

INTERNAL MEDICINE
THEMATIC PLAN OF PRACTICAL CLASSES
FOR the 6th-YEAR STUDENTS of MEDICAL FACULTY
“Individual Profile Course Internal Medicine” (SC 3.1.1.1.)
2023-2024 ACADEMIC YEAR

No	Subject	Hours
1.	Principles of patient management. Management of patients with arterial hypertension	6
2.	Management of patients with symptomatic arterial hypertension	6
3.	Management of patients arterial hypotension and syncope	6
4.	Management of patients with cardiac arrhythmias	6
5.	Management of patients with heart blocks	6
6.	Management of patients with chest pain or cardiac pain	6
7.	Management of patients with stable angina, silent myocardial ischemia or unstable angina	6
8.	Management of patients with acute myocardial infarction	6
9.	Management of patients with cardiomegaly, heart murmurs or acrocyanosis	6
10.	Management of patients with heart failure	6
11.	Management of patients with arthralgia, myalgia, arthritis, acute joint or back pain	6
12.	Management of patients with haemorrhagic vasculitis and systemic rheumatic diseases	6
13.	Management of patients with dyspepsia, dysphagia, heartburn, chronic diarrhoea or constipation	6
14.	Management of patients with jaundice, ascites, portal hypertension, hepatic encephalopathy, hepatomegaly or hepatosplenomegaly	6
15.	Management of patients with bronchial obstruction or chronic cough	6
16.	Management of patients with infiltrative lung changes, community-acquired pneumonia, hospital-acquired pneumonia, or pleural effusion	6
17.	Management of patients with haemoptysis, lung abscess, asphyxia or respiratory failure	6
18.	Management of patients with fever of unknown aetiology	6
19.	Management of patients with abnormal urinalysis, nephrotic syndrome or oedema	6
20.	Management of patients with chronic renal failure	6
21.	Management of patients with anaemia, management of severe and life-threatening anaemia	6
22.	Management of patients with leukemoid reaction, leukaemia, polycythaemia, lymphadenopathy, agranulocytosis or acute thrombosis	6
23.	Treatment of patients with severe pneumonia or respiratory distress with the threat of respiratory arrest	6
24.	Treatment of a patient with acute hepatic failure or acute kidney injury	6
	Total number of hours	144

The Head of the Department
of Internal medicine No 2

Associate Professor Komarytsya O.Y.

INTERNAL MEDICINE
The THEMATIC PLAN OF INDIVIDUAL WORKS OF STUDENTS
the 6th-YEAR, MEDICAL FACULTY
“Individual Profile Course Internal Medicine” (SC 3.1.1.1.)
2023-2024 ACADEMIC YEAR

No	Subject	Hours
1	2	3
1.	Writing home self-training task on the topic “Principles of patient management. Management of patients with arterial hypertension”. Mastering the skills of blood pressure measuring on the upper and lower limbs, assessment of ankle-brachial index, and ECG interpretation. Mastering the skills of choice of antihypertensive agents considering their advantages and disadvantages in particular clinical case.	5
2.	Writing home self-training task on the topic “Management of patients with symptomatic arterial hypertension”. Mastering the skills of interpreting the results of ultrasound examination, CT scanning and MRI of the thyroid gland, adrenal glands, kidneys, and Doppler echocardiography. Mastering the skills of choice of antihypertensive agents depending on aetiology of hypertension.	5
3.	Writing home self-training task on the topic “Management of patients with arterial hypotension and syncope”. Mastering the skills of blood pressure measuring on the upper and lower limbs in supine position and orthostatic position; interpreting the results of 24-hour ambulatory and home blood pressure monitoring, continuous ambulatory ECG monitoring, carotid sinus massage, orthostatic challenge, active standing, and Tilt testing. Mastering the skills of management of syncope in the emergency department based on risk stratification.	5
4.	Writing home self-training task on the topic “Management of patients with cardiac arrhythmias”. Mastering the skills of interpreting the results of standard resting ECG, continuous ambulatory ECG monitoring, stress tests, and Doppler echocardiography. Mastering the skills of choice of antiarrhythmic agents considering their advantages and disadvantages in particular clinical case.	6
5.	Writing home self-training task on the topic “Management of patients with heart blocks”. Mastering the skills of interpreting the results of resting standard ECG, continuous ambulatory ECG monitoring, stress tests and Doppler echocardiography. Mastering the skills of choice of medications considering their advantages and disadvantages in particular clinical case; indications for cardiac pacemaker implantation.	5
6.	Writing home self-training task on the topic “Management of patients with chest pain or cardiac pain”. Mastering the skills of interpreting the results of chest radiography, chest CT scanning, resting standard ECG, continuous ambulatory ECG monitoring, stress tests, Doppler echocardiography, and laboratory tests results (i.e., CBC, acute phase reactants, markers of myocardial necrosis, D-dimers, blood coagulation tests).	6
7.	Writing home self-training task on the topic “Management of patients with stable angina, silent myocardial ischemia or unstable angina”. Mastering the skills of interpreting the results of serum lipid profile, resting standard ECG, continuous ambulatory ECG monitoring, stress tests and Doppler echocardiography. Mastering the skills of choice of anti-ischemic medications, antithrombotic and lipid-lowering agents, considering anti-ischemic, lipid-lowering and pleiotropic properties, possible adverse effects.	6
8.	Writing home self-training task on the topic “Management of patients with acute myocardial infarction”. Mastering the skills of interpreting the results of blood biochemistry (i.e., markers of myocardial necrosis), results of coronary angiography, electrocardiography, and Doppler echocardiography. Mastering the skills of management of patients with STEMI and non-STEMI, choice of anti-ischemic medications, antithrombotic and lipid-lowering agents after acute myocardial infarction, considering duration of therapy, potential goals and possible adverse effects.	5

