Syllabus for internship and certification exams for physicians who graduated overseas

In the following fields:
Internal medicine, surgery, pediatrics, obstetrics and gynecology, psychiatry

Derived from the syllabus for the state exams in medicine –
Forum of deans of faculties of medicine

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Introduction

Dear examinee,

The following syllabus includes subjects defined as core subjects, subjects in which any medical school graduate should be knowledgeable at the beginning of his/her career as a physician, in the five fields of the exam.

The syllabus emphasizes the combination of principles and information, beginning from the basic science of medicine, through the principles of diagnosis, treatment, early detection and prevention, and finally, interpretation of findings detected in laboratory and imaging studies.

The syllabus encompasses details of the chapters and subjects for each field separately. The syllabus is available at the website www.ima.org.il - Internship and certification exams.

The syllabus should be used as a guiding tool in the learning process. However, the syllabus does not necessarily represent the exact design of the exam, which may include subjects that are not explicitly specified in the syllabus, but are either directly or indirectly related to a certain subject specified in the syllabus.

**Literature:** A mandatory textbook is specified for every field, based on its most recent edition. The exam will be based on the textbooks specified for each field, and if appeals are submitted regarding the correct answer in the test, the ultimate correct answer is the one that appears in the recommended textbook only.

**Demonstration methods:** The syllabus includes a mandatory section of interpretation of laboratory and imaging studies. The required methods are specified for every field.

We hope that the syllabus will assist you in the process of preparation for the physicians’ internship and certification exams.

We wish you the best of luck with your exam!

Prof. H. Freund
Chairman of the Examination Board
for Physicians’ Internship and Certification
1. Intention of the exam
   a. To evaluate the examinee’s level of knowledge and knowledge implementation.
   b. To identify those examinees whose level of knowledge and knowledge implementation does not reach the required minimal level.
   c. To create a unified evaluation level, at the desired standard.

2. Contents of the exam
   a. The exam is based on the syllabus of every field. The syllabus is available on the examination website www.ima.org.il
   b. The mandatory edition of the recommended textbook is the last edition, provided that the textbook was published at least 9 months prior to the exam date.
   c. The list of recommended textbooks is provided below in this document.

3. The exam
   The procedures and regulations of the exam are available on the Examination Board’s website www.ima.org.il.

4. Process of appeal
   The procedure of appeal/review is detailed on the Examination Board’s website www.ima.org.il.
Textbooks and Information about the Internship and Certification Exams for Physicians

1. Internal medicine
   Harrison Principles of Internal Medicine, last edition

2. Surgery
   Sabiston, Textbook of Surgery, last edition

3. Pediatrics
   Nelson, Textbook of Pediatrics, last edition

4. Gynecology
   Lange – Current Diagnosis and Treatment, Obstetrics and Gynecology, last edition Ed.: DeCherney, Nathan, Goodwin, Laufer
   All the chapters except for those dealing with the healthy infant (chapter 11), resuscitation of infants (chapter 13) and the breast (chapter 63).

5. Psychiatry
   Kaplan and Sadock’s Synopsis of Psychiatry, last edition. Sadock, BJ and Sadock

The exam will be based on the above textbooks, but we wish to emphasize again that the textbook is obligatory only for the appeal process. In the appeal process, the ultimate answer is the one appearing in the recommended textbook only.

The mandatory edition of the recommended textbook is the last edition, provided that it was published at least 9 months prior to the exam date.

Updates on textbook editions will be posted on the website of the Examination Board.
Syllabus for Internal Medicine

Introduction
Internal medicine encompasses numerous fields of morbidity involving various body systems. The syllabus presents the subjects, the level of knowledge and subjects related to the common clinical problems which a medical school graduate is required to know. The syllabus addresses the aspects of ambulatory treatment and hospitalization, and includes diseases of the old age and malignant diseases. In addition, disease prevention and rehabilitation are emphasized. The exam will be focused on solution of common clinical problems requiring diagnosis and treatment.

Textbook
Harrison Principles of Internal Medicine, last edition

General objectives
1. The examinee should understand the physiological and pathophysiological aspects of the common diseases of internal medicine.
2. The examinee should interpret prominent and common findings detected in laboratory and imaging tests.
3. The examinee should choose the appropriate treatment plan for the described cases based on differential diagnosis, assess the prognosis, as well as evaluate the possible risks and complications associated with the treatments.
4. The examinee should implement the principles of diagnosis, early detection and prevention in solution of clinical problems in the fields of internal medicine.
5. The examinee should demonstrate knowledge of the legal aspects related to the Patient’s Right Act and patient care.

Auxiliary tests which the examinee may be requested to interpret include:
- X-ray images (chest, abdomen review)
- Blood smears
- ECG
- CBC
- Blood and urine biochemistry
- Urinary sediment analysis
- Blood immunology and serology tests
- Blood and urine cultures
- Arterial blood gases
- Body fluids (ascites, pleural fluid, CSF, joint)
In addition, the tests may include:
   a. Imaging test results (US, X-ray, scans)
   b. Echocardiography
   c. Results of cytology and pathology

Major subjects
The exam subjects include solving common clinical problems requiring consideration of a solution, diagnosis and treatment plan. In addition, the examinee should understand the risks and complications associated with the treatments.

Objectives
1. For the purpose of diagnosis and treatment, the examinee should understand the anamnesis, the physical and laboratory data required for diagnosis.
2. The examinee should be familiar with the differential diagnoses of various conditions and should reach the final diagnosis.
3. The examinee should adjust the optimal treatment for the diagnosed problems and indicate the prognosis.

List of subjects
1. Cardiovascular diseases
2. Respiratory diseases
3. Infectious diseases
4. Diseases of the gastrointestinal tract, liver and bile ducts
5. Endocrine and metabolic diseases
6. Renal and urinary tract diseases
7. Hematological diseases
8. Rheumatic and immunological diseases
9. Oncology: Principles
10. Emergency situations of internal medicine
11. Common old age diseases

Subject details

1. Cardiovascular diseases
Including anamnesis, physical examination findings, interpretation of auxiliary tests (ECG, laboratory), interpretation of auxiliary tests (echocardiography, heart scan, CT, MRI and catheterizations), differential and final diagnosis and treatment plans.
   a. Introduction: Approach to the patient, physical examination, ECG, imaging, chest pain and palpitations
   b. Atherosclerosis
   c. Ischemic heart disease
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d. Heart failure
e. Arrhythmias
f. Valvular heart diseases
g. Cardiomyopathy
h. Myocarditis
i. Pericardial disease
j. Pulmonary hypertension
k. Hypertension
l. Disease of the aorta and vascular diseases of the extremities
m. Myxoma

2. Respiratory diseases
Including anamnesis, physical examination findings, interpretation of auxiliary tests (pulmonary function test, levels of arterial blood gases, laboratory, chest X-ray), interpretation of auxiliary tests (CT, MRI and pulmonary scan), differential and final diagnosis and treatment plans.

a. Approach to the patient, respiratory disorders and diagnostic procedures
   • Cough and hemoptysis
   • Hypoxia and cyanosis
   • Asthma

b. Obstructive pulmonary diseases, bronchiectasis
c. Interstitial lung disease
d. Environmental lung disease
e. Eosinophilic pneumonia
f. Ventilation disorders and sleep apnea
g. Thromboembolism
h. Diseases of the pleura, mediastinum, diaphragm and chest wall
i. Lung transplantation
j. Lung cancer
k. ARDS
l. Acute respiratory failure and mechanical ventilation

3. Infectious diseases
Including anamnesis, physical examination findings, interpretation of auxiliary tests (CBC and blood biochemistry, cultures and serology, chest X-ray and abdomen review), interpretation of auxiliary tests (CT, US, echocardiography, scans), differential and final diagnosis and treatment plans.

