

**HIGHER MEDICAL TRAINING**

**CURRICULUM**

**FOR**

**GASTROENTEROLOGY**

**February 2005**

**(PREVIOUS VERSION DATED 1 JANUARY 2003)**

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

Tel: 020 7935 1174  
Fax: 020 7486 4160

Email: [HMT@rcplondon.ac.uk](mailto:HMT@rcplondon.ac.uk)

This curriculum is available on the JCHMT website:  
<http://www.jch>

This curriculum has been written by the members of the Specialist Advisory Committee on Gastroenterology (Chairman Dr C O Record) and the British Society of Gastroenterology Training Committee (Chairman Dr R Walt).  
September 2002

### **Document Revision Control**

Version Ref:	Date of new version:	Notes/Proposal/Decision
Jan 2003	February 2005	Text amended "liver diseases require 6 months to one year"

## TABLE OF CONTENTS

<b>Background</b>	<b>1</b>
<b>Entry Requirements</b>	<b>1</b>
<b>Duration and Organisation of Training</b>	<b>2</b>
<b>Training Sites and Rotations</b>	<b>2</b>
<b>Lecturer Posts</b>	<b>2</b>
<b>Flexible Training</b>	<b>3</b>
<b>Research</b>	<b>3</b>
<b>General Aims (See also JCHMT Generic Curriculum)</b>	<b>3</b>
<b>Course Content and Objectives</b>	<b>4</b>
<b>Training requirements</b>	<b>5</b>
<b>Educational Supervisor</b>	<b>5</b>
<b>Assessment of Trainee</b>	<b>6</b>
<b>Annual Review of Training - RITA (Record of In Training Assessment)</b>	<b>6</b>
<b>Trainees</b>	<b>6</b>
<b>Training Record</b>	<b>7</b>
<b>FORMAT OF PENULTIMATE YEAR REVIEWS IN GASTROENTEROLOGY</b>	<b>7</b>
<b>Assessment of the Training Record</b>	<b>7</b>
<b>The Interview</b>	<b>7</b>
<b>STRUCTURED SUPERVISORS REPORTS</b>	<b>9</b>
<b>TEACHING AND LEARNING METHODS*</b>	<b>9</b>
<b>METHODS OF ASSESSMENT OF COMPETENCE</b>	<b>10</b>
<b>GRADES OF ASSESSMENT OF COMPETENCE</b>	<b>11</b>
<b>SECTION 1: UPPER GI TRACT</b>	<b>12</b>
<b>Dysphagia and non cardiac chest pain</b>	<b>12</b>
<b>Upper abdominal pain/dyspepsia</b>	<b>14</b>
<b>Nausea and vomiting</b>	<b>16</b>
<b>Upper gastrointestinal bleeding</b>	<b>18</b>
<b>Clinical/laboratory tests of GI structure and function</b>	<b>20</b>
<b>SECTION 2: ABSORPTION AND NUTRITION</b>	<b>22</b>
<b>Malabsorption, anorexia and weight loss.</b>	<b>22</b>
<b>Evaluation of anaemia</b>	<b>24</b>
<b>Short bowel syndrome/high ileostomy output</b>	<b>26</b>
<b>Nutritional Support</b>	<b>28</b>
<b>SECTION 3: ABDOMINAL PAIN AND SYMPTOMS OF COLONIC DISEASE</b>	<b>30</b>
<b>Abdominal pain</b>	<b>30</b>
<b>Constipation, diarrhoea or change in bowel habit.</b>	<b>32</b>
<b>Rectal bleeding and perianal fistulae</b>	<b>34</b>
<b>SECTION 4: LIVER</b>	<b>36</b>
<b>Abnormal liver function tests</b>	<b>36</b>
<b>Jaundice</b>	<b>38</b>
<b>Hepatosplenomegaly and abdominal swelling</b>	<b>40</b>
<b>Confusion progressing to liver failure</b>	<b>42</b>
<b>Subspecialty training in Hepatology</b>	<b>44</b>
<b>SECTION 5: ENDOSCOPY</b>	<b>46</b>
<b>Endoscopic safety</b>	<b>46</b>
<b>Upper and lower GI endoscopy</b>	<b>48</b>
<b>Colonoscopy</b>	<b>50</b>
<b>Diagnostic and therapeutic ERCP</b>	<b>52</b>

## **Background**

The general gastroenterologist must have expertise in the management and diagnosis of gastrointestinal and hepatological diseases, and in the prophylaxis and treatment of intra abdominal malignancy. This includes a basic need to be proficient in diagnostic and therapeutic upper and lower endoscopy. While training for this basic proficiency gastroenterologists develop subspecialty expertise including pancreaticobiliary disease with ERCP and specialised hepatology. Thus the curriculum for training emphasises the basic principles and it is likely that subspecialty curricula will be developed over time to define the necessities for training in those areas. This curriculum deals with the training required to enable a doctor to have the necessary skills to participate at Consultant level in a general gastroenterology service. New working practices within the NHS make it important that the skills of team working and leadership are included as are all the generic skills required for Consultant behaviour in any specialty.

The original curriculum published in 1996 by the SAC in Gastroenterology suggested a relatively rigid programme of basic training followed by modules of further training in certain areas. It has proven impossible for training to be delivered in this way for the vast majority and thus the new curriculum is more flexible. The major changes in this revision are in the detail of the subject matter and more importantly the methods of assessment of levels of achievement and competence are defined. It is recognised that this will impact on the supervision provided by trainers who will require more time to enable the training and supervision to take place. A programme of visits by the SAC to training schemes (and some individual hospitals) will help to ensure that this time is allocated in the trainers job plans and that the appropriate level of supervision takes place.

This curriculum will be under continuous review and may be changed as techniques develop with time, but serves as a present definition of the minimum requirements for trainees in the specialty. Additional requirements for satisfactory completion of training could be added as thought necessary with time.

## **Entry Requirements**

Applicants for Higher Medical Training (HMT) should have completed a minimum of two years General Profession Training (GPT) in approved posts and obtained the MRCP (UK) or (I). A period of experience in Gastroenterology at SHO grade is considered desirable, although not essential, before entry to HMT. GPT is defined as follows:

- A minimum of two years in approved posts with direct involvement in patient care and offering a wide range of experience in a variety of specialties
- Eighteen months of the two years must be spent in posts providing experience in the admission and early follow-up of acute emergencies
- At least six of these eighteen months must be spent on a service or services on which the emergency take is 'unselected'
- 'Unselected take' is defined as acute medical intake encompassing the broad generality of medicine, i.e., not restricted to any single or small group of specialties. If any major component of acute medicine (e.g., cerebrovascular accidents, myocardial infarctions) is excluded from the take, this experience must be obtained in other posts. During the period on 'unselected take' trainees should have an on-call commitment that averages no less than four takes per month.

Non-UK graduates without the MRCP who compete for HMT posts must provide evidence of appropriate knowledge, training and experience, particularly in the care of acute medical conditions.

