

Internal medicine

1- The patient is a 35-year-old man with a complaint of dyspepsia. About 3 months ago, the patient developed community-acquired pneumonia and was treated with oral azithromycin. In the current tests, *Helicobacter pylori* stool antigen has been reported positive. Which of the following regimens do you recommend as the first line of treatment to eradicate *Helicobacter pylori*?

Clarithromycin, Amoxicillin, Pantoprazole

Clarithromycin, Amoxicillin, Metronidazole, Omeprazole

Bismuth subcitrate, Tetracycline, Metronidazole, Pantoprazole

Rifabutin, Amoxicillin, Omeprazole

2- A 32-year-old woman presented with a complaint of epigastric burning pain with early satiety starting about a month ago. The patient does not mention weight loss, nausea and vomiting, dysphagia, odynophagia, and evidence of gastrointestinal bleeding. There is no anemia in the lab tests, and the serology of *Helicobacter pylori* has also been reported as negative. She does not have a family history of gastrointestinal cancers, but she mentions a history of gastrointestinal bleeding caused by a gastric ulcer due to simultaneous use of high doses of indomethacin with aspirin in her mother. What is the next step?

Upper gastrointestinal endoscopy

Empirical treatment with Famotidine

Empirical treatment for *Helicobacter pylori* eradication

Urease Breath Test (UBT)

3- A 42-year-old woman has presented with a complaint of conjunctival jaundice and feeling weak since two weeks ago. On the abdominal physical examination, there are no abnormal findings. The abdominal ultrasound was reported normal. The results of the patient's initial tests are as follows:

ALT= 567 IU/L (NL<31), AST= 345 IU/L (NL<31), AlkP= 345 IU/L (NL<306)

Total Bilirubin= 8 mg/dl, Direct bilirubin= 4 mg/dl

Anti-HCV Ab= Negative, Anti-HAV IgM= Negative, HBsAg= Negative,

Anti-HBs Ab= Negative, Anti-HBc IgM= Positive, HBeAg= Negative, Anti-HBe Ab= Negative

Which one of the following diagnoses is relevant for the patient?

Acute hepatitis B

Hepatitis B, precore mutant

Hepatitis B carrier

Recovery from hepatitis B

4- A 56-year-old woman has been referred to the emergency room with a complaint of passing a large amount of bright red blood from the anus. The patient has no complaints of hematemesis and melena. The patient's systolic blood pressure is 85 mmHg and her heart rate is 115 beats per minute. Due to dizziness while sitting, it is not possible to check the orthostatic changes. The results of the tests are as follows:

Hb= 10.5 g/dl, PLT=198000, PTT= 32 sec, INR= 1.2, BUN= 72 mg/dl, Cr= 1.4 mg/dl

After stabilizing the patient's hemodynamic, which one of the following diagnostic procedures is the priority?

Upper gastrointestinal endoscopy

Colonoscopy

Rectosigmoidoscopy

CT angiography

5- A 75-year-old man with watery diarrhea since three days ago has been admitted to the emergency room. His blood pressure is 89/60 mmHg, his pulse rate is 95 per minute, and his fever is 37.8 degrees. What is the most suitable action for the patient after the initial fluid therapy?

Stool microbiology

Abdominal sonography

Stool Calprotectin

Colonoscopy and biopsy

6- A 42-year-old man presented with recurrent abdominal pain once a week, increased frequency of defecation, nocturnal diarrhea, and partial improvement of abdominal pain following defecation during the last 6 months. According to the Rome IV diagnostic criteria, the most probable diagnosis is Irritable Bowel Syndrome (IBS). Which of the following symptoms is NOT observed in IBS?

Abdominal pain

Increased frequency of defecation

Nocturnal diarrhea

Partial improvement of abdominal pain following defecation

7- A 38-year-old man presented with complaints of chronic diarrhea, chronic abdominal right upper quadrant (RUQ) pain, and weight loss of about 5 kg over the last 6 months. In the laboratory tests performed, due to the high serum inflammatory markers and high fecal calprotectin, the patient underwent colonoscopy. The only abnormal finding visible in colonoscopy is several aphthous ulcers in the terminal ileum. On the histological examination of the samples taken from the terminal ileum, transmural inflammation with crypt abscess was reported. Which of the following findings is most consistent with this disease according to the most probable diagnosis?

Positive serology of pANCA

Perianal fistula

Endoscopic manifestation as proctitis

Continuous mucosal involvement throughout the colon

8- A 67-year-old male patient presented with jaundice, weakness, and fatigue. The patient reports change of urine color to tea-like. The initial laboratory tests are as follows:

WBC: 5600/ μ l

Hb: 6 g/dl

PLT: 280,000/micL

MCV: 92 fl

Retic: 14%

Bilirubin total: 8 mg/dl

Bilirubin direct: 1 mg/dl

Which one of the following diseases is NOT relevant for the patient?

Autoimmune hemolytic anemia

Hemoglobinopathy

Vitamin B12 deficiency

G6PD deficiency

9- A 45-year-old patient with a long history of smoking presented with a headache. The laboratory tests show WBC: 13800/microL, Hb: 18 gr/dL, MCV: 90 fl, platelet: 560,000/miroL, and decreased erythropoietin (EPO) level. Which one of the following options should be recommended as the best possible next step?

JAK2 mutation

Arterial O2 saturation

Ferritin level

Carboxyhemoglobin level

10- Smoking, alcohol, and hot fluids are risk factors for

Adenocarcinoma of the Lung

Squamous cell carcinoma of the Lung

Adenocarcinoma of the Esophagus

Squamous cell carcinoma of the Esophagus

11- A 64-year-old man has been referred to a clinic for chronic fatigue for about four months. He does not have any other medical history. He has no fever. On examination, the spleen is enlarged and has extended to the umbilicus.

The patient's laboratory tests are as follows:

WBC= 34,000 / μ l

Hb= 13 g/dl

PLT= 450,000 / μ l

Peripheral blood smear shows PMN: 50%, monocyte: 5%, myelocyte: 2%, metamyelocyte: 2%, promyelocyte: 1%, basophil: 4%

Which of the following choices is the most probable diagnosis?

AML (acute myeloblastic leukemia)

CLL (chronic lymphocytic leukemia)

ALL (acute lymphocytic leukemia)

CML (chronic myelocytic leukemia)

12- A 30-year-old asymptomatic woman with a laboratory examination revealing thrombocytopenia was referred to a clinic. The past medical history is unremarkable. She does not use any medication and denies any recent infectious diseases.

The results of lab tests are as follows:

WBC= 8000 / μ l

HB= 14 g/dl

PLT= 60,000 / μ l

PBS has normal findings except for thrombocytopenia.

ANA, HCV Ab, and HIV Ab are negative.

ESR and LDH are normal.

What is the best suggestion for the next step?

Oral prednisolone

Platelet transfusion

IVIg

Following up the patient

13- A 46-year-old lady was referred to the emergency room with severe upper GI bleeding. 2 units of isogroup and cross-matched packed-cell were ordered. The patient complained of generalized pruritic rash and facial edema during receiving the second unit of packed-cell. The vital signs are stable.

Which one of the following treatments can be the best decision?

Continuation of transfusion and antihistamine administration

Temporarily stopping the transfusion followed by administering antihistamine

Temporarily stopping the transfusion followed by administering subcutaneous adrenalin

Continuation of transfusion and subcutaneous adrenalin administration

14- A 60-year-old male patient presented with back pain. The pain is aggravated by walking or standing and is relieved by sitting. The patient can walk much farther when leaning over a shopping cart. Which of the following is the likely diagnosis?

Osteoporosis

Spondylitis

Spinal canal stenosis

Lumbar disk disease

15- Ultrasound is helpful in diagnosing all of the following, EXCEPT

baker cyst

rotator cuff tears

avascular necrosis

bursitis and tendinitis

16- A 55-year-old woman presented with polyarthritis of the metacarpophalngeal and interphalangeal joints 3 and 4 of both hands and swelling of the right knee. The test results show an increased ESR. Which of the following tests is recommended for a definite diagnosis?

Anti CCP Ab

Anti SCL70 Ab

Anti cardiolipin Ab

Anti Ds DNA Ab

17- A 26-year-old man presented with back pain, peripheral joint pain, and morning stiffness lasting for 45 minutes. There are skin lesions on the palms and sole of the foot and the evidence of conjunctivitis and urethritis. What is the diagnosis?

Psoriatic arthritis

Reactive arthritis

Enteropathic arthritis

Ankylosing spondylitis

18- Which one of the following treatments is NOT suggested about adhesive capsulitis?

Naproxen

Local glucocorticoid injection

Physical therapy

Immobility

19- A 60-year-old man presented with arthritis of the right knee joint. Rhomboid crystals were seen in the fluid aspiration. In the X-ray, radiodense deposits in the articular cartilage of the knee were observed. Which of the following is the most likely diagnosis?

