

## **Part I: The Guide to Clinical Practice & Advance Clinical Experience**

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## **Part I**

# **The Guide to Clinical Practice & Advance Clinical Experience**

# **1. Clinical Problem Solving and Professional Attitudes: Generic Skills**

The student should be able to:

1. Communicate clearly, sensitivity and effectively with patients and their relatives or careers, and with other health care providers.
2. Identify and solve clinical problems by:
  - A. Undertaking an appropriate patient assessment through enquiry and examination.
  - B. Identify why the patient is seeking advice.
  - C. Identify the most likely single diagnosis or differential diagnosis.
  - D. Selecting, and interpreting, appropriate investigations
  - E. Developing a rational and practical individualized management plan.
  - F. Monitoring appropriate patient outcomes and adjusting management if required.
3. Provide an understandable explanation to the patient of diagnosis, investigations, management options and prognosis.
4. Make an adequate record and complete the administration related to investigations, treatment and prescribing.
5. Discuss and apply strategies to deal with more challenging consultations, including:
  - A. Breaking bad news.
  - B. Patients with barriers to communication (e.g. language, impaired cognition or hearing).
  - C. Management of multiple problems.
  - D. Angry or aggressive patients.
  - E. Refusal of treatment or investigation.
  - F. Poor adherence to a management plan.
  - G. Terminal care.
6. Analyze ethical problems that present in hospital and general practice and justify the decisions that are made.
7. Analyze and reflect on their own and others consultation and management skills.
8. Apply the principles of clinical governance to improve patient care.

## **2. History Taking and Examination Skills**

## Curriculum of clinical teaching for 4<sup>th</sup> year student in general surgery.

wk	Content
1 <sup>st</sup>	<p>How to approach the surgical patient.</p> <p>Attitude and behavior of the student in the ward.</p> <p>How to communicate with the patients, nursing staff, colleagues and doctors.</p> <p>Interview setting, time, location, privacy, confidentiality..etc</p> <p>How to take history?</p> <p>History taking components.</p> <p>The way of gathering the facts to built conclusive idea.</p> <p>The student allowed to practice and present a history of:</p> <ol style="list-style-type: none"> <li>1- abdominal pain( different sites)</li> <li>2- history of lump (each student present at least one case in this week)</li> </ol>
2 <sup>nd</sup>	<p>The student have to take history every day throughout the course.</p> <p>General physical examination.</p> <p>General appearance, general look.. etc.</p> <p>How the student start assessing the patient from the beginning of the interview, gait, voice...etc.</p> <p>General examination components: how to examine the head&amp; neck, hands, legs and checking the vital signs and ability to correlate the findings with a certain diseases, eg. Thyroid diseases, GI tumours, liver diseases, renal diseases...etc.</p> <p>The student allowed to practice examination of 1- lump. 2- examination of ulcer.3- fistula or sinus.4- scar or other clinically apparent lesion.</p> <p>Assess the ability of student to observe, describe and recognize the abnormality and express the findings.</p>

3 <sup>rd</sup>	<p>Non- acute abdominal conditions.</p> <p>The student allowed to practice history taking about patients presented with different presentations: 1- Weight loss. 2- Dysphagea. 3- Epigastric pain or dyspepsia.4- Vomiting. 5- Hematemesis &amp;/or melena. 6- Yellowish discoloration of skin&amp; sclera.7- Altered bowel motion.8- Bleeding per rectum.. etc.</p> <p>Abdominal examination.</p> <p>Setting for the examination, position, orientation, permission.</p> <p>Started with the related general examination features related to the specific abdominal condition.</p> <p>The student allowed to practice and follow the sequence of abdominal examination.1- inspection component. 2- palpation, superficial and deep.3- percussion. 3- auscultation.</p> <p>Concentrating on the technique of examination, like hand attitude in each maneuver, anatomical consideration(the landmarks, the organs in each area examined), looking for patient's face and correlating and gathering of the findings.</p>
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	<p>The student allowed to practice examination of:</p> <p>1-The student allowed to practice how to assess for organomegally, liver, Spleen, kidney.</p> <p>2- Mass in the abdomen: gastric, colonic, pancreatic gall bladder etc.</p> <p>3-The student allowed to practice how to assess for ascitis.</p> <p>4-The student allowed to know how to do rectal examination.</p>
4 <sup>th</sup>	<p>Acute abdominal conditions,</p> <p>The student allowed to practice how to take History and examination of patients presented with:</p> <ol style="list-style-type: none"> <li>1- Acute appendicitis, specific tests, and how to differentiate it from other possible conditions (differential diagnosis) in male&amp; female.</li> <li>2- Peptic ulcer perforation or bowel perforation( peritonitis).</li> <li>3- Acute cholecystitis, biliary colic and pancreatitis,</li> <li>4- Intestinal obstruction.</li> </ol>
5 <sup>th</sup>	<p>The student allowed to practice how to assess abdominal wall for hernias: umbilical, paraumbilical, incisional.</p> <p>The student allowed to practice how to take history and perform examination of groin hernias( femoral and inguinal): non-complicated and complicated.</p> <p>Inguinal LN examination.</p> <p>History and examination of scrotal swelling.</p>
6 <sup>th</sup>	<p>Breast diseases:</p> <p>History and examination of benign breast diseases.</p> <p>History and examination of malignant breast diseases.</p>

