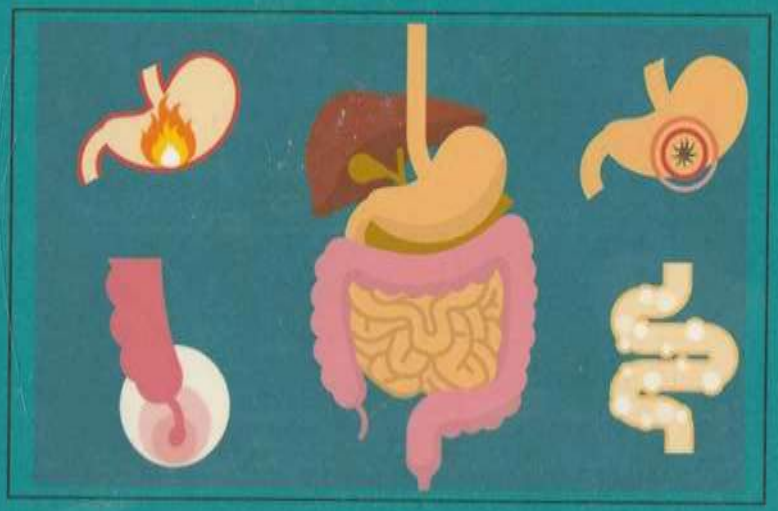
U.Kh. Musashaykhov., Kh.T. Musashaykhov.,
O.M. Makhsudov.

PREVENTION AND HEALTH PROMOTION OF THE POPULATION WITH DISEASES OF THE DIGESTIVE SYSTEM



U.Kh. Musashaykhov., Kh.T. Musashaykhov.,

O.M. Makhsudov.

"PREVENTION AND HEALTH PROMOTION OF THE POPULATION WITH DISEASES OF THE DIGESTIVE SYSTEM"

Andijan-2022

O‘QUV ADABIYOTING NASHR RUXSATMOMASI

O‘zbekiston Respublikasi Oliy va o‘rta maxsus ta’lim vazirligi, Andijon davlat tibbiyot institutining 2022 yil “5” Oktyabr dagi “598-sh” –sonli burug‘iga asosan

U.X.Musashayxov, X.T.Musashayxov, O.M.Maxsudov

Davolash ishi-5510100 Pediatriya ishi-5510200 ning talabalari (o‘quvchilari) uchun tavsiya etilgan.

Prevention and promotion of the population with diseases of the digestive system
nomli o‘quv qo‘llanmasiga

O‘zbekiston Respublikasi Vazirlar Mahkamasi tomonidan litsenziya berilgan nashriyotlarda nashr etishga ruxsat berildi.

Rektor (imzo) M.M. Madazimov

M.O‘

Ro’yxatga olish raqami:

100002

MINISTRY OF HIGHER AND SECONDARY SPECIAL EDUCATION OF THE REPUBLIC OF UZBEKISTAN
ANDIJAN STATE MEDICAL INSTITUTE

UMIDJON KHUSANOVICH MUSASHAYKHOV, KHUSANBOY TADJIBAEVICH MUSASHAYKHOV, OYATILLO MUKHIBILLAEVICH MAKHSUDOV

PROPAEDEUTICS OF INTERNAL DISEASES

ON THE SUBJECT OF

PREVENTION AND HEALTH PROMOTION OF THE POPULATION WITH DISEASES OF THE DIGESTIVE SYSTEM

In the direction of
Faculty of treatment - 5510100
Faculty of pediatrics – 5510200

Andijan-2022 y

Compilers:

U. Kh. Musashaykhov - Phd, Assistant of the Department of Propaedeutics of Internal Diseases of ASMI

Kh.T. Musashaykhov - Professor of the Department of general surgery of ASMI

O. M. Makhsudov Assistant of the Department of Propaedeutics of Internal Diseases of ASMI

Reviewers:

Ismoilov I. I. - Candidate of Medical Sciences of the Department "Propaedeutics of internal diseases" ASMI

Kattakhanova R. Yu - Head of the Department "Propaedeutics of internal diseases" FPHMI

TABLE OF CONTENTS

List of abbreviations.....7

Preface.....8

Introduction.....9

Chapter 1. Legal basis of preventive medicine activities in healthcare.....11

Chapter 2. Fundamentals of medical prevention. Organizationally-legal basis for providing preventive care to the population.....17

Chapter 3. Risk factors: definition, classification, practical significance.....30

Chapter 4. Medical and hygienic training and education of the population.....34

Chapter 5. Chronic diseases of the digestive system: epidemiology, risk factors, prevention.....42

5.1.Gastroesophageal reflux disease.....43

5.1.1. Primary prevention of GERD.....47

5.1.2. Secondary prevention of GERD.....48

5.2. Chronic gastritis.....49

5.2.1. Etiopathogenesis.....49

5.2.2.Prevention of chronic gastritis.....53

5.3. Peptic ulcer of the stomach and duodenum.....54

5.3.1. Epidemiology.....54

5.3.2. Peptic ulcer risk factors.....55

5.3.3. Prevention.....60

5.4. Diseases of the biliary system.....63

5.4.1. Dysfunctional biliary disorders of the road.....64

5.4.2. Chronic cholecystitis.....66

5.4.3. Cholelithiasis.....67

5.5. Hepatitis risk factors, prevention.....71

5.5.1. Types of hepatitis, risk factors, treatment and treatment

prevention....72
5.5.2. Risk factors and methods of transmissionof hepatitis....75
5.5.3. General rules of prevention....81
5.5.4. Hepatitis prognosis....83
5.6. Cirrhotic stage of chronic hepatitis (cirrhosis of the liver)....84
5.6.1. Prevention of cirrhotic stage of chronic diseases hepatitis....85
5.7. Chronic pancreatitis....86
5.7.1. Etiology and pathogenesis....87
5.7.2. Prevention of chronic pancreatitis....88
5.7.3. Principles of dietary nutrition for CP....90
CHAPTER 6. Promoting a healthy lifestyle....93
6.1. Prevention of diseases and strengthening of health by means of physical culture and hardening....93
6.2. The role of a healthy lifestyle in prevention and treatment health promotion in diseases of the gastrointestinal tract- of the intestinal tract....99
Conclusion....107
List of literature....109

LIST OF ABBREVIATIONS

Automatic transmission system - esophageal adenocarcinoma

GP - general practitioners – family doctors

GERD - gastroesophageal reflux disease

WEL - vital capacity of the lungs

GASTROINTESTINAL TRACT – gastrointestinal tract

Housing and Communal Services - cholelithiasis

Healthy lifestyle - healthy lifestyle

PPI - proton pump inhibitors

Health facilities - medical and preventive institution

NPCs - lower esophageal sphincter

NSAIDs - nonsteroidal anti-inflammatory drugs

NAFLD - non-alcoholic fatty liver disease

PB - Barrett's esophagus

GCC - cardiovascular diseases

with - mucous membrane

FR - risk factors

KHNIZ - chronic non-communicable diseases

HP - chronic pancreatitis

CPU USAGE - cirrhosis of the liver

Central Nervous System - central nervous system

Heart RATE - heart rate

YABJ and YABDK - peptic ulcer of the stomach and duodenum

PREFACE

The textbook "Prevention and health promotion of the population with diseases of the digestive system" is intended for senior students of medical institutes, masters and clinical residents in the specialty of therapy, as well as general practitioners.

The textbook is devoted to the main issues of prevention and risk of developing diseases that affect the state of public health of the population, necessary for training general practitioners in medical universities to work as family doctors. The skills of monitoring the main risk factors for the occurrence and prevention of the most important diseases of the digestive system that affect the duration and quality of life of the population are presented. The importance of the principles of a healthy lifestyle is proved, including physical education in prevention, health promotion and rehabilitation of the population in case of digestive system pathology, as a necessary skill for a general practitioner.

The presented textbook is presented in an accessible form and will be useful for students of medical universities, clinical residents, masters in therapy, general practitioners.

The textbook offered to readers will not only help in theoretical preparation, but, above all, will be a good helper in practical work.

Introduction.

In the twenty-first century, the world's population entered with a huge load of unresolved problems. There is a constant growth and rejuvenation of cardiovascular, oncological, endocrine and digestive diseases. "Old" diseases return and new ones appear. The prevalence of noncommunicable diseases is now reaching unprecedented levels worldwide. According to WHO, at least 86% of deaths and 77% of the burden of disease (DALYs – a measure of the number of years of healthy life lost due to disease, disability and premature death) in the European Region are caused by non-communicable diseases. diseases. The main types of noncommunicable diseases, according to WHO documents, are diseases of the cardiovascular system (including heart attack and stroke), cancer, chronic respiratory diseases (including chronic obstructive pulmonary disease and asthma), diabetes and diseases of the digestive system. They collectively account for the vast majority of the burden of disease and premature mortality in the European region. Chronic diseases are characterized by a number of common features: similar etiology and common causal factors (such as behavioral and environmental risk factors); possible combination of several diseases in one patient; the need for similar models of care that include patient empowerment, as well as the principle of focusing primarily on the patient rather than the disease.

Multi-pronged investments in the prevention and improvement of chronic noncommunicable diseases reduce premature mortality and preventable morbidity and disability, improve the quality of life and well-being of individuals and societies, and can reduce growing health inequalities. In our country, the implementation of this direction includes the strengthening of primary health care, and, in particular, the organization of a network of health centers.

The role of prevention programs is growing many times in the fight against social diseases.

Prevention plays an exceptional role in the fight against infectious diseases. Routine immunization saves more than three million lives on the planet every year (about 10 thousand daily) and protects millions of people from diseases and disabilities.

As the well-known organizer of healthcare, Academician of the Academy of Medical Sciences and Pedagogical Sciences N. A. Semashko, said, the disease is easier to prevent than to treat. Today, disease prevention is the most important priority task of public health, aimed at creating motivation for a healthy lifestyle among the population, strengthening physical and mental health of a person and maintaining the well-being of the population. This task is undoubtedly the primary one among others for health care reform, given the most significant economic effect associated with preserving people's health, labor potential, and the country's gene pool, as well as a significant reduction in the population's need for medical care.