### **Duration and Organisation of Training**

The duration of HMT in Gastroenterology is four years. Those who wish to obtain dual certification in Gastroenterology and General (Internal) Medicine will require at least a fifth year in training while those undertaking subspecialty training in Hepatology require a sixth year. In the case of the four year programme in gastroenterology alone, the first year should include a major G(I)M component. In joint five year programmes, the first year must be predominantly devoted to G(I)M, but the attachment should be to a Gastroenterologist involved in acute emergency medical 'takes'. The G(I)M component of the year must be assured whilst at the same time guaranteeing participation in gastroenterological practice. For details of the G(I)M requirements for a CCST, please see the G(I)M curriculum document. The clinical component should be agreed with the SAC prospectively.

### **Training Sites and Rotations**

Most formal training will be "in-service" and thus trainees must have experience in both teaching hospitals (or units with major academic activities) and non-teaching hospitals (minimum two years). At each unit the trainee will have an educational supervisor responsible for the regular appraisal and assessment of the trainee. Other supervising consultants, and non-medical staff will also participate in assessment. In each region one consultant will act as the Programme Director who will organise a rotation through training sites depending on the trainees needs. Training units and rotations will be approved prospectively by the Regional Postgraduate Dean (usually through a Regional Gastroenterology Training and Education Committee) and by the Gastroenterology SAC. There will be at least two consultant supervisors within the specialty at any training unit and one consultant per trainee.

### **Lecturer Posts**

Lecturers will be required to spend at least one year outside their parent academic unit preferably in a DGH. In general, it is anticipated that 50% of the training period in lecturer posts will be allowed to count towards CCST reflective of the lower clinical and higher research components of such posts.

## **Flexible Training**

Trainees who are unable to work full-time are entitled to opt for flexible training programmes. EC Directive 93/16/EEC requires that:

- i. Part-time training shall meet the same requirements as full-time training, from which it will differ only in the possibility of limiting participation in medical activities to a period of at least half of that provided for full-time trainees;
- ii. The competent authorities shall ensure that the total duration and quality of part-time training of specialist are not less than those of full-time trainees.

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

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

## **Research**

Research experience is encouraged strongly and supported by the SAC and can count for up to a year of HMT. Ideally it should be relevant to Gastroenterology and undertaken in a department where the trainee has some clinical commitment. Some trainees may wish to spend two or three years in research, either before entering HMT or by stepping aside from clinical training after entering a programme. This is perfectly acceptable but only one full year will count towards the programme. For those undertaking an extended period of research after entering a Specialist Registrar programme and obtaining their NTN, a pro-rata amount of additional training credit may be granted for clinical work relevant to the programme undertaken in the course of their research beyond the initial research year. This will be agreed and confirmed by the SAC. This concession does not apply to those undertaking research *prior to entry* to a higher training programme. After completion of research, trainees must undertake 12 months clinical training.

## **General Aims (See also JCHMT Generic Curriculum)**

The training programme in Gastroenterology aims to produce practitioners who:

- Show appropriate attitudes and communication skills in dealing with working teams, patients and relatives
- Apply knowledge and skill in diagnosis and management to ensure safe independent practice
- Establish a differential diagnosis by appropriate use of clinical consultations, physical examination and investigation
- Are competent in performing the core investigations required in Gastroenterology
- Are able to apply knowledge of biological and behavioural sciences to their practice
- Can develop management plans for the "whole patient" and have a sound knowledge of the appropriate treatments including health promotion, disease prevention, screening and long-term care.
- Use life-long learning skills to keep their expertise up-to-date
- Have the qualities of a teacher, team-worker and leader
- Manage time and resources efficiently to the benefit of patients and the clinical team
- Practice medicine in accordance with GMC principles

## Course Content and Objectives

The topics highlighted in the following pages were chosen to represent the majority of complaints, or areas of learning, which present to Gastroenterologist in practice. It is not likely to be totally inclusive and other problem areas may be added in time.

By the end of training the trainee should be able to determine satisfactory explanations for, provide diagnostic investigation for, and determine therapeutic strategies for patients with:

- Non cardiac chest pain and dysphagia
  - Upper abdominal pain/ dyspepsia
  - Nausea and vomiting
  - Upper gastrointestinal bleeding
- Section 1
- Steatorrhoea, anorexia, weight loss
  - Anaemia
  - Short bowel syndrome/ high stoma output
  - Nutritional support
- Section 2
- Abdominal pain
  - Constipation
  - Diarrhoea
  - Change of bowel habit
  - Rectal bleeding
  - Perianal fistulation
- Section 3
- Abnormal liver function tests
  - Jaundice
  - Hepatosplenomegaly and abdominal swelling
  - Confusion in liver disease
- Section 4

Trainees should have knowledge of the indications and methods for:

- Breath testing for H pylori, bacterial overgrowth
  - Oesophageal and rectal manometry and pH testing
  - Gastric secretory tests
  - Tests for absorption and inflammation
  - Radiological evaluation of the GI tract
- Section 1

Trainees should be skilled in:

- Intestinal (Section 5) and liver biopsy (Section 4)
- Paracentesis (Section 4)
- Insertion of parenteral nutrition lines (Section 3.4)

Endoscopic procedures: (See Section 5 and JAG curriculum)

- Upper GI endoscopy including eradication of oesophageal varices, oesophageal dilatation, and PEG insertion
- Flexible sigmoidoscopy
- Colonoscopy and polypectomy

## **Training requirements**

Throughout training there must be regular and close liaison with gastrointestinal surgeons in the joint management of patients and links with interested radiologists, histopathologists and nutrition departments. Trainees must always have access to other pathological disciplines, including haematology, microbiology and clinical chemistry. All training posts must offer these facilities.

Trainees must have wide out-patient experience and be involved in the continuing responsibility of out-patients and in-patients and have a commitment to the management of gastrointestinal emergencies. Trainees should have an opportunity to gain particular experience in liver disease, with a six month attachment to a liver unit. ERCP training is not necessary for all trainees but some should be given an opportunity to gain particular expertise in this area.

There should be sufficient flexibility in the training rotations around the different regions for individuals with excellent basic training to complete with additional expertise. This additional expertise could be in General Internal Medicine, in advanced endoscopy, in hepatology, in inflammatory bowel disease or in academic gastroenterology amongst other areas. A separate subspecialty curriculum is included for hepatology. It should be noted that a CCST in gastroenterology must have internal consistency to employers and the public and therefore all trainees must have satisfied the requirements laid down in this document.

## **Educational Supervisor**

The educational supervisor will be one of the consultant staff on the firm or in the department to which the trainee is attached who will usually have day to day contact with the trainee. The educational supervisor will plan a weekly programme, agreed with the Regional Programme Director and the trainee which will provide an appropriate balance between training and service commitments. Training commitments will include academic time for meetings, audit, self-directed learning, research, study leave and supervised service. The educational supervisor will also arrange for regular appraisal of the trainee initially and every four months to six months when the educational objectives, methods and plan are discussed and recorded. A formal assessment should be undertaken at the termination of the training period, after which a structured report should be written (See below). Time must be set aside for these.