a. Approach to the patient with an infectious disease:
   • fever, approach to fever and rash, FUO, hypothermia
b. Nosocomial diseases
c. Infections in transplant patients
d. Influenza
e. Endocarditis
f. Pneumonia
g. Infections of the skin and soft tissues
h. Osteomyelitis
i. Infectious arthritis
j. Gastrointestinal infections
k. Abdominal infections
l. Urinary tract infections
m. Venereal diseases
n. Bacterial diseases:
pneumococcus, staphylococcus, streptococcus and enterococcus, listeria, clostridium, meningococcus, gonococcus, hemophilus, HACEK, legionella, gramnegative spores of the intestinal tract, helicobacter, pseudomonas, salmonella, shigella, campylobacter, cholera, brucellosis, cat scratch disease – bartonella.
o. Tuberculosis
p. Syphilis
q. Relapsing fever
r. Rickettsia
s. Mycoplasma
t. Chlamydia
u. Aspergillosis
v. Herpes
w. Varicella zoster
x. EBV
y. CMV
z. Parvovirus
aa. Cryptococcus
bb. Candida
cc. Pneumocystis carinii
dd. Malaria
ee. Toxoplasma
ff. Amebiasis
gg. Leishmaniasis
hh. Schistosoma
ii. AIDS
jj. Principles of vaccination
kk. Common problems associated with travel medicine
4. Diseases of the gastrointestinal tract, liver and bile ducts
Including anamnesis, physical examination findings, interpretation of auxiliary tests (CBC and blood biochemistry, abdominal X-ray, review), interpretation of auxiliary tests (cultures and serology, CT, US, endoscopic studies, cytology and pathology), differential and final diagnosis and treatment plans.
   a. Introduction: Approach to the patient, endoscopic studies
      - Abdominal pain
      - Dysphagia
      - Nausea and vomiting
      - Diarrhea and constipation
      - Weight loss
      - Gastrointestinal bleeding
      - Jaundice
      - Ascites
      - Evaluation of liver function and hyperbilirubinemia
   b. Dysphagia and esophageal disease
   c. Peptic disease
   d. Absorption disorders
   e. Inflammatory bowel diseases
   f. Irritable bowel syndrome
   g. Mesenteric vascular insufficiency
   h. Gastrointestinal malignancies
   i. Toxic and drug-induced hepatitis
   j. Viral hepatitis
   k. Alcoholic liver disease
   l. Chronic hepatitis and cirrhosis
   m. Liver transplantation
   n. Bile duct diseases
   o. Chronic pancreatitis
   p. Malignancies of the liver, bile ducts and pancreas
   q. Endocrine tumors of the gastrointestinal system and pancreas

5. Endocrine and metabolic diseases
Including anamnesis, physical examination findings, interpretation of auxiliary tests (blood tests), interpretation of auxiliary tests (scans, X-ray images, US, CT, cytology, pathology), differential and final diagnosis and treatment plans.
   a. Principles of endocrinology
   b. Bone metabolism
   c. Diabetes and hypoglycemia
   d. Diseases of anterior hypophysis and hypothalamus
   e. Neurohypophysis disorders
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f. Thyroid disorders
g. Adrenal disorders and pheochromocytoma
h. Combined endocrine syndromes
i. Hirsutism and virilization
j. Parathyroid disorders, hyper- and hypocalcemia
k. Bone diseases and osteoporosis
l. Blood lipid disorders
m. Hemochromatosis
n. Wilson disease
o. Obesity and eating disorders
p. Conditions of deficiency and excess of vitamins and trace elements
q. Malnutrition and nutrition techniques

6. Renal and urinary tract diseases
Including anamnesis, physical examination findings, interpretation of auxiliary tests (CBC, biochemistry, serology and immunology, urinalysis and urine sediment analysis), interpretation of auxiliary tests (pathology, renal US), differential and final diagnosis and treatment plans.
   a. Approach to patients with renal and urinary tract disorders
   b. Acute renal failure
c. Chronic renal failure
d. Dialysis treatment
e. Treatment following kidney transplantation
f. Glomerular diseases
g. Tubular diseases
h. Interstitial diseases
i. Vascular diseases
j. Kidney stones
k. Acid- base balance
l. Fluid and electrolyte balance

7. Hematological diseases
Including anamnesis, physical examination findings, interpretation of auxiliary tests (CBC, biochemistry, blood and bone marrow smears), interpretation of auxiliary tests (X-ray images, US, CT), differential and final diagnosis and treatment plans.
   a. All types of anemia
   b. Hemoglobinopathies
c. Aplastic anemia
d. Myelodisplasia
e. Myeloproliferative diseases
f. Acute myeloid leukemia
g. Chronic myeloid leukemia
h. CLL
i. Non- Hodgkin’s lymphoma
j. Hodgkin’s disease
k. Plasma cell diseases - multiple myeloma and MGUS
l. Blood transfusion and blood bank
m. Treatment of bone marrow transplant patients
n. Platelet disorders
o. Bleeding and thrombosis
p. Anticoagulant drugs

8. Rheumatic and immunological diseases
Including anamnesis, physical examination findings, interpretation of auxiliary tests (CBC, biochemistry, serology and immunology), interpretation of auxiliary tests (X-ray images, US, CT, scans, skin tests), differential and final diagnosis and treatment plans.
   a. Approach to patients with these disorders
   b. Immune deficiency conditions
   c. Allergy and anaphylaxis
   d. Lupus
   e. Rheumatoid arthritis
   f. Scleroderma
   g. Sjogren's syndrome
   h. Spondiloarthopathies
   i. Vasculitis
   j. Behcet's syndrome
   k. Sarcoidosis
   l. Amyloidosis
   m. Osteoarthritis
   n. Gout and pseudo- gout
   o. Arthritis secondary to systemic diseases
   p. Fibromyalgia
   q. FMF
   r. Chronic fatigue

9. Oncology: Principles of diagnosis and treatment
Including anamnesis, physical examination findings, interpretation of auxiliary tests (CBC, biochemistry, tumor markers, chest X-ray images), interpretation of auxiliary tests (CT), differential and final diagnosis and treatment plans.
   a. Paraneoplasia
   b. Delayed symptoms

10. Emergency situations of internal medicine
Including anamnesis, physical examination findings, interpretation of auxiliary tests (CBC, biochemistry, toxicology and arterial blood gases, ECG, chest X-ray images), interpretation of auxiliary tests (CT), resuscitation (CPR), differential and final diagnosis and treatment plans.

a. Shock conditions, including introduction, septic shock and cardiogenic shock
b. Cardiac arrest and resuscitation
c. Syncope, loss of consciousness
d. Neurological emergency situations
e. Drug poisoning
f. Stings and bites
g. Oncological emergency situations

11. Common old age diseases
a. Knowledge of the signs and symptoms of various diseases unique to the elderly patient
b. Ageing demographics
c. The frail elderly patient
d. Geriatric syndromes, including
   - Falls
   - Urinary incontinence
   - Decubitus ulcers
   - Delirium
   - Dementia
e. Disease prevention and successful ageing
Syllabus for General Surgery and Surgical Sub-Specialties

Introduction
The exam will be focused on solution of common clinical problems requiring surgical treatment, discretion related to the choice of intervention, whether conservative or surgical, and patient outcomes.

Textbooks
Sabiston - Textbook of Surgery, last edition

Objectives
1. The examinee should implement the principles of diagnosis, early detection and prevention in solution of clinical problems in various fields of surgery.
2. The examinee should choose the appropriate evaluation and treatment plan for the described cases based on differential diagnosis, assess the prognosis, as well as evaluate the possible risks and complications vs. the chances for success.
3. The examinee should understand the physiological and pathophysiological aspects of diseases and conditions treated by surgical procedures.
4. The examinee should interpret typical and common findings detected in laboratory and imaging tests, which are commonly performed in the described surgical cases.

