SUB-SPECIALTY TRAINING CURRICULUM

FOR

HEPATOLOGY

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Table of Contents

1	lı	ntroduction	3
2		Rationale	
	2.1	Purpose of the Curriculum	
	2.2	Development	5
	2.3	Training Pathway and Entry Requirements	5
	2.4	Enrolment with JRCPTB	5
	2.5	Duration of Training	
	2.6	Less Than Full Time Training (LTFT)	6
	2.7	Dual Certification of Completion of Training	6
3	C	Content of Learning	
	3.1	Programme Content and Objectives	7
	3.2	Good Medical Practice	
	3.3	Syllabus	
4		_earning and Teaching	
	4.1	The Training Programme	
	4.2	Teaching and Learning Methods	
	4.3	Research	
5		Assessment	
	5.1	The Assessment System	
	5.2	Joint Advisory Group of Gastrointestinal Endoscopy (JAG)	
	5.3	Assessment Blueprint	
	5.4	Assessment methods	
	5.5	Decisions on progress (ARCP)	
	5.6	Penultimate Year Assessment (PYA)	
_	5.7	Complaints and Appeals	
6		Supervision and feedback	
	6.1	Supervision	
_	6.2	Appraisal	
7		Managing curriculum implementation	
	7.1	Intended use of curriculum by trainers and trainees	
_	7.2		
8		Curriculum Review and Updating	
9		Equality and diversity	
10) /	Acknowledgements	31

1 Introduction

Hepatology is an approved subspecialty of Gastroenterology

In order to receive a sub-specialty certificate in hepatology, the trainee must spend a total of two years training in liver disease having previously enrolled in the gastroenterology training programme. All of the training must be completed within the time constraints of the training programme (4 or 5 years depending on whether or not the trainee will also be seeking certification in general internal medicine). One year of the programme must be spent at one (or more) of the recognised level 3 specialist centres and the trainee will be appointed by a competitive application process. Ideally all of the training should occur within level 2 or level 3 centres but if this is not possible, a maximum of six months may be spent in a level 1 centre.

Inevitably there will be some overlap with earlier training but this should be seen as consolidation of the training in that first year. In addition to the exposure to a greater breadth and depth of knowledge of liver disease and the management of complex liver disease, trainees would be expected to gain additional skill sets.

Trainees in hepatology will gain experience in practical procedures which are commonly, although not exclusively, arranged for patients with advanced liver disease. Trainees would be expected to have a sound understanding of the indications, complications, nature and performance of these procedures and in some cases may become personally skilled in the performance of these procedures, depending upon the nature of the specific training site. These would include: ultrasound and ultrasound guided liver biopsy, contrast enhanced ultrasonography (CEUS), trans-jugular liver biopsy, measurement of portal pressure, ERCP, endoscopic ultrasound (application to both biliary disease portal hypertension), and placement of trans-jugular intrahepatic portal systemic shunts (TIPSS).

Trainees will gain experience in the management of unstable patients with liver disease needing care within a High Dependency Unit (HDU) or Intensive care unit (ICU). The ICU is an integrated part of the care pathway for patients with acute liver failure, and for those undergoing liver transplantation or extensive hepatic resection. It is accepted practice for all patients with acute liver failure to be referred to units offering specialist liver ICU expertise. ICU also plays a role in the management of patients with acute exacerbations of chronic liver disease such as those with encephalopathy, variceal bleeding, sepsis and hepatorenal dysfunction. All gastroenterologists with an interest in hepatology should be familiar with the indications for transfer to ICU settings and have an understanding of the outcomes. They should also advocate for patients with liver disease when access to ICU is competitive within an institution. They should also understand which patients would benefit from transfer to specialist liver ICU units. This is particularly true for acute liver failure.

The trainee would be expected to gain the requisite experience by spending either a period of one month in a dedicated ICU setting or more commonly in a unit that regularly admits patients with liver disease to an ICU setting providing specific expertise in liver disease.

Liver transplantation is integrated into the management plans for both acute and chronic liver failure, selected patients with hepatocellular carcinoma, metabolic disease and a range of unusual indications. Two levels of familiarity with liver

transplantation will be required for gastroenterologists working outside liver transplant units. The basic level will deliver an understanding of the role of liver transplantation in the management of patients with liver disease as well as basic understanding of acute intervention required in liver transplant recipients. The higher level will deliver a skill set to contribute to the integrated care pathways with the liver transplant centres.

All gastroenterologists must be familiar with the indications for liver transplantation and the appropriate times to refer patients for assessment. The indications for elective transplantation are now agreed nationally and have been published. Familiarity with the UKELD system and recognised exceptions is pertinent. The same is true for emergency transplantation (for acute liver failure) but in these cases the decision making is often urgent and occurs outside normal working hours. All gastroenterologists need to understand the limitations of transplantation.

A basic understanding of the acute medical needs of a liver transplant recipient is also required by all gastroenterologists. The immediate actions and investigative pathways for presentations such as fever or jaundice need to be understood. After successful liver transplantation, an increasing part of the follow-up will be undertaken outside liver transplant centres. This will require an understanding of the evaluation of liver function tests on a time dependent basis after liver transplantation. There will also be a need to understand immunosuppression regimens and the monitoring of individual drugs. It is also important to have an understanding of recurrent diseases and in some cases this may involve participation in treatment strategies e.g. hepatitis B or hepatitis C.

2 Rationale

2.1 Purpose of the Curriculum

The purpose of this curriculum is to define the process of training and the competencies needed for the award of:

• Sub-specialty recognition in hepatology for those who have completed the advanced training programme.

The unequivocal aim of the curriculum is to deliver a programme of training which when completed will enable the successful individual to practise independently as a gastroenterologist with a special interest in hepatology trained to the level of a consultant physician in the United Kingdom. There will be recognition of the enhanced skills which will enable trainees who complete that programme to deliver a specialised clinical service in liver disease.

It is expected that many trainees following the gastroenterology plus hepatology curriculum to CCT level will be doing so in parallel with the training programme in general internal medicine. Yet it should be emphasised that the gastroenterology curriculum is free-standing and that for those trainees who undertake both this training and sub-specialty training in hepatology will be qualified to practise independently as a specialist in hepatology.