	Examination of axillary LN.
7 <sup>th</sup>	Thyroid disease: History and examination of toxic goiter including the eye signs. History and examination of hypothyroid. History and examination of thyroid cancer. History and examination of other neck swelling. Examination cervical LN.
8 <sup>th</sup>	History and examination of genitourinary diseases: Urinary calculi. Urinary tumors. BPH, prostatic cancer. Testicular and penile conditions.
9 <sup>th</sup>	History and examination of cranial nerves. History and examination of peripheral pulses. Revision of the whole course.
10 <sup>th</sup>	End course assessment. Long case and OSCE.

### 3. Theatre Routine (Clinical Skills)

The student should be able to:

1. Demonstrate and understand the operating theatre routine through adherence to the prescribed rules of conduct and dress.
2. Demonstrate the proper technique for surgical scrubbing, gowning and gloving in the operating room, assisted and unassisted.
3. Demonstrate knowledge of aseptic technique and discuss the microbiological principles involved.
4. Identify areas that are considered part of the sterile operative field.
5. Demonstrate the ability to function as an assistant in the operating theatre.

6. Define the classifications of operative procedures with reference to their potential for infectious complications (clean, potentially contaminated, contaminated and dirty); discuss the importance of this classification system.

## **4. Endocrinology**

### **A. Thyroid Diseases**

#### **Objectives**

The student should be able to:

1. Describe the classical symptoms of hyperthyroidism such as weight loss, heat intolerance, increased sweating & tremor. Describe the typical signs of hyperthyroidism including goiter, hand and eye findings.
2. Discuss the medical treatment for hyperthyroidism including the advantages, disadvantages and side effects.
3. Discuss different kinds of investigations of thyroid disease.
3. Discuss the types, indications and complications of surgical treatment.
4. Discuss the classical symptoms, typical examination findings of and treatment of hypothyroidism. In addition, classify the causes of hypothyroidism.
5. Classify thyroid cancer including papillary, follicular, medullary, anaplastic types and thyroid lymphomas.
6. Outline the clinical presentation, diagnosis and principles of treatment of thyroid cancer.

#### **Skills**

The students should be able interpret thyroid function test results to determine whether the abnormal functions results from thyroid or pituitary disease.

### **B. Adrenal Diseases**

#### **Objectives**

The student should be able to:

1. Discuss the possible clinical presentation and biochemical features of Pheochromocytoma and Cushing's disease, Conn's syndrome and congenital adrenal hyperplasia.
2. Outline the methods for imaging the adrenal glands. Outline the role of surgery and the role of steroid cover.

#### **Skills**

The student should be able to:

Describe the underlying principles and interpret the results of a Synacthen test and a dexamethsone test.

## **C. Hypercalcaemia/ Parathyroid Diseases**

### **Objectives**

The student should be able to:

1. Discuss the normal control of serum calcium and outline the actions of PTH, vitamin D and calcitonin.
2. Know the causes of raised serum calcium concentration including hyperparathyroidism and malignancy.
3. Discuss the clinical presentation, laboratory features and complications of primary hyperparathyroidism.
4. Describe the investigations and early clinical management of a patient presenting with acute hypercalcaemia.

### **Skills**

The student should be able to:

1. Estimate from the total serum calcium and albumin if the serum calcium is genuinely elevated.
2. Interpret laboratory data (Ca, phosphate, alkaline phosphatase, PTH and serum albumin) to make a diagnosis in a patient with acute hypercalcaemia.

## **5. Breast Surgery**

### **Objectives**

1. Identify and describe the major types of breast lump (fibroadenoma, fibroadenosis, cyst, carcinoma). Outline the natural history of benign and malignant breast neoplasms.
3. Describe the treatment of fibroadenosis, cyst and fibroadenoma.
4. Describe the clinical staging and the treatment options for breast cancer.
5. Describe the rationale for adjuvant chemotherapy, radiotherapy and hormonal therapy in treatment of breast cancer.
6. Outline a diagnosis and treatment plan for nipple discharge and breast mass.
7. Outline a diagnosis of benign breast lesions that mimic malignancy.

### **Skills**



The student should be able to:

1. Demonstrate the ability to predict whether a breast mass is benign or malignant on the basis of physical examination.
2. Clinically stage the disease in patient with breast disease.

