

HIGHER SURGICAL TRAINING IN HEPATOPANCREATOBILIARY SURGERY

OBJECTIVES OF PROGRAM

The higher surgical training in the field of hepatopancreatobiliary surgery is designed to enhance & refresh the clinical skills of the trainees in the specified field.

allow the trainees to undertake clinical work at a higher level and acquire operative skills which will enable them to undertake management of the various diseases & disorders of the liver, pancreas and the biliary system.

- iii. enhance the exposure of the trainees to clinical and basic research which in turn will enrich their awareness of the interactions between research and evidence based clinical practice.

ENTRY REQUIREMENTS

The candidate applying for Higher Surgical Training must

1. hold a basic medical qualification recognised for registration with the Malaysian Medical Council.
2. hold a recognised post graduate qualification (Masters in General Surgery from any local university; Fellowship of one of the Royal Colleges of Surgeons or an equivalent diploma).
3. have spent at least two years in the clinical practice of general surgery. Performance in this post must be certified as satisfactory by the supervising consultant.
4. have experience in basic / clinical research and have at least two original publications in an indexed medical journal.
5. have commitment to high standards of clinical practice & long hours of hard work.

DURATION OF TRAINING

Full time clinical placement (apprenticeship) for three years.

The total duration of the clinical fellowship in Hepatopancreatobiliary Surgery shall be three years, of which 6 months may be spent in a recognised centre overseas.

TRAINING CENTRES

1. Department of HepatoPancreatoBiliary Surgery, Selayang Hospital.
2. Department of Surgery, Hospital Alor Setar (1 year)
3. Department of Surgery, Hospital Pulau Pinang (1 year)

TRAINING FORMAT & TRAINEE COMMITMENTS

The training format is designed to bring the clinical & operative skills of the fellow to the level of professional excellence. It shall entail a full-time clinical placement in a designated centre. During the course of higher surgical training the fellow is expected to participate in all the clinical (ward rounds, outpatient clinics and the operative surgery sessions), educational and research activities of the department.

The fellow will be given an increasing responsibility and role in managing the various hepatopancreatobiliary problems under the supervision of the Consultant. The trainee will be expected to record his / her experiences in a logbook which will provide a basis for final evaluation on completion of the training.

1. OPERATIVE SURGERY

The fellow will be taken through the various operative procedures of increasing complexity until he /she is able to undertake such procedures independently. The list of the various operations that must be undertaken are as follows.

Operative Surgery Procedures:

The higher surgical trainee in Hepatopancreatobiliary Surgery must develop adequate skills and competence to undertake the following operative procedures.

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|---------|---|--------------------------------|
| General | - | Laparotomy |
| | - | Laparoscopy |
| | - | Intraoperative Ultrasound |
| | - | Intraoperative Cholangiogram |
| | - | Intraoperative Choledochoscopy |
| Liver | - | Liver Resections |
| | | - Anatomical resection |

- Non-anatomical resection
- Segmental resection
- Debridement ☐ Hemostasis
 - Suture ligation
 - Diathermy / Argon / Laser coagulation
 - Tissue glues
 - Perihepatic packing
- Drainage of abscess
- Hepatic artery catheter placement

- Biliary
 - Cholecystectomy
 - Open
 - Laparoscopic
 - Bile Duct Exploration ☐ T-tube drainage
 - Biliary Reconstruction
 - Roux-en-Y Choledochojejunostomy
 - Roux-en-Y Hepaticojejunostomy
 - Biliary Bypass
 - Bile Duct Repair
 - Biliary Intubation

- Pancreas
 - Whipple's Pancreatoduodenectomy
 - Pylorus Preserving Pancreatoduodenectomy
 - Distal Pancreatectomy
 - Pancreatic Pseudocyst Drainage
 - Cystogastrostomy
 - Cystojejunostomy
 - Pancreatic Debridement & Necrosectomy
 - Pancreatic Duct Drainage
 - End to side Pancreatojejunostomy
 - Side to side Pancreatojejunostomy

- Portal Hypertension:
 - Gastro-oesophageal Devascularisation with Oesophageal Transection
 - Splenectomy
 - Portosystemic Shunts
 - Portocaval shunt
 - Distal splenorenal shunt
 - Portocaval H-graft
 - Peritoneovenous Shunt

2. ENDOSCOPY

The fellow will undertake upper GI endoscopy before embarking on biliary endoscopy. He / she must have documentary evidence of having undertaken at least 50 upper GI endoscopies.