The primary purpose of the curriculum is to provide a programme of training which, when successfully completed, will have armed the trainee with specialist skills in hepatology Trainees will have acquired the skills to pass on their experience to the next generation be they undergraduate or postgraduate medical trainees or those in

allied disciplines. They will have acquired a portfolio of generic skills particularly those including leadership and management crucial not only to running a clinical service but also to developing that service. Finally, they will be given such a grounding in the specialty that will serve as a platform for Continued Professional Development in the context of life-long learning.

The curriculum has mapped the four domains of the Good Medical Practice Framework for Appraisal and Assessment to its content which has provided the opportunity to define skills and behaviours which trainees require to communicate effectively with their patients as well as carers and families and clearly states how these should be assessed. The curriculum covers training for all four nations of the UK.

2.2 Development

This curriculum was developed by the Specialty Advisory Committee for Gastroenterology under the direction of the Joint Royal Colleges of Physicians Training Board (JRCPTB). It replaces the previous version of the curriculum dated May 2007, with changes to ensure the curriculum meets GMC's standards for Curricula and Assessment, and to incorporate revisions to the content and delivery of the training programme. Major changes from the previous curriculum include the incorporation of generic, leadership and health inequalities competencies.

2.3 Training Pathway and Entry Requirements

Sub-specialty training in hepatology is normally undertaken in the penultimate year of training and is open to specialist trainees in Gastroenterology ie they must be holders of a National Training Number (NTN). Trainees seeking sub-certification in hepatology must have applied in open competition for one of the approved training posts or been interviewed for a higher clinician scientist post within one of the designated level 3 training centres. Trainees will be expected to have shown evidence of competencies in the main specialty of Gastroenterology and the subspecialty of hepatology for the award of CCT.

Further information on the training pathway for Gastroenterology can be found in the main specialty curriculum.

2.4 Enrolment with JRCPTB

Trainees are required to be registered for specialist training with JRCPTB at the start of their gastroenterology training programme. Enrolment with JRCPTB, including the complete payment of enrolment fees, is required before JRCPTB will be able to recommend trainees for a CCT. Trainees can enrol online at www.jrcptb.org.uk

2.5 Duration of Training

Although this curriculum is competency based, the duration of training (main specialty plus subspecialty) must meet the European minimum of four years of full time specialty training - adjusted accordingly for flexible training (EU directive 2005/36/EC). The SAC has advised that joint training in General Internal Medicine and Gastroenterology from ST1 will usually be completed in seven years of full time training (two years CMT or ACCS plus five years specialty training).

2.6 Less Than Full Time Training (LTFT)

Trainees who are unable to work full-time are entitled to opt for less than full time training programmes. EC Directive 2005/36/EC requires that:

- LTFT shall meet the same requirements as full-time training, from which it will differ only in the possibility of limiting participation in medical activities.
- The competent authorities shall ensure that the competencies achieved and the quality of part-time training are not less than those of full-time trainees.

The above provisions must be adhered to. LTFT 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.

EC Directive 2005/36/EC states that there is no longer a minimum time requirement on training for LTFT trainees. In the past, less than full time trainees were required to work a minimum of 50% of full time. With competence-based training, in order to retain competence, in addition to acquiring new skills, less than full time trainees would still normally be expected to work a minimum of 50% of full time. If you are returning or converting to training at less than full time please complete the LTFT application form on the JRCPTB website www.ircptb.org.uk.

Funding for LTFT is from deaneries and these posts are not supernumerary. Ideally therefore 2 LTFT trainees should share one post to provide appropriate service cover.

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 during annual appraisal by their TPD and chair of STC and Deanery Associate Dean for LTFT training. As long as the statutory European Minimum Training Time (if relevant), has been exceeded, then indicative training times as stated in curricula may be adjusted in line with the achievement of all stated competencies.

2.7 Dual Certification of Completion of Training

Trainees who wish to achieve a CCT in General Internal Medicine (GIM) as well as Gastroenterology must have applied for and successfully entered a training programme which was advertised openly as a dual training programme. Trainees will need to show evidence of achieving the various competencies required in both the Gastroenterology and GIM curricula. Postgraduate Deans wishing to advertise such programmes should ensure that they meet the requirements of both SACs curricula. Trainees seeking sub-certification in hepatology must have applied in open competition for one of the approved training posts or been interviewed for a higher clinician scientist post within one of the designated level 3 training centres and for CCT will be required to have shown evidence of competencies in that sub-specialty as specified in this curriculum.

3 Content of Learning

3.1 Programme Content and Objectives

This section comprises the Knowledge and Skills that have to be learned as well as Behaviours that have to be displayed in order to gain sub-certification in hepatology. Trainees in hepatology will spend a full year of their training in the subspecialty area (see diagram 1).

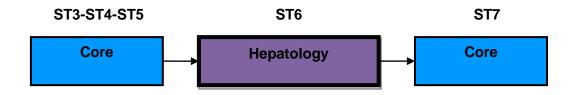


Diagram 1– Outline of sub-specialist training within the Gastroenterology training pathway

3.2 Good Medical Practice

In preparation for the introduction of licensing and revalidation, the General Medical Council has translated Good Medical Practice into a Framework for Appraisal and Assessment which provides a foundation for the development of the appraisal and assessment system for revalidation. The Framework can be accessed at http://www.gmc-uk.org/Framework 4 3.pdf 25396256.pdf

The Framework for Appraisal and Assessment covers the following domains:

Domain 1 - Knowledge, Skills and Performance

Domain 2 - Safety and Quality

Domain 3 – Communication, Partnership and Teamwork

Domain 4 – Maintaining Trust

The "GMP" column in the syllabus defines which of the 4 domains of the Good Medical Practice Framework for Appraisal and Assessment are addressed by each competency. Most parts of the syllabus relate to "Knowledge, Skills and Performance" but some parts will also relate to other domains.

3.3 Syllabus

In the tables below, the "Assessment Methods" shown are those that are appropriate as **possible** methods that could be used to assess each competency. It is not expected that all competencies will be assessed and that where they are assessed not every method will be used. See section 5.3 for more details.

"GMP" defines which of the 4 domains of the Good Medical Practice Framework for Appraisal and Assessment are addressed by each competency.