Gout

Pseudogout

Calcium apatite deposition disease

Calcium oxalate deposition disease

20- What is the most important cause of mortality in patients with lupus?

Valvular endocarditis

Lupus pneumonia

Restrictive pericarditis

Lupus nephritis

21- A 40-year-old woman presented with weight loss and palpitation. Recently she has had sinusitis; on physical examination, exophthalmia was observed, and she had a painful eye movement. According to the test results, what is the most probable diagnosis?

TSH= 0.01 mU/L (0.5-4.5)

T3= 360 ng/dl (70-180)

T4= 15 µg/dl (5.5-12.5)

ESR= 35 mm/h

thyroglobulin= detectable

Graves disease

Subacute thyroiditis

Acute thyroiditis

Factitious thyrotoxicosis

22- On physical examination of a patient, a 3-cm thyroid nodule was palpated. In laboratory test, TSH is 0.02mIU/L. What is the best next step?

Thyroid scan

Starting methimazole

Starting prednisolone

Thyroid nodule FNA

23- A 24-year-old woman, a known case of hypothyroidism, presented with 10 kg weight loss in 6 months. She has had nausea and vomiting and progressive fatigue. On physical examination, hyper pigmentation was observed in oral mucosa. What is the best next step?

- Starting an anti-acid drug
- Up-titration of levothyroxine dose
- Checking 8 AM serum cortisol
- Overnight dexamethasone suppression test

24- Which laboratory change is expected in a woman in her 10th week of pregnancy?

- A decrease in thyroid binding globulin
- An increase in TSH
- A decrease in urinary iodine excretion
- An increase in total T4

25- Which of the following is true in monitoring a diabetic patient?

- In patients with good control of blood glucose, checking Hba1c is recommended 4 times a year.
- In an elderly patient with micro and macro vascular complications, optimal daily glucose control is expected with the goal of time-in-range >70%.
- Evaluation of serum lipids 1-2 times a year is recommended.
- Treatment with antiplatelet drugs is recommended for all diabetic patients.

26- A 52-year-old diabetic man has presented with a history of cardiovascular disease and a BMI: 32, taking gliclazide 80 mg twice a day and metformin 1000 mg twice a day. He complains of gastrointestinal symptoms, such as bloating, abdominal distension, and intermittent diarrhea. The test results are:

FBS: 142 mg/dl, HbA1c: 8%, BUN: 14 mg/dl, Cr: 0.9 mg/dl

Which of the following drugs is recommended as the next line of treatment?

Liraglutide

Empagliflozin

Pioglitazone

Linagliptin

27- All of the following options are effective in the prevention of osteoporosis, EXCEPT

Consumption of vitamin A

Weight bearing exercise

Consumption of vitamin D

Cessation of smoking

28- A 35-year-old woman with a recent delivery was referred to hospital with a lethargic condition. In the evaluation:

BP: 150/90 mmHg

U/A: urine RBC: 30-35, WBC: 2-3

PBS: fragmented RBC,

Hb: 10 g/dl, MCV: 101, PLT: 25000

Cr: 2.1 mg/dl

Which of the following is the best management for this patient?

Antibiotic therapy

Antihypertensive therapy

Platelet infusion

Plasmapheresis

29- All of the following crystals are affected by urine PH, EXCEPT

Uric acid

Calcium oxalate

Cystin

Calcium phosphate

30- A 30-year-old-man with no past medical history was referred to the clinic with the following laboratory tests:

Cr: 1 mg/dl

U/A: RBC: 30-35, WBC: 1-2, Blood +3, Protein +1

All of the following are suggested for this patient, EXCEPT

IgA Nephropathy

Minimal Change disease

Alport disease

Thin basement membrane disease

31- In which of the following drugs, hyperkalemia is associated with low renin and low aldosterone?

Ketoconazole

Heparin

Lisinopril

Indomethacin

32- Eosinophils were seen in the urine test of a patient. All of the following diagnoses can be suggested for this patient, EXCEPT

small vessel vasculitis

urinary tract infection

allergic interstitial nephritis

cholesterol emboli

33- A 65-year-old man with a history of diabetes mellitus and hypertension since 5 years ago was admitted to the hospital with bilateral lower limbs edema and generalized bone pain. On retinal examination, there is no evidence of retinopathy. In sonography, both kidneys have normal size. In the laboratory tests:

U/A: protein: negative, WBC: 0-2, RBC: 1-2, Keton: negative

24h urine protein: 4.5 g

Hb: 10.8 g/l, Plt: 150,000 , WBC: 4000

Bun: 50 mg/dl, Cr: 2.6 mg/dl

Ca: 13 mg/dl

Which of the following is the best next step for this patient?

Renal vessel Doppler sonography

Kidney biopsy

Serum and urine protein electrophoresis

Serologic tests for ANCA

34- A 45-year-old woman presents to the emergency room with dyspnea and palpitation. She has no remarkable medical history. On physical examination, heart sound is irregular with III/VI diastolic soufflé in the apex. Which of the following is the most probable diagnosis?

Rheumatismal mitral valve stenosis

Congenital Aortic valve stenosis

PDA (patent ductus artresiosus) without pulmonary hypertension

Tricuspid valve regurgitation

35- A 60-year-old smoker man presents with palpitation. On physical examination, the heart rate is irregularly irregular with 140 beat per minute. The blood pressure is 170/90 mmHg, and echocardiography is normal. Which one of the following is the best treatment?

- Diltiazem
- Electrical cardiovergen
- Beta-blocker + aspirin
- Verapamil + warfarin

36- A 55-year-old woman with the history of angioplasty 5 years ago and ejection fraction of 35% in echocardiography presents to clinic for follow up. Which one of the following is the best treatment option for the inhibition of heart failure progression?

- Rennin Angiotensin inhibitors with Beta-blockers
- Rennin Angiotensin inhibitors with loop diuretics
- Beta-blockers with Thiazid diuretics
- Aldostrone antagonists with loop diuretics

37- A 65-year-old hypertensive man presents for follow up visit. His hypertension has started since 3 years ago and now he is under treatment with Losartan, Amlodipine, Hydrochlorothiazide, and Bisoprolol. On physical examination, his systolic blood pressure is 125 mmHg and his diastolic blood pressure is 80 mmHg. The patient recently has experienced 2 episodes of gout arthritis, and his uric acid was 10 mg/dl in laboratory tests.

Which of the following drugs should be discontinued?

- Losartan
- Amlodipine
- Hydrochlorothiazide
- Bisoprolol

38- A 50-year-old woman with the history of breast cancer and radical mastectomy presents with dyspnea. On physical examination, jugular veins are bulged and heart sounds are muffled. In electrocardiogram, electrical alternance is observed. Which of the following is the most useful for diagnosis?

Echocardiography

Coronary angiography

Chest x ray

Lung perfusion scan

39- A 43-year-old man, experiences severe chest pain after intensive physical activity. In spite of resting, pain is not relieved. The patient was referred to the hospital, EKG in the admission reveals 5 mm ST elevation in inferior leads. Streptokinase was administered for the patient. After 90 minutes, and next to the streptokinase administration, the patient still experiences severe chest pain and ST elevation persists. Which one of the following approaches is the best next step?

Transfer of the patient to a more sophisticated hospital for emergency angiography and rescue PCI

Administration of half dose of Streptokinase

Administration of full dose of Tenekteplase

No further intervention is required

40- Which one of the following can increase the oxygen affinity of hemoglobin?

Acidosis

Fever

Increased paco₂

Decreased 2,3 DPG

41- A 35- year- old woman was referred to the emergency department with dyspnea. Right sided pleural effusion was seen in her chest x-ray. The glucose level in pleural fluid was 50mg/dl. Which one of the following diagnoses is less probable?

Pleural empyema

Pulmonary thromboembolism

Tuberculosis pleurisy

Lupus pleuritis

42- Which of the following is the absolute contraindication for NIV (Noninvasive Ventilation)?

Excessive secretions

Encephalopathy

Vomiting

Agitation

43- A 35-year-old man presented with small volume hemoptysis for the first time. He and his family had no abnormal medical history. Which paraclinical test is NOT necessary for the first step?

Arterial Blood Gas

Chest x-ray

Serum creatinin level

Urine analysis

44- A 75-year-old male patient with a known COPD case is referred to the respiratory clinic for the follow-up treatment. He mentions that he suffers from shortness of breath during excessive activities (walking uphill and on steep surfaces). In the last 1 year, he has been hospitalized once due to COPD exacerbation.

Based on GOLD staging, the patient is placed in group.