General surgery
The exam subjects include solving clinical problems in various body systems, requiring consideration of a solution using a surgical procedure, while taking into account the patient’s general condition, his/her underlying diseases, possible side effects and complications vs. the expected benefit, and possible non- surgical treatments.

Subjects
a. Evaluation, preparation and perioperative care for the surgical patient
b. Postoperative complications
c. Cervical lump
d. Swallowing difficulty
e. Heartburn
f. Breast pain/ lump
g. Abdominal pain
h. Abdominal mass
i. Inguinal and genital lump
j. Jaundice
k. Gastrointestinal bleeding
l. Anal pain/ discomfort
m. Changes in bowel movement pattern
n. Gastrointestinal obstruction
o. Adrenal gland
p. Fluid accumulation in the abdominal cavity
q. The catabolic patient
r. Trauma

Detailed subjects and objectives

A. Evaluation, preparation and perioperative care for the surgical patient
1. The examinee should assess the risk associated with each surgery, while taking into account the patient’s underlying diseases, expected side effects, possible complications and the preoperative procedures capable of reducing these risks.
2. The examinee should select the auxiliary tests and imaging studies commonly used for patient’s evaluation.
3. The examinee should be familiar with the effects of the regular medications taken by the patient on the course of anesthesia and surgery, the appropriate orders for treatment discontinuation, ongoing treatment and alternative treatment.
4. The examinee should implement the orders for prophylactic antibiotic treatment and treatment for DVT prevention.
5. The examinee should implement the appropriate orders for treatment with fluids, electrolytes, various medications, nutrition, physiotherapy, etc.
6. The examinee should understand the importance of monitoring the nature and quality of secretions from the various drains and catheters.

B. Postoperative complications
1. The examinee should be familiar with the possible postoperative side effects and complications associated with the given case, understand the importance of postoperative monitoring, and select the appropriate follow up and monitoring methods.
2. The examinee should identify complications based on the findings and data derived from the anamnesis, physical examination, auxiliary tests, imaging and continuous follow up of the patient’s postoperative course, and choose the most appropriate treatment for the new onset condition.

List of complications: various surgical wound complications, body temperature changes, pulmonary complications, cardiac, urinary tract, gastrointestinal and nervous system complications, hemorrhage.

C. Cervical lump
1. The examinee should be familiar with the various pathological conditions manifested by a lump (or lumps) in various neck regions.
2. The examinee should understand the significance of the following diagnostic tools and their use for reaching the final diagnosis: focused anamnesis, physical examination, cervical US, CT, various scans, core needle biopsy and FNA for pathological / cytological diagnosis and blood tests.

3. Based on the data, the examinee should indicate the estimated diagnosis and choose the treatment appropriate for the presented case.

D. Swallowing difficulty
1. The examinee should be familiar with the various pathological conditions manifested by swallowing difficulty.
2. The examinee should reach the diagnosis following selection of evaluation methods based on anamnesis, auxiliary tests and imaging studies.
3. The examinee should be familiar with the various treatment options commonly used to treat conditions manifested by swallowing difficulty, and choose the treatment appropriate for the presented case.

E. Heartburn
1. The examinee should be familiar with the various diseases and conditions causing heartburn, auxiliary tests and imaging studies helpful for diagnosis, and determine the diagnosis for the presented case.
2. The examinee should be familiar with the various treatment options commonly used to treat conditions causing heartburn, and choose the treatment appropriate for the presented case.

F. Breast pain / lump
1. The examinee should understand the cyclic changes occurring in the female breast during her fertility age.
2. The examinee should be familiar with the benign and malignant processes occurring in the breast during adolescence, period of fertility and post-menopausal period.
3. The examinee should be familiar with the principles of screening for early detection of breast cancer.
4. The examinee should use the various commonly used diagnostic methods to evaluate the breast findings in an evidence-based manner appropriate for the presented case: mammography, US, MRI, FNA, core needle biopsy.
5. Based on the anamnesis, findings of physical examination, various imaging studies and biopsy, the examinee should determine the diagnosis appropriate for the presented case.
6. In cases of breast cancer:
   - The examinee should determine the stage and the prognosis of the presented case.
• The examinee should choose the surgical and adjuvant treatments appropriate for the presented case: (mastectomy, lumpectomy, sentinel lymph node biopsy, axillary lymph node dissection, neo- adjuvant/ adjuvant chemotherapy, radiotherapy, hormonal therapy).

7. The examinee should be familiar with the methods of detection of familial breast cancer (genetic predisposition) and with the prognosis of this disease, and should choose the appropriate treatment (follow up, chemoprevention, prophylactic surgeries).

G. Abdominal pain
1. The examinee should know how to obtain the relevant anamnesis, understand the significance of the nature, frequency and site of pain, and be familiar with the results of physical examination indicating peritoneal irritation.
2. The examinee should select the auxiliary tests and imaging studies appropriate for the presented case, determine the differential diagnosis, reach the final diagnosis and choose the appropriate treatment (conservative, transcutaneous, minimally invasive or open surgery).
3. The examinee should determine the optimal timing for surgical intervention and select the preoperative treatment capable of reducing morbidity and mortality.

H. Abdominal mass
1. The examinee should know how to diagnose the common pathological conditions manifested by intraperitoneal, retroperitoneal and abdominal wall masses, based on the relevant anamnesis, findings of physical examination, auxiliary tests and imaging studies.
2. The examinee should determine the differential diagnosis, based on tests, and select the most appropriate method for obtaining samples for cytological/ pathological diagnosis in order to reach the final diagnosis.
3. The examinee should be familiar with the principles of surgical and adjuvant treatments for abdominal and retroperitoneal masses, and choose the treatment most appropriate for the presented case.

I. Inguinal and genital lump
1. The examinee should be familiar with the common pathological conditions manifested by inguinal and/or genital lumps (hernias, solid and cystic lumps), and determine the differential and estimated diagnosis based on the relevant anamnesis, findings of the physical examination, auxiliary tests and imaging studies.
2. The examinee should diagnose an incarcerated hernia and a strangulated hernia based on the anamnesis, findings of the physical examination, auxiliary tests and imaging studies, and choose the appropriate treatment.
J. Jaundice
1. The examinee should be familiar with the diseases and conditions causing jaundice, and the conservative and/or surgical treatments commonly used in such cases.
2. The examinee should indicate the evaluation method appropriate for the presented case (anamnesis, laboratory and imaging studies), while taking into account the risks/complications and side effects of these tests.
3. The examinee should determine the differential and estimated diagnosis, and choose the treatment appropriate for the presented case.

K. Gastrointestinal bleeding
1. The examinee should be familiar with the diseases and conditions causing acute or chronic bleeding along the gastrointestinal tract, the tests commonly used for evaluation of such conditions, and the surgical and non-surgical treatments appropriate for each condition.
2. The examinee should present the differential/estimated diagnosis based on the data of anamnesis and physical examination, and determine the priorities for treatment or further evaluation in accordance with the data of the presented case.
3. In cases not requiring immediate treatment, the examinee should select the evaluation procedure appropriate for the presented case, identify the origin of bleeding and reach the final diagnosis.
4. In cases requiring immediate intervention to stop the bleeding, and in cases where the origin of bleeding has been diagnosed, the examinee should choose the most appropriate treatment.
5. The examinee should understand the indications and considerations of urgent and elective surgery according to the diagnosis, the nature of bleeding (mild, massive, ongoing or recurrent), and/or failure of other therapeutic modalities.