Hepatology

Liver Transplantation

To appreciate to role of liver transplantation in the management of both chronic and acute liver disease and the management, complications of immunosuppression

Knowledge	Assessment Methods	GMP
Knows the indications for liver transplantation, appropriate timing of referral for assessment, and outcomes after transplantation	SCE, CbD	1
Understands the long-term management of liver transplant recipients including complications of immunosuppression and management of recurrent disease	SCE, CbD	1
Skills		
Can identify potential candidates for liver transplantation, as well as demonstrating an understanding of why patients with end-stage liver disease are not appropriate candidates for liver transplantation	SCE, mini-CEX, CbD	1
Has detailed understanding of the transplant assessment process will be required while training in specialist units and their satellites	SCE, mini-CEX, CbD	1
Behaviours		
Displays confidence that they can identify all potential candidates for liver transplantation, refer at the appropriate time and contribute to life-long follow-up of liver recipients.	mini-CEX	1

Acute Liver Failure

The recognition, investigation, both ward based and ICU management, early identification of patients that would benefit from transplantation and timing of referral/transfer to specialist unit

	Assessment	
Knowledge	Methods	GMP
Understands the causes and pathophysiology of acute liver failure	SCE, mini-CEX, CbD	1
Can plan appropriate investigation, evaluate prognosis and construct a detailed management plan	SCE, mini-CEX, CbD	1
Identifies those potentially suitable for emergency liver transplantation	SCE, mini-CEX, CbD	1
Skills		
Develops ability to make accurate evaluation of patients with liver failure at the stage of initial presentation	SCE, mini-CEX, CbD	1,3
Can deliver management plan, appropriately evaluate changes in patient's condition and react accordingly	SCE, mini-CEX, CbD	1,3
Utilises the range of medical interventions necessary to support critically ill patients	SCE, mini-CEX, CbD	1,3
Behaviours		
Demonstrates ability to identify patients at risk of developing acute liver failure and understand the criteria for referral to specialist centres	CbD, MSF	1,3,4

Works collaboratively with nurses and all ITU staff as well as colleagues in other clinical disciplines to deliver the highest standard of clinical care	MSF	1,3
Communicates effectively and relates with empathy to family and close friends of patients	mini-CEX, PS	1,3

Hepatitis C

To be able to assess patients with acute and chronic hepatitis C infection and determine suitability for treatment and further management

	Assessment	
Knowledge	Methods	GMP
Can identify the rare cases of acute hepatitis C	SCE	1
Can define chronic hepatitis C and can describe its natural history and prognosis	SCE	1
Appreciates the absolute and relative contra-indications to combination therapy with pegylated interferon and ribavirin and understands the contribution of genotype and viral load to therapy	SCE, CbD	1
Knows the predictable adverse effects of therapy and has an awareness of the unpredictable effects	SCE, CbD	1
Can describe a programme of appropriate surveillance for patients with oesophageal varices and hepatocellular carcinoma	SCE, CbD	1
Identifies patients who are appropriate candidates for liver transplant assessment	CbD	1
Skills		
Able to take a relevant history and organise appropriate investigations	mini-CEX, CbD	1
Appropriate awareness of psycho-social situation and referral to psychiatric services	CbD,	1,3,4
Selects appropriate monitoring to assess response to therapy	SCE, CbD	1
Able to identify which supportive measures to manage adverse effects appropriately including selection of dose reduction, growth factors and anti-depressants	SCE, CbD	1
Can select appropriate imaging techniques for evaluation of abnormal results	SCE	1
Behaviours		
Appreciates the social stigma attached to hepatitis C and the psychosocial problems often encountered in considering therapy	mini-CEX, CbD	1,2,3,4
Has the ability to educate patients and close contacts/families about their condition and the implications of having chronic viral liver disease.	mini-CEX, MSF, PS	1,2,3.4
Appreciates the input of voluntary organisations and substance misuse groups/specialists.	mini-CEX	1,3
Appreciates the importance of liaison psychiatry and treatment nurses in the management of this group of patients.	mini-CEX, MSF	1,3

Hepatitis B

To assess patients with acute and chronic hepatitis B infection and determine requirement for treatment and appropriate long term management

Knowledge	Assessment Methods	GMP
Identifies patients with acute hepatitis B and can ascertain the severity of their illness	SCE, mini-CEX, CbD	1
Defines the different phases of chronic hepatitis B infection with a clear understanding of serological results	SCE, CbD	1
Appreciates risks of transmission to close contacts	CbD	1
Has awareness of indications for therapy in both HBeAg positive and negative hepatitis and the potential influence of genotype on choice of therapy	SCE, CbD	1
Identifies patients where prophylaxis is required to prevent reactivation and vertical transmission	SCE, CbD	1
Can determine an appropriate surveillance programme for those patients with varices and/or hepatocellular carcinoma	SCE, CbD	1
Identifies patients who are appropriate candidates for liver transplant assessment	CbD	1
Skills		
Demonstrates ability to take a relevant history, perform examination and organise appropriate investigations	mini-CEX	1
Able to advise risks of viral transmission	mini-CEX	1
Interprets results of blood tests for hepatitis B antigen and antibody.	mini-CEX, CbD	1
Appreciates when liver biopsy is appropriate.	SCE, CbD	1
Be able to select the most appropriate treatment and how to monitor patient response	SCE, CbD	1
Able to select appropriate imaging techniques for evaluation of abnormal results.	SCE, CbD	1
Behaviours		
Appreciates the cultural differences in the ethnic populations infected and the influence this may have on screening	CbD, mini-CEX, MSF, PS	1,2,3,4
Provides advice and education to families and shows appreciation of the potential difficulties that may arise	mini-CEX	1,3
Understands the importance of cooperation with virologists and staff in other clinical laboratories	CbD, MSF	1,3

Complications of Cholestatic Liver Disease

To be able to carry out specialist assessment, investigate, diagnose, initiate treatment of patients with cholestatic liver disease (e.g. PBC, PSC) and exclude large duct obstruction

Knowledge Assessment Methods	GMP
Shows recognition of the potential complications of cholestasis: SCE, mini-CE) including: pruritus, osteoporosis, fatigue, fat malabsorption	X, CbD 1

