please refer to the AoMRC guidance on Improving feedback and reflection to improve learning[5].

Access to high quality, supportive and constructive feedback is essential for the professional development of the trainee. Trainee reflection is an important part of the feedback process and exploration of that reflection with the trainer should ideally be a two way dialogue. Effective feedback is known to enhance learning and combining self-reflection to feedback promotes deeper learning.

Trainers should be supported to deliver valuable and high quality feedback. This can be by providing face to face training to trainers. Trainees would also benefit from such training as

[5] Improving feedback and reflection to improve learning. A practical guide for trainees and trainers

they frequently act as assessors to junior doctors, and all involved could also be shown how best to carry out and record reflection.

6.1 Supervision

All elements of work in training posts must be supervised with the level of supervision varying depending on the experience of the trainee and the clinical exposure and case mix undertaken. Outpatient and referral supervision must routinely include the opportunity to discuss all cases with a supervisor if appropriate. As training progresses the trainee should have the opportunity for increasing autonomy, consistent with safe and effective care for the patient.

Organisations must make sure that each doctor in training has access to a named clinical supervisor and a named educational supervisor. Depending on local arrangements these roles may be combined into a single role of educational supervisor. However, it is preferred that a trainee has a single named educational supervisor for (at least) a full training year, in which case the clinical supervisor is likely to be a different consultant during some placements.

The role and responsibilities of supervisors have been defined by the GMC in their standards for medical education and training[6].

Educational supervisor
The educational supervisor is responsible for the overall supervision and management of a doctor's educational progress during a placement or a series of placements. The educational supervisor regularly meets with the doctor in training to help plan their training, review progress and achieve agreed learning outcomes. The educational supervisor is responsible for the educational agreement, and for bringing together all relevant evidence to form a summative judgement about progression at the end of the placement or a series of placements. Trainees on a dual training program may have a single educational supervisor responsible for their internal medicine and specialty training, or they may have two educational supervisors, one responsible for internal medicine and one for specialty.

Clinical supervisor
Consultants responsible for patients that a trainee looks after provide clinical supervision for that trainee and thereby contribute to their training; they may also contribute to assessment of their performance by completing a 'Multiple Consultant Report (MCR)' and other WPBAs. A trainee may also be allocated (for instance, if they are not working with their educational supervisor in a particular placement) a named clinical supervisor, who is responsible for reviewing the trainee's training and progress during a particular placement. It is expected that a named clinical supervisor will provide a MCR for the trainee to inform the Educational Supervisor's report.

The educational and (if relevant) clinical supervisors, when meeting with the trainee, should discuss issues of clinical governance, risk management and any report of any untoward

[6] Promoting excellence: standards for medical education and training

clinical incidents involving the trainee. If the service lead (clinical director) has any concerns about the performance of the trainee, or there are issues of doctor or patient safety, these would be discussed with the clinical and educational supervisors (as well as the trainee). These processes, which are integral to trainee development, must not detract from the statutory duty of the trust to deliver effective clinical governance through its management systems.

Educational and clinical supervisors need to be formally recognised by the GMC to carry out their roles[7]. It is essential that training in assessment is provided for trainers and trainees in order to ensure that there is complete understanding of the assessment system, assessment methods, their purposes and use. Training will ensure a shared understanding and a consistency in the use of the WPBAs and the application of standards.

Opportunities for feedback to trainees about their performance will arise through the use of the workplace based assessments, regular appraisal meetings with supervisors, other meetings and discussions with supervisors and colleagues, and feedback from ARCP.

Trainees
Trainees should make the safety of patients their first priority and they should not be practising in clinical scenarios which are beyond their experiences and competencies without supervision. Trainees should actively devise individual learning goals in discussion with their trainers and should subsequently identify the appropriate opportunities to achieve said learning goals. Trainees therefore need to plan their WPBAs accordingly to enable these to collectively provide a picture of their development during a training period. Trainees should actively seek guidance from their trainers in order to identify the appropriate learning opportunities and plan the appropriate frequency and type of WPBAs according to their individual learning needs. It is the responsibility of trainees to seek feedback following learning opportunities and WPBAs. Trainees should self-reflect and self-evaluate regularly with the aid of feedback. Furthermore, trainees should formulate action plans with further learning goals in discussion with their trainers.