L. Anal pain / discomfort
1. The examinee should be familiar with the diseases and conditions causing anal pain or discomfort, various conservative and surgical treatments commonly used to treat these conditions, including their possible side effects and complications.
2. The examinee should determine the estimated diagnosis of the presented case, based on anamnesis, findings of the physical examination, auxiliary tests and imaging studies, and choose the most appropriate treatment.

M. Changes in bowel movement pattern
1. The examinee should be familiar with the various diseases and conditions causing changes in the bowel movement patterns, the various auxiliary tests and imaging studies commonly used for evaluation of such conditions, and determine the evaluation plan for the presented case.
2. Based on the data of anamnesis, findings of the physical examination, auxiliary tests and imaging studies, the examinee should determine the differential diagnosis, the estimated or final diagnosis, and recommend the conservative or the surgical treatment most appropriate for the presented case.

N. Gastrointestinal obstruction
1. The examinee should be familiar with the various diseases and conditions causing gastrointestinal obstruction, the various auxiliary tests and imaging studies commonly used for evaluation of such conditions.
2. Based on the anamnesis data, findings of the physical examination, auxiliary tests and imaging studies, the examinee should determine the site of gastrointestinal obstruction, be familiar with the differential and estimated diagnosis with respect to the reason for obstruction, and choose the conservative or the surgical treatment appropriate for the presented case.

O. Adrenal gland
1. The examinee should be familiar with the various benign and malignant tumors of the adrenal gland, and differentiate between functional and non-functional tumor.
2. The examinee should understand the clinical presentation of pheochromocytoma, and be familiar with the rules of intraoperative and postoperative monitoring of this tumor.
3. The examinee should identify the adrenal gland tumor on CT.
4. The examinee should determine the differential/estimated diagnosis, based on anamnesis, findings of the physical examination, laboratory and imaging tests, and choose the treatment appropriate for the presented case (laparoscopic or open surgery).

P. Fluid accumulation in the abdominal cavity
1. The examinee should identify the diseases and conditions causing fluid accumulation in the abdominal cavity.
2. The examinee should determine a plan to evaluate the nature of the fluid and the reason for its accumulation.

Q. Shock condition
1. The examinee should be familiar with the various shock types, the common methods of monitoring the patient/injured person in a shock condition.
2. The examinee should know the estimated diagnosis for the reason of shock in the presented case, based on the anamnesis (taken from the patient or his/her escorts), findings of the physical examination, laboratory and imaging tests.
3. The examinee should send the laboratory tests required during the early stages of evaluation, and in parallel provide orders for treatment and monitoring; the
examinee should make conclusions regarding treatment efficacy, indicate additional treatments and be familiar with the indications for surgical intervention.
R. The catabolic patient
1. The examinee should be familiar with the conditions and diseases causing catabolism and negative nitrogen balance, with their various degrees of severity.
2. The examinee should be familiar with the nutritional needs of the healthy person vs. the catabolic patient with negative nitrogen balance.
3. The examinee should be knowledgeable about the various nutrition methods – enteral and parenteral nutrition, with their advantages, disadvantages and complications, and should adjust a nutrition plan appropriate for the presented case.

S. Trauma
1. The examinee should understand the significance of the anamnestic details obtained from the injured patient or his escorts, know how to implement the principles of examination and treatment of a single patient according to the order of priority (ABCDE) and the ATLS scheme (primary survey, resuscitation, secondary survey, definitive treatment), and be familiar with the principles of mass-casualty triage.
2. The examinee should be familiar with and identify immediately life-threatening injuries, and determine the appropriate life-saving treatment.
3. The examinee should order laboratory and imaging tests appropriate for the presented case.
4. The examinee should implement monitoring methods appropriate for the presented case.
5. The examinee should provide adequate treatment orders, including prophylactic antibiotic therapy, anti-tetanus vaccination and analgesic drugs.
6. The examinee should recognize the importance of splenic preservation to prevent OPSI.
7. In case of bleeding from parenchymal organs, the examinee should be familiar with the principles of conservative treatment and the indications for surgical treatment.

The examinee should implement all of the above principles while handling the case presented to him/her.

Syllabus for surgical sub-specialties

A. Pediatric surgery
1. Newborn physiology
2. Fluids, electrolytes, and nutrition for the newborn and the infant
3. Inguinoscrotal pathology
4. Neonatal pathology and intestinal obstruction in children
5. Abdominal wall pathology
6. Childhood tumors
Updated: December 2010

7. Pathology of the neck
8. Pathology of the bile ducts
9. Acute abdomen
10. Trauma

B. Urology
1. Lumbar pain
2. Hematuria
3. Urination disorders
4. Scrotal mass
5. Hydronephrosis and hydroureter
6. Urinary tract infections
7. Organic erectile dysfunction
8. Urinary system trauma
9. Neurogenic bladder
10. Urinary system tumors

C. Vascular surgery
1. Venous diseases
2. Carotid diseases
3. Acute ischemia of the lower extremities
4. Chronic ischemia of the lower extremities
5. Diabetic foot
6. Aneurysms
7. Buerger's disease
8. Thoracic outlet syndrome

D. Plastic surgery
1. Burns
2. Types of wounds and their treatment
3. Skin tumors (BCC, SCC, MM)

E. Neurosurgery
1. CNS tumors
2. Vascular neurosurgery
3. Head trauma
4. Common conditions of pediatric neurosurgery: hydrocephalus, cranial deformities, meningocele
5. Spinal cord injuries

F. Cardiothoracic surgery
1. Chest injuries
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2. Malignant lung tumors
3. Surgical approach to congenital heart defects
4. Surgical approach to ischemic heart disease
5. Surgical approach to valvular heart disease

G. Orthopedic surgery
1. Skeletal fractures
2. Sport injuries
3. Spinal disorders
4. Disorders of the foot and ankle
5. Hand disorders
6. Bone tumors
7. Osteoporosis as a reason for femoral neck fractures and vertebral collapse

H. Anesthesia and intensive care
1. Principles of general anesthesia and ventilation
2. Effects on the respiratory system
3. Effects on the cardiovascular system
4. Pharmacology of anesthetics
5. Preoperative evaluation and preparation of the patient
6. Intraoperative monitoring
7. Complications
8. Regional anesthesia: principles and complications
9. Sedation: principles and complications
10. Pain management: principles
11. Intensive care: indications for hospitalization at the ICU
12. Principles of monitoring and intensive care
Syllabus for Pediatrics

Introduction
The examinee should demonstrate understanding of the unique aspects typical of pediatrics, e.g. normal growth and development and abnormalities. Emphasis is made on disease prevention, including vaccinations, screening tests and follow up. Understanding of childhood and adolescence physiology and pathophysiology will be examined. The examinee should prove understanding of clinical data interpretation and understand the treatments appropriate for common conditions.

Textbook
Nelson Textbook of Pediatrics, Last Edition

Objectives
1. The examinee should diagnose the common pediatric conditions of various age groups.
2. The examinee should choose the treatment plan appropriate for children with common clinical problems, based on differential diagnosis, including prognosis.
3. The examinee should be aware of the benefits and risks of the proposed treatments.
4. The examinee should interpret the prominent and common laboratory and chest x-ray findings.