1	2	3
9.	Writing home self-training task on the topic “Management of patients with cardiomegaly, cardiac murmurs or acrocyanosis”. Mastering the skills of interpreting the results of chest radiographs, electrocardiography, Doppler echocardiography, and laboratory tests (i.e., markers of myocardial necrosis, BNP, proNT-BNP). Mastering the skills of management of patients with cardiomegaly, cardiac murmurs or acrocyanosis, including choice of medical therapy, indications for surgery and long-term follow-up.	5
10.	Writing home self-training task on the topic “Management of patients with heart failure”. Mastering the skills of interpreting the results of ECG, Doppler echocardiography, chest radiography, and laboratory tests (i.e., BNP, proNT-BNP). Mastering the skills of choice of medications for management of patients with HFrEF, HFmrEF, and HFpEF.	5
11.	Writing home self-training task on the topic “Management of patients with arthralgia/myalgia, joint pain, arthritis, acute joint or back pain”. Mastering the skills of interpreting the results of joint radiography, spine and sacroileal radiographs, and laboratory tests (i.e., CBC, acute phase reactants, serum uric acid level, renal profile, rheumatoid factor, anti-CCP antibodies, and synovial fluid analysis). Mastering the skills of choice of medication for management of patients with arthralgia/myalgia, joint pain, arthritis, acute joint or back pain.	5
12.	Writing home self-training task on the topic “Management of patients with haemorrhagic vasculitis and systemic rheumatic diseases”. Mastering the skills of interpreting the results of blood tests (CBC, serum protein electrophoresis, acute phase reactants, renal and liver profiles, creatine phosphokinase, ASLO titre, ANA, dsDNA antibodies, Sm-antigen, SCL-70, Jo-1, pANCA, cANCA, serological markers for viral hepatitis B and C) and urinalysis. Mastering the skills of choice of medication for management of patients with haemorrhagic vasculitis and systemic rheumatic diseases.	6
13.	Writing home self-training task on the topic “Management of patients with dyspepsia, dysphagia, heartburn, chronic diarrhoea or constipation”. Mastering the skills of interpreting thematic results of 24-hour oesophageal pH monitoring, intragastric topographic express pH-metric test, urea breath tests, results of the coprocytogram, faecal calprotectin, antibodies to tissue transglutaminase and gliadin peptides, hydrogen tests, laboratory tests (CBC, serum levels of α -amylase, lipase, glucose, insulin, C-peptide, pancreatic polypeptide, glucagon; test with sugar load, galactose, D-xylose, stool test for faecal elastase 1, urine test for α -amylase), abdominal ultrasound, endoscopic findings, and biopsy results. Mastering the skills of choice of medication for management of patients with dyspepsia, dysphagia, heartburn, chronic diarrhoea or constipation.	5
14.	Writing home self-training task on the topic “Management of patients with jaundice, ascites, portal hypertension, hepatic encephalopathy, hepatomegaly or hepatosplenomegaly” Mastering the skills of interpreting thematic results of ultrasonography of the liver, bile ducts, gallbladder, pancreatic gland, spleen and vessels of the portal system, microscopic and biochemical examination of bile obtained by multi-moment duodenal probing, results of laboratory tests (CBC, total serum protein, protein fractions, total serum bilirubin with fractions, prothrombin time, INR, blood ammonia level, serum liver enzymes activity (ALT, AST, GGTP, AP), serum markers for autoimmune hepatitis and viral hepatitis B, C, D, polymerase chain reactions for HBV, HCV, HDV, viral genotyping). Mastering the skills of choice of medication for management of patients with jaundice, ascites, portal hypertension, hepatic encephalopathy, hepatomegaly or hepatosplenomegaly.	5
15.	Writing home self-training task on the topic “Management of patients with bronchial obstruction or chronic cough” Mastering the skills of interpreting the results of lung function tests, sputum smear microscopy and culture, and allergic testing. Mastering the skills of choice of medication for management of patients with bronchial obstruction or chronic cough.	5