CHAPTER 1. LEGAL BASES OF PREVENTIVE ACTIVITY IN HEALTHCARE.

The global development of society at the present stage is characterized by the fact that the problems of ensuring the right to health protection affect all areas of cooperation between states. The fundamental UN documents define that States should cooperate in the development of the health system. The UN has made a huge contribution to the formation and development of the right to health, and has adopted a number of important universal international legal acts. The first of these was the Universal Declaration of Human Rights, adopted by the UN General Assembly on 10 December 1948, which played and continues to play an important role in the promotion of human rights.

The Universal Declaration of Human Rights proclaims the "value of the human person" (preamble) and the right of everyone to life (article 3). Article 25 of the declaration states:: "Everyone has the right to a standard of living, including food, clothing, housing, medical care and the necessary social services, which is essential for the health and well-being of himself and his family."

In 1966, the UN General Assembly adopted new important acts: the International Covenant on Economic, Social and Cultural Rights and the International Covenant on Civil and Political Rights. These documents provide a more detailed list of human and civil rights. Both pacts have formed a kind of international code of human and civil rights. They proclaim the rights of every person to life, liberty, personal inviolability, inviolability of personal and family life, etc. A States parties have committed themselves to adopt the necessary legislative measures to ensure the rights and freedoms provided for in the Covenants. These important international legal acts laid the foundation for the right to health.

An international legal standard in the field of health protection can be defined as the most progressive international legal norms adopted by an authorized international body that enshrine human rights and freedoms in the field of health protection, as guarantees for ensuring this right, forms of international cooperation, as well as benefits for various categories of persons. Health protection has two levels of provision: national health protection and individual health protection.

WHO's Public Health Strategy. Today, there are a large number of international organizations that implement healthcare projects in many countries of the world. However, the World Health Organization (WHO) remains the most authoritative international organization in this field.

In 2000, the international community sets new goals:

- sustainable development of society in harmony with nature;
- formation of the humanistic paradigm;
- protection and promotion of human and peoples ' rights around the world;
- achievements in the XXI century of "Health for all".

WHO has formulated 10 main goals (global targets)within the framework of the Health for All in the XXI Century program:

1. Strengthening health equity.
2. Improve opportunities for survival and improve the quality of life.
3. Reversing global trends in the five major pandemics (infectious diseases, non-communicable diseases, injuries and violence, alcohol and drug addiction, tobacco smoking).
4. Complete or partial elimination of certain diseases (polio, etc.).
5. Improve access to water, sanitation, food and shelter.
6. Promoting healthy and countering unhealthy lifestyles.
7. Improve access to comprehensive, high-quality health care.
8. Support for scientific research in the field of healthcare.
9. Implementation of global and national health information and epidemiological surveillance systems.
10. Develop, implement and monitor Health for All policies in countries.

The idea and strategy of "Health for All" once again confirms the inherent human right to health, the responsibility of the individual and society as a whole for the real implementation of this right, the systematic development of health care in national and departmental terms, the development of cooperation in shaping the global health system, as well as monitoring progress towards this promising goal.

The global policy for achieving health for All for the twenty-first century should be implemented through appropriate regional and national strategies.

A. Principles and approaches:

1. Solidarity of States in the interests of public health.

2. Equality of different groups within countries in health protection.

B. Whole-of-population focus and major hazards:

3. A healthy start to life.

4. Youth health.

5. Maintaining health in the elderly.

6. Improve mental health.

7. Reducing the prevalence of infectious diseases.

8. Reduce the prevalence of noncommunicable diseases.

9. Reduce injuries resulting from acts of violence and accidents.

B. Prevention and healthy lifestyle:

1. A healthy and safe physical environment.

2. A healthier lifestyle.

3. Reducing the damage caused by alcohol, addictive drugs and tobacco.

4. Conditions of a healthy environment.

5. Multisectoral health commitments.

D. Change of orientation – focus on the final product result:

1. Integration of healthcare.

2. Management issues and quality assurance of health care.

D. Resources:

1. Health service funding and resource allocation.

2. Development of human resources in healthcare.

3. Scientific research and information on health issues.

4. Mobilise partners for health.

5. Policy and strategy for achieving health for all.

The key goal of the Health 21 policy in the European Region is for all people to fully realize their "health potential".

The key goal can be achieved by:

- ensuring equal protection through solidarity of action;
- promote and protect people's health throughout their lives;
- reduce the prevalence and suffering caused by underlying diseases, injuries and injuries.

Thus, the "Health for All" policy is based on three fundamental values that are its ethical basis. This:

1. Recognition of health as an essential human right.

2. Equity in matters of health and its protection, effective solidarity of countries and groups of people within countries in these matters.

3. Participation in health care activities and responsible attitude of all social strata and sectors.

Since the adoption of the Global Strategy for the Prevention and Control of Noncommunicable Diseases in 2000, several Health Assembly resolutions have been adopted and endorsed to support key components of the global strategy.

Background to the global action plan for the prevention and control of noncommunicable diseases.

1. The global burden and threat of noncommunicable diseases is a serious public health problem that undermines social and economic development around the world. Reducing this threat requires urgent action at the global, regional and national levels to prevent increasing inequalities between countries and peoples.

2. An estimated 36 million deaths, or 63% of the 57 million deaths reported worldwide in 2008, were caused by non-communicable diseases, which mainly include cardiovascular diseases (48%), cancer (21%), chronic respiratory diseases (12 %) and diabetes mellitus (3.5 %).

WHO forecasts that if action is not taken, the total annual number of deaths from noncommunicable diseases will increase to 55 million by 2030.

Measures to introduce a healthy and safe diet:

• support for early childhood breastfeeding;

• support of domestic production of specialized baby food products that fully meet the needs of healthy young children;

• creating a system of healthy nutrition for children in organized groups, including improving the organization of nutrition for students in general education institutions;

• education and training of various population groups in the field of healthy nutrition, including with the participation of research and treatment centers dealing with nutrition issues;

• information and communication campaign for the formation of a healthy and safe diet among the population;

• monitoring the nutritional status of the population.

Also important are measures to increase physical activity, which is the most important condition for maintaining the health of citizens.

In order to inform the population about a healthy lifestyle, an Internet portal dedicated to aspects of a healthy lifestyle has been created. The main task of the site is to provide reliable and objective information on the specified topic. The need to create such an information resource was due to the fact that the issue of maintaining a healthy lifestyle, in particular proper nutrition and avoiding bad habits, is extremely acute for the population.

Today, it is obvious that reducing high mortality and increasing life expectancy in Uzbekistan is possible primarily through the prevention and control of the main risk factors for developing diseases. This problem is clearly cross-cutting, but health professionals play a major role in addressing it. They should be initiators, catalysts, analyzers of all actions that contribute to the prevention of diseases, as well as inform government agencies and the population about the dynamics of these processes.

CHAPTER 2. FUNDAMENTALS OF MEDICAL PREVENTION. ORGANIZATIONAL AND LEGAL BASIS FOR PROVIDING PREVENTIVE CARE TO THE POPULATION.

Prevention – a term that means a set of various activities aimed at preventing any phenomenon and/or eliminating risk factors.

The specific subject content of the concept of prevention has many meanings that are used to denote different policy directions, social, collective and individual activities, and several types of medical activities. Nevertheless, the concrete objective content of this concept is always an action – an opportunity to promote or hinder the implementation of a particular public health trend that interests us.

Thus, the general content of the concept of "prevention" can be reduced to activities through which it is possible to achieve the preservation and improvement of individual, group or public health. We can say that this is a set of measures aimed at preventing people from developing diseases, their exacerbations, socio-psychological and personal maladaptation.

Disease prevention is a system of medical and non-medical measures aimed at preventing or reducing the risk of developing deviations in the state of health and diseases, preventing or slowing their progression, and reducing their adverse consequences.

Medical prevention is a system of preventive measures implemented through the healthcare system.

Prevention is a system of state, social, hygienic and medical measures aimed at ensuring a high level of health and preventing diseases.

Preventive measures will only be effective if they are implemented at all levels: state, labor collective, family, individual.

The state level of prevention is ensured by measures to improve the material and cultural standard of living of the population, legislative measures regulating the protection of public health, the participation of all ministries and departments, public organizations in creating optimal living conditions from the point of view of

health on the basis of comprehensive use of the achievements of scientific and technological progress.

Preventive measures at the level of the labor collective provide for measures to ensure sanitary and hygienic control of industrial conditions, home hygiene, trade and public catering, to create a rational regime of work and recreation, a favorable psychological climate and relationships in the team, and sanitary and hygienic education.

Prevention in the family is inextricably linked with individual prevention and is a determining condition for the formation of a healthy lifestyle, it is designed to ensure a high hygienic level of housing, rational nutrition, good rest, physical education and sports, and the creation of conditions that exclude the appearance of bad habits.

Medical prevention in relation to the population is defined as:

• individual – preventive measures carried out with individual individuals. Individual medical prevention – personal hygiene is a scientific and practical medical activity aimed at studying, developing and implementing hygienic knowledge, requirements and principles for preserving and promoting health in everyday individual life. This concept is also used to determine the compliance of a person's life activity with medical and hygienic standards and medical recommendations-conscious active hygienic behavior;

• group – preventive measures carried out with groups of people with similar symptoms and risk factors (target groups);

• population (mass) – preventive measures that cover large groups of the population (population) or the entire population as a whole. The population level of prevention is usually not limited to medical measures – these are local prevention programs or mass campaigns aimed at promoting health and preventing diseases.

Public medical prevention, preventive (preventive, social, public) medicine – scientific and practical medical activity aimed at studying the prevalence of diseases, disabilities, and causes of death in society in order to substantiate socio-

economic, legal, administrative, hygienic, and other areas and measures of prevention and therapeutic measures.

Reasons that require increased prevention at the present stage:

1. the type of pathology changes: from epidemic (infection) to non-epidemic;

2. there is an unfavorable course of viral pathology;

3. unfavorable trends in the dynamics of demographic processes;

4. the physical and neuropsychiatric health of the population (especially children)is deteriorating;

5. increases the aggressiveness of the environment.