Aware of the investigations and treatment of each complication	SCE, mini-CEX, CbD	1
Knows the therapeutic options and potential complications of ursodeoxycholic acid, colestyramine, rifampicin and naltrexone	SCE, CbD	1
Able to assess individual patients concerning the timing of potential transplantation	CbD	1
Knows how to use of calcium, vitamin D and biphosphonates in chronic liver disease.	CbD	1
Aware of how to monitor treatment regimes for osteoporosis	CbD	1
Skills		
Can take a relevant history and perform appropriate investigation	mini-CEX	1
Is aware and can act on the potential complications of cholestasis	SCE, CbD	1
Selects and uses investigations appropriately (specifically in PSC,) to be aware of possible inflammatory bowel disease and regimes for colonoscopic surveillance	SCE, CbD	1
Behaviours		
Ensures the patient understands the importance of prevention of complications, such as fracture risk in osteoporosis	mini-CEX, PS	1,3,4
Empathises with patients who have sometimes intractable symptoms such as pruritus	mini-CEX, PS	1,3,4

Vascular Liver Disease

To be able to carry out specialist assessment of vascular disease of the liver appreciating the risks and benefit of anticoagulation

Knowledge	Assessment Methods	GMP
Recognises and shows understanding of vascular liver disease including Budd-Chiari syndrome, veno-occlusive disease and portomesenteric venous thrombosis; understands the underlying anatomy and physiology of these often complex conditions	SCE, CbD	1
Aware of need for investigation for associated myeloproliferative and procoagulant conditions.	SCE, CbD	1
Understands the role of anticoagulation and indications for further intervention including TIPS, surgery or transplantation	SCE, CbD	1
Skills		
Can make careful clinical assessment of these conditions and has heightened awareness of liver vascular disease in differential diagnosis.	mini-CEX, CbD	1
Able to make a potentially difficult diagnosis of less common variants of vascular conditions	CbD	1
Behaviours		
Shows ability to keep patient and relatives informed and to refer appropriately for specialist management.	MSF, PS	2,3,4

Pregnancy-Associated Liver Disease

To recognise the spectrum of liver diseases of pregnancy with respect to the stage of pregnancy and the timing of obstetric intervention

Knowledge	Assessment Methods	GMP
Knows the range of potentially serious liver diseases that can complicate pregnancy	SCE, CbD	1,2,3
Knows the various manifestations of pregnancy-associated liver disease including obstetric cholestasis and is aware of the urgency of such situations.	SCE, CbD	1,2,3
Knows how to manage the more severe pregnancy-associated liver diseases including eclampsia and acute fatty liver of pregnancy	SCE, CbD	1,2,3
Aware of importance of close liaison with obstetric colleagues over the timing of delivery	SCE, CbD	1,2,3
Skills		
Is aware that, more than with any other aspect of liver disease, the optimum management of these diseases requires acute clinical acumen	mini-CEX, CbD	1
Shows the ability to liaise and respond urgently to what is often rapidly escalating severity	CbD	1
Behaviours		
Liaises closely and effectively with obstetric colleagues	MSF	1,2,3,4
Communicates effectively with concerned patients and relatives about the needs of the foetus and the overriding need to preserve the health of the mother	MSF	1,2,3,4

Benign Liver Tumours

Imaging methods, role of biopsy and oral contraceptive agents in hepatic adenomas		
Knowledge	Assessment Methods	GMP
Knows the epidemiology, pathology, clinical presentation and natural history of benign tumours of the liver	SCE	1
Can define a programme of investigation and characterisation of benign liver lesions including haemangioma, focal modular hyperplasia and adenoma	SCE	1
Skills		
Demonstrates ability to make an appropriate differential diagnosis	SCE, mini-CEX, CbD	1
Formulates appropriate plan of management.		
Behaviours		
Recognises importance of the role of multidisciplinary team in diagnosis and management	CbD, MSF	1,3,4

Malignant Liver Tumours, Hepatocellular Carcinoma (HCC)

Importance of HCC screening in cirrhosis, diagnosis and treatment		
Knowledge	Assessment Methods	GMP
Understands the epidemiology, risk factors, pathology, prevalence and range of presentations of HCC	SCE	1
Knows the appropriate investigation and staging of the disease	SCE, CbD	1
Aware of treatment options including trans-arterial chemoembolisation (TACE), radiofrequency ablation (RFA), local ethanol injection	SCE, CbD	1
Appreciates the indications and contraindications of each and how the most appropriate is selected. Aware of surgical treatment options	SCE, CbD	1
Aware of role of surveillance and referral for specialist multi- disciplinary management including liaison with oncology	SCE, CbD	1
Skills		
Appreciates the indications and contraindications of each modality of treatment and how the most appropriate is selected.	SCE, CbD	1
Understands the process of selection of patients for liver resection or transplantation	SCE, CbD	1
Behaviours		
Appreciates Involvement of multi-disciplinary team in management decisions, close liaison with surgical, radiology, oncology and pathology colleagues	SCE, CbD, MSF	1,3,4

Cholangiocarcinoma

Investigation and treatment options for bile duct tumours		
Knowledge	Assessment Methods	GMP
Knows the epidemiology, pathology and clinical presentation of bile duct tumours	SCE	1
Can recognise the presentation of biliary tumours arising de novo or in the context of PSC. Can plan programme of investigations including detailed staging	SCE	1
Understands treatment options including surgery, chemotherapy and endoscopic management	SCE, CbD	1
Skills		
Aware of the treatment options including biliary drainage, chemotherapy, radiotherapy, photodynamic therapy or surgery	SCE	1,2,3
Understands rationale for selection of particular therapy in individual patients	SCE	1,2,3
Awareness of the diagnostic modalities, including CT, MRI scanning, brush cytology, intra ductal cholangioscopy and biopsy	SCE	1,2,3

Behaviours		
Understands importance of multidisciplinary team of oncologist, surgeon, radiologist, histopathologist in decision making.	CbD	1,3
Discusses cases with the specialist MDT	CbD	1,3

4 Learning and Teaching

4.1 The Training Programme

The organisation and delivery of postgraduate training is the statutory responsibility of the General Medical Council (GMC) which devolves responsibility for the local organisation and delivery of training to the deaneries. Each deanery oversees a "School of Medicine" which is comprised of the regional Specialty Training Committees (STC's) in each medical specialty. Responsibility for the organisation and delivery of sub-specialty training in hepatology in each deanery is, therefore, the remit of the regional gastroenterology STC overseen by the deanery. Each STC has a Training Programme Director who coordinates the training programme in the specialty. The training programme will be organised by deanery specialty training committees following submission to JRCPTB who will seek approval from GMC. It is acknowledged that deaneries may provide their formal education in different formats including monthly training days or weekly half days. Endoscopy training likewise may include training courses out of the deanery

Although this curriculum is competency based, the duration of the main specialty plus subspecialty training must meet the European minimum of 4 (four) years for training in a single designated specialty adjusted accordingly for flexible training (EU directive 2005/36/EEC).