6.2 Appraisal

A formal process of appraisals and reviews underpins training. This process ensures adequate supervision during training, provides continuity between posts and different supervisors and is one of the main ways of providing feedback to trainees. All appraisals should be recorded in the eportfolio

Induction Appraisal
The trainee and educational supervisor should have an appraisal meeting at the beginning of each post to review the trainee's progress so far, agree learning objectives for the post ahead and identify the learning opportunities presented by the post. Reviewing progress through the curriculum will help trainees to compile an effective Personal Development Plan (PDP) of objectives for the upcoming post. This PDP should be agreed during the Induction

[7] Recognition and approval of trainers

Appraisal. The trainee and supervisor should also both sign the educational agreement in the e-portfolio at this time, recording their commitment to the training process.

Mid-point Review
This meeting between trainee and educational supervisor is not mandatory (particularly when an attachment is shorter than 6 months) but is encouraged particularly if either the trainee or educational or clinical supervisor has training concerns or the trainee has been set specific targeted training objectives at their ARCP. At this meeting trainees should review their PDP with their supervisor using evidence from the e-portfolio. Workplace based assessments and progress through the curriculum can be reviewed to ensure trainees are progressing satisfactorily, and attendance at educational events should also be reviewed. The PDP can be amended at this review.

End of Attachment Appraisal
Trainees should review the PDP and curriculum progress with their educational supervisor using evidence from the e-portfolio. Specific concerns may be highlighted from this appraisal. The end of attachment appraisal form should record the areas where further work is required to overcome any shortcomings. Further evidence of competence in certain areas may be needed, such as planned workplace based assessments, and this should be recorded. If there are significant concerns following the end of attachment appraisal then the programme director should be informed. Supervisors should also identify areas where a trainee has performed at the level expected and highlight successes.

7 Quality Management

The organisation of training programs is the responsibility of the deaneries. The deaneries will oversee programmes for postgraduate medical training in their regions. The Schools of Medicine in England, Wales and Northern Ireland and the Medical Specialty Training Board in Scotland will undertake the following roles:

- oversee recruitment and induction of trainees into the specialty
- allocate trainees into particular rotations appropriate to their training needs
- oversee the quality of training posts provided locally
- ensure adequate provision of appropriate educational events
- ensure curricula implementation across training programmes
- oversee the workplace based assessment process within programmes
- coordinate the ARCP process for trainees
- provide adequate and appropriate career advice
- provide systems to identify and assist doctors with training difficulties
- provide flexible training.

Educational programmes to train educational supervisors and assessors in workplace based assessment may be delivered by deaneries or by the colleges or both.

Development, implementation, monitoring and review of the curriculum are the responsibility of the JRCPTB and the SAC. The committee will be formally constituted with representatives from each health region in England, from the devolved nations and with trainee and lay representation. It will be the responsibility of the JRCPTB to ensure that

curriculum developments are communicated to heads of school, regional specialty training committees and TPDs.

The JRCPTB has a role in quality management by monitoring and driving improvement in the standard of all medical specialties on behalf of the three Royal Colleges of Physicians in Edinburgh, Glasgow and London. The SACs are actively involved in assisting and supporting deaneries to manage and improve the quality of education within each of their approved training locations. They are tasked with activities central to assuring the quality of medical education such as writing the curriculum and assessment systems, reviewing applications for new posts and programmes, provision of external advisors to deaneries and recommending trainees eligible for CCT or Certificate of Eligibility for Specialist Registration (CESR).

JRCPTB uses data from six quality datasets across its specialties and subspecialties to provide meaningful quality management. The datasets include the GMC national Training Survey (NTS) data, ARCP outcomes, examination outcomes, new consultant survey, external advisor reports and the monitoring visit reports.

Quality criteria have been developed to drive up the quality of training environments and ultimately improve patient safety and experience. These are monitored and reviewed by JRCPTB to improve the provision of training and ensure enhanced educational experiences.