- A (low symptom, low risk)
- B (high symptom, low risk)
- C (low symptom, high risk)
- D (high symptom, high risk)

45- Which of the following is contraindicated in pregnant asthma patients?

- Budesonide (Inhaled Corticosteroid)
- Omalizumab (Anti IgE)
- Albuterol (B2-Agonist)
- Montelukast (Anti Leukotriene)

46- A 77-year-old woman with lung cancer is undergoing chemotherapy. She is bedridden because of Alzheimer's. Which one of the following drugs can be prescribed for thromboembolism prophylaxis?

- Aspirin
- Heparin
- Enoxaparin
- Warfarin

Surgery

47- A diabetic patient who is taking a long-acting oral medication for blood sugar control is a candidate for inguinal hernia surgery. He asks you when to stop the medication before the operation. What is your response?

- It can be used until the night before the operation.
- It should be stopped 48 hours before the operation.
- It should be stopped one week before the operation.
- It can be used until the morning of the operation day.

48- Which one of the following markers is used to check the long-term nutritional status?

- Albumin
- Prealbumin
- CRP
- Transferrin

49- Systemic vascular resistance decreases in

- hypovolemic shock
- cardiogenic shock
- septic shock
- cardiac tamponade

50- A 68-year-old diabetic man presented with swelling and severe pain in the right groin. On examination, extensive edema is seen more than the area of erythema. The skin of the area is numb and some blisters are visible. The lesion has an unpleasant smell. What is the most appropriate treatment?

Blood sugar control and cold compress

Antibiotic with gram positive coverage and drainage under ultrasound guidance

Antibiotics with gram-positive and anaerobic coverage

Broad spectrum antibiotic and extensive debridement

51- A 35-year-old motorcyclist hit an obstacle at a high speed and was brought to the emergency department. He is alert and awake, and he complains of severe back pain. The patient's vital signs are stable. On examination, there is a bruise on the left side of the chest and severe tenderness on the 2nd and 3rd ribs. In the CXR, fracture of the 2nd and 3rd ribs is seen, and the width of the mediastinum is about 10 cm.

What is the most appropriate next step in the management of this patient?

Chest CT scan with contrast

Diagnostic laparoscopy

Diagnostic thoracoscopy

Transferring the patient to the ward and monitoring him

52- A 35-year-old man has been referred to the emergency room with a penetrating trauma caused by a firearm bullet. The point of entry is one centimeter below the edge of the rib behind the right hemithorax. The exit point is one centimeter above the umbilicus.

Blood pressure: 90/70 mmHg and pulse rate: 110 per minute.

Which of the following is necessary for this patient?

Resuscitation and transferring to the operating room

Diagnostic peritoneal lavage

Abdominal and pelvic ultrasound

Abdominal and pelvic CT scan

53- A 38-year-old man has presented with groin pain and swelling since yesterday. Swelling does not disappear while lying down. The patient had a history of similar swelling, which was resolved by lying down and resting. On examination, vital signs and body temperature are normal, and a painful protrusion is seen in the groin without signs of local inflammation. Lab tests are normal. What is the appropriate course of action for this patient?

Attempting to reduce, and if successful, discharging from the emergency department

Attempting to reduce, and if successful, hospitalization and early surgery

Emergency surgery without attempting to reduce

Abdominal and pelvic CT to check the site of swelling

54- A 30-year-old woman is brought to the emergency room 5 hours after swallowing a glass of liquid plumr with an attempt to commit suicide. Vital signs are stable. The patient complains of the burning of the mouth and throat.

What is the most appropriate approach?

NG-Tube placement

Laparotomy

Giving milk or egg white

Endoscopy

55- A 60-year-old man with a known history of duodenal ulcer presented with symptoms of gastric outlet obstruction, including nausea and vomiting, within the past 10 days. The patient discontinued Pantoprazol without his physician's permission a month ago.

What is the first appropriate action?

- Enterectomy surgery to remove obstruction
- NG tube placement and administration of normal saline
- Endoscopic dilatation of obstruction with a balloon
- Acid reducing surgery to heal the wound

56- A patient with a history of laparotomy is now admitted with a diagnosis of intestinal obstruction. Which one of the following conditions makes you worried more about the occurrence of "intestinal ischemia"?

- Abdominal colic pain
- Dull pain around the umbilicus
- Localized tenderness in the abdomen
- Bilious vomiting

57- A 47-year-old man with an abscess caused by appendicitis underwent drainage and antibiotic treatment, and he was discharged from the hospital with a good general condition. The patient asks for your advice regarding the continuation of the treatment. Which one of the following could be the best suggestion for him?

- Appendectomy surgery as soon as possible
- Continuation of oral antibiotics for three weeks
- Appendectomy surgery after three weeks
- Performing colonoscopy and making decisions based on it

58- A 67-year-old man presented with severe abdominal pain in the LLQ (Left Lower Quadrant). On examination, he has severe pain and tenderness in the LLQ region. The rest of the abdomen is soft and non-tender. The CT scan showed acute sigmoid diverticulitis. Which one of the following is the best action at this point?

Starting a high-fiber diet

Hospitalization and administration of intravenous antibiotics

Emergency colonoscopy

Emergency laparotomy

59- Which one of the following large intestine tumors can remain asymptomatic until the advanced stages?

Right colon tumor

Descending colon tumor

Sigmoid tumor

Rectum tumor

60- A 37-year-old woman has presented with right upper quadrant pain, nausea, and vomiting since 12 hours ago. On examination, she has mild fever and tenderness in the right upper quadrant region. she does not have jaundice. Sludge, gallstones, and thickening of the gallbladder wall are evident in the ultrasound. Which one of the following could be the most appropriate action?

Laparoscopic cholecystectomy in the first few days

Emergency cholecystostomy

Diagnostic and therapeutic ERCP

IV fluid and pain killer until disappearance of the symptoms, and then cholecystectomy after 2 weeks.

61- A 57-year-old man was admitted with epigastric pain and diagnosed with pancreatitis. Which of the following options is correct in the management of this patient?

In case of oral intolerance, feeding with a nasojejun tube is possible.

Somatostatin analog reduces pancreatic secretion and improves the disease.

Empiric antibiotics are started as soon as the diagnosis is made.

Surgical debridement of necrotic tissue is often necessary.

62- A 40-year-old woman has presented with a complaint of the left breast lesion since 3 months ago, which was reported to be BIRADS 4a in the ultrasound. In the axilla region, there was no evidence in favor of lymph node involvement. The size of the lesion was 2 cm and it was firm on examination.

Which of the following would you recommend as the next step in managing this lesion?

Referring to a surgeon to remove the lesion with margin

Following up with the ultrasound 6 months later

Referring for core needle biopsy

Referring to the oncology clinic to start chemotherapy

63- A 26-year-old woman with a 2 cm thyroid nodule undergoes FNA whose result is reported as AUS (atypical cells of undetermined significance). After 2 months, FNA was repeated, and in pathology, the adenomatoid nodule is reported. The patient has no symptoms and the size of the nodule has not changed.

Which one of the following do you recommend to the patient?

No other action is required

Repeating the ultrasound 12 months later

Lobectomy and frozen section

Total thyroidectomy

64- A 36-year-old man with vague abdominal pain underwent an ultrasound, and an 8-cm cyst containing several other small cysts was seen in the right lobe of the liver.

What is the next appropriate action?

Repeating the ultrasound 3 months later

Performing a serologic test

Cyst aspiration with a needle

Performing a needle biopsy

65- A 55-year-old man underwent splenectomy two weeks ago due to abdominal trauma and was discharged in good general condition. Now the CBC test has been done and the platelet count is 900,000 per mm³.

Which of the following is the most appropriate action?

Test repetition after three months

Examination for the presence of the accessory spleen

Warfarin prescription

Aspirin prescription

66- A 38-year-old woman presented with a skin lesion on her thigh. The patient's lesion was found in the last 3 months. On examination, one centimeter round nodule with telangiectasia is evident. Which one of the following is the most appropriate action?

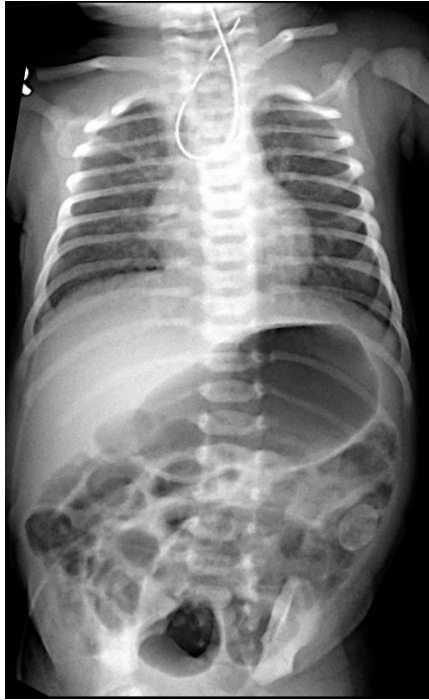
Incisional sampling and decision making based on it

Moh's microsurgery

Excision with a margin of 4 mm

Excision with a margin of 1 cm and sentinel lymph node biopsy

67- A one-day-old neonate experiences choking and regurgitation as soon as he starts feeding with breast milk. According to the mother, she had polyhydramnios during pregnancy. You can see the CXR after resuscitation, NG, and Foley placement. Which one of the following diagnoses is suitable for him?