The fellow shall assist in 25 biliary endoscopies and undertake 50 biliary endoscopies under supervision before embarking on biliary endoscopy independently.

The list of endoscopic procedures that need to be mastered are listed below.

Endoscopic Procedures:

The higher surgical trainee in Hepatopancreatobiliary Surgery must develop adequate skills and competence to undertake the following endoscopic procedures.

Upper GI Endoscopy

- Diagnostic (including physiologic studies & endo-ultrasound)
- Therapeutic - dilatation of strictures, variceal banding, injection sclerotherapy, intubation / stenting, hemostasis for bleeding, laser coring / recanalisation, percutaneous endoscopic gastrostomy

Endoscopic Retrograde Cholangio-Pancreatography

- Diagnostic (including physiologic studies & endo-ultrasound)
- Therapeutic – dilatation of strictures, papillotomy, stenting, stone extraction, lithotripsy, nasobiliary drainage

Choledochoscopy

- Diagnostic (including physiologic studies & endo-ultrasound)
- Therapeutic – dilatation of stricture, stone extraction, lithotripsy

3. IMAGING

Ultrasound imaging is an essential component in the diagnostic armamentarium for HPB diseases. It is therefore essential that the HPB surgeon be able to undertake such examination with reasonable accuracy.

The fellow will have to spend at least 2 hours a week with a designated radiologist to undertake basic clinical ultrasonography and interventional procedures.

4. RESEARCH

The fellow will have to involve him / her self in either basic or clinical research. The main thrusts in research are in the cancers of the liver, pancreas & the biliary system, liver transplantation, portal hypertension, hepatitis B/C infections and the mechanism of liver injury together with use of newer antiviral therapies and pancreatitis.

In addition trainees will be expected to attend a formal coursework in biostatistics, computational methods and research methodology. The trainees are expected to undertake scientific publications and presentation of their research work in journals and scientific meetings.

5. CME ACTIVITIES

Journal clubs and seminars are part of the postgraduate training programme which help fellows develop skills to analyse, evaluate and prepare written and verbal presentations on current issues.

It is compulsory for the trainee to attend and participate in all continuing medical education activities of the unit. The schedule for CME activities is as in appendix IV.

In addition the trainee is expected to undertake teaching of the undergraduate & postgraduate doctors and paramedicals

CERTIFICATION & METHOD OF ASSESSMENT

During the final term the fellow shall undergo a completion assessment whereby he / she will have to undertake a clinical examination involving all aspects of hepatopancreatobiliary surgery, academic assessment based on research publications and assessment of surgical skills based on the log book. This will include the relevant aspects of anatomy, physiology, pathology & critical care.

The candidate shall have to make his / her presentation to a board of examiners comprising the Training Committee and a distinguished overseas surgeon in the field appointed by the Ministry of Health.

The examination will consist of ;

1. CLINICAL EXAMINATION

This will be in the form of a ward round whereby the candidate will present the cases (either as long or short cases) and discuss their management.

2. ACADEMIC

- i. Research : Thesis embodying the results of original research
- ii. Publications : At least 2 publications a year in an indexed medical journal

3. LOG BOOK

The log book together with a summary of the operative experience must be submitted for evaluation & discussion.

COMPLETION OF TRAINING

Upon satisfactory completion of the training and examination the fellow will be issued the Certificate of Higher Surgical Training in HepatoPancreatoBiliary Surgery by the Academy of Medicine in collaboration with the Higher Surgical Training Board of the Ministry of Health Malaysia. Such fellows shall be eligible for registration as Specialist HPB Surgeons in the Specialist Register.