The following combinations of certification may be acquired by trainees undertaking sub-specialty training:

Gastroenterology and Hepatology	4 years
Gastroenterology and General (Internal) Medicine and Hepatology	5 years

Trainees who wish to achieve a CCT in General (Internal) Medicine must have applied for and successfully entered a training programme which was advertised openly as a dual training programme. This programme will need to achieve the competencies as described in both the gastroenterology and GIM (Acute) curricula and there must be jointly agreed assessments (proposed by both SACs and approved by GMC). Postgraduate deans wishing to advertise such programmes should ensure that they meet the requirements of both SACs.

Training in hepatology will normally take place in designated teaching hospitals and a range of district general hospitals for 6 or 12 months at each institution. Trainees will spend a minimum of 12 months in a designated teaching hospital. There will be at least two consultant supervisors within the specialty at any training unit and a minimum of one consultant gastroenterologist per trainee. Progression through the programme will be determined with the aid of the decision grid (see section 5.5 ARCP decision aid). The final award of a CCT will be dependent on the achievement of competencies as evidenced by the successful completion of assessments set out in the curriculum.

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 entire curriculum is covered and also that unnecessary duplication and educationally unrewarding experiences are avoided. However, the sequence of training should ideally be flexible enough to allow the trainee to develop a special interest.

All training in gastroenterology and hepatology should be conducted in institutions with appropriate standards of clinical governance and which meet the relevant Health and Safety standards for clinical areas. Training placements must comply with the European Working Time Directive for junior doctors.

Training posts must provide the necessary clinical exposure but also evidence that the required supervision and assessments can be achieved.

Acting up as a consultant (AUC)

"Acting up" provides doctors in training coming towards the end of their training with the experience of navigating the transition from junior doctor to consultant while maintaining an element of supervision.

Although acting up often fulfills a genuine service requirement, it is not the same as being a locum consultant. Doctors in training acting up will be carrying out a consultant's tasks but with the understanding that they will have a named supervisor at the hosting hospital and that the designated supervisor will always be available for support, including out of hours or during on-call work. Doctors in training will need to follow the rules laid down by the Deanery / LETB within which they work and also follow the JRCPTB rules which can be found on the website (www.jrcptb.org.uk).

4.2 Teaching and Learning Methods

The curriculum will be delivered through a variety of learning experiences. Trainees will learn from practice, clinical skills appropriate to their level of training and to their attachment within the department.

Trainees will achieve the competencies described in the curriculum through a variety of learning methods. There will be a balance of different modes of learning from formal teaching programmes to experiential learning 'on the job'. The proportion of time allocated to different learning methods may vary depending on the nature of the attachment within a rotation.

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

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

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

- Specialty clinics. The degree of responsibility taken by the trainee will increase as competency increases. As experience and clinical competence increase trainees will assess 'new' and 'review' patients and present their findings to their clinical supervisor
- Endoscopy lists including diagnostic/therapeutic gastroscopy
- Specialty-specific on-call
- Personal ward rounds and provision of ongoing clinical care whilst on specialist medical ward attachments. Every patient seen, on the ward or in out-patients,

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

- Consultant-led ward rounds. Every time a trainee observes another doctor, consultant or fellow trainee, seeing a patient or their relatives there is an opportunity for learning. Ward rounds, including those post-take, should be led by a consultant and include feedback on clinical and decision-making skills.
- Multi-disciplinary team meetings. There are many situations where clinical problems are discussed with clinicians in other disciplines. These provide excellent opportunities for observation of clinical reasoning.

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

Formal Postgraduate Teaching – The content of these sessions are determined by the local faculty of medical education and will be based on the curriculum. There are many opportunities throughout the year for formal teaching in the local teaching sessions and at regional, national and international meetings.

Suggested activities include:

- A programme of formal bleep-free regular teaching sessions
- Case presentations
- Journal clubs
- Research and audit 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.
 - 1. Management: There should be opportunities for trainees to attend appropriate management meetings (e.g. service review, departmental meetings and Directorate meetings)
 - 2. Training in the management of acute gastrointestinal bleeding and its endoscopic management should be available in the rotation for all trainees

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

- Reading, including web-based material
- Maintenance of personal portfolio (self-assessment, reflective learning, personal development plan)

- Audit and research projects
- Reading journals
- Achieving personal learning goals beyond the essential, core curriculum

Formal Study Courses - Time to be made available for formal courses in hepatology is encouraged, subject to local conditions of service. In addition trainees should be encouraged to attend national and international specialty meetings.

4.3 Research

Trainees who wish to acquire research competencies, in addition to those specified in their specialty curriculum, may undertake a research project as an ideal way of obtaining those competencies. Options to be considered include taking time out of programme to complete a specified project or research degree. This will be managed via their main specialty.

5 Assessment

5.1 The Assessment System

The purpose of the assessment system is to:

- enhance learning by providing formative assessment, enabling trainees to receive immediate feedback, measure 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;
- provide robust, summative evidence that trainees are meeting the curriculum standards during the training programme;
- ensure trainees are acquiring competencies within the domains of Good Medical Practice;
- assess trainees' actual performance in the workplace;
- ensure that trainees possess the essential underlying knowledge required for their specialty;
- inform the Annual Review of Competence Progression (ARCP), 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.

Workplace-based assessments will take place throughout the training programme to allow trainees to continually gather evidence of learning and to provide trainees with formative feedback. They are not individually summative but overall outcomes from a number of such assessments provide evidence for summative decision making. 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.

5.2 Joint Advisory Group of Gastrointestinal Endoscopy (JAG)

The Joint Advisory Group on Gastrointestinal Endoscopy (JAG) was established in order to advise on standards for training of endoscopists. The multi-disciplinary composition of this body, which has representation from the Royal Colleges of

Physicians, Surgeons, Radiologists, Paediatricians (and indeed several other interested parties), reflects the variety of specialists who both train in as well as undertake endoscopy. The role of JAG has evolved since the introduction of the National Bowel Cancer Screening Programme into a body that accredits both the performance of individual endoscopists and endoscopy units but it has not lost its basic remit to advise on standard setting for trainees.