In preventive medicine, an idea of the stages of prevention is introduced, which is based on modern epidemiological views on the causality of human diseases. The subjects of application of preventive measures and impacts are different stages of disease development, including various preclinical conditions, and the objects are individuals, groups of individuals, individual populations, and the general population.

In cases where preventive measures are aimed at eliminating the cause (root cause, etiological factor, etiology of the disease) and/or reducing the effect of pathogenetic risk factors for the development of an undisclosed morbidity (chain of epidemiological causes of the disease), we are talking about primary prevention.

Primary prevention - a set of medical and non-medical measures aimed at preventing the development of deviations in the state of health and diseases, eliminating their causes common to the entire population, its individual groups and individuals.

Primary prevention goal the goal is to reduce the frequency of new cases (incidents) any disease by monitoring its causes, epidemiological conditions, and risk factors.

Primary prevention includes:

• conducting environmental and sanitary screening and taking measures to reduce the impact of harmful factors on the human body (improving the quality of atmospheric air, drinking water, food structure and quality, working, living and recreation conditions, the level of psychosocial stress and other factors affecting the quality of life).

• formation of a healthy lifestyle, including::

– creation of a permanent information and propaganda system aimed at increasing the level of knowledge of all categories of the population about the impact of negative factors and opportunities to reduce it;

– hygienic education;

– reducing the prevalence of smoking and tobacco use, reducing alcohol consumption, preventing the use of drugs and narcotic drugs;

– attracting the population to physical education, tourism and sports, increasing the availability of these types of health improvement.

• measures to prevent the development of somatic and mental illnesses and injuries, including professionally caused ones, accidents, disability and death from unnatural causes, road traffic injuries, etc.

• implementation of medical screening to reduce the impact of risk factors and early detection and prevention of diseases of various target groups of the population by conducting preventive medical examinations:

– preliminary – when applying for a job or entering an educational institution;

– when registering and calling up for military service;

– periodic – for examination of admission to a profession related to exposure to harmful and dangerous industrial factors, or with increased danger to others;

– inspections of decreed contingents (employees of public catering, trade, children's institutions, etc.) in order to prevent the spread of a number of diseases.

• conducting immunoprophylaxis of various population groups.

• medical examination of the population in order to identify the risks of developing chronic somatic diseases and improving the health of individuals and populations under the influence of adverse factors, using medical and non-medical measures.

Basic principles of primary prevention:

1. continuity of preventive measures (throughout life, starting in the antenatal period);

2. differentiated nature of preventive measures;

3. mass prevention;

4. scientific nature of prevention;

5. the complexity of preventive measures (participation in the prevention of medical institutions, authorities, public organizations, the population).

Primary prevention, depending on the nature of the site, also involves two strategies: population-based and individual (for high-risk groups), which often complement each other.

In a population strategy, the goal of prevention is achieved by solving the problem of reducing the average risk of developing a disease (hypercholesterolemia or blood pressure, etc.) by implementing measures that cover the entire population or a large part.

The individual strategy solves a different problem-reducing high risk in individuals classified as" risk groups " for certain epidemiological characteristics (gender, age, exposure to a specific factor, etc.).

Secondary prevention - a set of medical, social, sanitary-hygienic, psychological and other measures aimed at early detection and prevention of exacerbations, complications and chronization of diseases, life restrictions that cause maladaptation of patients in society, reduction of working capacity, including disability and premature mortality.

Secondary prevention is applicable only to those diseases that can be identified and treated at an early stage of development, which prevents the transition of the disease to a more dangerous stage. By early detection of patients based on screening tests (mammography, electrocardiogram, etc.) and their treatment, the main goal of secondary prevention is achieved – prevention of undesirable disease outcomes (death, disability, chronization, transition of cancer to the invasive stage).

Secondary prevention includes:

- targeted health and hygiene education, including individual and group counseling, training of patients and their families in knowledge and skills related to a specific disease or group of diseases;

- conducting dispensary medical examinations to assess the dynamics of the state of health, the development of diseases to determine and conduct appropriate health and therapeutic measures;

- conducting courses of preventive treatment and targeted health improvement, including therapeutic nutrition, physical therapy, medical massage and other therapeutic and preventive methods of health improvement, spa treatment;

- conducting medical and psychological adaptation to changes in the health situation, forming the correct perception and attitude to the changed capabilities and needs of the body;

- implementation of state, economic, medical and social measures aimed at reducing the level of influence of modifiable risk factors, preserving the remaining ability to work and opportunities for adaptation in the social environment, creating conditions for optimal life support for patients.

The effectiveness of secondary prevention is determined by a number of circumstances.

1. How often the disease occurs in the preclinical stage in the population.

2. Whether the duration of the period between the appearance of the first signs and the development of a pronounced disease is known.

3. Whether the diagnostic test is highly sensitive and specific for this disease and is simple, inexpensive, safe and acceptable.

4. Whether clinical medicine has adequate medical means of diagnosing this disease, effective, safe and affordable methods of treatment.

5. Whether the necessary medical equipment is available.

Prevention is tertiary - rehabilitation (also known as health restoration) – a set of medical, psychological, pedagogical, and social measures aimed at eliminating or compensating for life limitations and lost functions in order to restore social and professional status as completely as possible, prevent relapses and chronicize the disease.

Goal of tertiary prevention - slowing down the development of complications with an already existing disease.

Its mission is to prevent physical disability and disability, minimize the suffering caused by the loss of full-fledged health, and help patients adapt to incurable conditions. In clinical medicine, it is often difficult to distinguish between tertiary prevention, treatment, and rehabilitation.

Tertiary prevention includes:

• providing patients and their families with knowledge and skills related to a specific disease or group of diseases;

• conducting medical examinations of patients with chronic diseases and disabled people, including dispensary medical examinations in order to assess the dynamics of the state of health and the course of diseases, performing permanent monitoring of them and carrying out adequate medical and rehabilitation measures;

• conducting medical and psychological adaptation to changes in the health situation, forming the correct perception and attitude to the changed capabilities and needs of the body;

• implementation of state, economic, medical and social measures aimed at reducing the level of influence of modifiable risk factors;

• preservation of residual working capacity and opportunities for adaptation in the social environment;

• creating conditions for optimal life support for patients and disabled people (for example, the production of medical nutrition, the implementation of architectural and planning solutions, the creation of appropriate conditions for people with disabilities, etc.).

Medical preventive event – an event or set of events that have an independent completed value and a certain cost and are aimed at preventing diseases, their timely diagnosis and recovery.

Types of medical preventive measures:

• preventive counseling for individuals – health education;

• preventive counseling for population groups – health education;

• preventive medical examinations to identify early forms of diseases and risk factors and conduct health-improving activities;

• immunization; vaccine prevention;

• medical check – up-medical supervision and rehabilitation;

• preventive health-improving activities – classes in various types of physical culture, sanatorium-resort health improvement, physiotherapy medical events, massage, etc.

One of the most important problems facing practical healthcare in strengthening preventive activities, improving their quality, efficiency and effectiveness, is the development of new and adaptation to modern requirements and working conditions of modern organizational, information and preventive technologies.

Modern organizational, informational, educational and other preventive technologies used or recommended for use:

1. Identification of risk factors (RF) development of chronic non-communicable diseases. One of the most relevant modern preventive areas is the identification of the main and additional RF, informing patients about the identified deviations and the possibility of their correction using modern preventive, health-improving and therapeutic technologies.

Forms and methods of work (screening technologies from the English screening – "selection, sorting") – a strategy in healthcare, a population survey aimed at detecting diseases in clinically asymptomatic individuals in the population, as well as the risk of diseases.

The goal of screening is early detection of diseases, which allows for an early start of treatment and a reduction in mortality. Distinguish between **mass (universal) screening,** which includes all people from a certain category (for example, all children of the same age) and **selective screening,** used in high-risk groups (for example, screening of family members in case of detection of a hereditary disease). Assessment and forecast of the total risk of CVD development. Total risk assessment is necessary to determine the likelihood of developing cardiovascular and other events in the next 5-10 years.

2. Consultative and health-improving assistance – type of medical care that includes the provision of medical, informational and educational services, issuing recommendations aimed at preventing diseases and promoting health, as well as advising specialists involved in the management and treatment of the patient.

The purpose of health counseling is to provide the greatest possible assistance to patients in reducing the impact of modulated RF, preventing diseases and their consequences by conducting individual preventive counseling.

3. Diagnosis and prevention of emotional and behavioral disorders.

A fairly significant amount of chronic non-communicable diseases, their course and progression is associated with the presence of psychosomatic

disorders. In this regard, many involve medical psychologists who work in close contact with their attending physicians

4. Information support.

Informatization is the basis that underlies the development, implementation and monitoring at all levels of theory and practice of activities for disease prevention and health promotion of various population groups, taking into account the existing health risks. The current situation indicates the need to systematize and streamline the system of information support for preventive activities, identify ways to unify data banks for disease prevention and health promotion, priority areas in solving information support tasks, and expand the number of information resources available to the population. opportunities to access the generated information base and improve the efficiency of its use. Information support is a systematized, integrated form of information on a specific area of activity, adapted to the national and international information network.

Information resources are separate documents and arrays of documents used in information systems: libraries, archives, collections, data banks, and other types of information systems.

Information technology – a set of methods, production and software and technological tools united in a technological chain that provides the collection, storage, processing, output and dissemination of information.

Information technologies are designed to reduce the complexity of the processes of using information resources.

The goal of information support is to create an information system that can better facilitate the acquisition, use and dissemination of health-supporting data for all. Taking into account that preventive activities are defined as an absolute priority of the policy and practice of protecting and promoting public health, the formation of information support for preventive activities should become a priority task in the formation of state and industry information policy, and at the level of health facilities – the basis for creating a single information space for specialists and the population provided.

5. Hygienic training and education.

The tasks of health education, hygienic training and education of the population (both individuals and various groups and categories of citizens) should be implemented in one form or another by all departments and specialists of health facilities and prevention departments.

The main purpose of hygiene training and education is to inform population groups about the impact of negative factors on health and the possibilities of its reduction, to form motivation for strengthening and maintaining health, to increase personal and group responsibility for health, to acquire knowledge and skills that contribute to a healthy lifestyle.

6. Coordination of activities related to conducting preventive medical examinations and medical examinations of the population.