## **6. Upper Gastrointestinal Tract**

### **A. Peptic Ulcer Disease**

#### **Objectives**

The student should be able to:

1. List the symptoms and discuss the difference between gastric and duodenal ulcer.
2. Describe the relationship between H. pylori, smoking and NSAIDs with peptic ulcer disease. In addition, discuss the investigations of peptic ulcer disease focusing on the role of endoscopy.
3. Outline a regimen for H. pylori eradication. Mention the other symptomatic treatment such as antacids, H2 antagonists and PPI.
4. List the complications of peptic ulcer disease such as gastric outlet syndrome and describe required surgical treatment.
5. Recognize the symptoms of gastro-oesophageal reflux (GORD), discuss the investigations available to confirm the presence of GORD. In addition, list the indications of surgery in this case.

### **B. Gastrointestinal Haemorrhage**

#### **Objectives**

The student should be able to:

1. Specify the symptoms and common causes of acute and chronic gastrointestinal haemorrhage.
2. Discuss the common causes of acute upper gastrointestinal bleeding.
3. Discuss the management:
  - a. general systemic evaluation.
  - b. correction of hypovolaemia.
  - c. verification of bleeding including digital rectal examination.

- d. endoscopy, barium study, angiography and radioisotope scanning.
  - e. management triage (prompt surgery Vs prompt endoscopy Vs more expectant management).
  - f. diagnostic methods sequence for lower GI bleeding (procto-sigmoidoscopy, Barium studies, colonoscopy, Angiography and radioisotope scanning).
5. List the criteria for surgical intervention in a patient with GI bleeding.

## **C. Gastric Neoplasms**

### **Objectives**

The student should be able to:

1. Name the recognized causes of gastric cancer and symptoms that suggest it. In addition, identify different signs related to gastric cancer such as epigastric mass, ascitis, hepatomegaly and lymph node enlargement.
2. List diagnostic methods used to investigate patients with suspected gastric neoplasia including barium studies, endoscopy, and biopsy.

### **Skills**

The student should be able to:

1. Interpret a barium meal of patients with gastric and duodenal ulcers, and features suggestive of malignancy.

## **D. Acute Abdomen**

### **Objectives**

The student should be able to:

1. Define the acute abdomen.
2. Identify the cardinal symptoms & signs of acute abdomen and describe the pain pattern associated with the most common causative conditions.
3. Discuss the differential diagnosis and possible investigations and outline the initial management required.

### **Skills**

The student should be able to:

1. Interpret a plain abdominal film of a patient with an acute abdomen, and be able to identify air under the diaphragm.
2. Describe the radiological appearance of small bowel dilatation with fluid levels on plain abdominal X-ray.

## **7. Small Intestine and appendix**

### **A. Acute Appendicitis**

#### **Objectives**

The student should be able to:

1. List the symptoms and signs of acute appendicitis.
2. Formulate a differential diagnosis of the conditions that commonly mimic acute appendicitis.
3. Outline the diagnostic workup in a patient with suspected appendicitis. List the laboratory results that would tend to confirm the diagnosis of acute appendicitis.
4. List the complications of a perforated appendix and discuss the common complications after appendicectomy.
5. Discuss the pathology of causes of a mass in right iliac fossa and outline the assessment, investigations and management.
6. Discuss other differential diagnosis particularly Meckle's diverticulum and its clinical presentation.

#### **Skills**

The student should be able to:

1. Demonstrate the presence or absence of common physical findings in abdomen.
2. Perform a digital rectal examination on a patient.

### **B. Intestinal Obstruction**

#### **Objectives**

The student should be able to:

1. Describe the cardinal symptoms and signs in a patient with intestinal obstruction and its relation to the level of intestinal obstruction.
2. List the common causes and the associated pathology of intestinal obstruction.

3. Discuss the complications including fluid and electrolytes shifts and sepsis.
4. Know the appropriate investigations (laboratory and X-ray).
5. Differentiate between mechanical obstruction and paralytic ileus.
6. List the signs and symptoms of strangulation.
7. Compare between a large bowel obstruction and small bowel obstruction.
8. Outline a plan of treatment (fluid and electrolyte therapy, antibiotic therapy and operative therapy).

## **Skills**

The student should be able to:

1. Examine the abdomen and demonstrate findings suggestive of obstruction including auscultation of abdomen and digital rectal examination.
2. Demonstrate the findings in a plain X-ray of the abdomen that suggest a mechanical small bowel obstruction. Differentiate between small bowel and large bowel obstruction on abdominal X-ray.
3. Calculate the estimated fluid deficit and prescribe appropriate fluids to correct this deficit and provide maintenance fluids in a patient with intestinal obstruction.

## **C. Inflammatory Bowel Disease (IBD)**

### **Objectives**

The student should be able to:

1. Describe the morphological and pathological consequences of Crohn's disease and Ulcerative Colitis. Describe common presenting features of both diseases.
2. Describe the clinical features suggesting possible toxic dilatation in patients with Ulcerative Colitis.
3. Discuss the investigations and medical therapy. Discuss the complications and indications for surgery.
4. List the extra-colonic manifestations of IBD as they affect the skin, joints, liver and eyes and discuss the response of each to surgery.
5. Outline the risk of colonic malignancy in IBD and how this be screened for.