## **Assessment of Trainee**

European law requires a robust and verifiable method of assessment for each trainee. The gastroenterology curriculum has therefore been rewritten in a detailed form and descriptors of competence are included for each section. The descriptors 1, 2, 3 and 4 are intended to indicate progress in training. In the early years of training, it is expected that trainees will gain mainly threes but as training proceeds, more ones and twos should be awarded as competence and judgement improve. Assessment grades will be awarded on the basis of observation of the candidate by the educational supervisor in different clinical settings – outpatients, ward and endoscopy room and time should be set aside for the trainee to demonstrate their knowledge, judgement and skills by the educational supervisor listening to their presentation, clinical opinions and observing examination and procedures. While this method is subjective it should be based upon the educational supervisor's observations and also those of other supervising consultants, nursing and ancillary staff. Where the grade for a curriculum item is deemed to be deficient for the level of training, it should be supported by detailed notes, which can be referred to in the educational supervisor's annual report. Assessments will also be supported by the trainees portfolio of achievements and performance in clinical, x-ray and histopathology meetings, audit presentations and achievements from other training and learning methods listed in the curriculum. Assessments of grades may be supported by the use of the Mini-CEX and 360 degree assessment currently under development by the JCHMT. All formal educational events must be recorded in the training record as part of the trainees portfolio.

## **Annual Review of Training - RITA (Record of In Training Assessment)**

An annual review of training will be undertaken by the Regional Gastroenterology Training Committee. At annual reviews, assessments and reports by educational supervisors will be reviewed and a decision made as detailed in the JCHMT handbook. At some or all of these annual reviews an external assessor will be present and scrutinise the training record. An SAC representative will participate in the penultimate year review (held to a standard format; see below) approximately 12-18 months before the planned end of training. The award of the CCST will be based on satisfactory completion of the entire series of annual assessments.

## **Trainees**

The trainee should agree and implement a weekly time table with the local educational supervisor and the Regional Programme Director. The trainee should ensure that there is a formal appraisal with educational supervisor initially and every four to six months and that any problems with training are identified and resolved in good time. The trainee should keep a record of practical procedures in the Training Record and ensure that the experience from the post will fulfil the stated requirements for that period of training. Any problems which are not resolved locally should be reported promptly to the Programme Director or failing this, Specialist Advisory Committee. Trainees should see and sign any formal reports or assessments about their training.

## **Training Record**

A training record will be maintained by the trainee which will include a log of practical procedures, a portfolio of educational achievements, and assessments completed annually by the educational supervisor. The latter are to confirm the satisfactory fulfilment of the required training experience and the acquisition of the competencies enumerated in the Curriculum. The Training Record will remain the property of the trainee and must be produced at the annual reviews.

While it is desirable that detailed clinical experience is recorded, it is important that patients remain non-identifiable in any documentation. Records could include dates and numbers of patients undergoing a procedure, or seen with a condition so that if required a retrospective audit could validate the data. Hospital record numbers would identify patients and are thus unacceptable.

## **FORMAT OF PENULTIMATE YEAR REVIEWS IN GASTROENTEROLOGY**

Detailed guidance notes are available from the JCHMT.

Three months in advance the trainees involved should be informed of the date, the venue and reminded of the regulations pertaining to PYRs. Trainees need to ensure that their training records fully document their training and include signed supervisor reports. There should be a supervisors report for each and every attachment and a minimum of one report covering each year of training. Trainees should be asked to ensure that trainers have graded and countersigned each item of the curriculum including their record of endoscopic training. It is these reports which provide the real assessment and without them trainees will not be able to proceed to the next phase of training.

### **Assessment of the Training Record**

The trainees personal training record must be reviewed by at least one member of the committee before each individual is seen. The SAC representative should be offered an opportunity to review the record but will generally accept the view of the committee member who has reviewed the contents. The SAC representative must be shown and read the structured supervisors reports. A minimum of ten minutes per trainee must be allocated for this before the interviews begin (or the relevant sections of the training record must be sent out at least one week in advance to the SAC representative). Whilst the whole training manual should be perused, particular attention should be applied to the weekly timetable and to the educational supervisor's signatures and comments. The research supervisor's comments should also be seen. Areas identified from this review as worthy of discussion should be noted for the subsequent interview.

### **The Interview**

At least 30 minutes plus 5 minutes for discussion/formalities must be allowed in addition to the 10 minutes set aside to review the training record.

- (a) The candidate should be asked to present, with the aid of one or two overheads, a summary of the previous year's work including

- (i) \* the timetable
- (ii) summary of the in-patient work including the numbers of patients and numbers of ward rounds including level of supervision
- (iii) summary of endoscopic and other procedures including level of supervision
- (iv) summary of out patient experience including numbers of new and follow-up patients and the degree of supervision
- (v) description of research training and duration
- (vi) \* a summary of the previous years placements with exact dates (as submitted to JCHMT)
- (vii) \* a summary of total endoscopic numbers, level of activity (independent etc) for whole career (as submitted to JCHMT)
- (viii) a statement of strengths and weaknesses which require further training in the last year
- (ix) the understood provisional CCST date

\* Printed copies of these should be given to the SAC representative.

This presentation should last 5-10 minutes.

- (b) The Chairman and SAC representative will question the candidate concerning any aspects requiring clarification. Having considered the supervisors reports, the SAC representative will attempt to elicit evidence of competence by specific questions concerning the level of independence. The trainee should be asked whether there are aspects of the reports with which he/she disagrees. The SAC representative will also address attendance at management and other courses, audit and other matters which have not been covered.
- (c) The Chairman and other members of the committee will then address plans for subsequent years training bearing in mind gaps that have appeared during the interview. A formal plan for the next year's training will not be made at this assessment.
- (d) The SAC representative should then lead a discussion on the CCST date and determine the correct date, and agree this with the trainee. If agreement is not achieved the method of appeal should be outlined for the trainee. The trainee will be given an opportunity to ask any remaining questions.
- (e) The Trainee should then leave the room allowing opportunity for the committee to consider the adequacy of the training during that year and agree mandatory and advised targets for the final months of training.
- (f) The trainee returns and the Chairman of the committee will reveal the decision of the committee, advise the trainee of the proposed final CCST date and areas of mandatory and advised training for inclusion in their personal development plan

The purpose of the PYR is to assess the trainee, but if in the course of discussions it becomes clear that there is a problem with a particular post, or the training programme, the SAC representative should discuss this further with the committee members and request time alone with the trainee to document more accurately the problem for reporting back to the SAC and Specialty Advisor/ Training Director.

## STRUCTURED SUPERVISORS REPORTS

These should be in the following format:-

1. **Knowledge** - Here should be documented that the trainee's knowledge base is as would be expected for their level and that they read and present evidence based data, and show an interest in self-learning.
2. **Skills** - These should include history taking, communication (with staff, patients and relatives), as well as practical procedures. Include here anything they do particularly well and which would make them expert in that area. (?suitability for ERCP training).
3. **Attitudes** - This is more nebulous but often the area that generates problems in the future. Do they get on with other team members. Are they good at empathising, supportive of juniors (and you), enthusiastic, hard working, good timekeepers. If there have been lots of complaints, these should be highlighted. Does the trainee attend the teaching days. If not, please comment. Reports from other members of the team can be particularly helpful here, so please ask for the written comments on items 2 and 3 from the endoscopy sister and/or another team member who has close links with the trainee.
4. **Personal Development Plan** - Please document career discussions and training needs which have arisen. Please do not just write a wish list of improbabilities but make suggestions practical. It is difficult for the "system" to provide everything for everybody but trainees should be given an opportunity to shine in some areas. If a DGH or liver unit placement is required to satisfy curriculum requirements, this should be stated.
5. **Time off for any reason** - All absences (x days) should be documented as CCST dates are extended for prolonged periods out of programme.