Duodenal atresia

Esophageal atresia

Pyloric hypertrophic stenosis

Bilateral choanal atresia

68- A 45-day-old male infant was referred to the emergency room by his parents due to repeated vomiting from two days ago. The child is lethargic and eagerly tries to eat breast milk. But then every time he feeds on milk, he has projectile vomiting containing milk. The Abdomen is soft. In the epigastric region, a round and mobile mass is found on palpation. Which one of the following options could be correct about this infant?

He should be immediately referred to the operating room to perform the laparotomy.

Due to hypochloremic metabolic alkalosis, normal saline must be administrated.

Before surgery, a definitive diagnosis must be made with the CT or ultrasound.

Antibiotics and supportive treatment are sufficient for the child's recovery.

69- A 65-year-old smoker complains of lower limb pain while walking. In the history and on examination, the hair of both lower legs and the muscle volume have decreased. All of the following options are correct in the management of this patient EXCEPT for:

Starting of antiplatelet therapy

Giving advice to quit smoking and starting proper physical activities

Checking for dyslipidemia and diabetes and, if needed, appropriate treatment

Performing femoral vessels revascularization with the endovascular technique

70- A 50-year-old man with pulmonary problems was hospitalized and treated with IV antibiotics. A week after being discharged, he comes to you with a complaint of swelling and redness at the site of the venous catheter on the right forearm. Swelling and redness are completely limited to the catheter site and are tender during examination.

Which of the following would you recommend for this patient?

Prescribing NSAIDs and warm compress and outpatient follow-up

Immediate hospitalization and initiation of therapeutic anticoagulant

Referring to a surgeon for doing surgery

Performing upper limb CT angiography

Pediatrics

71- A 6-year-old female presented with fever and fine diffuse erythematous macular-popular rash. Swollen erythematous tonsils, prominent tongue papilla, and petechiae on soft palate are detected on physical examination. Which one of the following treatments is recommended?

Co-trimoxazole

Cefixim

Amoxicillin

Ciprofloxacin

72- A 12-month-old infant is referred to the clinic with pruritic rashes with a prodroma of fever and anorexia from the previous day. Red papules, teardrop vesicles, and ulcerated crust are seen on physical examination. The accumulation of rashes is more prominent on trunk and face. Which of the following is the most probable diagnosis?

Varicella Zoster

Herpes Simplex

Coxsackie A

Roseola Infantum

73- A 5-day-old term male newborn is referred to the clinic with periumbilical erythema without any distribution. He is afebrile, and neonatal reflexes are normal. Which one of the following actions should be made based on the MANA protocol?

Emergent referring to the nearest regional hospital

Intramuscular injection of ceftriaxone and discharging with warning signs

Using local mupirocin twice a day for 7 days

Cleaning of the umbilicus with water while changing diaper

74- A 5-year-old male is referred to the clinic with prolonged fever, weight loss, and drenching night sweat from a month ago. Physical examination reveals bilateral non-tender submandibular lymphadenopathy with a size of 20×20 mm. CBC is available below:

WBC= $5000/\text{mm}^3$ (Neutrophil= 60%, Lymph= 40%)

RBC= $3.9 \times 10^6/\text{mm}^3$

Hb= 11.8 g/dl

Hct= 36%

MCV= 76 fl

MCH= 28 pg

Plt= $225000/\text{mm}^3$

What is the best next assessment for this patient?

Bone marrow aspiration

Chest X ray

Cervical sonography

Cervical mass biopsy

75- A one-year-old female is referred to the clinic due to pallor. There is a history of inadequate utilization of supplements. Vital signs are stable and there is no hepatosplenomegaly on physical examination. Here is her CBC result:

WBC= 8000/mm³

PMN= 40%

Lymph= 60%

RBC= 2.0×10⁶/mm³

Hb= 6 g/dl

Hct= 16%

MCV= 70 fl

Plt= 520,000/mm³

RDW= 16

Which one of the following prescriptions is the best treatment plan?

Packed cell with a dose of 5 cc/kg

Recombinant Erythropoietin

Oral Iron with a therapeutic dose

Therapeutic dose of oral Folic Acid

76- The dipstick test which was done for a 16-year-old, tall and thin, healthy male who was referred to the clinic at 5 pm showed 2+ proteinuria. His early morning recombinant urine sample was tested for proteinuria, which was negative, but 600 mg protein in 24 hours urine collection was detected. What is the most likely diagnosis?

Nephrotic syndrome

Nephritic syndrome

Transient proteinuria

Orthostatic proteinuria

77- Which one of the following findings favors transient synovitis in differentiation between bacterial infection and transient synovitis of the hip joint?

Severe pain and tenderness of the joint

Leukocytosis in lab data

Elevated joint fluid WBC count

Afebrile on physical examination

78- An 8-year-old male is referred to the emergency department with loss of consciousness. About 30 minutes ago, after having food at the restaurant, he developed skin pain, pruritus and redness in addition to repetitive vomiting, and then he became unconscious. Physical examination reveals obvious flushing. The pulse rate is 160/min; the respiratory rate is 41/min, and the systolic blood pressure is 80 mmHg. What is the most probable diagnosis?

Anaphylaxis

Status epilepticus

Food poisoning

Syncope

79- A 5-month-old female is referred to the clinic with eczematous diaper eruption composed of ill-defined, scaly, red patches and plaques from 3 weeks ago. Which of the following is the least preferred measure in this patient?

Diary product avoidance by her mother

Applying an antifungal ointment

Applying a steroid ointment

Prescribing oral antihistamine

80- A 5-year-old child with persistent seizures starting from 15 minutes ago was admitted to the emergency room. After the respiratory assessment, airway establishment, cardiac monitoring, and oxygen implantation, venous access was not possible. Which of the following options is not recommended at the next step of treatment?

Rectal diazepam

Intranasal Lorazepam

Buccal Midazolam

Intramuscular Phenobarbital

81- A 6-year-old female presented with fever and arthralgia from 3 days ago, which started from left knee, and on the next day after relieving the knee symptom, she developed right ankle pain and swelling. Physical examination revealed a body temperature of 39.5°C and obvious arthritis in her right ankle. Increased ESR and CRP were detected. Which of the following is the correct diagnosis?

Juvenile Idiopathic Arthritis

Systemic Lupus Erythematosus

Kawasaki disease

Rheumatic fever

82- A 7-year-old male was admitted to the emergency room due to polyuria, polydypsia and weight loss starting from a week ago. Lab data are as fallows:

PH= 7.15

HCO₃= 7 mEq/l

PCO₂ = 17 mmHg

BS= 450 mg/dl

K= 4.2 mEq/l

Ca= 8.9 mg/dl

He was visited by the emergency room physician and was administered Bicarbonate. Which of the following is the most probable complication?

Pulmonary edema

Cerebral edema

Hypercalcemia

Hyperkalemia

83- A healthy three-year-old child presented with fever, tachycardia, tachypnea, and cyanosis from about 4 days ago. Normal heart size and bilateral pulmonary infiltration are seen in the chest X-ray. ECG is normal. Which of the following is the most likely diagnosis based on the following tests?

PH= 7.14

PCO₂= 55 mmHg

PaO₂= 40 mmHg

HCO₃= 23 mEq/l

Troponin= normal

WBC= 16200/mm³ (Neut= 68%, Lymph= 28%)

Hb= 12.5 g/dl

Bronchiolitis

Pertussis

Acute Respiratory Distress Syndrome

Acute myocarditis

84- A female term newborn received OPV vaccine before discharge from the hospital. After 20 minutes, she was referred to the nursery because of vomiting. What should be done for poliovirus vaccination?

Repeating OPV is not necessary.

She should receive another dose of OPV.

IPV should be inoculated instead of OPV.

IPV should be inoculated in addition to OPV.

85- A 2-day-old neonate is referred to the emergency room with recurrent bilious vomiting without meconium defecation. Multiple highly dilated intestinal loops are visible in the plain abdominal X-ray. All of the following measures should be considered in differential diagnosis EXCEPT for

Meconium Ileus

Malrotation

Jejunal Atresia

Duodenal Atresia

86- A 2-year-old male is admitted to the ICU with the diagnosis of pneumonia and chronic diarrhea. He is the first child of non-consanguineous parents and there is a history of hospital admission with purulent otorrhea and pneumonia when he was 2 months old and with meningitis when he was 6 months of age. His weight is 7 kilograms. There is thrush in his mouth and the tonsils are not visible. Which one of the following diagnoses is more compatible with his history?