### **Skills**

The student should be able to:

1. Describe sigmoidoscopic features of ulcerative colitis and typical radiological features of Crohn's disease and ulcerative colitis as well as being aware of the limitations of radiology in ulcerative colitis.
2. Develop a plan for the investigations of a patient presenting with bloody and non-bloody diarrhoea.

## **8. Colon and Rectum**

### **A. Carcinoma of the Colon, Rectum and Anus**

#### **Objectives**

The student should be able to:

1. Describe the etiology, morphology and pathological consequences of carcinoma of the large bowel.
2. Identify the common symptoms of carcinoma of the colon, rectum and anus. Describe the TNM staging system and identify possible associated findings on examination. Discuss the difference in clinical presentation between right and left colonic cancers.
3. Discuss appropriate laboratory tests, radiological studies and endoscopic investigations.
4. Outline the treatment including the operative therapy, chemotherapy and radiotherapy.
5. Use Duke's classification, discuss the staging and five year survival of carcinoma of colon and rectum.

### **B. Intestinal obstruction**

#### **Objectives**

The student should be able to:

1. List the symptoms and signs of large bowel obstruction in sequence.
2. Discuss the diagnostic tools.

### **C. Benign Anal Conditions**

#### **Haemorrhoids**

#### **Objectives**

The student should be able to:

1. Discuss the anatomy of haemorrhoids; differentiate internal from external haemorrhoids; describe the role of anal sphincters in maintaining faecal continence.
2. Describe the symptoms and complications of haemorrhoids; describe the physical examinations including digital rectal examination and dproctoscopy.

3. Outline the principles of management of symptomatic haemorrhoids including the role of non-operative management (stool softeners, pain relief) and more invasive (injection, banding) and operative management.
4. Describe the symptoms and signs of perianal haematoma. Outline the management.

## **Perianal Fistula**

### **Objectives**

The student should be able to:

1. Describe the various types of perianal fistulae, including perianal, perirectal, ischioanal and pelvirectal fistulae.
2. Outline the symptoms of patients with perianal fistula such as discharge, pain, fever, and a mass.
3. Describe the physical examination of patients with perianal fistula, including mass, tenderness, cellulitis, and types of discharge.

## **Fissure in Ano**

### **Objectives**

The student should be able to:

1. Describe the symptoms and signs.
2. Outline the principles of management including dietary management, topical ointments, stool softeners, and operative management (anal dilatation, internal anal sphincterotomy).

### **Skills**

The student should be able to:

Perform a full rectal examination including inspection and digitation.

## **9. Hepato-Biliary Diseases:**

### **A. Liver Neoplasms, Hydatid Cyst and Abscess**

#### **Objectives**

The student should be able to:

1. Describe the symptoms and signs associated with liver hydatid cyst and abscess including amoebic and pyogenic abscess.
2. Describe the etiology and pathology of primary and secondary liver neoplasm.

3. List the investigative methods that differentiate liver abscess, neoplasm and cyst.
4. Outline the treatment options for liver abscess, neoplasm and cysts.

## **B. Portal Hypertension**

### **Objectives**

The student should be able to:

1. Describe the clinical features of portal hypertension.
2. Describe portal venous anatomy. Define portal hypertension and classify its causes.
3. Outline the line of treatment available for oesophageal varicies, including endoscopic sclerotherapy or banding, octereotide, or surgery in addition to general measures to treat major GI haemorrhage.
4. Describe the use of Sengstaken tube.

### **Skills**

The student should be able to:

1. Demonstrate the clinical manifestations of portal hypertension.
2. Estimate the size of liver and spleen by physical examination in a patient with portal hypertension.
3. Interpret liver function tests.

## **C. The Spleen**

### **Objectives**

The student should be able to:

1. List the common causes of splenomegally including portal hypertension, lymphoreticular disease and chronic infection.
2. Outline the haematological abnormalities correctable by splenectomy.
3. Discuss the potential causes of splenic rupture.
4. Discuss the potential consequences associated with removal of the spleen; discuss the ways of reducing these risks.

## **D. Obstructive Jaundice**

## Objectives

The student should be able to:

1. Classify the intrahepatic and extrahepatic causes of cholestatic jaundice with brief outline of underlying pathology.
2. Describe the classical clinical features of obstructive jaundice including dark urine, pale stools and itching. Outline why they are present.
3. Describe the laboratory and radiological investigation of a patient with obstructive jaundice.
4. Discuss the methods of draining an obstructed common bile duct.
5. Describe the aetiology, morphology and pathological consequences of cholelithiasis.
6. Describe the clinical features, morphology and pathological consequences of carcinoma of pancreas.