With the most substantial input being from medical gastroenterologists, recommendations from JAG have evolved over the past 10 years. JAG has suggested that all those training in endoscopy should attend a JAG-approved skills course. They have produced a series of DOPS forms specifically to assess formatively (and ultimately in a summative manner) the development of the trainee. They have suggested indicative numbers of procedures to be performed as well as defined a level of competence when a trainee can apply for a certificate of competence in specific modalities of endoscopy. Both the broad concept and the detail have been importantly influenced by significant input from the SAC in Gastroenterology - particularly to ensure that aspirational standards are indeed deliverable.

In essence, JAG advise and the SAC decides. The SAC have accepted all the advice from JAG on training and, in the 2010 curriculum, have agreed that we should specify that trainees attain a JAG certificate in each modality of endoscopy that they wish to pursue. However, each recommendation from JAG is thoroughly discussed at the SAC. The chair of JAG is a full member of the SAC (and this arrangement is reciprocated).

5.3 Assessment Blueprint

In the syllabus the "Assessment Methods" shown are those that are appropriate as **possible** methods that could be used to assess each competency. It is not expected that all competencies will be assessed and that where they are assessed not every method will be used. The ARCP tool will be used to demonstrate that an appropriate number of assessments have taken place covering the different domains of the curriculum.

The blueprint is available to all trainees via the ePortfolio. The trainers will also have access to the ePortfolio and will have access to web-based learning to familiarise themselves with the blueprint.

5.4 Assessment methods

The following assessment methods are used in the integrated assessment system for gastroenterology and hepatology training:

5.4.1 Examinations and Certificates

- The Specialty Certificate Examination in Gastroenterology (SCE)
- The Diploma of MRCP (UK) (Gastroenterology)
- Certificate of successful training in Ionising Radiation (Medical Exposure) Regulations 2000 (IRMER)
- Advanced Life Support Certificate (ALS)

The Federation of Royal Colleges of Physicians of the UK, in association with the British Society of Gastroenterology, has developed a Specialty Certificate Examination (SCE). The aim of this national assessment is to assess a trainee's

knowledge and understanding of the clinical sciences relevant to specialist medical practice and of common or important disorders to a level appropriate for a newly appointed consultant. The Specialty Certificate Examination can be attempted in ST4 onwards in the parent specialty and is a prerequisite for attainment of the CCT.

Information about the SCE, including guidance for candidates, is available on the MRCP (UK) website www.mrcpuk.org

Trainees who have gained the Certificate in Gastroenterology and who are recommended for a CCT will be entitled to apply for the post nominal MRCP(UK) (Gastroenterology).

5.4.2 Workplace-Based Assessments (WPBAs)

- Multi-Source Feedback (MSF)
- mini-Clinical Evaluation Exercise (mini-CEX)
- Direct Observation of Procedural Skills (DOPS)
- Case-Based Discussion (CbD)
- Patient Survey (PS)
- Acute Care Assessment Tool (ACAT)
- Audit Assessment (AA)
- Teaching Observation (TO)

These methods are described briefly below. More information about these methods including guidance for trainees and assessors is available in the ePortfolio and on the JRCPTB website www.ircptb.org.uk. Workplace-based assessments should be recorded in the trainee's ePortfolio. The workplace-based assessment methods include feedback opportunities as an integral part of the assessment process, this is explained in the guidance notes provided for the techniques.

The Joint Advisory Group on Gastrointestinal Endoscopy (JAG) has developed the DOPS assessments for all endoscopic procedures including both summative and formative assessment tools. These have been accepted by the SAC as the means of demonstrating endoscopic competence and maintenance of skills for trainees in gastroenterology and allied specialties who receive endoscopic training. More information is available on the JAG website http://www.thejag.org.uk

Multisource 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 objective 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, administration staff, and other allied professionals. The trainee will not see the individual responses by raters, feedback is given to the trainee by the Educational Supervisor.

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.

Direct Observation of Procedural Skills (DOPS)

A DOPS is an assessment tool designed to assess 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.

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 include discussion about a written record (such as written case notes, out-patient letter, discharge summary). A typical encounter might be when presenting newly referred patients in the out-patient department.

Patient Survey (PS)

Patient Survey address issues, including behaviour of the doctor and effectiveness of the consultation, which are important to patients. It is intended to assess the trainee's performance in areas such as interpersonal skills, communication skills and professionalism by concentrating solely on their performance during one consultation.

Audit Assessment Tool (AA)

The Audit Assessment Tool is designed to assess a trainee's competence in completing an audit. The Audit Assessment can be based on review of audit documentation OR on a presentation of the audit at a meeting. If possible the trainee should be assessed on the same audit by more than one assessor.

Teaching Observation (TO)

The Teaching Observation form is designed to provide structured, formative feedback to trainees on their competence at teaching. The Teaching Observation 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).

5.5 Decisions on progress (ARCP)

The Annual Review of Competence Progression (ARCP) is the formal method by which a trainee's progression through her/his training programme is monitored and recorded. ARCP is not an assessment – it is the review of evidence of training and assessment. The ARCP process is described in A Reference Guide for Postgraduate Specialty Training in the UK (the "Gold Guide" – available from www.mmc.nhs.uk). 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.

The ARCP Decision Aid gives details of the evidence required of trainees for submission to the ARCP panels (see below).