The main purpose of the professional examination office is to optimize the organizational forms of conducting medical professional examinations and medical examinations of the population in health facilities. Coordination of activities in this area of all interested departments and specialists of the polyclinic and the use of economically and clinically appropriate methods to improve the efficiency and quality of this work.

7. Coordination of the activities of departments and specialists of medical institutions for the implementation of targeted programs in terms of health promotion and disease prevention.

Preventive program (or a preventive fragment of the general program) - a systematic statement of the main goals, objectives, and areas of activity for the prevention of morbidity, preservation, and promotion of health. Preventive programs (or preventive fragments of the general program) include justification and a list of measures to implement the tasks set, deadlines and conditions for implementation, performers, resource requirements, expected results, as well as management, monitoring and evaluation systems for effectiveness.

8. Monitoring of health and preventive activities.

The structure of the department of prevention is proposed to include a cabinet for monitoring health and preventive activities. Monitoring is a purposeful activity that includes permanent observation, analysis, assessment and forecast of the state of an object (process, phenomenon, system) or, in other words, an analytical tracking system.

Health monitoring involves monitoring and analyzing the health status of the attached population and its individual target groups based on information provided by the statistics department (morbidity by referral, including by individual classes and groups of diseases, gender, age, etc., morbidity based on the results of professional examinations, access to disability, mortality, etc.).

Monitoring of preventive activities of departments of the Department of prevention and health facilities includes analytical monitoring of the volume, quality and effectiveness of the provision of preventive and health-improving medical services both in the structure of the department of prevention and in general in health facilities, hygiene education and public education.

9. Sociological research in the field of preventive activities.

When solving specific problems of health promotion and disease prevention, the formation of a healthy lifestyle (HLS), it is increasingly important to study the processes occurring in this direction in society, which can be achieved by conducting simple sociological research. Planning and implementation of effective preventive interventions involves studying the degree of readiness of individual population groups and individuals to learn and accept hygienic knowledge and skills of healthy lifestyle management.

Sociological research in the healthcare system is a method of obtaining knowledge about the processes taking place in society related to the attitude to one's own and public health, the use of preventive, health-improving, curative and rehabilitative interventions, assessing their availability, effectiveness and quality, based on obtaining information and identifying patterns based on theories, methods and procedures adopted in sociology

10. Intersectoral interaction or social partnership.

When forming an integrated approach to solving problems of health promotion and disease prevention, health authorities and institutions should take a leading position, initiate cooperation with all interested organizations and individuals. Such cooperation is currently interpreted as a "social partnership".

Epidemiological studies should be an integral part of the health system when planning and implementing preventive intervention programs.

CHAPTER 3. RISK FACTORS: DEFINITION, CLASSIFICATION, AND PRACTICAL SIGNIFICANCE.

Risk factors (FR) – potentially dangerous factors for health of an ecological and social nature, environmental and industrial environment, environmental factors that are independent of a particular individual and behavioral, biological, genetic (individual), which increase the likelihood of developing diseases, their progression and an unfavorable outcome.

Criteria for causal association between a risk factor and a disease:

– **persistence (verifiability):** the found association is confirmed or can be confirmed in several studies; this association is constantly found in different subgroups of patients within the same study.

– **stability (link strength):** the influence of this factor is quite large and the risk of disease increases with increasing exposure.

– **specificity:** there is a clear link between a particular risk factor and a particular disease.

– **sequence in time:** exposure to a risk factor precedes the disease.

– **compliance (consistency):** the association is possible physiologically, which is confirmed by experimental data.

Most RF can be corrected (modifiable) and is of the greatest interest for prevention. Unmodified RF (age, gender, and genetic characteristics) cannot be corrected, but they are used to assess and predict the individual, group, and population risk of developing CNID.

To biological factors risk factors include genetic and ontogenetic features of the human body. It is known that some diseases are more common in certain national and ethnic groups. There is a hereditary predisposition to the disease of hypertension, peptic ulcer disease, diabetes mellitus and other diseases. Obesity is a serious risk factor for the occurrence and course of many diseases, including diabetes mellitus and coronary heart disease. The presence of foci of chronic

infection in the body (for example, chronic tonsillitis) can contribute to the disease of rheumatism.

Environmental risk factors. Changes in the physical and chemical properties of the atmosphere affect, for example, the development of bronchopulmonary diseases. Sharp daily fluctuations in temperature, atmospheric pressure, and magnetic field strength worsen the course of cardiovascular diseases. Ionizing radiation is one of the oncogenic factors. Features of the ionic composition of soil and water, and, consequently, food products of plant and animal origin, lead to the development of elementosis – diseases associated with an excess or lack of atoms of an element in the body. For example, a lack of iodine in drinking water and food in areas with low iodine content in the soil can contribute to the development of endemic goiter.

Social risk factors. Unfavorable housing conditions, various stressful situations, such features of a person's lifestyle as physical inactivity are a risk factor for the development of many diseases, especially diseases of the cardiovascular system. Bad habits, such as smoking, are a risk factor for bronchopulmonary and cardiovascular diseases. Alcohol consumption is a risk factor for developing diseases of the digestive system, alcoholism, liver and heart diseases, etc.

By their nature and origin, risk factors can be primary, secondary, tertiary, etc. The category of primary risk factors includes those that usually act primarily, being the cause of the disease. There are also various pathological conditions that are diseases in themselves and have their own primary risk factors. They are secondary factors in relation to various diseases, for example, arterial hypertension is a secondary factor for atherosclerosis, coronary heart disease.

When determining the degree of risk of developing diseases, it is necessary to take into account that most RF are interrelated, and when applied simultaneously, they increase the influence of each other, thereby dramatically increasing the risk. In practice, people with 2-3 or more risk factors are often found among patients. Therefore, when assessing the risk of developing diseases, it is necessary to take into account all available risk factors, i.e. determine the total risk. This is currently possible with the help of computer programs or tables.

Many non-communicable diseases are known to have common risk factors, such as smoking, being overweight, high blood cholesterol, high blood pressure, alcohol and drug use, low physical activity, psychosocial disorders, and environmental problems.

The experience of developed countries strongly suggests that the result of vigorous measures to limit the prevalence of risk factors for noncommunicable diseases is an increase in the average life expectancy of the population.

Optimal results in preventive activities are obtained when all three strategies are combined!!!

The main goal of identifying and correcting RF is to improve health, reduce the incidence of major chronic non-communicable diseases (NCDs): cardiovascular, bronchopulmonary diseases, diabetes mellitus, etc., and reduce mortality in the population.

However, the effect at the population level can be expected only 10-15 years after the start of active actions to identify and correct risk factors.

Tasks:

1. Individual determination of the nature and severity of RF.

2. Informing patients about the identified deviations and the possibility of their correction using modern preventive, health-improving and therapeutic technologies.

3. Referral of patients based on the results of a pre-medical examination for consultation with specialists.

4. Ensuring interaction with specialists of the prevention department, district therapists, GP (family doctors), and other health care professionals.

Forms and methods of work (technologies) – individual preventive screening to identify risk factors in the population served. Screening – a mass examination of people who do not consider themselves sick, to identify the RF of future diseases

behavioral, and hygiene skills that allow maintaining and strengthening health, helping to prevent the development of health disorders and maintaining an optimal quality of life.

A person's lifestyle includes three categories::

– standard of living;

– quality of life;

– lifestyle.

Standard of living – the quantitative aspect of living conditions, the size and structure of the material and spiritual needs of the population, consumption funds, income of the population, provision of housing, medical care, level of education, duration of working and free time, etc. The standard of living is primarily an economic category, representing the degree of satisfaction of material, spiritual and cultural values.

Quality of life is a category that includes a combination of life support and health conditions that allow you to achieve physical, mental and social well-being and self-realization.

Lifestyle – features of the behavior of a particular person or group of people. Lifestyle is a sign of individuality, independence, the ability to build yourself as a person in accordance with your own ideas about a full and interesting life.

The first two categories are public in nature. Therefore, it is clear that a person's health will primarily depend on a lifestyle that is personalized and determined by historical, national traditions (mentality) and personal inclinations. Human behavior is aimed at satisfying needs. With more or less the same level of needs characteristic of a given society, each person is characterized by his own, individual way of meeting them, so people's behavior is different and depends primarily on upbringing.

According to modern concepts, the concept of "healthy lifestyle" includes the following components::

- rational organization of labor (educational) activities;

- correct work and rest schedule;
- rational organization of free time;
- optimal motor performance;
- rational nutrition;
- compliance with the rules of personal hygiene, hardening;
- compliance with the norms and rules of psychohygiena;
- sexual culture, rational family planning;
- prevention of autoaggression;
- control over your health;
- formation of interpersonal relations in labor collectives and families;
- careful attitude to the environment and nature;
- conscious participation in preventive measures carried out by medical institutions, fulfillment of medical prescriptions;
- active participation in cultural events, physical education and sports.

Personal and motivational qualities of a given person and their life orientations are of great importance in the formation of a healthy lifestyle. No wishes, orders, punishments can force a person to lead a healthy lifestyle, protect and strengthen their own health, if the person does not consciously form their own style of healthy behavior!!!

Thus, a healthy lifestyle is a way of life that corresponds to the genetically determined typological characteristics of a given person, specific living conditions and is aimed at the formation, preservation and strengthening of health and at the performance of social and biological functions by a person.

To preserve and restore lost health, a person must make efforts that require a motive, and the totality of motives makes up motivation (motivation is an incentive that causes the activity of the body and determines the direction of this activity).

What are the motivations that underlie the formation of a healthy lifestyle?

1. Self-preservation.
2. Submission to ethno-cultural requirements.

3. Getting pleasure from self-improvement.

4. Opportunity for self-improvement.

5. Biological realization – healthy offspring.

6. Achieving the highest possible comfort and independence, etc.

Thus, a healthy lifestyle should be purposefully and constantly formed during a person's life, and not depend on circumstances and life situations. In this case, it will be a lever of primary prevention, strengthening and formation of health, will improve the reserve capabilities of the body, ensure the successful performance of social and professional functions regardless of political, economic and socio-psychological situations. Healthy lifestyle is a hygienic behavior based on scientifically based sanitary and hygienic standards aimed at strengthening and preserving health, activating the body's defenses, ensuring a high level of working capacity, and achieving active longevity.

