Federal State Budgetary Educational Institution of Higher Education
"North Ossetian State Medical Academy" Ministry of Health of the Russian Federation
(FGBOU VO SSMU of the Ministry of Health of the Russian Federation)

Department of Internal Medicine No. 3

GUIDELINES FOR PERFORMING INDEPENDENT (EXTRACURRICULAR) WORK) WORKS

on clinical THERAPY on the topic "Chronic heart failure»

the main professional educational programs of higher education – bachelor's degree programs in the specialty 31.05.01 General Medicine, confirmed 31.08.2020

Methodological recommendations are intended for extracurricular independent work of students of 5,6 courses (9,10,11,12 semesters) of the Faculty of Medicine FGBOU VO SSMU of the Ministry of Health of the Russian Federation on the discipline "clinical therapy"»

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#### Introduction

Chronic heart failure (CHF) is still one of the most common progressive and prognostically unfavorable diseases of the cardiovascular system. Heart failure has become an important medical, social and economic problem. The last decade has been marked by dramatic changes in the views on the pathogenesis and treatment of CHF. The creation of the neurohormonal theory of pathogenesis and the development of this concept to the myocardial model of the pathogenesis of decompensation of cardiac activity led to the main practical conclusions, according to which artificially (with the help of medications) supporting the hyperactivation of neurohormones in CHF, the doctor will be able to slow down the development of changes in target organs and prevent the progression of this disease.

Studying the complexity of the problem, practical doctors, and even more so, students, need to constantly improve their knowledge and skills in this area. This manual is intended for independent preparation of students for practical classes on the topic: "Chronic heart failure".

The methodological development includes six tasks:

- 1. Introduction to the goals and objectives of the practical lesson;
- P. Restoring the baseline values, monitoring the initial level;
- Sh. Study of literature on the topic of the lesson, the main provisions of the topic;
- 1U. Introduction to the practical training plan;
- U. Mastering the OOD scheme in practical classes;
- U1. Schemes of control application of OOD

#### TASK 1.

Get acquainted with the goals and objectives of the classes:

Goal: to deepen and improve knowledge and practical skills in the diagnosis, treatment of patients with chronic heart failure, VTE, clinical examination of patients, primary and secondary prevention.

Target tasks:

Student career:

The concept of chronic heart failure syndrome, etiology, classification, pathogenesis, clinic, indications for hospitalization, treatment of chronic heart failure Student career:

- 1. During the initial examination of the patient, collect complaints, anamnesis, conduct an external examination and physical examination, and make a preliminary diagnosis of chronic heart failure;
- 2. Assign special (laboratory and instrumental) studies to clarify the diagnosis and correct their interpretation;
- 3. Formulate a detailed diagnosis indicating the stage and functional class of CHF;
- 4. develop an individual treatment plan for the patient
- \* diet
- physical activity mode
- \* psychological rehabilitation
- \* drug therapy
- 5. Evaluate the effectiveness of the therapy
- 6. Evaluate medical and social factors and conduct an assessment of working capacity
- 7. make a chart of dispensary monitoring of patients with CHF

8. It has the properties of prevention (primary and secondary) of CHF.

TASK P. Restoration of basic values, control of the initial level...

You are offered a list of questions for the sufficiency of your basic knowledge.

- 1. Definition of chronic heart failure
- 2. Causes of CHF
- 3. Pathogenesis of CHF
- 4. Clinical picture of CHF
- 5. Treatment

You will be able to check your initial level by completing a number of test tasks.

- 1. What sign is pathogenic for left ventricular failure?
- A) swelling of the cervical veins
- B) ascites
- C) takeaway cookies
- D) orthopnea
- D) What to do in the room
- 2. Heart failure is characterized by all the symptoms characteristic of chronic:
- A) increase in the size of the heart
- B) the rhythm of the gallop
- C) the rhythm of the quail
- D) pendulum-like rhythm
- E) reduced rhythm
- 3. Which of the following does not correspond to the signs of right ventricular failure?
- A) takeaway cookies
- B) reduction of venous pressure
- C) slowing down the speed of blood flow
- D) cyanosis
- D) edema
- 4. Diagnosis of chronic heart failure N B st. at
- A) severe shortness of breath. occurs in the presence of orthopnea, attacks of suffocation;
- B) with repeated attacks of cardiac asthma; with post-traumatic peripheral edema, the presence of abdominal edema
- C) severe subjective disorders that occur with minimal exercise or at rest, episodes of cardiac asthma that are unbearable for a week, dystrophic changes in organs and tissues
- 5. Which parameter is the first to respond to the functional inferiority of the left ventricle?
- A) peripheral vascular resistance
- B) the level of "jamming" pressure in the pulmonary artery
- C) radiological signs of stagnation
- D) all of the above