8 Intended use of curriculum by trainers and trainees

This curriculum and ARCP decision aid are available from the Joint Royal Colleges of Physicians Training Board (JRCPTB) via the website www.jrcptb.org.uk.

Clinical and educational supervisors should use the curriculum and decision aid as the basis of their discussion with trainees, particularly during the appraisal process. Both trainers and trainees are expected to have a good knowledge of the curriculum and should use it as a guide for their training programme.

Each trainee will engage with the curriculum by maintaining an eportfolio. The trainee will use the curriculum to develop learning objectives and reflect on learning experiences.

Recording progress in the eportfolio

On enrolling with JRCPTB trainees will be given access to the eportfolio. The eportfolio allows evidence to be built up to inform decisions on a trainee's progress and provides tools to support trainees' education and development.

The trainee's main responsibilities are to ensure the eportfolio is kept up to date, arrange assessments and ensure they are recorded, prepare drafts of appraisal forms, maintain their personal development plan, record their reflections on learning and record their progress through the curriculum.

The supervisor's main responsibilities are to use eportfolio evidence such as outcomes of assessments, reflections and personal development plans to inform appraisal meetings. They are also expected to update the trainee's record of progress through the curriculum, write end-of-attachment appraisals and supervisor's reports.

Deaneries, training programme directors, college tutors and ARCP panels may use the eportfolio to monitor the progress of trainees for whom they are responsible.

JRCPTB will use summarised, anonymous eportfolio data to support its work in quality assurance.

All appraisal meetings, personal development plans and workplace based assessments (including MSF) should be recorded in the eportfolio. Trainees are encouraged to reflect on their learning experiences and to record these in the eportfolio. Reflections can be kept private or shared with supervisors.

Reflections, assessments and other eportfolio content should be used to provide evidence towards acquisition of curriculum capabilities. Trainees should add their own self-assessment ratings to record their view of their progress. The aims of the self-assessment are:

- to provide the means for reflection and evaluation of current practice
- to inform discussions with supervisors to help both gain insight and assist in developing personal development plans.
- to identify shortcomings between experience, competency and areas defined in the curriculum so as to guide future clinical exposure and learning.

Supervisors can sign-off and comment on curriculum capabilities to build up a picture of progression and to inform ARCP panels.

9 Equality and diversity

The Royal Colleges of Physicians will comply, and ensure compliance, with the requirements of equality and diversity legislation set out in the Equality Act 2010.

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

Deaneries quality assurance will ensure that each training programme complies with the equality and diversity standards in postgraduate medical training as set by GMC. They should provide access to a professional support unit or equivalent for trainees requiring additional support.

Compliance with anti-discriminatory practice will be assured through:

- monitoring of recruitment processes
- ensuring all College representatives and Programme Directors have attended appropriate training sessions prior to appointment or within 12 months of taking up post
- Deaneries ensuring that educational supervisors have had equality and diversity training (for example, an e-learning module) every three years
- Deaneries ensuring that any specialist participating in trainee interview/appointments committees or processes has had equality and diversity training (at least as an e-module) every three years
- ensuring trainees have an appropriate, confidential and supportive route to report examples of inappropriate behaviour of a discriminatory nature. Deaneries and Programme Directors must ensure that on appointment trainees are made aware of the route in which inappropriate or discriminatory behaviour can be reported and supplied with contact names and numbers. Deaneries must also ensure contingency mechanisms are in place if trainees feel unhappy with the response or uncomfortable with the contact individual
- providing resources to trainees needing support (for example, through the provision of a professional support unit or equivalent)
- monitoring of College Examinations
- ensuring all assessments discriminate on objective and appropriate criteria and do not unfairly advantage or disadvantage a trainee with any of the Equality Act 2010 protected characteristics. All efforts shall be made to ensure the participation of people with a disability in training through reasonable adjustments.

JRCPTB

Joint Royal Colleges of Physicians Training Board

ROYAL COLLEGE of PHYSICIANS of EDINBURGH

ROYAL COLLEGE OF PHYSICIANS AND SURGEONS OF GLASGOW

Royal College of Physicians