Healthy lifestyle can be considered as the basis of disease prevention, the application points of which are the elimination of risk factors: low level of labor activity, dissatisfaction with work, passivity, psycho-emotional tension, low social activity and low cultural level, environmental illiteracy, inactivity, irrational unbalanced nutrition, smoking, alcohol consumption, narcotic and toxic substances, strained family relationships, unhealthy lifestyle, genetic risk, etc. The result of reducing the effect of the above factors is high labor activity, physical and mental comfort, an active life position, strengthening the general condition of the body, reducing the frequency of diseases and exacerbations of chronic diseases.

The formation of healthy lifestyle is the creation of a system for overcoming risk factors in the form of active life activity of people aimed at preserving and strengthening health.

The goals of health development are to create a healthy lifestyle for the population, including reducing the prevalence of tobacco use to 25 % and reducing alcohol consumption per capita.

The objectives of healthcare development are to create conditions, opportunities and motivation for the population of the Republic of Uzbekistan to lead a healthy lifestyle.

Principles of organization of hygienic training and education of the population:

- state character;
- planning information;
- mass distribution;
- participation of all medical professionals;
- participation of other organizations and the public;
- availability of special bodies and institutions of hygienic training and education;
- accessibility and focus;
- scientific background;
- differentiation;
- optimism.

Prevention of socially determined diseases, NCDs, prevention of behavior style diseases and formation of a healthy lifestyle among the population are activities that go beyond the health care system and involve specialists of various profiles, public associations, mass media and the population in solving these tasks. Therefore, building partnerships (intra-sector, intersectoral) is one of the key factors that ensure the success of hygiene education and training.

One of the main principles of partnership is to attract participants at all stages of the process: when planning, organizing, and implementing it, and evaluating its effectiveness. Creating a partnership provides not only an ideological association of partners, but also an investment in the common work of their experience, time, and the combination of their material resources, which can be used for prevention.

Methods and means of hygienic training and education of the population and formation of a healthy lifestyle.

The methods and tools used by medical professionals must comply with the basic principles of hygienic training and education and be instructive, visual, relevant, accessible, optimistic and have an educational function.

Classification of methods and means of hygienic training and education.

№ n/a	Methods	Tools
1.	Verbal	Lecture, talk, advice, discussion, informational speech on the radio, evening of questions and answers, etc.
2.	Printed form	Memo, leaflet, newspaper article, question and answer board, slogan, book, brochure, wall sanitary seal, etc.
3.	Visual	Posters, slides, natural objects, models, photos, albums, drawings, etc.
4.	Mixed	Television, movies, exhibitions (stationary and mobile), health corners, coursework, theatrical productions, telecommunications training

The lecture is a mass means of hygienic training and education, characterized by the greatest capacity of information processed by the lecturer. In a short period of time, the lecturer must present a new, large material. Usually, a large audience is expected to give lectures.

The conversation involves the active participation of listeners. The task of the conversation leader is to make it interesting by asking leading questions and engaging the audience in a general conversation.

The Q & A evening requires prior preparation and good organization. The public is notified in advance about such an evening, and questions from the public are collected in advance.

The question and answer board is a form of correspondence consultations.

The memo is given to the patient in order to remind him of the doctor's advice. It is designed for a specific person, for example, a reminder to a patient suffering from diabetes, a reminder on contraception, etc.

Wall sanitary press – a wall newspaper of sanitary and educational topics, which should be relevant, visual and contain specific information.

Posters are a mass health education tool that scientists, artists, teachers, and others are working on.

Along with traditional forms and methods of work, modern forms are used: schools-seminars, educational programs, health lessons, conferences, helplines, hotlines, trainings, health schools ("arterial hypertension", "peptic ulcer disease", "diabetes mellitus", "asthma schools", "hardening", "menopause", "breastfeeding", etc.). Social research can be conducted in medical organizations, and preventive and health-improving programs can be implemented.

The content and subject matter of materials on hygienic training and education of the population are determined in accordance with the tasks and needs of the contingent served by the medical organization. For district health workers, these may include: rules for caring for a seriously ill person at home, preventive measures in the focus of an infectious disease, educational work on the need for preventive medical examinations, medical examinations, vaccine prevention, etc. For medical workers of departments and offices of medical prevention – this means holding various actions or decades in a medical organization. For example, a decade dedicated to the day of the elderly, which includes a set of events: preventive examinations, lectures, video demonstrations, etc. For medical workers of specialized services, this means working with patients within the framework of specialized schools, distributing information materials on the prevention of various diseases.

Working with patients also requires certain rules: it is necessary to take into account the peculiarities of the patient's psyche, increased interest in their disease.

building partnerships (intra-sector, intersectoral) is one of the key factors that ensure the success of hygiene education and training.

One of the main principles of partnership is to attract participants at all stages of the process: when planning, organizing, and implementing it, and evaluating its effectiveness. Creating a partnership provides not only an ideological association of partners, but also an investment in the common work of their experience, time, and the combination of their material resources, which can be used for prevention.

Methods and means of hygienic training and education of the population and formation of a healthy lifestyle.

The methods and tools used by medical professionals must comply with the basic principles of hygienic training and education and be instructive, visual, relevant, accessible, optimistic and have an educational function.

Classification of methods and means of hygienic training and education.

№ n/a	Methods	Tools
1.	Verbal	Lecture, talk, advice, discussion, informational speech on the radio, evening of questions and answers, etc.
2.	Printed form	Memo, leaflet, newspaper article, question and answer board, slogan, book, brochure, wall sanitary seal, etc.
3.	Visual	Posters, slides, natural objects, models, photos, albums, drawings, etc.
4.	Mixed	Television, movies, exhibitions (stationary and mobile), health corners, coursework, theatrical productions, telecommunications training

The lecture is a mass means of hygienic training and education, characterized by the greatest capacity of information processed by the lecturer. In a short period

of time, the lecturer must present a new, large material. Usually, a large audience is expected to give lectures.

The conversation involves the active participation of listeners. The task of the conversation leader is to make it interesting by asking leading questions and engaging the audience in a general conversation.

The Q & A evening requires prior preparation and good organization. The public is notified in advance about such an evening, and questions from the public are collected in advance.

The question and answer board is a form of correspondence consultations.

The memo is given to the patient in order to remind him of the doctor's advice. It is designed for a specific person, for example, a reminder to a patient suffering from diabetes, a reminder on contraception, etc.

Wall sanitary press – a wall newspaper of sanitary and educational topics, which should be relevant, visual and contain specific information.

Posters are a mass health education tool that scientists, artists, teachers, and others are working on.

Along with traditional forms and methods of work, modern forms are used: schools-seminars, educational programs, health lessons, conferences, helplines, hotlines, trainings, health schools ("arterial hypertension", "peptic ulcer disease", "diabetes mellitus", "asthma schools", "hardening", "menopause", "breastfeeding", etc.). Social research can be conducted in medical organizations, and preventive and health-improving programs can be implemented.

The content and subject matter of materials on hygienic training and education of the population are determined in accordance with the tasks and needs of the contingent served by the medical organization. For district health workers, these may include: rules for caring for a seriously ill person at home, preventive measures in the focus of an infectious disease, educational work on the need for preventive medical examinations, medical examinations, vaccine prevention, etc. For medical workers of departments and offices of medical prevention – this means holding

measures in the focus of an infectious disease, educational work on the need for preventive medical examinations, medical examinations, vaccine prevention, etc. For medical workers of departments and offices of medical prevention – this means holding various actions or decades in a medical organization. For example, a decade dedicated to the day of the elderly, which includes a set of events: preventive examinations, lectures, video demonstrations, etc. For medical workers of specialized services, this means working with patients within the framework of specialized schools, distributing information materials on the prevention of various diseases.

Working with patients also requires certain rules: it is necessary to take into account the peculiarities of the patient's psyche, increased interest in their disease.

CHAPTER 5. CHRONIC DISEASES OF THE DIGESTIVE SYSTEM: EPIDEMIOLOGY, RISK FACTORS, PREVENTION.

Diseases of the digestive system remain an urgent problem in clinical medicine, attracting the attention of both practicing doctors and health care organizers. Worldwide, the number of people suffering from diseases of the gastrointestinal tract and hepatobiliary system is increasing every year.

The general morbidity rate of the population in the Republic of Uzbekistan in the class of "digestive diseases" has increased. Over the past 15 years, the primary incidence of diseases of the digestive system has remained stable. In recent years, not only is the prevalence of diseases of the digestive system increasing, but there has also been a change in the structure and pathomorphosis of this pathology: pathology of the upper gastrointestinal tract has begun to prevail, there is a leveling of gender differences in the frequency of cholelithiasis, gastric ulcer and duodenal ulcer. intestines; there is an expansion of the age boundaries of the formation of pathology of the digestive system. There is a clear trend towards an increase in the incidence of pathology of the upper gastrointestinal tract, namely peptic ulcer of the stomach and duodenum 12, gastroesophageal reflux disease, gastritis and duodenitis, fatty liver hepatosis.

Peptic ulcer disease and gastroesophageal reflux disease (GERD) are the most common diseases of the upper digestive tract. On average, in Western Europe up to 8.2 % of the population suffers from peptic ulcer disease, in Germany every 10th adult resident of the country, in the UK-15% of the population, in the USA from 7 to 10% of residents, in Japan-11%, in India-25%. According to literature data in Uzbekistan, in recent years, the proportion of patients with newly diagnosed duodenal ulcer (duodenal ulcer) has increased from 18 to 26%, and dispensary registration with this diagnosis in the country is now there are about 3 million people. Consistently high level of gallbladder dysfunctions in the structure of diseases of the digestive system. It has been established that they occupy the second place in terms of frequency and are second only to chronic gastritis and duodenitis. A significant argument that determines the medical and social significance of diseases of the digestive system is that all age groups of the population suffer from this pathology. In the last 10 years, the incidence of digestive diseases in children and adolescents has increased 3-fold.