ARCP Decision Aid - Hepatology

Blueprint section	Assessment	Induction ¹	Month 6	Month 12
Liver transplantation	SCE, CbD, mini- CEX, MSF ²			
Acute liver failure	SCE, CbD, mini- CEX			
Hepatitis C	SCE, CbD, mini- CEX			
Hepatitis B	SCE, CbD, mini- CEX			
Complications of cholestatic liver disease	SCE, CbD, mini- CEX			
Vascular liver disease	SCE, CbD, mini- CEX			
Pregnancy associated liver disease	SCE, CbD, mini- CEX			
Liver tumours Benign Hepatocellular Cholangio Ca	SCE, CbD, mini- CEX			
Intensive care	SCE, CbD, mini- CEX, MSF ²			
Competency progression ³				
Audit ³	AA			
Total assessments required			5	10
Endoscopic management of varices	Log book, DOP's		10 ⁵	20 5

¹ Sum of relevant assessments undertaken prior to Advanced Specialist training ² MSF should be directed to intensive care or multi-disciplinary assessment of

It is strongly suggested that a log book be kept by the trainee to demonstrate exposure to the breadth of the curriculum in terms of cases seen in clinic, on the wards, and in an ITU setting

malignancy or need for transplantation

³ Review of evidence produced suggesting satisfactory progression (Y/N/ action required)

⁴Evidence of audit involvement should be assessed at month 6 for inception and month 12 for completion

⁵ Endoscopic DOP's should include variceal banding, injection of Histoacryl glue / thrombin, use of APC for those wishing to undertake endoscopy as a consultant

5.6 Penultimate Year Assessment (PYA)

The penultimate ARCP prior to the anticipated CCT date will include an external assessor from outside the training programme. JRCPTB and the deanery will coordinate the appointment of this assessor. While the ARCP will be a review of evidence, the PYA will include a face-to-face component. This assessment will document requirements for training prior to the award of a CCT

5.7 Complaints and Appeals

The MRCP (UK) office has complaints procedures and appeals regulations documented in its website which apply to all examinations run by the Royal Colleges of Physicians.

All workplace-based assessment methods incorporate direct feedback from the assessor to the trainee and the opportunity to discuss the outcome. If a trainee has a complaint about the outcome from a specific assessment this is their first opportunity to raise it.

Appeals against decisions concerning in-year assessments will be handled at deanery level and deaneries are responsible for setting up and reviewing suitable processes. If a formal complaint about assessment is to be pursued this should be referred in the first instance to the chair of the Specialty Training Committee who is accountable to the regional deanery. Continuing concerns should be referred to the Associate Dean.

6 Supervision and feedback

This section of the curriculum describes how trainees will be supervised, and how they will receive feedback on performance.

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 personally discuss all cases if required. As training progresses the trainee should have the opportunity for increasing autonomy, consistent with safe and effective care for the patient. Local education providers (LEP's) through their directors of education / clinical tutors and associated specialty tutors have a responsibility to ensure that all trainees work under senior supervision by their clinical / educational supervisors. This will allow a review of the progression of their knowledge, skills and behaviours in particular professional conduct and their maintenance of patient safety will be of paramount importance.

There must be sufficient time in the job plan of educational / clinical supervisors to provide this level of support to the trainees.

Deaneries and LEPs must ensure that trainees have access to on-line learning facilities and libraries.

Trainees will at all times have a named Educational Supervisor and Clinical Supervisor, responsible for overseeing their education. Depending on local arrangements these roles may be combined into a single role of Educational Supervisor.

The responsibilities of supervisors have been defined by GMC in the document "Operational Guide for the PMETB Quality Framework". These definitions have been agreed with the National Association of Clinical Tutors, the Academy of Medical Royal Colleges and the Gold Guide team at MMC, and are reproduced below:

Educational supervisor

A trainer who is selected and appropriately trained to be responsible for the overall supervision and management of a specified trainee's educational progress during a training placement or series of placements. The Educational Supervisor is responsible for the trainee's Educational Agreement.

Clinical supervisor

A trainer who is selected and appropriately trained to be responsible for overseeing a specified trainee's clinical work and providing constructive feedback during a training placement. Some training schemes appoint an Educational Supervisor for each placement. The roles of Clinical and Educational Supervisor may then be merged.

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

To provide effective training it is essential that trainers have received appropriate training. All educational supervisors and members of the STC should receive adequate training in: -

- the use of all assessment tools
- equality and diversity issues
- supporting the trainee in difficulty
- appraisal skills
- giving effective feedback
- knowledge and use of the curriculum
- setting objectives
- career advice

Clinical supervisors and educational supervisors should have attended a 'Train the Trainers' course. The Training Programme Director for each region should hold a database of these competencies and forward this annually to their local deanery as part of the QA process.

Endoscopy departments involved in training should be assessed by the Joint Advisory Group on Gastrointestinal Endoscopy (JAG) and be identified as sites appropriate for training. Any shortcomings in the training environment identified by such an assessment will be fed back to the hospital trust responsible for the unit. If

there are significant concerns the TPD will be informed who will notify the deanery if training is being compromised. The clinical training environments at individual training centres should be reviewed annually by the STC. Trainees should participate in an annual trainee survey and be able to report any concerns to the TPD.

The TPD will make an annual return to the deanery as part of the QA framework. The implementation of increasing numbers of formalised assessment tools will increase the amount of time that all trainers will need to spend with their trainees. There should be recognition by individual trusts of this requirement and this should be reflected in the job planning process for all clinical supervisors and educational supervisors.

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

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.

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

6.2.2 Mid-point Appraisal

This meeting between trainee and educational supervisor is mandatory (except 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.

6.2.3 End of Attachment Appraisal

Trainees should review the PDP and curriculum progress with their educational supervisor using evidence from the ePortfolio. 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

7 Managing curriculum implementation

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

The organisation of training programmes for Core / ACCS training and specialist training in GIM is the responsibility of the postgraduate deaneries.

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

- Oversee recruitment and induction of trainees from Foundation to core training – CMT or ACCS(M) and from core training into Specialty Training
- Allocate trainees into particular rotations according to their training needs and wishes
- Oversee the quality of training posts provided locally
- Interface with other Deanery Specialty Training faculties
- Ensure adequate provision of appropriate educational events
- Ensure curriculum 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
- Recognise the potential of specific trainees to progress into an academic career

Educational programmes to train educational supervisors and assessors in work placed assessment may be delivered by deaneries, colleges or both.

The quality of endoscopy training will be independently assessed by the JAG through a series of visits to all endoscopy units which will result in accreditation of training units for periods of 5 years.

The deanery will monitor the quality of the training experience of the trainees by a local trainee survey and returns from the annual GMC survey of trainees.

Implementation of the curriculum is the responsibility of the JRCPTB via its specialty advisory committee (SAC) for Gastroenterology. The SAC is formally constituted with representatives from each SHA in England, from the developed nations and has trainee and lay representation. This committee supervises and reviews all training posts in gastroenterology and hepatology and provides external representatives at Penultimate Year Assessments. Between them, members of the SAC usually attend PYA's for between 100 and 150 GI trainees a year, thus ensuring the committee has a wide experience of how the curriculum is being implemented in training centres.