## E. Acute and Chronic Gallbladder diseases, Carcinoma of the biliary Tract.

### Objectives

The student should be able to:

1. List the common types of gallstones and describe the pathophysiology involved in their formation.
2. Describe the symptoms and signs in a patient with biliary colic and contrast these features with acute cholecystitis.
3. List the common tests used in the diagnosis of calculus biliary tract disease.
4. List the outcome and complications of gallstones and describe the history and physical examinations.
5. Describe the medical management of a patient with acute cholecystitis/cholelithiasis.
6. Discuss the indications for surgical and endoscopic management of gallbladder disease including laparoscopic cholecystectomy.
7. Describe the clinical features of stone in bile ducts; describe the management of this problem.
8. Outline a diagnostic and management plan of a patient with right hypochondrial pain.
10. Define and explain the followings:
  - A. Murphy's sign
  - B. Courvoisier's sign
  - C. T-tube including purpose and indications of use.
  - D. Gallstone ileus.



11. Contrast carcinoma of the gallbladder, bile duct and ampulla of Vater with regard to survival and presenting symptoms.

## **F. Diagnostic Studies in Biliary Tract Disease**

### **Objectives**

The student should be able to:

1. Contrast the liver enzyme abnormalities in obstructive jaundice with those of viral hepatitis.
2. List the most common bacteria found in acute cholecystitis.
3. Describe the indications for and risks of ultrasound scanning as well as the indications and risks of transhepatic cholangiogram and ERCP.

### **Skills**

The student should be able to:

1. Demonstrate the right upper quadrant physical signs that support the diagnosis of acute cholecystitis.
2. Demonstrate and understand the use of subhepatic drains and T-tubes in biliary surgery and indications and conditions for their removal.

## **G. The Pancreas**

### **Objectives**

The student should be able:

1. Classify pancreatitis on basis of severity of injury to the organ.
2. Describe the etiology, pathology and clinical presentation of pancreatitis.
3. Discuss the potential early complications of acute pancreatitis.
4. Outline the metabolic complications of pancreatitis including hypocalcaemia (acute), hyperglycaemia and malabsorption (chronic).
5. Discuss the management of acute pancreatitis, including the specific conservative management of the initial phase and the indications for surgical intervention.
6. Discuss the criteria used to predict the prognosis for acute pancreatitis.

## **H. Pancreatic Pseudocysts**

### **Objectives**

The student should be able:

1. Discuss the mechanism of pseudocyst formation with respect to the role of the pancreatic duct.
2. List and discuss the clinical features of a pseudocyst. Discuss the natural history of untreated pancreatic pseudocyst.
3. Discuss diagnostic methods including laboratory, radiological and invasive studies.
4. Describe medical and surgical treatment of a pancreatic pseudocyst.

## **J. Pancreatic Neoplasm**

### **Objectives**

The student should be able to:

1. List the common pancreatic neoplasms and describe the pathology of each.
2. Describe the symptoms and signs of pancreatic cancer on the basis of location of the tumor within the gland.
3. Outline the diagnostic approach for pancreatic masses, including the laboratory, radiological and invasive methods.
4. Describe the indications for surgical treatment of pancreatic neoplasms and operations available. Discuss non-surgical techniques of management available.
5. On the basis of pathology and cell type, discuss the long-term prognosis of pancreatic cancers.

### **Skills**

The student should be able to:

1. Perform a complete abdominal examination of a patient with an upper abdominal mass.
2. Interpret a plain abdominal X-ray and identify significant positive and negative findings in a patient with suspected pancreatitis
3. Understand the place of radiological and endoscopic investigations in the anatomical definition of the cause of obstructive jaundice and in staging malignant disease of the pancreas.

## **10. The abdominal wall hernias.**

This should include inguinal, femoral, umbilical, paraumbilical, Incisional and epigastric hernias.

### **Objectives**

The student should be able:

1. Define the terms; reducible, irreducible, obstructed, strangulated and sliding with respect to the description of hernias. Identify all risk factors of hernias in history.

2. Describe the principles of management of patients with hernias including preparation for surgery and treatment of bowel obstruction if present.

3. Describe the anatomy of inguinal and femoral canals.

## **Skills**

The student should be able to:

1. Detect a hernia and differentiate between direct inguinal, indirect inguinal and femoral hernias on basis of clinical examination. Identify and elicit basic clinical criteria of any hernia such as site, expansile cough and reducibility.

2. Differentiate between reducible, irreducible, obstructed and strangulated hernias on basis of clinical examination.

## **11. Renal Disease:**

### **A. Upper Urinary Tract Infection**

#### **Objectives**

The student should be able to:

1. Describe the pathological features and complications of acute and chronic pyelonephritis.

2. Describe the symptoms and signs of urinary tract infection. List the factors that may predispose to urinary tract infection including female sex, renal or bladder obstruction, diabetes, vesico-ureteric reflux and stones.