5.1. GASTROESOPHAGEAL REFLUX DISEASE.

The problem of gastroesophageal reflux disease (GERD) has recently attracted the attention of scientists and practitioners in many countries of the world. This is primarily due to the growing prevalence of GERD, a wide range of complaints made by patients, including "extra-esophageal" complaints, the development of such serious complications as Barrett's esophagus (BA) and esophageal adenocarcinoma (ACP), as well as the duration of conservative therapy and, in some cases, the inevitability of surgical intervention.

GERD is rightly considered a disease of the XXI century. This pathology in the general population occurs in 29% of cases, and the symptoms of the disease are equally common in both men and women. The peculiarity of the lesion of patients with GERD is that the frequency of the disease increases from the age of 18, with a favorable course it decreases by 65-75 years, with the exception of patients with peptic ulcer of the esophagus. It is necessary to pay attention to the fact that practitioners and patients themselves underestimate the importance of this disease and less than 1/3 of patients with GERD go to the doctor. In most cases, patients seek medical help late and even with severe symptoms are treated independently. Doctors, in turn, are poorly aware of this disease and underestimate its consequences, do not rationally conduct therapy for reflux esophagitis. It is extremely rare to diagnose such a serious complication as Barrett's esophagus, which is a precancerous condition.

Gastroesophageal reflux disease is a chronic recurrent disease caused by a violation of the motor – evacuation function of the organs of the gastroesophageal zone and characterized by spontaneous or regularly repeated throwing of gastric or duodenal contents into the esophagus, which leads to damage to the distal esophagus with the development of functional disorders and/or dystrophic changes in the non-keratinizing multilayer squamous epithelium, simple (catarrhal), erosive or ulcerative esophagitis (reflux esophagitis), and in some patients over time - cylindrical cell (glandular) metaplasia (Barrett's esophagus).

Epidemiology.

The prevalence of GERD in the adult population is up to 40%. Extensive epidemiological studies indicate that 40% of individuals experience heartburn all the time (with varying frequency) – the main symptom of GERD. In general, the prevalence of GERD in the adult population is 40-60%, and 45-80% of people with GERD have esophagitis. In the general population, the prevalence of esophagitis is estimated at 5-6%; at the same time, 65-90% of patients have slightly pronounced and moderate esophagitis, and 10-35% have severe esophagitis. The incidence of severe esophagitis in the general population is 5 cases per 100,000 population per year. The prevalence of Barrett's esophagus among individuals with esophagitis is close to 8%, with variations ranging from 5 to 30%. In recent decades, there has been an increase in the incidence of ACP, which develops against the background of the progression of dysplastic changes in the metaplastic epithelium of the mucosa of the distal esophagus. ACP develops in 0.5 % of patients with low-grade epithelial dysplasia, in 6% per year - with high-grade dysplasia, and in less than 0.1 % - without dysplasia.

The formation of esophageal strictures was noted in 7-23% of patients with erosive-ulcerative esophagitis, the occurrence of bleeding – in 2% of patients. Erosions and ulcers of the esophagus were the cause of gastrointestinal bleeding in 21% of cases among people over 70 years of age, and in 25% of cases among patients in intensive care units who underwent surgery.

Pathogenesis.

Physiological prerequisites. In the process of digestion in healthy individuals, some of the contents are thrown from the stomach into the esophagus – gastroesophageal reflux. Under physiological conditions, gastroesophageal reflux occurs infrequently, on average-1 cast per hour. In this case, the esophageal clearance (purification) immediately occurs, which is determined by the rate of decrease of the chemical stimulus from the esophageal cavity to the stomach. Normally, regurgitated stomach contents are quickly removed from the esophagus. A certain role in cleansing the esophagus and neutralizing regurgitate is played by saliva continuously flowing down its walls, which contains bicarbonates. Thus, effective physiological clearance is achieved.

Under physiological conditions, the duration and severity of gastroesophageal reflux can lead to acidification of the medium in the distal part of the esophagus (pH With a constant increase in this time interval, esophageal reflux can be considered pathological.

Normally, the following protective mechanisms are used to prevent damage to the esophageal mucosa (ES)::

1. Anti-reflux barrier function of the gastroesophageal junction and lower esophageal sphincter.

2. Esophageal cleansing (clearance).

3. Resistance of the esophageal mucosa.

4. Timely removal of gastric contents.

5. Control of the acid-forming function of the stomach.

Factors predisposing to the development of GERD:

- recurring stresses;
- obesity;
- prolonged constipation;
- systematic inclines ("stream drinker" or "gardener" poses);
- pregnancy (due to increased intra-abdominal pressure and the action of progesterone, which reduces the activity of esophageal pulp);
- smoking;
- alcohol abuse;
- hiatal hernia;
- taking certain medications: calcium antagonists, anticholinergic drugs, beta blockers, benzodiazepines, sleeping pills, theophylline, etc.;

• frequent consumption of certain foods: fats, chocolate, coffee, fruit juices, hot spices, tomatoes, carbonated drinks.

The main pathophysiological causes of GERD development are:

• violation of the locking mechanism of the cardia – a decrease in the functional activity of the non-esophageal pulp;

• pathological reflux of gastric or duodenal contents into the esophagus, accompanied by excessively prolonged contact of chyme with the esophageal mucosa, leading to its inflammation;

• reduced esophageal clearance caused by impaired esophageal motor activity;

• reduced resistance of the esophageal mucosa.

The central mechanism of GERD formation is a violation of the functional activity of the lower esophageal pulp, the pressure in which is normally about 20 mm Hg, and in GERD rarely reaches 10 mm Hg.At the same time, the frequency of its relaxation increases sharply and at the same time, of course, the clearance lengthens. If it normally averages 400c, then with GERD-600-800c, that is, it is almost doubled in length. This leads to the entry of regurgitate into the lumen of the esophagus, most often acidic, rich in pepsin, which is known to be the only digestive enzyme capable of digesting living tissue.

The tone of the lower esophageal sphincter (NPS) is affected by a significant number of exogenous and endogenous factors:

• the pressure in the NPS decreases under the influence of a number of gastrointestinal hormones: glucagon, somatostatin, cholecystokinin, secretin, vasoactive intestinal hormone, enkephalins; increase the pressure: gastrin, motilin, substance P;

• some medications (anticholinergic agents, beta blockers, calcium antagonists, nitrates, etc.) have a depressive effect on the NPS.;

• the tone of the NPS is reduced by certain foods: fats, chocolate, citrus fruits, tomatoes, as well as coffee, alcohol, and smoking.

Direct damage to the cardiac sphincter muscle tissue can also cause gastroesophageal reflux (surgery, prolonged presence of a nasogastric tube, esophageal augmentation, scleroderma).

A certain significance in the occurrence of gastroesophageal reflux is given to spontaneous relaxation of the NPS. Normally, the NPS relaxation lasts 5-30s. Most patients with GERD experience repeated episodes of spontaneous NPS relaxation that are not adequately controlled.

NPS relaxation may be associated with swallowing, which is observed in 5-10% of reflux episodes. Their cause is disturbed peristalsis of the esophagus. It should be noted that modern prokinetics do not effectively reduce the number of episodes of NPS relaxation. In the future, we still need to decipher the mechanisms of regulation of NPS function and introduce new prokinetic drugs into clinical practice.

5.1.1. Primary prevention of GERD.

Primary GERD prevention goal - prevention of the development of the disease. Primary prevention consists of following a number of recommendations:

- it is necessary to exclude – overeating, "snacking" at night, lying down after meals; limit foods rich in fat (whole milk, cream, fatty fish, goose, duck, pork, fat beef, lamb, cakes, pastries), beverages containing caffeine (coffee, strong tea or cola), chocolate, products containing peppermint and pepper (all of them reduce the tone of the NPS); citrus fruits and tomatoes, fried foods, onions and garlic, as they have a direct irritant effect on the skin. effects on sensitive esophageal mucosa, carbonated beverages;
- recommended 3-4 meals a day;
- abstinence from smoking;
- abstinence from alcohol abuse;
- if necessary weight loss;

• taking strictly prescribed medications that cause reflux (anticholinergics, antispasmodics, sedatives and tranquilizers, calcium channel inhibitors, beta-blockers, theophylline, prostaglandins, nitrates) and damage the mucous membrane (nonsteroidal anti-inflammatory drugs);

• normalization of bowel function;

• restriction of loads that increase intra-abdominal pressure, wearing corsets, bandages and tight belts; lifting weights more than 8-10 kg on both hands; work associated with bending the torso forward; physical exercises associated with overstrain of the abdominal muscles;

• minimization of stress factors.

5.1.2. Secondary prevention of GERD.

Goal of secondary prevention of GERD - reducing the frequency of relapses and preventing the progression of the disease. A mandatory component of secondary prevention is compliance with the above recommendations for primary prevention.

Patients with GERD should be encouraged to make lifestyle changes and dietary restrictions, as well as provide them with oral, printed and electronic materials to prevent reflux. When training patients with GERD, they explain the need for long-term maintenance therapy with antisecretory drugs and warn about possible complications of the disease. During regular visits to the doctor, patients with GERD are informed about the possibility of developing complications of the disease and explain the need to inform the attending physician about the persistence of symptoms during treatment or the appearance of new symptoms. To maintain long-term remission of the disease, the most effective treatment regimens are used.

In the presence of both esophageal and extraesophageal manifestations of GERD, the appointment of proton pump inhibitors is effective. Proton pump inhibitors (PPIs) are drugs that inhibit the activity of the enzyme H+, K+ – ATPase, which is located on the apical membrane of the parietal cell and performs the last stage of hydrochloric acid synthesis. Currently, PPIs are considered the

most effective and safe drugs for treating GERD. In clinical studies, PPIs consistently demonstrate the greatest effectiveness in the treatment of erosive esophagitis and relief of GERD-associated symptoms. Standard doses of PPIs (omeprazole, lansoprazole, pantoprazole, rabeprazole) have comparable rates of persistent remission in GERD reflux esophagitis.