This report should be discussed with the trainee and they should be given a copy.

Trainers/supervisors must be able to support their opinions (to the STA or equivalent body if necessary). A desire not to upset trainees should not be allowed to result in inaccurate reports. Criticisms need examples and must be documented and if it is believed a trainee is exceptional, examples should be given. Trainee's reports are likely to be externally scrutinised in the future.

## TEACHING AND LEARNING METHODS\*

1. Apprentice teaching by educational supervisor at bedside, in clinics and endoscopy unit
2. Attendance at grand rounds, clinical meetings, x-ray and pathology conferences
3. Regional teaching programme
4. Use of educational materials including books, journals and guidelines.
5. Attendance at subject based courses
6. By writing guidelines and conduct of audit with appropriate literature review
7. Attendance at CME meetings and updates and national and international congresses
8. Conduct of research and submission of thesis or manuscript for publication

**\* While all methods are suitable for each subsection of the gastroenterology curriculum, it is not envisaged that all will be used.**

**METHODS OF ASSESSMENT OF COMPETENCE**

KNOWLEDGE	SKILLS / PERFORMANCE	ATTITUDES
Performance in literature reviews. Clinical meeting presentations and Essays  Questioning by educational supervisor  Conduct of audits  Reports of learning from educational event recorded in portfolio	Direct observation by educational supervisor in ward, endoscopy room or clinic  Scrutiny of performance by educational supervisor after independent action by trainee in ward or clinic	Direct observation by educational supervisor and other members of staff of the unit

For each area in the curriculum these methods may be supplemented by a Mini-CEX or 360 degree assessment

**GRADES OF ASSESSMENT OF COMPETENCE**

Grades should be awarded for each curriculum item as follows:-

KNOWLEDGE	SKILLS*	ATTITUDE	PERFORMANCE
1. Fully trained and consistent with independent practice			
2. Good knowledge of .....	Usually able to .....	Usually demonstrates willingness to .....	Usually able to ..... without supervision
3. Moderate knowledge of .....	Frequently able to .....	Frequently demonstrates willingness to .....	Frequently able to ..... without help from supervisor
4. Inadequate knowledge of .....	Usually unable to .....	Inconsistently demonstrates willingness to .....	Requires assistance of supervisor in more than 50% of cases to .....
ND Training not yet undertaken			

\* For practical procedures, performance grades should be substituted for skills.

**SECTION 1: UPPER GI TRACT**

**Dysphagia and non cardiac chest pain**

<b>SUBJECT</b>	<b>KNOWLEDGE</b>	<b>SKILLS</b>	<b>ATTITUDES</b>
1. Dysphagia	Physiology of swallowing; benign and malignant causes and presentation of dysphagia and its management	Able to elicit history, investigate appropriately and define medical endoscopic, radiological and surgical treatment strategies	Demonstrates willingness to participate in diagnosis and treatment of dysphagia
2. Non cardiac chest pain	Physiology of oesophagus and gastro-oesophageal junction; gastro-oesophageal reflux disease including symptoms (e.g. heartburn) and endoscopic findings; Barrett's oesophagus	Able to recognise symptom complex, arrange appropriate investigations including pH monitoring, motility studies and endoscopy and interpret findings	Demonstrates willingness to participate in diagnosis and treatment of non cardiac chest pain

**RECORD OF ASSESSMENT OF COMPETENCE**

SUBJECT	YEAR/DATES	KNOWLEDGE	SKILLS	ATTITUDE	EDUCATIONAL SUPERVISOR	SIGNATURE/ DATE
<b>1. Dysphagia</b>	1					
	2					
	3					
	4					
	5					
<b>2. Non cardiac chest pain</b>	1					
	2					
	3					
	4					
	5					

**Additional comments:**

**Upper abdominal pain/dyspepsia**

<b>SUBJECT MATTER</b>	<b>KNOWLEDGE</b>	<b>SKILLS</b>	<b>ATTITUDES</b>
1. Peptic ulcer type dyspepsia	Physiology of gastric acid secretion; Role of helicobacter pylori and its detection and treatment Effect of non steroidal anti-inflammatory drugs and drugs to inhibit gastric acid production and stimulate mucosal protection	Able to identify appropriate investigations, make differential diagnosis, identify success of treatment and recognise complications such as gastric outlet obstruction, perforation and bleeding	
2. Gall bladder type dyspepsia	Physiology of bile, gallstone formation, biliary colic and gall bladder neoplasia	Able to recognise gall bladder symptoms and signs investigate appropriately and instigate medical or surgical treatment	Demonstrates willingness to manage dyspeptic patients appropriately
3. Non ulcer dyspepsia	Physiology of motor disorders of upper GI tract	Able to diagnose and treat dysmotility type symptoms	
4. Pancreatic disease	See section 2, 1, 1; 3,1,1&2 and 4,2,2.		

**RECORD OF ASSESSMENT OF COMPETENCE**

SUBJECT	YEAR/DATES	KNOWLEDGE	SKILLS	ATTITUDE	EDUCATIONAL SUPERVISOR	SIGNATURE/ DATE
<b>1. Peptic ulcer type dyspepsia</b>	1					
	2					
	3					
	4					
	5					
<b>2. Gall bladder type dyspepsia</b>	1					
	2					
	3					
	4					
	5					
<b>3. Non ulcer dyspepsia</b>	1					
	2					
	3					
	4					
	5					

**Additional comments:**

## Nausea and vomiting

<b>SUBJECT MATTER</b>	<b>KNOWLEDGE</b>	<b>SKILLS</b>	<b>ATTITUDES</b>
1. Dyspepsia  2. Functional disorders of upper GI tract  3. Gastric cancer  4. Other causes of nausea and vomiting	<b>See above</b>  Non organic causes of upper GI symptoms and their treatment  Pathogenesis, clinical features, complications, medical and surgical options for treatment  Metabolic and neurological causes of nausea and vomiting as a manifestation of systemic disease	Able to diagnose functional disorders and initiate symptomatic treatment  Able to investigate and stage upper GI cancer and make appropriate decisions concerning treatment modalities  Able to apply the wide differential diagnosis applicable to these symptoms	Demonstrates willingness to manage upper gastrointestinal symptoms appropriately

**RECORD OF ASSESSMENT OF COMPETENCE**

SUBJECT	YEAR/DATES	KNOWLEDGE	SKILLS	ATTITUDE	EDUCATIONAL SUPERVISOR	SIGNATURE/ DATE
<b>2. Functional disorders of upper GI tract</b>	1					
	2					
	3					
	4					
	5					
<b>3. Gastric cancer</b>	1					
	2					
	3					
	4					
	5					
<b>3. Other causes of nausea and vomiting</b>	1					
	2					
	3					
	4					
	5					