Subjects
1. Normal and pathological growth and development from birth to adolescence
2. Preventive medicine and vaccinations (including the vaccination program currently practiced in Israel)
3. Nutrition: nutritional needs, breastfeeding/ formulas, vitamin deficiency
4. Fluids and electrolytes – pathophysiology and treatment of deficiencies
5. Child neglect and abuse
6. Genetic principles and common genetic defects
7. Emergency situations in pediatrics
   a. Common poisoning
   b. Various types of drowning
   c. Heat and cold trauma
   d. Various types of chock conditions
8. **Approach to the child with a suspected metabolic disease**
   Representative metabolic diseases in the following fields:
   a. Defect of amino acid metabolism
   b. Defect of carbohydrate metabolism
   c. Evaluation of hypoglycemia, metabolic acidosis, hyperammonemia

9. **The healthy and sick neonate**
   a. High risk neonate
   b. Asphyxia at birth
   c. Complications of preterm birth
   d. Common neonatal metabolic disorders
   e. Neonatal respiratory diseases, including common congenital defects
   f. Neonatal heart diseases
   g. Common gastrointestinal disorders, including common congenital defects
      Necrotizing enterocolitis
   h. Neonatal seizures
   i. Common CNS malformations
   j. Common renal defects
   k. Abnormal external genitalia
   l. Neonatal anemia
   m. Neonatal jaundice
   n. Congenital and acquired infections

10. **Common problems of adolescent medicine**
    a. Eating disorders
    b. Depression and suicide attempt
    c. Drug abuse

**Subjects and diseases according to systems**

11. **Immunological disorders and allergies**
    a. Diagnostic approach to the child with recurrent infections
    b. Diagnostic and therapeutic approach to the immunodeficient child
    c. Therapeutic principles for conditions of chronic and acute allergy

12. **Connective tissue diseases**
    a. Diagnostic approach to the child with suspected rheumatic disease
    b. Diagnosis and treatment of common rheumatic diseases
    c. Vasculitis, including Kawassaki disease and HSP
    d. FMF

13. **Infectious diseases**
Updated: December 2010

a. Approach to fever in children of various age
b. Principles of antibiotic therapy in children
c. Fever with rash
d. Common bacterial diseases (mainly in our area: brucellosis, salmonellosis, rickettsiosis)
e. Common viral diseases (EBV, CMV, Rota virus)
f. Respiratory system infections
g. Current approach to the treatment of various types of otitis
h. Current approach to the treatment of laryngitis and its complications
i. Approach to lymphadenitis
j. Infections of the gastrointestinal system (gastroenteritis) and liver
k. Connective tissue infections (cellulitis, arthritis, osteomyelitis)
l. CNS infections (meningitis, encephalitis)
m. Cardiovascular system infections
n. Urinary tract infections
o. Approach to infection in a patient with immune deficiency

14. Gastrointestinal system
   a. Pathophysiology of the gastrointestinal system
   b. Congenital defects of the gastrointestinal system
   c. Esophageal, gastric, duodenal and intestinal diseases
   d. Acute inflammatory and chronic diseases of the gastrointestinal system
   e. Malabsorption conditions
   f. Hepatic and pancreatic diseases
   g. Approach to constipation in children

15. Respiratory system
   a. Pathophysiology of the respiratory system
   b. Congenital defects of the respiratory system
   c. Acute inflammatory and chronic diseases of the gastrointestinal system
   d. Cystic fibrosis CF
   e. Asthma and concomitant conditions
   f. Foreign body aspiration

16. Cardiovascular system
   a. Development of the fetal and neonatal cardiovascular system
   b. Congenital heart defects
   c. Acquired heart diseases, including rheumatic fever
   d. Pericardial and myocardial diseases
   e. Heart failure and its treatment
   f. Arrhythmias and conduction disorders, including prolonged QTC syndrome
17. Hematological diseases
   a. Development of the hematopoietic system and failures in its development
   b. Various types of anemia
   c. Coagulation and bleeding disorders
   d. Platelet function disorders (ITP)
   e. Leukocyte function disorders
   f. Spleen function and disorders

18. Malignant diseases
   a. Epidemiology of pediatric tumors
   b. Principles, diagnosis and treatment of cancer in children
   c. Various types of leukemia
   d. Various types of lymphoma
   e. Common solid tumors in children
   f. Histiocytosis
   g. Benign vascular tumors

19. Renal diseases
   a. Glomerular diseases (glomerulonephritis)
   b. Conditions associated with hematuria
   c. Conditions associated with proteinuria (nephrotic syndrome)
   d. Tubular diseases
   e. Acute and chronic renal failure
   f. Congenital defects of the genitourinary system
   g. Approach to urinary tract infections
   h. Approach to evaluation of hypertension

20. Endocrine system
   a. Physiology and pathology of puberty
   b. Physiology and pathology of the hypothalamus and the pituitary glans
   c. Diabetes insipidus and evaluation of polyuria
   d. Early and late puberty and related syndromes
   e. Physiology and pathology of the thyroid
   f. Homeostasis of calcium, vitamin D and diseases of the parathyroid gland
   g. Adrenal disorders, including common enzymatic disorders
   h. Activity and hypoactivity of sex hormones
   i. Approach to evaluation of short stature
   j. Juvenile diabetes
   k. Obesity

21. Nervous system
   a. Congenital abnormalities of the nervous system
b. Seizures and seizure-like conditions in childhood
c. Pediatric headache
d. Neurocutaneous syndromes
e. Pediatric movement disorders
f. Cerebral palsy
g. Neurodegenerative diseases
h. Nervous system infections
i. Increased intracranial pressure (pseudotumor)
j. Neuromuscular diseases
k. Familial dysautonomia
l. Guillain – Barre syndrome

22. Common ophthalmological diseases
   a. Red eye
   b. White pupil
   c. Strabismus

23. Common dermatological diseases
   a. Atopic dermatitis
   b. Urticaria

24. Common ENT diseases
   a. Acute and chronic otitis media
   b. Tonsillitis
   c. Evaluation of cervical lump

25. Bone and joint diseases
   a. Common malformations
   b. Bone and joint infections
   c. Bone dysplasias
   d. Common pain conditions: transient synovitis, Legg-Perthes disease, slipped capital femoral epiphysis, Osgood Schlatter

This section presents common pediatric problems which may appear in the exam:

1. For the purpose of diagnosis and treatment, the examinee should understand the anamnesis, the physical and laboratory data required for diagnosis.
2. The examinee should be familiar with the differential diagnoses of various conditions and should reach the final diagnosis.
3. The examinee should adjust the optimal treatment for the diagnosed problems and indicate the prognosis.
4. The examinee should understand the association between the procedures and recommendations of the Ministry of Health for maintenance of balanced nutrition and disease prevention.

Subjects
a. Shortness of breath, cough and wheezes, cyanosis
b. Sore throat
c. Unexplained fever
d. Cyanosis, heart murmur, changes in the heart rate
e. Abdominal pain, diarrhea, vomiting and constipation, bloody stool
f. Abdominal mass
g. Hepatomegaly and splenomegaly
h. Rash, purpura and changes in the skin color
i. Headaches and changes in the state of consciousness
j. Seizures
k. Persistent crying of the baby
l. Blood, protein, changes in the color of urine
m. Failure to thrive, short stature, malnutrition and obesity
n. Psychomotor development disorders
o. Learning disorders
p. Eating disorders in infants and adolescents
q. Sudden death
Syllabus for Obstetrics and Gynecology

Introduction
The exam will be focused on knowledge and solution of common clinical problems of gynecology, obstetrics and fertility, with emphasis on diagnosis and choice of the appropriate therapeutic intervention.

Textbook
Lange – Current Diagnosis and Treatment, Obstetrics and Gynecology, last edition

General objectives
1. The examinee should understand the female reproductive system over her lifetime.
2. The examinee should understand the changes occurring during pregnancy and the follow up of normal pregnancy and normal delivery.
3. The examinee should understand the pathophysiological aspects of:
   a. Major diseases and complications associated with pregnancy and delivery
   b. Benign and malignant gynecological diseases
   c. Male and female fertility disorders
4. The examinee should implement the principles of diagnosis, early detection and prevention in solution of clinical problems in the field of gynecology, obstetrics and fertility.
5. The examinee should interpret the prominent and common findings of auxiliary tests, including laboratory and imaging.
6. The examinee should choose the treatment plan appropriate for the clinical cases, based on differential diagnosis, indicate the prognosis and assess the possible risks and complications of the treatment.