3. List the common pathological bacteria associated with urinary tract infection including tuberculosis.

4. Outline the investigation of a patient with a suspected infection.

5. Discuss the general treatment measures and suitable antibiotic regimens for treatment.

#### **Skills**

The student should be able to:

1. Instruct the patient for the collection of a mid-stream urine sample.

2. Interpret general urine exam and microbiology results of urine and blood culture.
3. Interpret abnormalities of urea and electrolytes results.
4. Interpret common abnormalities of an intravenous pyelogram & reflux nephropathy.

## **B. Obstructive and Neoplastic Conditions of The Kidney and Ureter**

### **Objectives**

The student should be able to:

1. Describe the causes, symptoms and signs of acute and chronic ureteric obstruction and discuss their management.
2. Discuss the etiology and presentation of calculi in the kidney and ureter.
3. Describe how renal stones could be treated, including some knowledge of non-operative methods of treatment.
4. Describe the clinical features, diagnosis and management of renal cell carcinoma, Wilm's tumour, transitional cell carcinoma and renal cysts.

### **Skills**

The student should be able to:

1. Interpret an intravenous pyelogram, describe how it is performed and the reasons for requesting the test.
2. Aware of other urinary tract imaging methods (ultrasound, CT scanning, retrograde pyelography) and their use.

## **C. The Bladder and Prostate**

### **Objectives**

The student should be able to:

1. Discuss the management of trauma to the bladder (both accidental and surgical).
2. Describe the diagnosis and management of bladder calculi.
3. Describe the pathology, diagnosis, management and follow-up of bladder tumors.
4. Discuss outlet obstruction of the bladder and list its causes including mechanical & neurological causes.
5. Describe the management of benign prostatic hyperplasia and its complications.
6. Discuss the diagnosis of bladder infection outlining the importance of confirming significant bacterial (more than 100,000 organisms/ml) and the importance of white cells in the urine.
7. Discuss the management of bladder infections.
8. Discuss the presentation, staging, pathology and clinical management of carcinoma of the prostate including a description of hormonal manipulation.

## **Skills**

The student should be able to:

1. Pass a catheter into the urinary bladder of male and female and to demonstrate the aseptic technique involved and the types of catheter available.
2. Perform a rectal examination to assess the prostate.

## **D. The Urethra & Penis**

### **Objectives**

The student should be able to:

1. Discuss the diagnosis and management of urethritis including knowledge of sexually transmitted disease.
2. Discuss the management of trauma to the urethra.
3. Discuss the aetiology, presentation and management of a urethral stricture.
4. Describe the pathology, presentation and management of:
  - a) Phimosis, paraphimosis.
  - b) Priapism.
  - c) Varicocele, hydrocele, epididymal cyst.
  - d) Carcinoma of the penis.

5. Outline the cause of non-descent and mal-descent of the testis, the risks of this condition and its management.
6. Discuss the pathology, presentation, diagnosis and management of torsion of the testis and epididymo-orchitis.
7. Discuss the pathological classification of tumors of the testis and their biological behavior. Discuss the management of seminoma and teratoma of the testis.
8. Outline the causes of male erectile dysfunction and list the available treatments.

## **Skill**

The student should be able to:

Examine the scrotum and diagnose the cause of lumps therein.

## **E. Kidney Transplantation**

### **Objectives**

The student should be able to:

1. Understand the indications for transplantation in patients with chronic renal failure.
2. Understand the complications of this procedures and the need for immunosuppressive therapy following surgery.
3. Consider the moral and ethical issues associated with renal transplantation.

## **12. Emergency Room Trauma**

This course is supervised by Dr. Jawad Ramadan. The students should attend this course in department of surgery as part of requirement of training of undergraduate medical students.

## 1<sup>st</sup> day

08:30 - 08:40	Registration and Introduction of the course.
08:40 - 09:00	pre-test examination.
09:00 - 09:20	ERTC philosophy and ABC of trauma.(20min.).
09:20 - 09:30	Demonstration of initial assessment: Video (the wrong way).
09:30 - 10:10	Initial assessment. Lect. (30 min)
10:10 - 10:30	Demonstration of initial assessment: Video (the good way)
10:30 - 11:00	Break
11:00 - 11:30	Airway and Ventilation. Lect. (30 min).
11:30 - 01:45	Practical skills stations: participants are split into three groups an exchange after 45 Min: - Basic Airway and Ventilation.(135min) - Intubation. - Breathing.

## 2<sup>nd</sup> day

08:30 - 09:00	Shock (30 min)
09:00 - 09:30	Thoracic trauma. (30 min).
09:30 - 09:50	Break. (10 min)
09:50 - 10:20	Abdominal trauma. (30 min).
10:20 - 10:50	Pelvic trauma (30 min).
10:50 - 11:15	Break (20 min)
11:15 - 01:30	Practical skills session. (135 min) Participants are split into three groups and rotate after 45 minutes: - Advanced Airway and ventilation. - Intubation - shock.
01:30 – 02: 00	Conclusion of day 2, questions and discussion.