As noted above, GERD is usually characterized by a chronic recurrent course. Patients whose clinical symptoms of the disease are not accompanied by the development of esophagitis need to take pro re nata drugs - on demand. However, patients with erosive-ulcerative esophagitis with this maintenance regimen will still have a high risk (80-90%) of developing a relapse of the disease within a year. The likelihood of relapses increases in cases of resistance of the initial stages of esophagitis to therapy with antisecretory drugs, as well as when low pressure in the lower esophageal sphincter is detected. Such patients require long-term use of high doses of antisecretory drugs.

Patients with GERD are subject to active medical supervision with a control examination conducted at least once a year. If there are complications, it is necessary to examine such patients 2 times a year, including with the use of endoscopic and morphological examination. A special group should include patients who have been diagnosed with Barrett's esophagus.

The criteria for successful secondary prevention are considered to be a decrease in the number of exacerbations of the disease, the absence of progression, a decrease in the severity of reflux esophagitis and the prevention of complications.

5.2. CHRONIC GASTRITIS.

Chronic gastritis is the most common somatic disease. This diagnosis is morphological and, as a result, in the absence of morphological examination results, the risk of overdiagnosis of the disease is high.

5.2.1. Etiopathogenesis.

The disease is polyethological. There are two groups of reasons:

1. Exogenous factors:

- H. Pylori infection;
- alimentary factors: prolonged disruption of the diet and rhythm, eating food that irritates the stomach;
- alcohol abuse;
- long-term smoking;
- long-term use of medications that irritate the gastrointestinal tract: glucocorticoids, nonsteroidal anti-inflammatory drugs, etc.;
- prolonged professional contact (dust, irritant vapors);

2. Endogenous:

- prolonged nervous tension;
- endocrine pathology: diabetes mellitus, thyrotoxicosis, hypothyroidism;
- chronic vitamin B12, iron deficiency;
- chronic renal failure;
- chronic liver failure;
- duodenogastric reflux;
- autoimmune mechanisms.

Numerous epidemiological studies have revealed the widespread spread of H. pylori infection – it affects about 60% of the world's population.

There are two variants of H. pylori prevalence. According to the first variant, which is typical mainly for developing countries (Nigeria, Chile, Peru, Thailand), H. pylori is detected with high frequency already in childhood (up to 90% of children are infected), and by the age of 30, almost the entire population is infected with H. pylori.

In another variant of H. pylori prevalence, infection gradually increases with the age of a person – in children in 5-15% of cases, and in adults in 20-65%. This variant of H. pylori prevalence occurs mainly in developed countries-Finland, USA, Belgium, Italy, France.

H. pylori infection is persistent. However, only a fraction of infected people develop manifest forms of helicobacteriosis. The reasons for this are assumed to lie in incomplete diagnosis of the disease, features of the reactivity of the macroorganism and/or differences in the virulence of the pathogen. There is evidence for the existence of different genotypes of H. pylori, which may differ in virulence factors.

These bacteria produce a number of enzymes (urease, protease, phospholipase) that damage the protective barrier of the mucous membrane, as well as various cytotoxins. The most pathogenic are CagA-and VacA-positive strains of H. pylori. They express a gene associated with cytotoxin and produce vacuolating cytotoxin, which leads to the formation of cytoplasmic vacuoles and death of epithelial cells. The CagA gene encodes the synthesis of a 128 kDa protein that has a direct damaging effect on the mucosa. H. pylori promotes the release of interleukins in the gastric mucosa, lysosomal enzymes, a tumor necrosis factor. This causes the development of inflammatory processes in the gastric mucosa. Contamination of the gastric mucosa with H. pylori is accompanied by the development of superficial antral gastritis and duodenitis and leads to an increase in gastrin production and a decrease in somatostatin production, followed by an increase in hydrochloric acid secretion. Excessive amounts of hydrochloric acid entering the duodenal lumen, under conditions of a relative deficiency of pancreatic bicarbonates, contribute to the progression of duodenitis and, in addition, cause the formation in the duodenum of areas of gastric metaplasia (reconstruction of the epithelium of the duodenal mucosa according to the gastric type), quickly populated by H. pylori. In the future, with an unfavorable course, especially in the presence of additional etiological factors, an ulcer defect is formed in the areas of the metaplastic mucosa.

Sources and pathways of pathogen transmission: the source of infection is a person. Viable strains of H. pylori were isolated from the contents of the stomach, duodenum, esophagus, and feces of people with active gastritis and

peptic ulcer disease. The participation of other primates in the epidermal process is also possible. The role of domestic animals (pigs, cattle) and food products from meat and milk of these animals in the transmission of H. pylori is discussed, but questioned.

Pathogen transmission routes:

• the most studied is the contact mechanism of transmission of infection from a sick person or a bacterial carrier by oral-oral or fecal-oral route;

• there is also a possible mechanism of transmission of infection through dirty hands;

•it is suggested that there is a transplacental route of transmission of Helicobacter pylori infection;

•currently, there is clear evidence of iatrogenic transmission of H. pylori infection from patient to patient through medical instruments (during gastroscopy and other types of instrumental examination of the stomach and duodenum) – in cases where the infectious etiology of stomach diseases is not taken into account and proper measures are not taken to disinfect the instruments;

Factors of pathogen transmission. The most likely transmission factors are water and food. Despite its lability under artificial cultivation, H. pylori is able to survive in chilled river water for several days. There is evidence that H. pylori can survive in plaque, saliva, vomit, and gastric juice.

Risk groups:

• the high level of infection among the population in a number of countries is primarily determined by the unsatisfactory socio-economic living conditions of people in childhood;

• risk factors for the development of Helicobacter pylori infection are: overcrowding of residential premises, shared beds, lack of sufficient hot water;

• risk groups are families of Helicobacter-positive patients;

• medical personnel of gastroenterological clinics (surgeons, endoscopists, service personnel), contingents of special internates, psychiatric hospitals, orphanages;

The process of gastritis development is based on inflammation caused by exogenous, endogenous factors or a combination of them. As a result, it is possible to develop morphological changes in the mucous membrane with a violation of the processes of proliferation, differentiation and peeling of the epithelium, a change in the structure of the mucous membrane. There is a different degree of mucosal atrophy, as well as the processes of metaplasia and dysplasia. The result of these phenomena may be the appearance of various variants of secretion disorders, motor disorders.

5.2.2. Prevention of the development of chronic gastritis.

• Personal hygiene aimed at preventing H. pylori infestation;

• Compliance with the daily routine;

• Rational physical activity;

• Smoking cessation and alcohol restriction;

• Rational nutrition;

• Minimize the impact of stressful factors;

•Taking NSAIDs strictly as indicated, using selective COX-2 inhibitors, or using NSAIDs together with misoprostol or proton pump inhibitors PPIs;

•Eliminate or minimize the impact of occupational hazards;

•The earliest possible detection of helicobacteriosis and eradication of H. pylori (complete destruction of vegetative and coccoid forms of H. pylori in the stomach).

Eradication therapy schemes must include, along with antibiotics and PPIs. According to the recommendations of the last conciliatory meeting of the European Working Group for the Study of H. Pylori "Maastricht-4" (Florence, 2010), the choice of a particular eradication scheme depends on the frequency of resistance of H. pylori strains to clarithromycin in this region. Since the strain

resistance indicators are not high.pylori resistance to clarithromycin does not exceed 10%, the first-line scheme is a standard triple eradication therapy scheme, including PPIs (at a standard dose 2 times a day), clarithromycin (500 mg 2 times a day), amoxicillin (1000 mg 2 times a day) for 10-14 days.

•More attention should be paid to the detection and effective treatment of acute gastritis, intestinal infections, helminthiasis, chronic diseases of the liver, biliary tract, and pancreas.

Secondary prevention of chronic gastritis is a successful course of H. pylori eradication. This applies to all H. pylori-positive patients with HCG. Successful antihelicobacter therapy provides most patients with recovery or significant improvement in the clinical picture and morphological characteristics of the gastric mucosa. H. pylori eradication allows you to interrupt the tragic sequence of progression of changes in the gastric mucosa (inflammation→atrophy→metaplasia→dysplasia→cancer).

Endoscopic monitoring of long-term NSAID users is required.

Given the increased risk of cancer in individuals with chronic gastritis (antral superficial gastritis, diffuse superficial gastritis under 40 years of age) and mucosal polyps, regular endoscopic monitoring is required.

Spa treatment plays an important role in prevention. Sanatorium treatment includes drinking mineral waters, therapeutic nutrition, balneo-and climatotherapy, and physiotherapy. Drinking mineral waters is an effective therapeutic factor.

5.3. PEPTIC ULCER OF THE STOMACH AND DUODENUM.

Peptic ulcer of the stomach and duodenum (ulcer and duodenal ulcer) - a chronic recurrent disease that occurs with alternating periods of exacerbation and remission, the main manifestation of which is the formation of a defect (ulcer) in the wall of the stomach and (or) duodenum, penetrating (in contrast to erosions) into the submucosal layer.

5.3.1. Epidemiology:

•prevalence – 7-10 % of the adult population;

•duodenal ulcers are diagnosed 4 times more often than gastric ulcers;

•at a young age, men suffer from peptic ulcer disease 2-5 times more often than women, after 40 years, the sex differences are erased;

•Recent years have been characterized by a downward trend in the number of hospitalizations.

Duodenal ulcer in patients younger than 15 years is rare, and gastric ulcer occurs even in five-year-olds. It is possible that duodenal ulcer develops only in those patients who were infected with Helicobacter pylori in late childhood or in adulthood, since from this time the number of lining cells does not change.

5.3.2. Risk factors for peptic ulcer development.

Both modifiable and unmodifiable factors play a role in the development of peptic ulcer disease.

Unmodifiable factors are:

•genetic predisposition;

•increased number of lining cells in the stomach glands and consequently persistently high levels of hydrochloric acid in gastric juice;

•high content in blood serum of pepsinogens I, II and, so-called. "ulcerogenic" pepsinogen fraction in gastric contents;

•increased gastrin release in response to food intake and increased sensitivity of lining cells to gastrin;

•Blood type O (I);

•reduced 1-antitrypsin activity and 2-macroglobulin deficiency;

•violation of secretory immunoglobulin A production;

•the absence of an intestinal component and a decrease in the B index of alkaline phosphatase;

•absence of the 3rd cholinesterase fraction.