1	2	3
16.	Writing home self-training task on the topic “Management of patients with infiltrative lung changes, community-acquired pneumonia, hospital-acquired pneumonia, or pleural effusion” Mastering the skills of interpreting the results of laboratory tests, including CBC, acute phase reactants, sputum analysis (i.e., Gram stain smear microscopy, culture with antibiogram), pleural fluid analyses (microscopy, chemistry, culture with antibiogram), lung ultrasound, chest radiographs / CT scans. Mastering the skills of choice of medication for management of patients with infiltrative lung changes, community-acquired pneumonia, hospital-acquired pneumonia, or pleural effusion; indications for thoracentesis and description of the procedure.	6
17.	Writing home self-training task on the topic “Management of patients with haemoptysis, lung abscess, asphyxia or respiratory failure” Mastering the skills of interpreting the results of laboratory tests, particularly CBC, acute phase reactants, sputum and pleural fluid analyses, nucleic acid amplification test, blood gas analysis; pulse oximetry, lung ultrasound, chest radiographs and CT scans, bronchoscopy, and biopsy results. Mastering the skills of choice of medication for management of patients with haemoptysis, lung abscess, asphyxia or respiratory failure.	5
18.	Writing home self-training task on the topic “Management of patients with fever of unknown aetiology”. Mastering the skills of interpreting the results of Doppler echocardiography and laboratory tests (CBC, blood biochemistry, blood serology, blood culture with antibiogram, urine culture with antibiogram, sputum and pleural fluid analyses (microscopy, chemistry, culture with antibiogram), lung ultrasound and chest radiographs, abdominal ultrasound, kidney ultrasound. Mastering the skills of antibiotic use in different internal diseases that can present with fever. Mastering the skills of choice of medications and methods for fever control.	6
19.	Writing home self-training task on the topic “Management of patients with abnormal urinalysis, nephrotic syndrome or oedema” Mastering the skills of interpreting the results of CBC, urinalysis, 24-hour albumin excretion, blood biochemistry (i.e., acute phase reactants, protein electrophoresis, serum albumin, lipid profile, plasma glucose, uric acid level, renal profile, amyloid markers etc.), calculation of estimated glomerular filtration rate (eGFR). Mastering the skills of choice of medications for management of patients with these disorders.	5
20.	Writing home self-training task on the topic “Management of patients with chronic renal failure”. Mastering the skills of interpreting the results of CBC, urinalysis, blood biochemistry (i.e., acute phase reactants, protein electrophoresis, plasma glucose, uric acid level, renal profile, lipid profile, amyloid markers etc.), calculation of estimated glomerular filtration rate (eGFR). Mastering the skills of choice of medications for management of patients with chronic renal failure; methods of renal replacement therapy.	5
21.	Writing home self-training task on the topic “Management of patients with anaemia, management of severe anaemia” Mastering the skills of interpreting the results of CBC, blood chemistry (serum levels of iron, ferritin, iron transferrin saturation, total iron binding capacity, folate, cobalamin, total bilirubin, LDH, haptoglobin), and bone marrow biopsy. Mastering the skills of choice of medications for management of patients with anaemia, depending on aetiology, transfusion of blood components and blood products.	5
22.	Writing home self-training task on the topic “Management of patients with leukemoid reaction, leukaemia, polycythaemia, lymphadenopathy, agranulocytosis or acute thrombosis” Mastering the skills of interpreting the results of CBC, bone marrow and lymph node biopsy, cytochemical studies, flow-cytometry, and imaging tests on the topic. Mastering the skills of choice of medications for management of patients with leukemoid reaction, leukaemia, polycythaemia, lymphadenopathy, agranulocytosis or acute thrombosis.	5
23.	Writing home self-training task on the topic “Treatment of a patient with severe pneumonia or the threat of respiratory arrest, acute respiratory distress syndrome, COVID-19”. Mastering the skills of pulse oximetry, interpreting the results of oxygen saturation, arterial blood gas analysis, chest radiography / CT scanning, lung ultrasound, and laboratory tests (CBC, blood coagulation tests, D-dimers, serum procalcitonin, RT-PCR for SARSCoV2, blood culture, blood serology, Gram stain smear microscopy, culture and antibiogram). Algorithms of emergency management of patients with severe pneumonia or the threat of respiratory arrest, acute respiratory distress syndrome, and COVID-19.	5

1	2	3
24.	Writing home self-training task on the topic “Treatment of a patient with acute hepatic failure or acute kidney injury”. Mastering the skills of interpreting the results of abdominal and kidney ultrasound, CBC, blood biochemistry, urine tests and urine culture. Algorithms of emergency management of patients with acute hepatic failure or acute kidney injury.	5
	Total number of hours	126

The Head of the Department
of Internal medicine No 2

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