## 3<sup>rd</sup> day

08:30 – 09:00	Head trauma. (30min).
09:00 – 09:30	Spinal trauma (30 min).
09:30 – 09:40	Break (10 min)
09.40 – 10:10	Limb injuries and vascular pitfalls. (30 min).
10:10 – 10:30	Triage. (20 min).
10:30 – 10:50	Break (20 min)
10:50 – 12:20	Practical skills session. (90 min) Participants are split into two groups and rotate after 45 minutes: - Head and spinal trauma. - Limbs and vascular injuries.
12:20 – 12:40	Post test (MCQs).
12:40 – 01:30	Evaluation form, closing of the program.

## **Part II**

### **Logbook and Portfolio**

#### **I. Checklist of Common Problems and Disease**

-The checklist should help the student and tutor to focus on common surgical problems and to build a portfolio of your teaching and learning experiences.

-The concentration should be on most if not all of the presenting complaints, and as many of the individual diseases as possible (It can be still possible to see patients with other diseases, as circumstances permit).



-The concentration should be on development of clinical skills and background knowledge in these areas.

## Surgical Conditions

Endocrinology	Date	Student signature	Tutor name
Thyrotoxic goiter			
Hypothyroidism			
Thyroid cancer			
Parathyroid disease			
Adrenal disease			
<b>Upper G I Tract</b>			
Oesophagitis & peptic ulcer			
Oesophageal tumours			
Gastrointestinal haemorrhage			
Gastro-oesophageal reflux			
Gastric neoplasms			
The acute abdomen			
<b>Small Bowel and Appendix</b>			
Acute appendicitis			
Intestinal obstruction			
Inflammatory bowel disease			
Irritable bowel syndrome			
Tumours			
<b>Colon and Rectum</b>			
Carcinoma of the colon, rectum and Anus			
Intestinal volvulus			
Intussusception			
Haemorrhoids			
Fissure in ano			
Perianal fistula			
<b>Hepato-Biliary Pancreatic Disease</b>			
Liver neoplasms, abscess and hydatid cyst			

Portal hypertension			
The spleen			
Obstructive Jaundice			
Acute/ chronic gallbladder disease			
Carcinoma of the biliary tract			
Pancreatitis and its complications			
Pancreatic neoplasms			
<b>Abdominal Wall</b>			
Inguinal hernia			
Femoral hernia			
Umbilical hernia			
Paraumbilical hernia			
Incisional hernia			
Epigastric hernia			
<b>Renal Disease</b>			
Upper urinary tract infection			
Surgery of the kidney and ureter			
The bladder and prostate			
The urethra, penis and scrotum			
Breast Surgery			

## II. Case Presentations

The student should make at least four case presentations during the entire course. The tutor should sign the logbook to show that the presentations were satisfactory. If the presentation is not satisfactory, then the teacher should give the feedbacks and the student should try again on another occasion.

### Case 1

Patient's name and date of birth:

Brief summary

[Empty box for content]

**Comment of clinical tutor**

**Case 2**

Patient's name  
and date of  
birth:  
Brief summary

**Name**

**Signature**

**Date**

[Empty rectangular box for content]

**Comment of clinical tutor**

**Name**

**Signature**

**Date**

**Case 3**

Patient's name  
and date of  
birth:

Brief summary

**Comment of clinical tutor**

**Name**

**Signature**

**Date**

**Case 4**

Patient's name  
and date of  
birth:

Brief summary

**Comment of clinical tutor**

<b>Name</b>	<b>Signature</b>	<b>Date</b>
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**III.  
Emergency  
on Call.**

The student will be urged to be involved with acute admissions in surgery. Over the course of the clinical practice attachment the student will be expected to see/clerk a minimum of 5 surgical patients. The student should record these cases on each occasion.

<b>Cases (patient's name, DOB, presenting problems, diagnosis)</b>	<b>Date</b>	<b>Supervisor</b>

# VI. Mandatory Assessment of important Clinical Surgical Procedures

## 1. Peripheral Venous Cannulation

Step	Detail	Supervisor's notes
Common components	Equipment includes 18 gauge venflon, tourniquet, gloves alcohol skin wipes, prepared giving set or syringe with saline	
Preparation	Ensure that all appropriate equipment is readily available	
Positioning and exposure	Positions and exposes the arm and identifies a suitable vein	
Tourniquet	Apply tourniquet and rechecks vein	
Patient preparation	Ensures patient is ready to proceed and explain what they will feel. Skin sterilization.	
Cannula preparation	Remove the cannula from its pack using a 'non touch' technique	
Needle insertion	Stretches the skin and inserts the needle, bevel upwards, in line with the vein at angle of approximately 30 degrees	
Cannula advancement	Advances needle until blood flushes back into hub then advances the cannula without the needle.	
Tourniquet release	Releases tourniquet.	
Needle removal & capping	Withdraws stylet and discards it in the sharps bin, retaining cap. Replaces cap on cannula	
Cannula management	Secures cannula using tape and / or appropriate dressing. Flushes cannula with saline.	
Completion	Clears up and checks patient welfare	