It is the responsibility of the committee Chair and Secretary to ensure that curriculum developments are communicated to Heads of Specialty Schools, Deanery Specialty Training Committees and TPD's. The SAC also produces and administers the regulations, which govern the curriculum.

The SAC and STC's all have trainee representation. Trainee representatives on the SAC provide feedback on the curriculum at each of the SAC meetings.

The introduction of the ePortfolio allows members of the SAC to remotely monitor progress of trainees ensuring that they are under proper supervision and are progressing satisfactorily.

7.1 Intended use of curriculum by trainers and trainees

This curriculum and ePortfolio are web-based documents which are available from the Joint Royal Colleges of Physicians Training Board (JRCPTB) website www.jrcptb.org.uk.

The educational supervisors and trainers can access the up-to-date curriculum from the JRCPTB website and will be expected to use this as the basis of their discussion with trainees. 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 a portfolio. The trainee will use the curriculum to develop learning objectives and reflect on learning experiences.

7.2 Recording progress

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.

A logbook of practical procedures should be maintained by the trainee and presented to the ARCP panel prior the formal review. This allows the STC to confirm adequate quality of training and ensure an appropriate exposure of the trainee to endoscopic training opportunities

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

All appraisal meetings, personal development plans and workplace based assessments should be recorded in the ePortfolio. Trainees and supervisors should electronically sign the educational agreement. Trainees are encouraged to reflect on their learning experiences and to record these in the ePortfolio. Reflections may be private or shared.

All ePortfolio content should be linked to curriculum competencies in order to provide evidence towards acquisition of these competencies. Trainees can add their own self-assessment ratings to record a personal view of progress. The aims of 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 to help plan future training requirements

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

8 Curriculum Review and Updating

The SAC in Gastroenterology will oversee the evaluation of this curriculum and portfolio. The curriculum is regarded as a living document, and the committee will ensure that it is able to respond swiftly to new developments. The outcome regular evaluation will inform the future development of the curriculum.

The SAC for Gastroenterology will consult widely within the gastroenterological community and will also involve trainees, lay representatives, and patients in the review process.

The new curriculum will be reviewed after one year to ensure deliverability and new developments. A formal review is planned after three years.

Evaluation of the curriculum will ascertain

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

Evaluation methods will include

- Trainee guestionnaire
- College representative and Programme Director questionnaire
- Focused discussions with educational supervisors, trainees, programme Directors and Postgraduate Deans

Monitoring will be the responsibility of the Programme Directors within deaneries

Trainee involvement in curriculum review will be facilitated through

- Involvement of trainees in local training committees
- Involvement of trainee representative on SAC committee
- Informal feedback during appraisal and local review of programme.

9 Equality and diversity

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

- Race Relations (Amendment) Act 2000
- Disability Discrimination Act 1995
- Human Rights Act 1998
- Employment Equality (Age) Regulation 2006
- Special Educational Needs and Disabilities Act 2001
- Data Protection Acts 1984 and 1998

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

Deanery quality assurance will ensure that each training programme complies with the equality and diversity standards in postgraduate medical training as set by GMC.

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 must ensure that educational supervisors have had equality and diversity training (at least as an ellearning module) every 3 years
- Deaneries must ensure that any specialist participating in trainee interview/appointments committees or processes has had equality and diversity training (at least as an e module) every 3 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.
- monitoring of College Examinations;
- ensuring all assessments discriminate on objective and appropriate criteria
 and do not unfairly disadvantage trainees because of gender, ethnicity, sexual
 orientation or disability (other than that which would make it impossible to
 practise safely as a physician). All efforts shall be made to ensure the
 participation of people with a disability in training.

In order to meet its obligations under the relevant equal opportunities legislation, such as the Race Relations (Amendment) Act 2000, the MRCP(UK) Central Office, the Colleges' Examinations Departments and the panel of Examiners have adopted an Examination Race Equality Action Plan. This ensures that all staff involved in

examination delivery will have received appropriate briefing on the implications of race equality in the treatment of candidates.

All Examiner nominees are required to sign up to the following statement in the Examiner application form "I have read and accept the conditions with regard to the UK Race Relations Act 1976, as amended by the Race Relations (Amendment) Act 2000, and the Disabilities Discrimination Acts of 1995 and 2005 as documented above."

In order to meet its obligations under the relevant equal opportunities legislation such as the Disability Discrimination Acts 1995 and 2005, the MRCP(UK) Management Board is formulating an Equality Discrimination Plan to deal with issues of disability. This will complement procedures on the consideration of special needs which have been in existence since 1999 and were last updated by the MRCP(UK) Management Board in January 2005. MRCP(UK) has introduced standard operating procedures to deal with the common problems e.g. Dyslexia/Learning disability; Mobility difficulties; Chronic progressive condition; Blind/Partially sighted; Upper limb or back problem; Repetitive Strain Injury (RSI); Chronic recurrent condition (e.g. asthma, epilepsy); Deaf/Hearing loss; Mental Health difficulty; Autism Spectrum Disorder (including Asperger Syndrome); and others as appropriate. The Academic Committee would be responsible for policy and regulations in respect of decisions on accommodations to be offered to candidates with disabilities.

The Regulations introduced to update the Disability Discrimination Acts and to ensure that they are in line with EU Directives have been considered by the MRCP(UK) Management Board. External advice was sought in the preparation of the updated Equality Discrimination.

10 Acknowledgements

The members of the SAC in Gastroenterology and of the British Society of Gastroenterology Training Committee gave valuable advice at all stages of the development of this curriculum and commented critically but constructively on successive drafts. Special thanks are due to the chair of the Training Committee, Dr Martin Lombard.

There was wide consultation within the specialty as outlined in the Introduction to this document but much is owed to all those who attended the Gastroenterology Curriculum Conference at the Royal College of Physicians of London on 6th March 2009. The curriculum is very much more than a revision of the existing document. It is a radical re-design of a programme of training which is forward-looking and has the purpose of producing highly-trained specialists with knowledge, skills and behaviours we believe will be very relevant to contemporary clinical practice from 2015 onwards. The framework of the present document emerged from this conference and a debt of gratitude is extended to all those who came along on the day.

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