**Additional comments:**

## Upper gastrointestinal bleeding

SUBJECT MATTER	KNOWLEDGE	SKILLS	ATTITUDES
1. Assessment of patient with GI bleeding	Risk factors for death, pathophysiology of shock and its measurement, resuscitation	Able to diagnose and manage shocked patients adequately	Demonstrates willingness to recognise severity of condition and take prompt action as necessary
2. Peptic ulcer bleeding	Pathophysiology of arterial bleeding endoscopic and radiological diagnosis, endoscopic and surgical treatments	Able to recommend urgent endoscopy for diagnosis and treatment of bleeding peptic ulcer	Demonstrates willingness to recommend prompt endoscopic action and liaise with surgical colleagues as necessary
3. Variceal bleeding	Anatomy and physiology of varices, risk factors for bleeding including size, portal pressure and endoscopic stigmata, coagulation abnormalities	Able to recommend use of endoscopic sclerotherapy and band ligation when necessary and administer prophylactic treatments and vasoconstrictor agents as necessary	Demonstrates willingness to participate in management of variceal haemorrhage and liaise with a specialist liver unit for TIPS or other measures when necessary
4. Bleeding from vascular anomalies and tumours	Clinical features of vascular anomalies and tumours and risks of bleeding	Able to undertake endoscopic diagnosis and recommend treatment with thermal or other methods as appropriate	Demonstrates willingness to participate in endoscopic management

RECORD OF ASSESSMENT OF COMPETENCE

SUBJECT	YEAR/DATES	KNOWLEDGE	SKILLS	ATTITUDE	EDUCATIONAL SUPERVISOR	SIGNATURE/ DATE
<b>1. Assessment of patient with GI bleeding</b>	1					
	2					
	3					
	4					
	5					
<b>2. Peptic ulcer bleeding</b>	1					
	2					
	3					
	4					
	5					
<b>3. Variceal bleeding</b>	1					
	2					
	3					
	4					
	5					
<b>4. Bleeding from vascular anomalies and tumours</b>	1					
	2					
	3					
	4					
	5					

**Additional comments:**

**Clinical/laboratory tests of GI structure and function**

SUBJECT MATTER	KNOWLEDGE	SKILLS	ATTITUDES
1. Oesophageal, gastric and anorectal function tests	Oesophageal pH monitoring, oesophageal and ano- rectal motility/manometry, gastric emptying studies	Able to recommend use in suitable patients	Demonstrates willingness to use tests when necessary and appropriate
2. Gastric secretion tests	24h intragastric H <sup>+</sup> concentration, maximal acid output, effect of pentagastrin and gastrin releasing peptide	Able to recognise value for drug testing and research and evaluate results	
3. Tests for malabsorption	SeHCAT, PABA, lactose breath H <sub>2</sub> , lactulose breath H <sub>2</sub> , faecal elastase	Able to recommend use of and evaluate results of test	
4. Tests for inflammation	Serological and nuclear medicine testing including Tc WBC scans	Able to make appropriate use of as indicated	
5. Radiological evaluation	Plain x-rays of abdomen, barium studies of GI tract CT, MRI and ultrasound	Able to recommend use of and interpret results	

**RECORD OF ASSESSMENT OF COMPETENCE**

SUBJECT	YEAR/DATES	KNOWLEDGE	SKILLS	ATTITUDE	EDUCATIONAL SUPERVISOR	SIGNATURE/ DATE
<b>1.Oesophageal, ic and anorectal function tests</b>	1					
	2					
	3					
	4					
	5					
<b>2. Gastric secretion tests</b>	1					
	2					
	3					
	4					
	5					
<b>3. Tests for malabsorption</b>	1					
	2					
	3					
	4					
	5					
<b>4. Tests for inflammation</b>	1					
	2					
	3					
	4					
	5					
<b>5. Radiological evaluation</b>	1					
	2					
	3					
	4					
	5					

**Additional comments:**

## SECTION 2: ABSORPTION AND NUTRITION

### Malabsorption, anorexia and weight loss.

<b>SUBJECT MATTER</b>	<b>KNOWLEDGE</b>	<b>SKILLS</b>	<b>ATTITUDES</b>
1. Steatorrhoea	Coeliac disease, bacterial overgrowth syndrome, small intestinal Crohn's disease, small bowel diverticular disease, chronic pancreatitis and neoplasia	Able to recognise symptom patterns investigate with barium, scanning endoscopic and biochemical tests and give appropriate treatment	Demonstrates willingness to recognise and treat small intestinal and pancreatic disorders and understand patient needs
2. Anorexia and weight loss	Differential diagnosis including GI and non GI causes and eating disorders	Able to identify appropriate route of GI causes and eating disorders investigation, recognise organic from non organic causes and plan treatment	Demonstrates willingness to explain potential causes with patient

**RECORD OF ASSESSMENT OF COMPETENCE**

SUBJECT	YEAR/DATES	KNOWLEDGE	SKILLS	ATTITUDE	EDUCATIONAL SUPERVISOR	SIGNATURE/ DATE
<b>1. Steatorrhoea</b>	1					
	2					
	3					
	4					
	5					
<b>2. Anorexia and weight loss</b>	1					
	2					
	3					
	4					
	5					

**Additional comments:**

## Evaluation of anaemia

<b>SUBJECT MATTER</b>	<b>KNOWLEDGE</b>	<b>SKILLS</b>	<b>ATTITUDES</b>
1. Anaemia	Definition and types including bone marrow disorders and haemolysis	Able to recognise anaemia and possible causes	Demonstrates willingness to appropriately investigate and treat anaemia in GI disease
2. Iron deficiency anaemia	Iron metabolism, absorption and bioavailability, iron stores, red cell indices, iron absorption, physiological and GI causes of iron losses.	Able to recognise iron deficiency, identify cause with appropriate GI investigations, and give necessary treatment	
3. Macrocytic anaemia	B12 and folate metabolism and absorption or malabsorption, pernicious anaemia, ileal disorders, alcoholism	Able to recognise cause of anaemia, confirm by investigation and take necessary action	

**RECORD OF ASSESSMENT OF COMPETENCE**

SUBJECT	YEAR/DATES	KNOWLEDGE	SKILLS	ATTITUDE	EDUCATIONAL SUPERVISOR	SIGNATURE/ DATE
<b>1. Anaemia</b>	1					
	2					
	3					
	4					
	5					
<b>2. Iron deficiency anaemia</b>	1					
	2					
	3					
	4					
	5					
<b>3. Macrocytic anaemia</b>	1					
	2					
	3					
	4					
	5					

**Additional comments:**

**Short bowel syndrome/high ileostomy output**

<b>SUBJECT MATTER</b>	<b>KNOWLEDGE</b>	<b>SKILLS</b>	<b>ATTITUDES</b>
1. Short bowel syndrome/ ileostomy diarrhoea	Fluid and electrolyte balance and its maintenance, malnutrition and micronutrient deficiency, underlying disease processes, stomatherapy	Able to detect fluid and electrolyte deficiency and malnutrition and plan treatment	Demonstrates willingness to manage and refer patients appropriately

RECORD OF ASSESSMENT OF COMPETENCE

SUBJECT	YEAR/DATES	KNOWLEDGE	SKILLS	ATTITUDE	EDUCATIONAL SUPERVISOR	SIGNATURE/ DATE
<b>1. Short bowel syndrome/ ileostomy diarrhoea</b>	1					
	2					
	3					
	4					
	5					