Severe Combined Immunodeficiency (SCID)

X-linked Agammaglobulinemia (XLA)

Chronic Granulomatous Disease (CGD)

Cystic fibrosis (CF)

87- A 4-year-old child presented with fever from a week ago. On physical examination, bilateral non-suppurative conjunctivitis, strawberry tongue, posterior cervical lymphadenopathy, polymorphous rash and periungual desquamation are found. Which of the following is the therapeutic choice based on the most probable diagnosis?

Non-Steroidal Anti-Inflammatory Drugs (NSAIDs)

Systemic corticosteroid

Intravenous Immunoglobulin (IVIG)

Conservative treatment

88- An 11-month-old infant with a history of diarrhea and oliguria from 2 days ago is admitted to the emergency room. Restlessness and irritability are found on physical examination. He looks thirsty and oral mucous membrane is dry. He has tachycardia with palpable peripheral pulses. Skin turgor slightly decreased and anterior fontanelle is relatively depressed. What is the degree of dehydration in percent?

5

6

10

15

89- A 15-month-old female is referred to the clinic due to inadequate weight gain. She is still unable to walk independently. Enlarged anterior fontanel and thickening of the wrists are found on physical examination. What is the most probable diagnosis according to the following Lab data?

Calcium: Normal

Phosphate: ↓

Phosphatase Alkaline: ↑↑

25(OH) D: ↓

Hyperparathyroidism

Hypophosphatemic rickets

Nutritional rickets

Pseudohypoparathyroidism

90- A 25-day-old newborn baby is referred to the clinic due to prolonged jaundice. Cataracts and hepatosplenomegaly are seen on physical examination. Increased liver transaminases and hypoglycemia are reported. Which one of the following metabolic paths is affected due to the patient's enzyme defect?

Carbohydrates

Aminoacids

Fatty acids

Vitamins

91- An infant is referred to the neurology clinic for a routine examination. On examination, Moro, Grasp, and Asymmetric Tonic Neck Reflexes are lost, but the Parachute Reflex is present. What is the "minimum" age of this infant?

4 months

6 months

8 months

12 months

92- A newborn male is visited 23 hours after birth. His sclera and face are icteric. Total bilirubin is 9 mg/dl, and direct bilirubin is 0.7 mg/dl. His mother's blood group is A⁺ and the neonate's blood group is O⁻. What is the correct approach?

Discharge without any follow-up

Urgent blood exchange

Immediate phototherapy

Checking the bilirubin 6 hours later

93- A 5-year-old male with a body weight of 20-kg is admitted to the hospital for tonsillectomy and became NPO (nothing per oral). How much is his maintenance fluid volume for 12 hours?

1500 cc

1250 cc

1000 cc

750 cc

94- Which one of the following medicines is the best prescription for a 3-year-old child who was brought to the emergency room with a reduced level of consciousness and mitotic pupils?

Bicarbonate

Naloxone

Acetylcysteine

Pralidoxime

Obstetrics and gynecology

95- Which one of the ovulation confirmation methods can prospectively predict the occurrence of ovulation?

Measurement of basal body temperature (BBT)

Use of urine LH kit

Serum progesterone level in mid-luteal phase

Luteal phase endometrial biopsy

96- A 45-year-old woman complaining of irregular uterine bleeding underwent endometrial biopsy, resulting in proliferative endometrium. If no structural disorder is observed in the ultrasound of the uterus, all of the following options are suitable for her long-term treatment EXCEPT for:

Tranexamic acid

Nonsteroidal anti-inflammatory drugs (NSAIDs)

Oral progestin

Oral estrogen only

97- A 60-year-old menopausal woman was referred to you for a general health check-up. She is a smoker and has been menopausal for about ten years. She does not complain of hot flash. She has no history of any particular disease. Which intervention do you suggest for her?

Hormone therapy with the primary goal of preventing heart diseases

Hormone therapy with the primary goal of preventing osteoporosis

Screening for bone density

Initiation of phytoestrogenic compounds

98- All of the following options are correct about episiotomy EXCEPT for

It is done routinely in the first delivery

It increases the risk of the 3rd and 4th degree tears of the perineum

It is indicated in instrumental delivery and prolonged descent

It is done after the complete descent of the fetus

99- A 22-year-old woman presented with fever, chills, lethargy, vesicular genital lesions and painful inguinal lymphadenopathy. What is the most probable diagnosis?

Chancroid

Lymphogranuloma Venereum

Syphilis

Herpes simplex

100- A 65-year-old female patient was referred to a clinic with a complaint of burning, itching, and dryness of the vulvovaginal area. On the examination, the loss of the vaginal rugae, the shiny perineum, and no abnormal secretions or other lesions were seen. Which one is the right treatment?

Topical betamethasone

Metronidazole vaginal gel

Topical estrogen

Oral estrogen

101- Which of the following is correct about the HPV vaccine?

There is no need for cervical cancer screening after vaccination.

Previous exposure to HPV is a contraindication of vaccination.

Vaccination is safe in breastfeeding.

Routine vaccination is recommended from the age of 7 years.

102- A 32-year-old woman with a history of 3-month retard in menstruation and spotting from the previous week, and severe nausea and vomiting has been referred to an emergency ward. In evaluation, β hCG: 100,000 mIU/mL was detected, and Snow Storm is observed in the ultrasound. Which one of the following treatments is suitable?

Hysterotomy

Hysterectomy

Suction-curettage

Chemotherapy

103- A pregnant woman whose gestational age is 36 weeks has been referred to the emergency ward with rupture of membrane from one week ago, a fever of 39°C , tachycardia, and leukocytosis. She does not have any purulent discharge on the vaginal examination. Which of the following is correct about patient's management?

Starting intravenous antibiotics and induction of labor

Starting intravenous antibiotics and emergent cesarean delivery

Emergent cesarean delivery and starting intravenous antibiotics immediately after delivery

Starting intravenous antibiotics for 48 hours, then induction of labor

104- An 18-week pregnant woman has been referred to a clinic with a report of estimated fetal weight less than 3% for a given gestational age in sonography. All of the following options are correct in the patient's management EXCEPT for

amniocentesis and karyotype

anomaly scan sonography

amniocentesis and examination for infection

recommendation to increase mother's calory intake

105- A 30 year old gravid 2 para 1 pregnant woman with a previous normal vaginal delivery was referred to an emergency triage, with a gestational age of 37w+1d. In the ultrasound, placenta previa was reported. What is the next course of action for her?

- Termination of pregnancy by cesarean section
- Betamethasone prescription then cesarean section
- Termination of pregnancy by vaginal delivery
- Continuation of routine prenatal care up to 39 weeks

106- A primary gravid pregnant woman, with a gestational age of 40 weeks, has been referred to a clinic for routine prenatal care. The amount of amniotic fluid observed in the ultrasound was 4 cm. Which action is suitable for her?

- Termination of pregnancy
- Weekly measurement of amniotic fluid up to 42 weeks
- Daily NST (non stress test)
- Counting fetal movements daily up to 42 weeks

107- The vaginal artery originates from artery.

- hypogastric
- aorta
- ovarian
- external iliac

108- Which of the following is an absolute contraindication of using Methotrexate in the treatment of ectopic pregnancy?

- Gestational sac larger than 3.5 cm
- Presence of fetal heartbeat in ultrasound
- Breastfeeding
- Presence of fluid in the peritoneum

109- In a woman with vaginal delivery of a macrosomic neonate, uterine inversion occurs after pulling the umbilical cord. Which one is suitable for the first treatment?

- Manual replacement of the uterus
- Transfer to the operating room for surgery
- Injections of oxytocin
- Action to separate the placenta

110- In which of the following conditions the mother is allowed to breastfeed?

- HIV infection
- Neonatal galactosemia
- Cured tuberculosis
- Use of amphetamine

111- Which of the following is contraindicated in the treatment of genital wart during pregnancy?

Trichloroacetic acid

Cryotherapy

Podophyllin

Laser ablation

112- After vaginal delivery by forceps, a 25-year-old woman has heavy and fresh bleeding. On examination, the uterus is contracted. What is the most probable cause of bleeding?

Uterine atony

Coagulative disorders

Laceration of the birth canal

Retained placenta

113- Which change of the thyroid function test is normal in a pregnant woman?

Decreasing total T3

Increasing TSH

Decreasing Thyroxine-binding globulin

Increasing total T4

Neurology

114- Which of the following headache disorders is more prevalent among males compared to females?