- 6. Which of the listed drugs, according to modern data, greatly prolong the life of a patient with CHF:
- A) cardiac glycosides;
- C) antagonists;
- C) diuretics;
- D) ACE inhibitors
- 7. What is a contraindication for the appointment of betblokatorov?
- A) sinus tachycardia
- B) ventricular tachycardia
- C) paroxysmal supraventricular tachycardia
- D) obstructive bronchitis
- E) arterial hypertension
- 8. The diagnosis of heart failure 2 FC is made when:
- A) when signs of SN appear when walking quickly on a flat place or when climbing a steep slope
- B) the appearance of symptoms of HF with moderate exercise (back pain) with other people of their age on an even place at the usual pace)
- C) the appearance of signs of SN with minor loads that make you stop when walking on a flat place at a normal pace or with an unprecedented rise of one floor).

If you find it difficult to answer, study the following literature:

- 1. Makolkin V. I., Ovcharenko S. I. Internal diseases. Moscow.: Meditsina, 1987.
- 2. Smetnev A. S. Eto Kuk.G. . Internal diseases. Moscow.: Medicine, 1981.
- 3. Vasilenko. Propaedeutics of internal diseases.

TASK Sh. Study of literature on the topic of the lesson. The main provisions of the topic. Read the following literature on the topic of the lesson:

BASIC

- 1. Bokarev I. N., Smolensky V. S. Internal diseases. Differential diagnosis and therapy. M.: type.: Publishing House of ROE, 1996.
- 2. Pomerantsev V. P., Tskipuri Yu. I. Fundamentals of rational diagnosis and treatment in the clinic of internal diseases. Tula, 1992.
- 1. Diagnosis and treatment of internal diseases (A guide for doctors in 3 volumes). Under the editorship of N. F. I. Komarov. M.: tip.: Meditsina, 1991-92.
- 2. Internal diseases / Edited by N. E. Braunwald et al. It's in 10 books. Trans. from English-M.: type: Medicine, 1993-97.
- 3. Diseases of the heart and blood vessels // Manual in 4 tt.Edited by N. E. I. Chazov. M.: tip.: Meditsina, 1992-93.
- 4. Metelitsa V. I. Handbook of clinical pharmacology of cardiovascular drugs. Moscow: type.: Izd-vo Medpraktika, 1996.
- 5. Lepakhin V. K., Belousov Y. B. Moiseev V. S. Clinical pharmacology and pharmacotherapy. Moscow: type.: Universum, 1993.
- 6. Shevchenko N. M. Rational cardiology. Reference guide. Moscow: publishing house "start", 1997.

### MAIN PROVISIONS OF THE TOPIC

Heart failure (HF) is a condition in which the heart is unable to provide adequate blood flow to organs and tissues, despite normal venous flow.

Currently, CHF is considered as a syndrome that develops as a result of various pathological changes in the heart, disorders of neuroendocrine regulation and is a complex of circulatory reactions as a result of systolic or diastolic cardiac dysfunction.

## THE MAIN CAUSES OF CHRONIC CIRCULATORY FAILURE

According to Mukharyamov (1978)

- 1. Heart muscle damage, myocardial insufficiency
- \* Primary (myocarditis, dilated cardiomyopathy)
- \* Secondary (atherosclerotic and post-infarction cardiosclerosis, hypo or hyperthyroidism, heart damage in DBST, toxic-allergic myocardial damage)
- 2. Hemodynamic overload of the heart muscle
- Under pressure (stenosis of the mitral valve, tricuspid, aortic and pulmonary artery mouths, hypertension of the small or large circulatory circle)
- Obm (valve insufficiency, intracardiac shunts)
- Combined
- 3. violation of diastolic filling:
- \* adhesive pericarditis
- \* restrictive cardiomyopathies
- \* hypertrophic cardiomyopathy
- \* severe myocardial hypertrophy
- \* amyloidosis of the heart
- \* sarcoidosis of the heart

Items 1-2 contribute to the development of systolic insufficiency in the patient, item 3 – diastolic. The division into systolic and diastolic CH is conditional, although in most cases there is a mixed form of CH.

Systolic heart failure is characterized by a decrease in the contractility of the myocardium, UO, MO, and EF by less than 40%, dilation of the heart cavities, and increased OPSS.