**Additional comments:**

## Nutritional Support

To provide knowledge, skills and attitudes for nutritional support

<b>SUBJECT MATTER</b>	<b>KNOWLEDGE</b>	<b>SKILLS</b>	<b>ATTITUDES</b>
1. Nutritional assessment	Body composition, energy homeostasis consequences of under nutrition, screening	Able to detect under nutrition and apply knowledge to individual patients	Demonstrates willingness to assess nutritional needs and involve nutritional support team
2. Methods of providing nutritional support	Type of food available and routes of administration, use of intravenous nutrition and its complications, enteral feeding nasogastric and jejunal administration	Able to choose appropriate route for nutritional support, insert appropriate feeding lines, supervise their use and prescribe appropriate i.v. and enteral feeding regime	
3. PEG	Ethics and indications; anatomy of relevant area, types of PEG tubes, disadvantages and complications	Able to recommend and insert PEG feeding when appropriate and supervise follow up care	Demonstrates willingness to consider PEG support in appropriate cases and listen to relatives' fears and expectations

RECORD OF ASSESSMENT OF COMPETENCE

SUBJECT	YEAR/DATES	KNOWLEDGE	SKILLS	ATTITUDE	EDUCATIONAL SUPERVISOR	SIGNATURE/ DATE
<b>1. Nutritional assessment</b>	1					
	2					
	3					
	4					
	5					
<b>2. Methods of providing nutritional support</b>	1					
	2					
	3					
	4					
	5					
<b>3. PEG</b>	1					
	2					
	3					
	4					
	5					

**Additional comments:**

**SECTION 3: ABDOMINAL PAIN AND SYMPTOMS OF COLONIC DISEASE**

**Abdominal pain**

SUBJECT MATTER	KNOWLEDGE	SKILLS	ATTITUDES
1. Acute abdominal pain	Pathophysiological mechanisms, organ specific causes such as hollow viscus obstruction, pancreatitis and non Gicause	Able to elicit abdominal signs including acute abdomen, interpret investigations and recommend medical or surgical treatment	Demonstrates willingness and sympathy to physical and mental responses to pain and its cause
2. Chronic abdominal pain	Pathophysiology of Crohn's disease diverticulitis, intra abdominal neoplasia and pancreatitis	Able to investigate abdominal pain appropriately, construct differential diagnosis	
3. Treatment of abdominal pain	Analgesics, administration and safety medical and surgical nerve blocks,	Able to treat abdominal pain appropriately for individual patients with different disease processes.	Demonstrates willingness to treat and refer to surgeons, psychiatrists, pain clinics and palliative care teams as necessary

RECORD OF ASSESSMENT OF COMPETENCE

<u>SUBJECT</u>	YEAR/DATES	KNOWLEDGE	SKILLS	ATTITUDE	EDUCATIONAL SUPERVISOR	SIGNATURE/ DATE
<b>1. Acute abdominal pain</b>	1					
	2					
	3					
	4					
	5					
<b>2. Chronic abdominal pain</b>	1					
	2					
	3					
	4					
	5					
<b>3. Treatment of abdominal pain</b>	1					
	2					
	3					
	4					
	5					

Additional comments:

**Constipation, diarrhoea or change in bowel habit.**

<b>SUBJECT MATTER</b>	<b>KNOWLEDGE</b>	<b>SKILLS</b>	<b>ATTITUDES</b>
1. Constipation	Physiology of normal and abnormal colonic function, motility, obstructed defecation Hirschsprungs	Able to investigate when necessary and advise on use of diet, laxatives and biofeedback as necessary	Demonstrates willingness to investigate and counsel as appropriate
2. Diarrhoea infections	Secretory and osmotic diarrhoea, viral, bacterial and protozoa inflammatory bowel disease, intestinal ischaemia, neoplastic and infiltrative disorders	Able to investigate with blood tests stool examination, endoscopy and radiology as appropriate	Demonstrates willingness to appreciate patient discomfort associated with diarrhoea and incontinence and take sympathetic action
3. Treatment of diarrhoea	Medical and surgical options for treatment of ulcerative and Crohn's colitis, antimicrobials surgical colleagues and anti diarrhoeals	Able to assess severity of disease, take necessary action and liaise with surgical colleagues	Demonstrates willingness to consult with surgical colleagues when necessary
4. Change in bowel habit	Functional disorders of colon, spurious diarrhoea, autonomic disorders, laxative abuse, diverticulosis and malignancy	Able to make accurate diagnosis and give appropriate specific or symptomatic treatment including use of antispasmodics, dietary fibre and constipating agent	Demonstrates sympathy and willingness to treat as appropriate

**RECORD OF ASSESSMENT OF COMPETENCE**

<b><u>SUBJECT</u></b>	<b>YEAR/DATES</b>	<b>KNOWLEDGE</b>	<b>SKILLS</b>	<b>ATTITUDE</b>	<b>EDUCATIONAL SUPERVISOR</b>	<b>SIGNATURE/ DATE</b>
<b>1. Constipation</b>	1					
	2					
	3					
	4					
	5					
<b>2. Diarrhoea</b>	1					
	2					
	3					
	4					
	5					
<b>3. Treatment of diarrhoea</b>	1					
	2					
	3					
	4					
	5					
<b>4. Change in bowel habit</b>	1					
	2					
	3					
	4					
	5					

**Additional comments:**

## Rectal bleeding and perianal fistulae

<b>SUBJECT MATTER</b>	<b>KNOWLEDGE</b>	<b>SKILLS</b>	<b>ATTITUDES</b>
1. Rectal bleeding	Piles; neoplasia of anus and recto sigmoid colon; colitis and Crohn's disease of rectum	Able to examine patients with rectal bleeding, use rigid sigmoidoscope and undertake appropriate action	Demonstrates willingness to undertake appropriate investigations and treatment
2. Perianal fistulae	Benign fistulae, fistulae complicated by perianal sepsis	Able to investigate including use of MRI, give medical treatment and liaise with surgical colleagues when necessary	

**RECORD OF ASSESSMENT OF COMPETENCE**

<b><u>SUBJECT</u></b>	<b>YEAR/DATES</b>	<b>KNOWLEDGE</b>	<b>SKILLS</b>	<b>ATTITUDE</b>	<b>EDUCATIONAL SUPERVISOR</b>	<b>SIGNATURE/ DATE</b>
<b>1. Rectal bleeding</b>	1					
	2					
	3					
	4					
	5					
<b>2. Perianal fistulae</b>	1					
	2					
	3					
	4					
	5					

**Additional comments:**

## **SECTION 4: LIVER**

### **Abnormal liver function tests**

<b>SUBJECT MATTER</b>	<b>KNOWLEDGE</b>	<b>SKILLS</b>	<b>ATTITUDES</b>
1. Pathophysiology of liver dysfunction	Bilirubin metabolism, hepatic and biliary inflammatory processes, hepatic malignancy, hepatic blood flow	Able to recognise range of disease processes possible	Demonstrates willingness to use appropriate tests in correct circumstances
2. Hepatic dysfunction	Biochemical, haematological, viral autoimmune and metabolic markers of liver disease	Able to select and interpret appropriate markers	
3. Investigation of hepatic dysfunction	Indications for liver biopsy, abdominal ultrasound, CT, ERCP, MRI/MRCP	Able to select and interpret appropriate tests as required	
4. Liver biopsy	Technique, types of needle, pre and post procedure care, complications	Able to recommend or undertake blind liver biopsy or recommend ultrasound guidance or transjugular approach as necessary, recognise complications	