Cluster

Migraine

Idiopathic intracranial hypertension

Tension

115- Hyperthermia is seen in which of the following causes of coma?

Opium toxicity

Overdose with anticholinergic drugs

Alcohol toxicity

Overdose with Barbiturates

116- A 75-years-old male presented to the emergency ward with right side hemiparalysis since one hour ago. Which symptom is more probable in intracranial hemorrhage in comparison to ischemic stroke?

Loss of consciousness

Headache and vomiting

Aphasia

Seizure

117- A 65-years-old lady presenteed with complains of progressive paresthesia in distal lower limbs, reaching below the knees since last year. She has been diagnosed with hypertension and diabetes since 8 years ago. Neurologic examination shows intact cranial nerve and motor forces. Deep tendon reflexes are decreased in both upper limb and absent in lower limbs. With regard to the most possible diagnosis, which statement is TRUE?

Autonomic involvement is not seen.

Abnormal position sense and sensory ataxia is one of the disease symptoms.

Muscle atrophy in examination is against the diagnosis.

Babinski sign is frequently detected.

118- Which of the following statements is TRUE about absence seizure?

Consciousness is maintained during seizure.

Loss of limb control occurs during seizure.

Long postictal phase is a feature of this seizure.

Frequent blinking, automatism, and fine limb movements can be observed during the seizure.

119- A 25-years-old young lady presented with complains of unilateral blurred vision since last week. She has experienced shock-like sensation in limbs with neck flexion. Regarding the most possible diagnosis, which of the following tests is helpful to confirm the diagnosis?

Electrodiagnostic study (EMG-NCS)

Electroencephalography (EEG)

Cerebrospinal fluid (CSF) examination

Brain CT-scan

120- Which sign in the neurologic examination is in favor of sensory ataxia compared with cerebellar ataxia?

Nystagmus

Deviation to one side while standing

Falling down with open eyes

Steppage gait

121- A 70-years-old male patient presented with right side resting tremor, bradykinesia, and limb rigidity since last year. With respect to the most possible diagnosis, which treatment is preferred?

Amantadine

Levodopa-carbidopa

Pramipexole (dopamine agonist)

Trihexiphenydil

Infectious

122- Which of the following is correct about the clinical manifestations of leptospirosis?

Almost all patients are symptomatic.

Muscle pain is usually of low intensity.

The common site of headache is in the temporal region.

Muscle pain is usually severe in calves.

123- A 35-year-old male patient has referred to a clinic with productive cough and dyspnea along with fever and chill. On examination, T=40°C, BP=110/70mmHg, and RR=40/min are noted, and consolidation in the right lower lobe has been seen in the spiral chest CT. Which of the following is the best treatment for this patient?

- Outpatient therapy with azitromycine
- Inpatient therapy in the ward with cefttriaxon and azithromycine
- Inpatient therapy in the ICU with cefttriaxon and azithromycine
- Inpatient therapy in the ward with levofloxacin and cefttriaxon

124- A 35-year-old male patient with a history of hives and mobile itchy lesions on the leg, who has developed a cough a few days after skin symptoms, has referred to the clinic. In the tests performed, eosinophilia has fluctuated. Which of the following is the best way of diagnosis based on the history?

- Bone marrow aspiration
- Stool Culture
- Skin biopsy
- Stool smear

125- Which complication of shigella is more seen in malnourished and HIV patients?

- Toxic megacolon
- Bacteremia
- Intestinal perforation
- Metabolic abnormalities such as hypoglycemia

126- A 75-year-old patient has been hospitalized with a recent stroke followed by a high fever, cough, malodorous sputum, and abscess in the chest CT. Ampicillin has been prescribed for the patient, and given a partial improvement in his clinical symptoms, coamoxiclav was administered after two weeks. Which of the following is the best decision about the duration of treatment with coamoxiclav?

- Up to 4 weeks
- Until the cure of radiologic findings
- Until the normalization of ESR and CRP
- Until the cure of clinical symptoms

127- A 34-year-old man has presented with fever, night sweats, weakness and lethargy, and weight loss since about 2 months ago, and cough and abdominal pain since 2 weeks ago. On examination, he has hepatosplenomegaly and lymphadenopathy, and in the laboratory test, he has lymphopenia and an increase in liver enzymes. Also, in the CXR, he has interstitial infiltration. Which one of the following investigations is helpful on the basis of the most probable diagnosis?

- Bone marrow biopsy
- PPD
- Sputum smear
- Sputum culture

128- Which one of the following options suggest the possibility of concurrent encephalitis in a patient with acute viral meningitis?

- Photophobia
- Painful eye movement
- Seizure
- Neck stiffness

129- Which one of the bite cases should be followed by antibiotic prophylaxis in all cases even if the wound is not infected?

Dog

Human

Cat

Rodent

130- A pregnant woman with the gestational age of 8 weeks has been referred to a clinic 5 days after being exposed to a chickenpox patient. VZV serology is negative. Which of the following is the most appropriate preventive measure?

Varicella vaccine

VZV IG

Intravenous acyclovir

Oral valacyclovir

Radiology

131- A 32-years-old woman with a family history of breast cancer in her 38-years-old sister was referred for breast-cancer screening. Based on the guidelines, what is the appropriate action for her?

Annual mammography

Initial mammography and follow-up after 5 years

Starting mammography at 35-year-old

Starting mammography at 40-year-old

132- Which of followings is categorized as stress fracture?

Boxer fracture

Jones fracture

March fracture

Smith fracture

133- A pregnant patient was referred to an imaging center for a brain MRI. Which of the following is true?

MRI is contraindicated in pregnancy.

MRI is contraindicated in only first trimester.

MRI is safe without contrast.

It should be performed with contrast.

134- In a triple-phase abdominal CT Scan from a woman with a history of colon carcinoma, a lesion with 45 mm in diameter was observed in the right liver lobe. The characteristics of the lesion are:

Phase one: Hypodensity in pre-contrast phase,

Phase two: Nodular peripheral inward enhancement in arterial phase,

Phase three: Homogeneity and mild density than the rest of the liver in a delayed 10-minute phase.

What is your diagnosis?

Cavernous hemangioma

Metastasis

Hepatocellular carcinoma

Adenoma

135- In standard chest X-rays, all of the followings are correct, EXCEPT

- observing spinal vertebra through the heart
- observing posterior arches of at least six ribs
- spinous process, equidistant between the medial end of both clavicles
- "S" shape clavicle with a superimposed medial end on 3-4 ribs

136- A 60-years-old woman presented with a history of lower ribs trauma. The plain abdominal X-ray showed a round rim-like calcified lesion with 50 mm in diameter was seen in the pelvic cavity. What is your recommendation?

- An immediate referral to a surgeon
- Abdominal-pelvic sonography
- Triple-phase abdominal-pelvic CT Scan
- Radionuclide Scan

Pathology

137- A 35-year-old man has presented with paroxysmal hypertension, palpitation, and sweating. MRI shows a centrally located right adrenal mass, 2cm in diameter. Which of the following statements is correct regarding the most probable diagnosis?

- Definitive diagnosis of malignancy is only based on metastasis.
- The disease is usually associated with Cushing syndrome.
- Tumor bilaterality is seen in 30-50% of the cases.
- There is a high probability of concomitant adrenogenital syndrome.

138- Which of the following is pathognomonic in a patient with uncontrolled diabetes?

Membranous nephropathy

Mesangial sclerosis

Nodular glomerulosclerosis

Hyaline arteriosclerosis

139- Which of the following is not seen in Mean Corpuscular Volume (MCV) within the range of 60-65 femtolitre?

Tetrahydrofolate deficiency

Hemoglobin alpha gene deletion

Metastatic colon cancer

Post-duodenectomy state

140- Which of the following tumors is positive for Glial Fibrillary Acidic Protein (GFAP) IHC stain?

Astrocytoma

Hemangioblastoma

Medulloblastoma

Meningioma

141- Which of the following is correct for differentiating endometrioid from serous carcinoma of the endometrium?

Elder patients with endometrioid type

More aggressive behaviour with endometrioid type

Mutation in TP53 gene in serous carcinoma

Obesity, diabetes, and hypertension as risk factors for endometrioid carcinoma

142- Which of the testicular neoplasms is associated with elevated serum levels of lactate dehydrogenase and alpha fetoprotein?

Seminoma

Choriocarcinoma

Embryonal carcinoma

Yolk sac tumor

143- A 40-year-old man presented with multiple symmetrical purple pruritic papules on the forearms as well as oral lesions. Which of the following is NOT correct regarding the most probable diagnosis?

