Therapeutic Endoscopy Curriculum

At the completion of the rotation, the Fellow should have knowledge of and be able to identify the following:

**Biliary:**

a. The variable causes of stone formation in cholelithiasis and choledocholithiasis and the resultant stone type.
b. Differentiate and understand etiologies, clinical manifestations and natural history of gallstone disease, primary sclerosing cholangitis, benign and malignant biliary obstruction, biliary cystic disease and post-liver transplant biliary complications.
c. The physiology of bile and bile flow
d. Normal gallbladder function and motility
e. Biliary dyskinesia and the role of gallbladder ejection fraction analysis in its diagnosis
f. The usefulness and limitations of ultrasound and CT scanning for biliary disease and biliary tract stones
g. The usefulness and limitations of nuclear medicine scanning (HIDA, etc.) for gallstone disease
h. The etiology and clinical presentation of calculous and acalculous cholecystitis
i. The classification system and therapeutic alternatives for sphincter of Oddi dysfunction
j. The presentation and management of ascending cholangitis
k. The indications for and complications of ERCP in these biliary tract diseases
l. The various methods of obtaining bile duct access utilized in conjunction with ERCP and their risks
m. Normal bile duct anatomy, variants and their cholangiographic equivalents
n. The various methods of bile duct stone removal
o. The utility of ERCP in post-laparoscopic cholecystectomy biliary leaks
p. Indications and complications of percutaneous transhepatic cholangiography
q. Alternatives to ERCP in the diagnosis of biliary tract disease (MRCP, EUS)
r. The role of surgery and liver transplantation in the treatment of non-calcultous biliary tract diseases
s. The clinical features of oriental cholangiohepatitis and AIDS cholangiopathy
t. The role and complications of biliary stents
u. The indications and risks of biliary sphincterotomy

**Pancreas:**

a. The utilization of ERCP in gallstone pancreatitis.
b. The usefulness and limitations of ultrasound and CT scanning in the diagnosis and management of acute and chronic pancreatitis
c. The sensitivity and specificity of ERCP in the diagnosis of chronic pancreatitis
d. The endoscopic, percutaneous, and surgical alternatives in the management of pancreatic pseudocysts
e. The role of pancreas divisum in pancreatic disease
f. The utilization and limitations of ERCP cytology and fine-needle aspiration, and percutaneous guided biopsy in the diagnosis of pancreatic neoplasms

g. The presentation and endoscopic palliation of pancreatic cancer involving the biliary system

h. Normal pancreatic ductal anatomy, variants, and their pancreatographic appearance

i. The use and side effects of pancreatic stents in chronic pancreatitis

j. The staging of pancreatic neoplasms

**Endoscopic Ultrasound:**

a. Identify and interpret the normal five-layered ultrasonographic appearance of the esophageal and rectal lumens

b. Identify the ultrasound appearance of gastric lipomas and leiomyomas

c. The appropriate use, limitations, and clinical consequences of EUS in the staging of esophageal and rectal carcinomas

d. The utilization of EUS for the diagnosis of choledocholithiasis

e. The EUS correlates of the T stage and nodal metastases

**Endoscopic Stent and Laser Therapy:**

a. The indications and risks of palliative esophageal stent placement

b. The indications and risks of palliative laser ablation of tumors

c. Laser safety regarding patient and staff

d. The use of alcohol tumor injection

e. The use of multiple modalities in esophageal tumor palliation

f. The treatment of tracheoesophageal fistulas

**Assessment:**

The first rotations for training in therapeutic endoscopic procedures comprise two one-month rotations termed the “specials” rotation. The essence of this level of training is defined by the goals previously set forth, which include:

1) Knowledge of the indications and contraindications

2) Familiarity with performance and interpretation of results

3) Experience with the clinical care of patients requiring advanced procedures

**Evaluation and Assessment Competence:**

At the completion of the “specials” rotation, a formal written assessment of the fellow’s knowledge base of advanced procedures will be performed by the attending physician involved in the rotation. Further evaluation may include an in-service examination.