## 2. Male Urethral Catheterization

Step	Detail	Supervisor's notes
Common components	Equipment includes sterile pack, gloves, appropriate	

	gauge catheter (16F), antiseptic or sterile saline, anesthetic/lubricant gel, syringe and water for balloon	
Positioning and exposure	Lies the patient comfortably on his back with legs slightly separated and adequately exposes penis	
Final preparation	Opens pack, pours antiseptic/ sterile saline into receiver and puts on sterile gloves.	
Cleansing	Cleans the penis thoroughly and clean around the meatus.	
Sterile field	Drape so that only the penis is in the sterile field	
Anesthetic/ lubricant	Holding the penis with a gauze swab squeezes lubricant/anesthetic into the urethra ensuring adequate penetration. Then allow five minutes for full effectiveness.	
Catheter introduction	Advance the catheter tip from its sleeve into urethra using a non-touch technique until the end arm of the catheter is up to the meatus, when urine appear then	
Balloon inflation	Inflate balloon with an appropriate amount of water	
Bag attachment	Attach bag & gently extend catheter into position	
Drainage	Check for urine drainage and volume	
Completion	Clears up and check patient's welfare	

### ***3. Aseptic Technique for Common Procedures in Surgical Ward***

<b>Step</b>	<b>Detail</b>	<b>Supervisor's notes</b>
Common components	Equipment includes trolley, sterile pack, gloves, sterile water/ saline, and anything else specifically required for the procedure	



Trolley	Cleans trolley with alcohol and allow to air dry	
Apron	Depending on procedure, covers clothes with single use disposable apron	
Initial hand wash	Preliminary effective hand wash/ decontamination	
Sterile pack	Opens sterile pack without contaminating contents and places with wrapped edge uppermost on trolley. Unwraps sterile pack using corners of wrapping to create sterile field.	
Saline	Opens sterile saline and empty sachet into sterile galipot	
Other equipment	Open all other equipments such as sterile dressings/sterile gloves/sterile scissors onto pack.	
Gloving	Gloving Re-washes hands effectively, puts on sterile gloves using correct technique and without contaminating.	
Pack	Arrange contents of packs including waste bag	
Skin cleansing	Uses sterile gauze and water/ saline to clean skin with single use of each swab before discarding into waste bag	
Sterile field	Places sterile towel under area on which procedure to be performed	
Procedure	Undertake procedure using sterile technique	
Completion	Disposes of sharps in sharps bin and clinical waste in appropriate waste bins. Removes gloves and washes	

#### 4. Nasogastric Tubing Procedure

Step	Detail	Supervisor's notes
Common components	Equipment includes gloves, appropriate gauge NG tube, antiseptic, anaesthetic/lubricant gel.	
Positioning and exposure	Lies the patient comfortably on his back with neck slightly flexed	
Anaesthetic/ lubricant	squeezes lubricant/anaesthetic into the nostril ensuring adequate penetration. Then allow five minutes for full effectiveness.	
NG tube introduction	Advance the NG tube tip from its sleeve into the nostril using a non-touch technique until the appropriate Length of NG tube has introduced or drainage started to come out.	
Bag attachment	Attach bag & gently extend the NG tube into position and fix it by plaster around the nose	
Drainage	Check for gastro-duodenal drainage and volume	
Completion	Clears up and check patient's welfare	

الأسبوع الثاني	الأسبوع الأول	أسماء التدريسيين	الأيام
Ankle joint and foot exam	Shoulder joint	د. فالح وحيد	الأحد
Peripheral nerves of lower limb Complications of dislocation	Pre and post operative management, (bedside care) Complications of fractures	د. ناصح جواد	
Peripheral nerves of upper limb.	wrist and hand exam Osteomyelitis (سمينار)	د. علاء عبد الحسين	الاثنين
Hip joint	Paediatric examination obstetrical palsy and( DDH)	د. علي عبد الله	الثلاثاء
Lumbosacral spine .dorsal spine and neurological examination of lower limbs Management of closed ( fracture. )	Elbow joint Management of compound (سمينار) fracture	د. مبرر عبد الرحيم	
Instruments common orthopedic emergencies, Compartment Syndrome	Cervical spine and neurological exam of upper limbs	د. احمد جاسم	الأربعاء
Patello femoral joint	Knee joint	د. مدحت محمد مهدي	
Application and types of splint and gypsona Types of traction	Primary trauma care in ED	د. مبرر عبد الرحيم / د. علاء عبد الحسين ( بالتناوب )	