Lymphocytic infiltration at the dermoepidermal junction

Presence of Civatte bodies in papillary dermis

Sawtooth appearance of the lower epidermis

Thinning or loss of the epidermal granular layer

144- A 25-year-old man has presented with mucohemorrhagic stool since 6 months ago. Colonoscopy reveals erythema and ulceration at the distal colon. Microscopically, the colonic mucosa shows granuloma formation and lymphoplasmacytic infiltration of the lamina propria along with crypt disarray and neutrophilic permeation within the crypts.

Which of the following is more probable in this patient?

The small and large bowels show intermittent intact and involved areas.

Pseudopolyps and toxic megacolon are present.

The lesions are limited to the mucosa and submucosa.

Flask-shaped ulcers are usually seen within the mucosa.

145- Which of the following is associated with both micro- and macrovesicular fatty change?

Reye syndrome

Acute fatty liver of pregnancy

Tetracycline toxicity

Alcoholic fatty liver

Psychiatry

146- A patient with a long-term history of alcohol use has been acutely experiencing nausea, vomiting, anxiety, and disorientation. Physical examination reveals nystagmus, external gaze paralysis, and incoordination. Which one of the following options should be used to manage the condition?

Thiamine

Disulfiram

Folic Acid

Haloperidol

147- A 22-year-old girl experiences either extremely positive feelings or extremely negative feelings toward her friend, often for no apparent reason. She also experiences deep depression and sometimes engages in self-injurious behaviour. Which personality disorder describes her best?

Histrionic

Borderline

Schizotypal

Dependent

148- An 18-year-old girl has suffered from anxiety, hopelessness, restlessness, insomnia, and irritability over the past week due to failure in the entrance exam of medical universities. This suffering has led to significant interpersonal and functional impairment. There are no other psychiatric symptoms, medical diseases, or substance abuse. What is the most probable diagnosis?

Generalized anxiety disorder

Major depressive disorder

It is a normal reaction

Adjustment disorder

149- In an interview with a patient, you ask him, "How long have you been hospitalized?", and he responds, "hospitalized, hospitalized, hospitalized".

What is the name of the patient's symptom?

Perseveration

Neologism

Echolalia

Punning

150- A 42-year-old woman complains of retrosternal pain, dizziness, and a feeling of heaviness in her legs. The symptoms have started since about six months ago, following the loss of her job. Despite the normality of numerous cardiac, neurological and internal diagnostic investigations, the patient still has severe and chronic anxiety about her health condition and continues visiting different specialists.

Which of the following is the most accurate diagnosis for her?

Somatic symptom disorder

Illness anxiety disorder

Factitious disorder

Conversion disorder

151- A psychiatric consultation is requested for an 85-year-old patient with advanced esophageal cancer, who is admitted to the gastroenterology department and exhibits restlessness. The patient is currently drowsy and disoriented to time and place. His companion reports that he experienced anxiety, visual hallucinations, and insomnia the previous night. All of the following options are recommended for the patient, EXCEPT for:

- Repeatedly reminding the patient of time and place
- Having a familiar companion
- Physical restraint of the patient during agitation
- Prescribing a low dose of haloperidol to the patient in case of agitation

152- Which option is part of the DSM-5 diagnostic criteria for “Persistent Depressive Disorder”?

- Low self-esteem
- Reduced need for sleep
- Flight of ideas
- Persistence of symptoms for at least three consecutive years

Dermatology

153- A 32-year-old man presented with erythematous symmetrical plaques with silver scales on extensor surface of the upper and lower extremities. The lesions started 7 years ago. He also has pitting on finger- nail plates. Which of the following can exacerbate his lesions?

- Acitretin
- Topical steroid
- Phototherapy
- Hydroxychloroquine

154- A 2-year-old child with a history of fever, conjunctivitis and rhinorrhea presented with disseminated cutaneous erythema and tenderness accompanied by bullae and superficial erosions. Lesions initially appeared in periorificial areas and then progressed to skin folds. Nikolsky sign is present and there is no mucosal involvement. What is the appropriate diagnosis?

Toxic Epidermal Necrolysis

Staphylococcal Scalded Skin Syndrome

Erysipelas

Erythema Infectiosum

155- A 24-year-old man presented with maculopopular lesions on the dorsal and ventral aspects of hands and feet with slight itching and burning sensation since 3 days ago. On physical exam, a dark erythematous center with bullae surrounded with a light pink zone and peripheral erythematous circle as three concentric zones are observed. Histopathology shows lymphocyte infiltration in dermo-epidermal junction, around vessels, and dermal edema. Which of the following can be considered in the pathogenesis of the disease?

Streptococcal infection

Herpes simplex infection

Treatment with Carbamazepine

Contact with chemicals

156- A patient with a history of AIDS, presented with multiple violaceous and ulcerated papules and nodules mostly on the upper parts of the body and few similar lesions on palatal and nasal mucosa. In the evaluation of the lesions, HHV8 virus was detected. What is your diagnosis?

Bacillary Angiomatosis

Histoplasmosis

Squamous cell carcinoma

Kaposi Sarcoma

157- In which of the following skin tumors, "Hutchinson sign" can be observed?

Basal cell carcinoma

Squamous cell carcinoma

Nail melanoma

Dermatofibroma

158- An 8-year-old child presented with patchy hair loss on scalp with thick yellow crust and green-grey fluorescence on wood lamp examination. On microscopic examination of affected hair, hyphae and air spaces are observed in hair shafts. Which of the following is the appropriate treatment?

Oral Griseofulvin

Oral broad-spectrum antibiotic

Intralesional injection of corticosteroid

Intralesional injection of Glucantim

159- "The spiral narrow canals within epidermal stratum corneum in the flexural aspect of wrists and digital webs with a papule or a vesicle in the distal end"

Which of the following refers to the name of the lesion and the related disease?

Erosion - Scabies

Burrow - Scabies

Erosion - Body lice

Burrow - Body lice

160- A 27-year-old male patient with knee dislocation has been admitted to the emergency department and has been reduced closely. The neurovascular examination is normal before and after close reduction. What is the next step for the patient management?

- Discharge with caution about alarming signs
- Admission in ward and close follow up
- Angiography of popliteal artery
- Vascular exploration and ligament reconstruction

161- A 9-year-old female has been referred to the clinic due to idiopathic scoliosis. In the radiography, the scoliosis angle is 40 degrees. What is the choice of treatment?

- Surgery
- Brace
- Follow-up every 6 months
- Reassurance to parents

162- Which of the following is a feature of club foot disease?

- Heel valgus
- Fore foot abduction
- Ankle equinus
- Fore foot pronation

163- Which muscle origin has the most pathology in tennis elbow disease?

Extensor carpi radialis brevis

Extensor carpi radialis longus

Flexor carpi radialis

Flexor carpi ulnaris

164- What does the positive drop arm test indicate on the examination of an elderly man referred to the clinic with a complaint of shoulder pain?

Posterior shoulder dislocation

Biceps tendinitis

Massive supraspinatus tear

Tear of infraspinatus

165- While the patient is lying on the prone position and the leg is hanging over the edge of the bed, the examiner squeezes the calf. This causes plantar flexion of the ankle. What is the name of the test and the result of the examination?

Thomas test- tibialis posterior tendon rupture

Thompson test- intact Achilles tendon

Thomas test- Achilles tendon rupture

Thompson test- intact tibialis posterior tendon

166- While working, a farmer suffered an open fracture of his right leg with a 10 cm wound. What is the appropriate antibiotic prophylaxis regimen?

Clindamycin

Cefazolin- Gentamicin- Vancomycin

Cefazolin- Penicillin

Cefazolin- Gentamicin- Penicillin

Urology

167- A 35-year-old female presented with a complaint of left flank pain without fever. On evaluation, hydronephrosis of the kidney and an 8 mm stone was reported in the left ureter located over the sacroiliac bony structures. The stone had been also reported at the same location of the ureter three weeks ago, when she had experienced the same pain. What is your recommendation?

Medical therapy for stone expulsion

Extracorporeal Shock Wave Lithotripsy (ESWL)

Percutaneous Nephrolithotomy (PCNL)

Transurethral Lithotripsy (TUL)

168- A 12-year-old boy has presented with a complaint of persistent testicular pain which has started abruptly 7 hours ago. On the examination, testicular tenderness is present with abnormal position. Also, with elevating the testicle the pain is exacerbated, while with rotating the testicle outward the patient's pain is relieved, and the clinical examination becomes normal. What is your next plan considering the most likely diagnosis?

Performing elective orchiopexy

Immediate orchiopexy

Orchiopexy in case of recurring symptoms

Antibiotic treatment and further investigations

169- A 55-year-old male who has been receiving an alpha-blocker and Finastride for BPH from one year ago, presented with irritative urinary symptoms about one month ago. The laboratory results were as follows:

Cr: 1.2 mg/dl, Hb: 14 mg/dl, PSA: 2.5 ng/ml, U/C: positive.