**RECORD OF ASSESSMENT OF COMPETENCE**

<b><u>SUBJECT</u></b>	<b>YEAR/DATES</b>	<b>KNOWLEDGE</b>	<b>SKILLS</b>	<b>ATTITUDE</b>	<b>EDUCATIONAL SUPERVISOR</b>	<b>SIGNATURE/ DATE</b>
<b>1. Pathophysiology of liver dysfunction</b>	1					
	2					
	3					
	4					
	5					
<b>2. Hepatic dysfunction</b>	1					
	2					
	3					
	4					
	5					
<b>3. Investigation of hepatic dysfunction</b>	1					
	2					
	3					
	4					
	5					
<b>4. Liver biopsy</b>	1					
	2					
	3					
	4					
	5					

**Additional comments:**

## Jaundice

<b>SUBJECT</b>	<b>KNOWLEDGE</b>	<b>SKILLS</b>	<b>ATTITUDES</b>
1. Anatomy and physiology of biliary system	Cause of extra and intrahepatic biliary obstruction and its clinical manifestations	Able to recognise biliary obstruction and its complications	Demonstrates willingness to recognise the development of the various causes of jaundice and take appropriate action
2. Jaundice	Differential diagnosis of jaundice including hepatitis, alcoholic liver disease, biliary obstruction, chronic liver disease (e.g. CAH, PBC, PSC) and hepatic malignancy	Able to make use of and interpret investigations of jaundiced patients including ultrasound, CT?MRI, ERCP and liver biopsy and initiate appropriate treatment	
3. Treatment	Surgical, radiological and medical treatment of jaundiced patients	Able to select most appropriate treatment for individual patients	

**RECORD OF ASSESSMENT OF COMPETENCE**

<b><u>SUBJECT</u></b>	<b>YEAR/DATES</b>	<b>KNOWLEDGE</b>	<b>SKILLS</b>	<b>ATTITUDE</b>	<b>EDUCATIONAL SUPERVISOR</b>	<b>SIGNATURE/ DATE</b>
<b>1. Anatomy and physiology of biliary system</b>	1					
	2					
	3					
	4					
	5					
<b>2. Jaundice</b>	1					
	2					
	3					
	4					
	5					
<b>3. Treatment</b>	1					
	2					
	3					
	4					
	5					

**Additional comments:**

## Hepatosplenomegaly and abdominal swelling

SUBJECT MATTER	KNOWLEDGE	SKILLS	ATTITUDES
1. Hepatosplenomegaly	Causes of cirrhosis, primary and secondary hepatic malignancy and infiltrative disorders, metabolic disorders of the liver	Able to make diagnosis of cirrhosis, hepatic malignancy, haemochromatosis, alpha 1 antitrypsin deficiency and Wilson's disease and select therapeutic options available	Demonstrates willingness to diagnose and treat liver disease, ascites and abdominal masses
2. Abdominal swelling	Pathophysiology of portal hypertension and causes of ascites	Able to give differential diagnosis and safely manage ascites and spontaneous bacterial peritonitis with diuretics, antibiotics and paracentesis as necessary. Refers for TIPS when indicated	Demonstrates willingness to consult with and refer to a specialist unit as appropriate
3. Abdominal masses including cysts	Causes of hepatic and extrahepatic masses	Able to recognise abdominal masses and initiate appropriate investigations	

**RECORD OF ASSESSMENT OF COMPETENCE**

<b><u>SUBJECT</u></b>	<b>YEAR/DATES</b>	<b>KNOWLEDGE</b>	<b>SKILLS</b>	<b>ATTITUDE</b>	<b>EDUCATIONAL SUPERVISOR</b>	<b>SIGNATURE/ DATE</b>
<b>1. Hepato-splenomegaly</b>	1					
	2					
	3					
	4					
	5					
<b>2. Abdominal swelling</b>	1					
	2					
	3					
	4					
	5					
<b>3. Abdominal masses including cysts</b>	1					
	2					
	3					
	4					
	5					

**Additional comments:**

**Confusion progressing to liver failure**

<b>SUBJECT MATTER</b>	<b>KNOWLEDGE</b>	<b>SKILLS</b>	<b>ATTITUDES</b>
1. Confusion	Pathophysiology, clinical features stage and precipitants of hepatic encephalopathy in liver disease	Able to recognise, investigate and treat hepatic encephalopathy, alcohol withdrawal syndromes and other causes of confusion	Demonstrates willingness to recognise and treat hepatic encephalopathy
2. Liver failure	Causes and manifestations of acute and chronic hepatic failure	Able to recognise progression to hepatic failure and need for referral to specialist liver unit for consideration for liver transplantation	Demonstrates willingness to consult and refer to specialist liver unit as appropriate

**RECORD OF ASSESSMENT OF COMPETENCE**

<b><u>SUBJECT</u></b>	<b>YEAR/DATES</b>	<b>KNOWLEDGE</b>	<b>SKILLS</b>	<b>ATTITUDE</b>	<b>EDUCATIONAL SUPERVISOR</b>	<b>SIGNATURE/ DATE</b>
<b>1. Confusion</b>	1					
	2					
	3					
	4					
	5					
<b>2. Liver failure</b>	1					
	2					
	3					
	4					
	5					

**Additional comments:**

5) Advanced liver subspecialty training option available mainly in specialist liver units

**Subspecialty training in Hepatology**

Hepatitis, acute liver failure, severe complications of chronic liver disease, benign and malignant tumours of the hepato-biliary system and liver transplantation

<b>SUBJECT MATTER</b>	<b>KNOWLEDGE</b>	<b>SKILLS</b>	<b>ATTITUDES</b>
1. Anti viral therapy	Criteria for treatment and efficacy of anti viral therapy for hepatitis B & C	Able to administer and monitor anti viral therapy for hepatitis B & C with appropriate investigations as necessary	Demonstrates willingness to participate in the diagnosis and management of advanced liver disease
2. Acute hepatic failure	Causes and manifestations of acute hepatic failure and its complications including cerebral oedema and hepato renal syndrome	Able to recognise progression of acute hepatic failure and the need for liver transplantation	
3. Severe complications of chronic liver disease	Radiological and surgical methods for the management of uncontrolled variceal bleeding and resistant ascites	Able to advise use of and follow up of TIPS or surgery in patients with portal hypertension	
4. Benign and malignant tumours of the hepatobiliary system	Hepatic adenoma, hepatoma and cholangiocarcinoma and medical, surgical and radiological management	Able to advise use of screening and the different therapeutic strategies for individual patients	
5. Liver transplantation	Selection of patients and timing of transplantation. Management of peri- and post- operative complications including rejection and infection. Immunosuppression therapy.	Able to appropriately select patients for liver transplantation. Able to manage complications of transplantation. Able to manage immunosuppressive therapy	

**RECORD OF ASSESSMENT OF COMPETENCE**

<b><u>SUBJECT</u></b>	<b>YEAR/DATES</b>	<b>KNOWLEDGE</b>	<b>SKILLS</b>	<b>ATTITUDE</b>	<b>EDUCATIONAL SUPERVISOR</b>	<b>SIGNATURE/ DATE</b>
<b>1. Anti viral therapy</b>	1					
	2					
	3					
	4					
	5					
<b>2. Acute hepatic failure</b>	1					
	2					
	3					
	4					
	5					
<b>3. Severe complications of chronic liver disease</b>	1					
	2					
	3					
	4					
	5					
<b>4. Benign and malignant tumours of the hepato-biliary system</b>	1					
	2					
	3					
	4					
	5					
<b>5. Liver transplantation</b>	1					
	2					
	3					
	4					
	5					