Subjects
The subjects are related to solution of clinical problems in gynecology, obstetrics and fertility.
The specific objectives and the level of knowledge required for the examinee are indicated for each subject.
   a. Prenatal diagnosis and follow up of normal pregnancy and delivery
   b. Diagnosis and treatment of high risk pregnancy, including maternal diseases and emergency situations during pregnancy
   c. Delivery course
   d. Diagnosis and treatment of common pathologies in gynecology
   e. Diagnosis and treatment of benign and malignant tumors of the reproductive system
   f. Diagnosis and treatment of puberty disorders, amenorrhea and hirsutism
g. Evaluation, diagnosis and treatment of the sterile couple
h. Family planning and contraception
i. Menopause

Subject details

A. Prenatal diagnosis and follow up of normal pregnancy and delivery

Objectives
- The examinee should review the full anamnesis related to previous pregnancies and deliveries, family history and pregnancy complications.
- The examinee should understand the physiological changes of normal pregnancy.
- The examinee should be familiar with the stages of physical examination of the pregnant woman – abdominal and vaginal.
- The examinee should be familiar with the pregnancy follow up plan, including: clinic visits, blood and urine tests, US tests and genetic evaluation.
- The examinee should be familiar with the course and complications of puerperium.

B. Diagnosis and treatment of high risk pregnancy, including maternal diseases and emergency situations during pregnancy

Objectives
- The examinee should be familiar with the common high risk pregnancy conditions (such as multifetal pregnancy, premature labor, premature rupture of membranes, placental abruption, placenta previa, Hydrops – immune and non-immune IUGR), their diagnosis and treatment.
- The examinee should be familiar with the common medical complications and maternal diseases in pregnancy (diabetes, hypertension, infectious diseases), and with the methods of diagnosis and standard treatment.
- The examinee should determine the differential diagnosis, including the use of anamnestic information and laboratory test results, in order to reach the correct diagnosis of obstetric complications and emergency situations, such as massive hemorrhage, DIC, uterine rupture, amniotic embolism.

C. Delivery course

Objectives
- The examinee should be familiar with the findings of fetal monitoring, understand the significance of the various records and interpret normal and pathological monitoring data.
- The examinee should be familiar with the process of vaginal delivery in vertex presentation, including various disorders of the normal delivery progress and their treatment, including immediate post partum complications (PPH).
The examinee should be familiar with the indications and contraindications for instrumental delivery (forceps and vacuum extractor).

The examinee should be familiar with the indications for Cesarean section, the surgical technique and associated complications.

The examinee should be familiar with the course of puerperium and know how to examine the woman after the delivery.

D. Diagnosis and treatment of common pathologies in gynecology

Objectives

- The examinee should be familiar with the symptoms of abortions, ectopic pregnancy, endometriosis, pelvic inflammations and infections, irregular bleeding, pelvic organ prolapse and urine leakage.
- Based on focused anamnesis, the examinee should determine the estimated diagnosis.
- The examinee should be familiar with the laboratory tests relevant for diagnosis of the above pathologies.
- The examinee should understand the significance of the following diagnostic tools and their use in order to reach the final diagnosis: physical examination, auxiliary tests including blood tests, pelvic US, CT and urodynamics.
- The examinee should suggest treatment for these disorders.
- The examinee should be familiar with the indications for basic gynecological surgeries, including: various types of hysterectomy, laparoscopy, hysteroscopy, resection of fibroids, surgeries for repair of pelvic organ prolapse and urine leakage.

E. Diagnosis and treatment of benign and malignant tumors of the reproductive system

Objectives

- The examinee should be familiar with the symptoms of uterine, cervical, ovarian tumors, fallopian tube tumors, vaginal and genital tumors and trophoblast diseases.
- Based on focused anamnesis, the examinee should determine the differential and estimated diagnosis.
- The examinee should understand the significance of the following diagnostic tools and their contribution to determination of the final diagnosis: physical examination, auxiliary tests including blood tests, pelvic US, CT, scans, cytological screening tests and diagnostic biopsies.
- The examinee should indicate the treatments for the various types of tumors and understand their potential complications.
F. Diagnosis and treatment of puberty disorders, amenorrhea and hirsutism

Objectives
- The examinee should understand the symptoms ovulation disorders and be familiar with the physical findings characteristic of these disorders.
- The examinee should determine the auxiliary tests and offer the appropriate treatment according to the age group and desire for pregnancy.
- The examinee should understand the side effects and complications of the ovulation disorders and treatments.

G. Evaluation, diagnosis and treatment of the sterile couple

Objectives
- The examinee should be familiar with the diagnostic approach and the principles of treatment of the sterile couple due to hormonal or mechanical disorders.
- The examinee should be familiar with the therapeutic approach to unexplained or male sterility by in- vivo methods and understand when to switch to in-vitro fertilization.
- The examinee should be familiar with the various stages of in-vitro fertilization and with the common protocols, including possible complications.
- The examinee should understand the difference between usual in-vitro fertilization and ICSI, and know the difference between TESA and TESE.

H. Family planning and contraception

Objectives
- The examinee should be familiar with the standard methods of contraception, their efficacy and possible side effects associated with them.
- The examinee should be familiar with the principles of selection of the contraception method appropriate for the patient.

I. Menopause

Objectives
- The examinee should understand the significance of menopause symptoms and be familiar with the physical findings characteristic of these disorders.
- The examinee should select the auxiliary tests and offer appropriate treatment.
- The examinee should understand the side effects and limitations of the treatment.
Syllabus for Psychiatry

Introduction
The exam is focused on understanding the bio- psycho-social components underlying the mental and behavioral phenomena.

Textbook
Kaplan and Sadock’s Synopsis of Psychiatry, last edition

General objectives
1. The examinee should identify the major psycho- pathological features (based on the updated DSM classification) and offer appropriate treatments.
2. The examinee should be aware of the major aspects of presentation, course and treatment of the typical mental disorders of childhood, adolescence, adulthood and old age.

Subjects
A. Principles of psychiatric examination and their implementation for diagnosis and treatment planning.
B. Characteristics of disorders according to classification: psychiatric disorders and organic syndromes (including addictions) manifested by behavioral disorders.
C. Knowledge in the field of developmental and neurobiological theories and their effect on the etiology of mental disorders.

Detailed subjects

Principles of psychiatric examination and their implementation for diagnosis and treatment planning
a. The examinee should describe the components of psychiatric anamnesis: primary complaint, current illness, history of illness, medical history.
b. The examinee should describe the components of the psychiatric status examination: behavior, speech, mood, affect, thinking (speed, course, content), perception, awareness and cognition.
c. The examinee should present a differential diagnosis based on the patient’s presentation.
d. The examinee should order auxiliary tests required for the completion of patient’s evaluation.
e. The examinee should determine a treatment plan (including medication therapy, psychotherapy, rehabilitation).
Characteristics of disorders according to classification: psychiatric disorders and organic syndromes (including addictions) manifested by behavioral disorders.

Comment: Characterization of disorders according the 5 DSM axes. This section addressing various disorders refers to the following aspects of each disorder: epidemiology, etiology, clinical symptoms, differential diagnosis, course and prognosis and therapeutic approaches.

Organic cerebral disorders: delirium, dementia and amnestic disorders

a. Definition of CNS diseases
b. Evaluation of the condition of a patient with a neuropsychiatric syndrome.
c. Suggestion for a primary treatment plan.