After appropriate treatment for UTI, the patient's symptoms are completely resolved, and there are no abnormal findings on examination. Subsequent urine culture is negative, but the other Lab data has not changed. Which of the following measures is recommended?

- Continuing medical treatment and scheduling annual follow-ups
- Discontinuing the alpha-blocker and continuing treatment with Finastride
- Recommending a prostate biopsy
- Recommending surgery for BPH

170- Which one of the following is correct regarding ureteropelvic junction obstruction (UPJO)?

- It is more common in girls than boys.
- The right side is involved more than the left.
- It is the most common congenital abnormality of the ureter.
- Acquired factors are the most common etiologies.

171- A 2-year-old asymptomatic female has been referred to the clinic. Her 4-year-old brother has undergone open surgery due to grade 5 vesico-ureteral reflux (VUR). What is your recommendation to screen her for VUR?

- Voiding Cystouterography (VCUG)
- Ultrasonography of the urinary system
- DMSA scan
- No need to screen

172- A two-day-old male has been referred with a complaint of no urination since birth. On physical examination, a prominent bladder is palpated. In the ultrasound, severe bilateral hydronephrosis and a completely distended bladder and a keyhole sign are reported. What is the most likely diagnosis?

Vesicoureteral reflux (VUR)

Posterior urethral valve (PUV)

Ureterocele

Neurogenic bladder

Ophthalmology

173- On ophthalmic examination of a 32-year-old man, the anterior-posterior diameter of the globe is longer than the normal diameter and images of the objects form in front of the retina. The curvatures of both cornea and lens are normal. Which refractive error is applicable to this patient?

Refractive Myopia

Axial Myopia

Index Hyperopia

Refractive Hyperopia

174- A fisherman's eye was damaged after hitting a fishing hook. On examination, his eyelid margin and cornea are lacerated with prolapse of the uveal tissue. Half of the hook is inside the patient's eye and the other half is protruding out of the eye. Which measure do you take for this patient in the emergency room?

Placing an upside down plastic cup on the affected eye of the patient and referring him to an ophthalmologist

Placing some sterile gauzes on the affected eye of the patient and referring him to an ophthalmologist

Cautiously removing the hook after instillation of the tetracaine drop

MRI imaging for locating the hook

175- A 45-year-old man with a history of using medical contact lenses has experienced severe redness and pain in both eyes since a month ago. Despite taking multiple broad-spectrum antibiotics and stopping the use of contact lenses, there was no improvement. On the corneal examination, a gray infiltration can be seen in the center of both eyes associated with radial perineuritis. In the smear made from the patient's lens solution, two-layered cysts are observed. All of the following actions are correct EXCEPT for:

Topical polyhexamethylene biguanide drop

Topical Neosporin and Tropicamide drops

Oral Itraconazole 200 mg every 6 hours

Topical betamethasone drop

176- A 50-year-old woman has experienced redness and mild pain in her left eye for the first time since three days ago. On examination, a diffuse swelling and vascular congestion in the episcleral layers with a pinkish hue is noted without tenderness. All of the following statements are correct, EXCEPT for:

Investigation for rheumatologic diseases is needed.

In most cases, it is one-sided.

Local or systemic NSAID is used in treatment.

It will improve spontaneously without treatment.

177- Which one of the following retinal findings is indicative of the proliferative stage of diabetic retinopathy?

Flame-shaped hemorrhage

Venous beading

Tractional retinal detachment

Hard exudate

178- Which one of the following diseases is the most important cause of the reduction in lipid composition of the tear layer?

Stevens Johnson syndrome

Chemical burn

Meibomian gland dysfunction

Vitamin A deficiency

Otorhinolaryngology (ear, nose & throat)

179- A 6-year-old child has presented with an ear pain since 4 days ago. He had a history of catching cold and purulent nasal secretions in the preceding week. On physical examination, bulging of tympanic membrane and hyperemia around the malleus are observed. What is the most appropriate action?

Watchful waiting with pain killers

Tympanic membrane puncture

Treatment with Co-Amoxiclav

Adenoidectomy

180- A 4-year-old girl has developed odynophagia, drooling, and respiratory distress following a sore throat and fever. A "thumb print sign" is observed in the lateral neck X-ray. Which diagnosis is relevant?

Tonsillitis

Croup

Bacterial tracheitis

Epiglottitis

181- A 13-year-old boy presented with complaints of progressive nasal congestion and several episodes of epistaxis. A unilateral mass is observed in the CT scan inside the nasal cavity. What is the most likely diagnosis?

Nasal polyp

Angiofibroma

Inverted Papilloma

Squamous cell carcinoma

182- A 40-year-old man presented with complaints of pain and swelling in his left submandibular region since a month ago. The patient's symptoms are aggravated by eating food. On sonography, the dilation of submandibular duct is evident. What is the diagnosis?

Acute sialadenitis

Sialolithiasis

Sjögren disease

Submandibular abscess

183- A 40-year-old man presented with progressive bilateral swelling of the neck following a dental infection. On physical exam, sublingual, submandibular bulging, and trismus are evident. Which of the following is the first action?

Surgical drainage

Antibiotic treatment and watchful waiting

Airway control

Extraction of the involved tooth

184- Which of the following sinusitis may be associated with retro-orbital and occipital pain?

frontal

maxillary

ethmoid

sphenoid

Bio-Statistics and Epidemiology

185- A researcher wants to study the relationship between opium use and COVID-19 mortality. Which of the following statistical tests is suitable to test this hypothesis?

Chi square

Independent T-Test

Paired T-Test

Mac-Nemar

186- Which of the following items is correct in a negative skewed distribution?

Median and mode are equal.

68% of samples are distributed within ± 1 standard deviation of mean.

The mode value is greater than mean.

Half of the data is located in the right side of the mean value.

187- The sensitivity and specificity of a diagnostic test for the disease B are 90 and 80 percent, respectively. If the real prevalence of the disease in a sample population of 1,000 people equals 10%, how many false positive test results are expected?

720

180

90

10

188- Which of the following items is assessed for primary screening of neonatal hypothyroidism in Iran?

TSH

T4

T3Ru

T3

189- The second generation of "HIV/Aids surveillance" is based on the

combination of serology and behavior information

monitoring of HIV/Aids disease and mortality

HIV screening in blood donors

antiviral therapy

190- In which of the following groups, the lung cancer incidence decreased in 2017 compared to that of 1990?

- World men
- World women
- Iranian men
- Iranian women

Pharmacology

191- Which of the following is the dangerous side effect of anti-muscarinic drugs in children?

- Hyperthermia
- Hypotension
- Bronchospasm
- Bradycardy

192- A patient with Parkinson disease needs an antiemetic drug. Which of the following exacerbates the symptoms and extrapyramidal side effects?

- Ondansetron
- Metoclopramide
- Hyoscine
- Domperidone

193- Which of the following side-effects is observed in the simultaneous use of Captopril and Spironolactone?

Hyperglycemia

Bronchospasm

Hyperkalemia

Ototoxicity

194- Which of the following hypoglycemic drugs is associated with the risk of lactic acidosis in patients with chronic cardiopulmonary dysfunction?

Metformin

Acarbose

Glyburide

Sitagliptin

195- Which of these conditions could be exacerbated with the use of glucocorticoids?

Asthma

Advanced psychosis

Rheumatoid arthritis

Adrenal insufficiency

196- Which of the following antibiotics is prescribed for the treatment of infection caused by Clostridium Difficile?

Amoxicillin

Clindamycin

Ciprofloxacin

Vancomycin

197- A 45- year-old man presented with depression and a history of smoking one pocket of cigarettes per day. He attempts to quit smoking. Which of the following antidepressants is appropriate for him?

Nefazodone

Venlafaxine

Bupropion

Mirtazapine

Medical Ethics

198- The patient is a 68-year-old woman suffering from ovarian malignancy; the doctor conceals the diagnosis because he/she thinks that the patient does not have enough capacity to understand the information. Which of the following is correct regarding the doctor's behavior?

It is ethically acceptable, as the doctor must make the final decision about the patient's capacity.

It is not ethically acceptable unless the patient's lack of capacity is obvious and confirmed by competent authorities.

It is not ethically acceptable, even if the patient has expressed a personal unwillingness to know the truth.

In all situations, the doctor must completely inform the patient.

199- Which of the following represents a situation in one's profession where he/she is motivated to do something obviously contradicting his/her professional duties?

Fee splitting

Professionalism

Conflict of interest

Primacy of patient welfare

200- A researcher plans to conduct a study to investigate the effect of ozone-therapy on the response to chemotherapy in children with leukemia. What is the first and most important ethical issue this researcher must consider in this research?

Risk assessment

Confidentiality and privacy

Consent of legal guardian and assent of children

Justification of conducting research on the given population