**Additional comments:**

## SECTION 5: ENDOSCOPY

### Endoscopic safety

<b>SUBJECT MATTER</b>	<b>KNOWLEDGE</b>	<b>SKILLS</b>	<b>ATTITUDES</b>
1. Equipment	Structure and function of endoscope, light source, processor and accessories including source, processor and accessories including diathermy and thermal methods for coagulation	Able to clean and disinfect equipment in accordance with BSG guidelines and use equipment in accordance with manufacturers recommendations	Demonstrates willingness to undertake endoscopy cleaning as necessary and use of equipment appropriately
2. Consent	Medical and legal issues concerning consent and provision of information	Able to consent patient in accordance with BSG guidelines	Demonstrates willingness to obtain consent for endoscopic procedures
3. Sedation and monitoring	Sedative and analgesic drugs and their additive effects, patient observation and oxygen saturation	Able to safely and effectively sedate a patient for endoscopy and monitor before and after procedure	Demonstrates willingness to participate in safe endoscopic practice

**RECORD OF ASSESSMENT OF COMPETENCE**

<b><u>SUBJECT</u></b>	<b>YEAR/DATES</b>	<b>KNOWLEDGE</b>	<b>SKILLS</b>	<b>ATTITUDE</b>	<b>EDUCATIONAL SUPERVISOR</b>	<b>SIGNATURE/ DATE</b>
<b>1. Equipment</b>	1					
	2					
	3					
	4					
	5					
<b>2. Consent</b>	1					
	2					
	3					
	4					
	5					
<b>3. Sedation and monitoring</b>	1					
	2					
	3					
	4					
	5					

**Additional comments:**

## Upper and lower GI endoscopy

SUBJECT MATTER	KNOWLEDGE	SKILLS	ATTITUDES
1. Diagnostic gastroscopy	Indications, contraindications, preparation and documentation	Able to undertake OGD, take biopsies, interpret findings and take necessary action	Demonstrates willingness to undertake endoscopy in such a way as to minimise risk and discomfort to patients, and obtain help when needed
2. Endoscopic therapy of benign and malignant oesophageal strictures	Methods for dilation of oesophageal stricture and insertion of prosthetic tube or expandable metal stents	Able to dilate oesophageal strictures and insert appropriate prosthetic devices	Demonstrates willingness to undertake therapeutic procedures safely and with minimum patient discomfort and to obtain help when needed
3. Thermal therapy of gastro-oesophageal tumours, ulcers and vascular malformations	Laser and thermal methods for tumour ablation and control of bleeding lesions	Able to use thermal and laser methods during upper GI endoscopy	
4. Direct injection/banding techniques for bleeding lesions and tumour therapy	Endoscopic sclerotherapy/banding of varices and injection of vasoconstrictor agents for arterial bleeding lesions	Able to perform injection sclerotherapy band ligation and adrenaline injection as appropriate	
5. Flexible sigmoidoscopy	Indications, contraindications, complications and their management, patient preparation and documentation	Able to undertake procedure, and reach descending sigmoid junction in 90% of cases where indicated.  Take biopsies, undertake polypectomy and take other necessary action as required	Demonstrates willingness to undertake distal colonoscopy in such a way as to minimise risk and discomfort to patient and obtain help when needed

**RECORD OF ASSESSMENT OF COMPETENCE**

<b>SUBJECT</b>	<b>YEAR/DATES</b>	<b>KNOWLEDGE</b>	<b>SKILLS</b>	<b>ATTITUDE</b>	<b>EDUCATIONAL SUPERVISOR</b>	<b>SIGNATURE/ DATE</b>
<b>1. Diagnostic gastroscopy</b>	1					
	2					
	3					
	4					
	5					
<b>2. Endoscopic therapy of benign and malignant oesophageal strictures</b>	1					
	2					
	3					
	4					
	5					
<b>3. Thermal therapy of gastro-oesophageal tumours, ulcers and vascular malformations</b>	1					
	2					
	3					
	4					
	5					
<b>4. Direct injection/banding techniques for bleeding lesions and tumour therapy</b>	1					
	2					
	3					
	4					
	5					
<b>5. Flexible sigmoidoscopy</b>	1					
	2					
	3					
	4					
	5					

**Additional comments:**

## Colonoscopy

SUBJECT MATTER	KNOWLEDGE	SKILLS	ATTITUDES
6. Diagnostic total colonoscopy	Indications, contraindications, complications and their management, patient preparation and documentation	Able to undertake procedure and reach caecum in 90% of cases where indicated Take biopsies, undertake polypectomy and take other necessary action as required	Demonstrates willingness to undertake colonoscopy in such a way as to minimise risk and discomfort to patient and obtain help when needed
7. Colonoscopic therapy of tumours and strictures	Laser and thermal methods for tumour ablation and use of prostheses and dilatation	Able to control tumour growth and recanalise colon as necessary	Demonstrates willingness to undertake therapy in such a way as to minimise risk and discomfort to patient and obtain help when needed
8. *Enteroscopy	Indications, contraindications, complications and their management, patient preparation and documentation	Able to recommend use of and undertake enteroscopy in suitable patients. Able to treat vascular lesions and polyps appropriately	Demonstrates willingness to refer patients to a colleague or specialist unit as necessary.

\* Training in enteroscopy is optional

**RECORD OF ASSESSMENT OF COMPETENCE**

<b><u>SUBJECT</u></b>	<b>YEAR/DATES</b>	<b>KNOWLEDGE</b>	<b>SKILLS</b>	<b>ATTITUDE</b>	<b>EDUCATIONAL SUPERVISOR</b>	<b>SIGNATURE/ DATE</b>
<b>1. Diagnostic total colonoscopy</b>	1					
	2					
	3					
	4					
	5					
<b>2.Colonoscopy therapy of tumours and strictures</b>	1					
	2					
	3					
	4					
	5					
<b>3. Enteroscopy</b>	1					
	2					
	3					
	4					
	5					

**Additional comments:**

## Diagnostic and therapeutic ERCP

<b>SUBJECT MATTER</b>	<b>KNOWLEDGE</b>	<b>SKILLS</b>	<b>ATTITUDES</b>
1. ERCP	Indications, contraindications, complications and their management, patient preparation and documentation	Able to undertake procedure and cannulate pancreatic and bile ducts in 90% of procedures	Demonstrates willingness to undertake ERCP in such a way as to minimise risk and discomfort to patient and obtain help when needed
2. Therapeutic ERCP	Endoscopic sphincterotomy and its complications, insertion and replacement of biliary stents, combined endoscopic and radiological procedures	Able to undertake sphincterotomy and stent insertion in 90% of procedures	

**\* Training in ERCP is optional**

**RECORD OF ASSESSMENT OF COMPETENCE**

SUBJECT	YEAR/DATES	KNOWLEDGE	SKILLS	ATTITUDE	EDUCATIONAL SUPERVISOR	SIGNATURE/ DATE
<b>1. ERCP</b>	1					
	2					
	3					
	4					
	5					
<b>2. Therapeutic ERCP</b>	1					
	2					
	3					
	4					
	5					

**Additional comments:**