Addictions: alcohol abuse, drug abuse and addiction

a. Spectrum of addictions in terms of epidemiology, clinical manifestations, mental and physical complications.
b. Therapeutic approaches to urgent and chronic situations.

Schizophrenia

a. Course of schizophrenia, epidemiology, etiological theories.
b. Therapeutic approaches.
c. Considerations related to involuntary hospitalization.

Other psychotic disorders: schizophreniform disorder: delusional disorder, shared psychotic disorder, brief psychotic disorder.

a. Epidemiology, etiology, clinical signs.
b. Differential diagnosis, course.
c. Therapeutic approaches and prognosis.

Combat stress reaction and PTSD

a. Combat stress reaction as a specific stress response: characteristics and influencing factors.
b. Biological and psychological models explaining the phenomena and their implementation in various treatments.
c. PTSD in holocaust survivors – post-concentration camp syndrome.
d. Mental processes characterizing the process of coping with a terminal illness. Normal grief and pathological grief.
e. Guiding principles of mental therapy, medication therapy and treatment of PTSD.
Anxiety disorders including: panic disorder, obsessive-compulsive disorder (OCD), specific and social phobic disorders, generalized anxiety disorder (GAD).

a. Comparison of the clinical and epidemiological characteristics of various anxiety disorders.
b. Differential diagnosis for the patient with anxiety: generalized anxiety disorder, panic disorder, phobic disorder and obsessive-compulsive disorder (OCD).
c. The role of protection mechanisms and the therapeutic approach resulting from these principles.
d. Various medication therapies, behavioral treatment and cognitive treatment of anxiety disorders.
e. Clinical and epidemiological characteristics of OCD and differential diagnosis of obsessive thinking.
f. Effective medication therapy for obsessive-compulsive disorder (OCD).
g. Therapeutic behavioral approaches for panic and phobic disorders.
h. Clinical presentation and therapeutic principles for social phobic disorder.
i. Principles of long term maintenance in various anxiety disorders.

Mood disorders, including: Major depressive disorder; Bipolar 1 and 2 disorder; Dysthymic disorder and Cyclothymic disorder.

a. Theories related to mood disorders: in terms of neurobiology.
b. Genetic, psychological and environmental effects, prevalence and gender differences.
c. Major symptoms of various types of depression, course and complications.
d. Differential diagnosis, including comorbidities and depression secondary to physical illness.
e. Principles of biological therapy for the treatment of acute depression and depression with psychotic components.
g. Manic state, its treatment in the acute stage.
h. Course of bipolar disorder, maintenance and preventive treatment.
i. Risk of self-injury and injury of others associated with affective disorders and application to the district psychiatrist.

Somatoform disorders, including: somatization disorder, conversive disorder, hypochondriasis, body dysmorphic disorder, pain disorder.

a. Identification of physical symptoms as a manifestation of mental stress conditions, differential diagnosis related to neurological and somatic symptoms, pain and body dysmorphic disorder.
b. Psycho-social characteristics of these disorders and interventional and therapeutic approaches.
c. Primary gain and secondary gain in somatoform disorders.
d. Hypochondria: distinction between hypochondria and other mental disorders.
e. Difference between pain disorder and medical conditions accompanied by pain, and the therapeutic approach to pain disorder.

Dissociative disorders, including: dissociative amnesia, dissociative fugue, dissociative identity disorder, depersonalization disorder.

a. Dissociative conditions and dissociative phenomena in daily situations and mental disorders.
b. Major differences between amnesia, fugue and dissociative identity disorder.
c. Definition of depersonalization and derealisation.
d. Effect of stress conditions and mental states on various diseases.
e. Effect of medications on physical and mental states.
f. Complexity of patient - physician relationship and principles of the bio-psycho-social model.

The following issues will be emphasized:
- Heart diseases (coronary diseases, arrhythmias, heart failure), pain and especially headache and low back pain, postpartum mental states.
- Association between mental state and cancer: notification about the disease, various stages of coping, mental problems associated with chemotherapy.
- Mental problems in AIDS patients and therapeutic approaches.
- Patients addicted to hard drugs.
- Diagnosis and treatment of a patient suspected to suffer from factitious disorder (Munchausen syndrome).

Human sexuality, including: normal sexuality, sexual dysfunctions, paraphilias, gender identity disorders

a. A variety of normative and pathological manifestations of human sexuality.
b. Characteristics of specific disorders.
c. Guiding principles of standard therapeutic interventions.
d. Gender – gender identity.

Sleep disorders:

Normal sleep – Biological clocks, sleep disorders.

a. Normal sleep in various life stages.
b. Biological clocks and mechanisms of sleep timing.
c. Identification of sleep disorders, etiologies.
d. Treatments and risks associated with common and erroneous medication therapy.
Eating disorders, including: anorexia nervosa, bulimia nervosa, binge eating disorders, obesity and eating disorders, NOS.
  a. Various eating disorders, their reasons and medical complications: anorexia nervosa, obesity.
  b. Comorbidities and differential diagnosis of eating disorders.
  d. Principles of treatment and risks associated with acute states of eating disorders (extreme underweight, substance abuse or excessive vomiting).

Personality disorders, including: concept of personality and personality disorder, Freudian view of “personality fixation”, Kerenberg view of “levels of personality organization”.
Personality disorders: paranoid, schizoid, schizotypal, antisocial, borderline, histrionic, narcissistic, avoidant, dependent, obsessive compulsive and NOS:
  a. Concept of personality and personality disorder (according the models of Freud, Kerenberg, Kohut and others).
  b. Psychological, environmental and biological models of personality disorders and knowledge of the division into clusters A, B, C.
  c. Therapeutic approaches for the treatment of personality disorders.
  d. The role of psycho-pharmacological treatment in personality disorders.

Impulse control disorders, including: intermittent explosive disorder, kleptomania, pyromania, pathological gambling, trichotillomania, NOS.
  a. Impulse control disorders, major characteristics, psychological and biological models and principles of treatment.
  b. Association between impulse control disorders and other psychiatric diagnoses.
  c. Legal aspects related to impulse control disorders.

Psychiatric emergencies, including: the suicidal patient, elf mutilation, the violent patient, the rape victim, aggression and accidents, problems related to abuse or neglect.
  a. Identification of signs and risk factors of psychiatric emergencies, evaluation of urgency and hazard.
  b. Considerations related to the choice of treatment using the multi-modal approach, primary and secondary preventive strategies.
  c. Ethical, legal and emotional aspects of confining a patient to bed.

Knowledge of developmental and neurobiological theories - Normality
  a. The various concepts of norm: norm as a statistical concept, norm as a social concept, medical norms, norm as a process and norm as utopia.
b. The concept of norm during various life stages: infancy, childhood, adolescence, adulthood and old age.

c. Normality, abnormality and disease. Homosexuality representing the transition between these three concepts. Norm related to adolescence (the concept of “Adolescent turmoil”), implications on possible differential diagnosis (affective disorders, schizophrenia).

d. Characteristics unique to psychopathology associated with special ethnic groups in Israel, and in general context of an immigration society (e.g. Ethiopian population in Israel).

Biological therapies, including: antidepressants, mood stabilizers, electroconvulsive therapy (ECT), transcranial magnetic stimulation (TMS).

a. The major hypotheses with respect to the mechanisms of action of antidepressants. Major classes of antidepressants of the old and new generations.

b. Antidepressants of various classes: What are the considerations guiding the choice of a certain antidepressant? What are the common and dangerous side effects?

c. Clinical indications for treatment with antidepressants. Indicate the contraindications for treatment with antidepressants as well.

d. Medical tests the patient is required to undergo prior to initiating treatment with antidepressants; medical follow up required during this treatment, drug interactions.

e. Principles of management of treatment with antidepressants in the acute state vs. long term/ maintenance treatment.

f. Major agents used as mood stabilizers. What are the major hypotheses regarding their mechanisms of action?

g. What are the considerations guiding the choice of a certain mood stabilizer (lithium, Tegetherol, Valproate)? What are the common and dangerous side effects?

h. Clinical indications for treatment with various mood stabilizers.

i. Medical tests the patient is required to undergo prior to initiating treatment with mood stabilizers; medical follow up required during this treatment, drug interactions.


k. Treatment by electroconvulsive therapy (ECT): procedure, clinical indications, contraindications, side effects, assumed mechanism of action, ethical and legal aspects, required medical tests, treatment management during the acute state and as maintenance therapy.

l. Treatment by transcranial magnetic stimulation (TMS): procedure, clinical indications, contraindications, side effects, assumed mechanism of action, ethical and legal aspects, required medical tests, treatment management during the acute state and as maintenance therapy.
Biological therapies: anti-psychotic drugs; hypnotic and anxiolytic drugs, including: the different groups of medications, mechanisms of action, indications and contraindications, side effects, drug interactions and toxicity.

Anti-psychotic drugs

a. Typical and atypical anti-psychotic drugs. Side effects profile, mechanisms of action and examples of drugs of both groups.

b. The approach to medication therapy in the psychotic patient – indications, maintenance therapy, treatment discontinuation, change of drug.

c. Efficacy of anti-psychotic drugs during the acute stage and as preventive therapy in schizophrenia.

d. Classification of typical anti-psychotic drugs. Differences between high potency and low potency drugs.

e. Major side effects of typical anti-psychotic drugs. Underlying mechanisms of the various side effects.

f. Atypical anti-psychotic drugs – examples, advantages and disadvantages, major side effects.

g. Clozapine – history of use, unique features of its mechanism of action, advantages, major side effects and mode of administration.

h. Movement disorders induced by anti-psychotic drugs. The approach to these disorders – prevention, diagnosis and treatment.

i. Anti-cholinergic treatments - indications, treatment manner (drugs, treatment duration) and side effects.


l. Indications for treatment with additional anti-psychotic drugs in schizophrenia.

m. Approach to medication therapy in the elderly psychotic patient.

n. Long-acting anti-psychotic drugs - examples of such drugs, indications for use, their advantages and disadvantages.


Anxiolytic drugs

a. Major indications for treatment with anxiolytic and hypnotic drugs.

b. Major groups of anxiolytic and hypnotic drugs, and their assumed mechanisms of action.

c. Benzodiazepines: indications for use and manner of use, immediate and delayed risks, contraindications of benzodiazepine administration.
d. Advantages and disadvantages of anxiolytic and hypnotic drugs of benzodiazepine class, as compared to other antidepressant and anxiolytic drugs.

e. Clinical presentation of benzodiazepine overdose. Therapeutic means required in such an emergency situation.

f. Approach to treating an elderly patient with anxiolytic and hypnotic drugs.

g. Treatment with anxiolytic and hypnotic drugs – dosages, treatment duration and discontinuation.

h. Anxiolytic and hypnotic drugs not belonging to the benzodiazepine class of drugs.

**Psychological treatments: psychoanalytic (psychodynamic) psychotherapy, supportive psychotherapy, cognitive and behavioral therapies, crisis intervention.**

a. Basic concepts of the psychoanalytic approach, such as transference, countertransference, resistance, reflection, clarification and interpretation.

b. Supportive psychotherapy – aims and principles of treatment.

c. Principles of behavioral therapy.


**Israeli psychiatric services**

a. The difference between a closed and open ward, and indications for hospitalization in these settings.

b. What are the advantages and disadvantages of treatment in the day care setting?

c. Psychiatric service in the community.

d. Psychiatric ward in a general hospital – its designation, advantages and disadvantages.

**Forensic psychiatry, including: mental health laws, Patient’s Rights Bill, guardianship laws, penal law, informed consent to treatment and participation in research.**

a. Legal procedures associated with psychiatric treatment and hospitalization, including protection of the patient’s rights.

b. Evaluation of the patient’s capacity to sign an informed consent form for treatment and participation in research.

c. Evaluation of criminal liability, capacity to stand trial.

d. Conditions of involuntary treatment and hospitalization in minors and adults.

e. Conditions for signing informed consent to treatment and participation in research by minors and adults.

**Child psychiatry**

a. Normal development through infancy, childhood and adolescence;

b. The psychiatric examination of the child/adolescent and his/her family.
Updated: December 2010

c. Various development axes – biological, psychological, cognitive (including language development) and social; demonstrate various age groups: a. the infant; b. the toddler;
d. Kindergarten period;
e. School period;
f. Adolescence;
g. Various temperament types;
h. Adolescent turmoil – is it normal or pathological? Discuss various options.
i. Guidelines for psychiatric examination of the child/adolescent according to the age spectrum.
j. The role of family evaluation.

Child and adolescent psychopathology: reactive attachment disorder; pervasive developmental disorder; early onset schizophrenia; mood disorder and suicide; adjustment disorder; anxiety disorder; attention deficit disorder; disruptive behavior disorder; eating disorder; tic disorder; obsessive- compulsive disorder; post traumatic stress disorder;

Special issues in child psychiatry: child abuse, adoption, parental divorce.
  a. The parent - baby relationship, temperament disorders and attachment disorders. Failure to thrive and eating disorders in infancy.
  b. Prominent clinical features of pervasive developmental disorders. Differences between autism and Asperger syndrome.
  d. Features unique to childhood schizophrenia (early onset) and adolescent schizophrenia.
  f. Clinical features of separation anxiety along the age spectrum and treatment of these conditions.
  g. Features unique to obsessive- compulsive disorder in children and adolescents and treatment of these conditions.
  h. Features unique to post traumatic stress disorder in children and treatment of this condition

Biological, psychological and social factors involved in the etiology of eating disorders. Types of disorders and various treatment types.
  a. Comorbidities of various eating disorders.
  b. Clinical features of attention and concentration deficit disorder and the variety of treatments commonly used to treat this disorder.
  c. Common behavioral disorders of childhood and adolescence.
  d. Physical, mental and sexual abuse – its impacts on the normal development and psychopathology derived from it.
Mental retardation: etiology, typology, therapeutic approaches.
Special issues in biological therapies of children and adolescents: psychiatric treatment of children and adolescents, including: psychotherapy; cognitive – behavioral therapy; family therapy; parent consultation.

a. Features unique to psychotherapy in children and adolescents.
d. The systemic treatment design for the child and adolescent.
e. Principles of pharmacological therapy in children and adolescents.

Geriatric psychiatry

a. Major syndromes associated with the psychogeriatric field.
b. The similarities and differences between a regular and psychogeriatric psychiatric test.
c. The role of brief cognitive tests (MMSE, clock-drawing test) in evaluation of the elderly patient.
d. Dementia according to DSM-4. Epidemiological aspects of dementia (prevalence, incidence).
e. Major reasons of dementia in the elderly. Differential diagnosis between dementia and usual ageing.
f. Differential diagnosis between dementia and depression (pseudo- dementia).
   Discussion on differential diagnosis between dementia and delirium.
g. Diagnostic evaluation required for determining dementia in the elderly.
h. “Reversible dementia”.
i. Some of the current theories of the development of Alzheimer’s disease.
j. Psychological and behavioral presentation in dementia/ Alzheimer’s disease.
k. Principles guiding the psychopharmacological therapy in the elderly patient.
l. Treatments for cognition improvement (pharmacological and non-pharmacological).
m. Mental frailty and its treatment.