Modifiable factors:

•infection with Helicobacter pylori (H. pylori);

•taking NSAIDs;

•stressful situations;

•presence of bad habits (smoking, alcohol abuse);

•occupational hazards;

•violation of the food stereotype.

Pathogenesis.

The pathogenesis of peptic ulcer is a violation of the balance between the factors of acid-peptic aggression of gastric contents and elements of protection of the gastric and duodenal mucosa.

Aggressive factors include:

•increased production of hydrochloric acid (as a result of an increase in the number of lining cells, hyperproduction of gastrin, disorders of the nervous and humoral regulation of gastric acid formation);

•increased production of pepsin and pepsinogen;

•violation of gastric and duodenal motility.

The weakening of the protective properties of the gastric and duodenal mucosa includes:

•reduced production and impaired quality of gastric mucus;

•decrease in the release of bicarbonates (as part of gastric and pancreatic secretions);

•violation of regenerative processes in the mucous membrane of the stomach and duodenum;

•deterioration of blood supply and reduction of prostaglandin content in the gastroduodenal mucosa.

The most important role in enhancing the aggressive properties of gastric contents and weakening the protective properties of the gastric and duodenal mucosa is played by the microorganism Helicobacter pylori (H. pylori)!

Genetic factors play an important role in the development of the disease. In close relatives, duodenal ulcer is 3 times more common than in the general population. This may be due to a combination of genetic predisposition and transmission of Helicobacter pylori between family members. Relatives with duodenal ulcer are more likely to have the first blood type, and AV0 antigens are less likely to be detected in gastric juice. After eradication therapy in most patients of this category, stimulated hydrochloric acid secretion does not normalize, despite a decrease in the level of gastrin in the serum. This may be due to a genetically determined hyperplasia of the lining cells.

Alcohol abuse. Studies, experimental data, and clinical observations indicate a strong association between alcohol abuse and the development of gastric and duodenal ulcers. Currently, the following pathogenetic mechanisms of alcoholic beverages are considered:

1. direct cytotoxic effect of alcohol on the mucous membrane;

2. indirect effect caused by violation of cytoprotection mechanisms;

3. secretory effects of ethanol and components of alcoholic beverages;

4. dyskinetic effects of alcohol;

5. the effect of alcohol on Helicobacter pylori;

6. changes in blood rheology.

It is known that ethanol damages the mucoid barrier of the gastric mucosa, promotes the reverse diffusion of hydrogen ions. Application of ethanol (10-150 ml / l) for 15 minutes to gastric epithelium cultured in vitro caused destruction of the actin cytoskeleton in the area of dense contacts of neighboring cells and reduced the rate of cell migration.

Smoking increases the risk of duodenal ulcers and reduces the effectiveness of treatment, which is associated with a decrease in the secretion of bicarbonates by the pancreas and accelerated evacuation of gastric contents, which create the necessary conditions for infection with Helicobacter pylori.

The role of psychological factors. Long-term anxiety and emotional overexertion, combined with other risk factors, can contribute to the development of peptic ulcer disease.

To gastroduodenal ulcers, non-associated with H. pylori include, first of all, erosive and ulcerative lesions caused by taking aspirin and other NSAIDs.

Risk factors for NSAID gastropathy.

Risk factors predisposing to the development of NSAID gastropathy have been identified. These include, first of all, the elderly age of patients. So, if in general (without taking into account age) the relative risk (RR) of erosive and ulcerative lesions of the stomach and duodenum in patients taking NSAIDs is 3.7, then in elderly patients it increases to 13.2. An increased risk of developing NSAID gastropathy in the elderly may be associated with a greater severity of the underlying disease for which NSAIDs are prescribed, the presence of concomitant pathology that increases the likelihood of complications of drug therapy, and the simultaneous use of other drugs that increase the adverse effect of NSAIDs on the gastrointestinal tract.

Previous and concomitant diseases are a significant risk factor for NSAID gastropathy. The presence of a history of peptic ulcer increases the risk of developing NSAID gastropathy by 4 times, and with a combination of anamnestic ulcerative lesions and elderly patients, this risk increases by 17 times. Other diseases that increase the likelihood of developing NSAID gastropathy are gastroesophageal reflux disease, esophageal strictures, systemic scleroderma with

esophageal and gastric lesions, cirrhosis of the liver, and diseases of the cardiovascular system.

The risk of NSAID gastropathy also depends on the dose of the drug and the duration of treatment. So, in patients over the age of 60 years, when prescribing doses that exceed the standard by 1.5 times, the risk of developing NSAID gastropathy increases by 2.8 times,and with a triple excess of standard doses, it increases by 8 times. At the same time, it has been shown that erosive and ulcerative lesions of the stomach and duodenum can occur even when treated with small doses of acetylsalicylic acid (150-300 mg per day), prescribed for the prevention of thrombosis in coronary heart disease. The greatest risk of NSAID gastropathy is observed in the period from the 30th to the 50th day of taking medications, but when indomethacin is prescribed, the maximum risk shifts to the 7-14 day of taking it.

The risk of developing gastroduodenal erosive and ulcerative lesions increases when taking NSAIDs before meals, as well as in smokers and alcohol abusers.

The risk of NSAID gastropathy has previously been associated with the form of the drug, as well as the method of its administration. At the same time, it was assumed that improving the dosage form (for example, creating instant forms of aspirin, enteral-coated aspirin) or changing the method of administration of NSAIDs would help reduce the risk of gastrointestinal complications. However, it turned out that a sufficiently high risk of developing NSAID gastropathy persists with parenteral administration of NSAIDs, as well as with the use of fast-soluble forms of aspirin and enteral-coated aspirin.

The likelihood of erosive and ulcerative lesions of the stomach and duodenum when taking NSAIDs may increase with the simultaneous use of other drugs, primarily anticoagulants (for example, warfarin), the metabolism of which slows down when taking NSAIDs that inhibit the activity of cytochrome P-450 enzymes in the liver.

Corticosteroids (in particular, taking prednisone at a dose of more than 10 mg per day for more than 3 months), alendronate, and potassium chloride can also potentiate the adverse effect of NSAIDs on the gastric and duodenal mucosa.

The risk of developing gastroduodenal erosive and ulcerative lesions also depends on which drug from the NSAID group was chosen for treatment. So, the relative risk of NSAID gastropathy when taking ibuprofen is 1.19, piroxicam-1.66, diclofenac-1.73, naproxen-1.83. Indomethacin and ketoprofen also have a pronounced ulcerogenic effect.

The possible role of H. pylori infection (HP) in the development of NSAID gastropathy has long been interpreted ambiguously. According to the recommendations of the last conciliatory meeting of the European Working Group on the Study of H. pylori "Maastricht-4" (Florence, 2010), HP infection is considered as an independent risk factor for the development of gastroduodenal ulcers and their complications when taking these drugs.

The risk of duodenal ulcers occurs with chronic renal failure, alcoholic cirrhosis of the liver, hyperparathyroidism, chronic obstructive pulmonary diseases, and after kidney transplantation.

"Stress" ulcers are also not associated with H. pylori. They occur in patients in critical conditions (with widespread burns, traumatic brain injuries, after extensive abdominal operations, etc.). Their development is mainly due to microcirculation disorders in the gastric mucosa.

A special group of gastroduodenal ulcers consists of ulcerative lesions that occur as a result of hypersecretion of hydrochloric acid against the background of excessive production of gastrin (pancreatic gastrinoma or Zollinger-Ellison syndrome) or histamine (carcinoid syndrome).

5.3.3. Prevention.

Primary prevention of peptic ulcer disease is aimed at preventing the development of the disease. Primary prevention measures are based on informing the population about the risk factors for UD, preventing infection and reinfection of HP, especially among children, since HP infection mainly occurs in

childhood. Therefore, instilling basic personal hygiene skills in children (hand washing, drinking clean water, using individual dishes) should be a priority when conducting primary prevention of YB. It is important to diagnose the presence of HP, especially among family members of a patient with UD.

Prevention of UD involves the elimination of factors that contribute to ulcer formation: the fight against bad habits (smoking and alcohol abuse); normalization of work and rest, as well as the nature of nutrition; eradication of HP infection in patients with functional dyspepsia; simultaneous administration of PPIs if necessary, taking NSAIDs and anticoagulants (especially elderly patients, patients with a history of UD, patients with concomitant diseases of the cardiovascular system and cirrhosis of the liver).

The priority area of prevention is:

•personal hygiene aimed at preventing H. pylori infection (oral hygiene, timely treatment of teeth and gums, hand hygiene);

•compliance with the daily routine;

•rational physical activity;

•smoking cessation and alcohol restriction;

•rational nutrition;

•minimize the impact of stressful factors;

•taking NSAIDs strictly according to the indications, exclude uncontrolled intake;

•eliminate or minimize the impact of occupational hazards;

•prevention and treatment of hormonal disorders;

•prevention of Helicobacter pylori infection;

•the earliest possible detection of helicobacteriosis and H. pylori eradication.

Eradication of HP infection in patients with functional dyspepsia (especially in countries with a high infection rate) helps to reduce the risk of peptic ulcer disease and stomach cancer in patients.

The algorithm of prevention of NSAID-associated gastropathy depends on the risk of erosive and ulcerative lesions of the stomach and duodenum in a patient receiving NSAIDs.

If there is a low risk of NSAID gastropathy (no risk factors in patients), preventive measures are reduced to prescribing the least ulcerogenic non-selective NSAIDs (for example, ibuprofen), and, if possible, not in full (2.4 g per day), but in the minimum effective daily dose.

If there is an average (moderate) risk of NSAID gastropathy (if the patient has 1-2 risk factors), antisecretory drugs or misoprostol are added to the measures listed above, or selective COX-2 is used. At the same time, the use of PPI is considered more preferable than the appointment of H_2- blockers. Since taking misoprostol in the full dose (800 mcg) is often accompanied by diarrhea, it is advisable to reduce its dose to 600 mcg per day.

If there is a high risk of NSAID gastropathy (the presence of a large number of risk factors, while taking aspirin, anticoagulants or corticosteroids), COX-2 inhibitors are prescribed in combination with proton pump inhibitors or misoprostol.

If there is a very high risk of NSAID gastropathy (there are many risk factors and a history of ulcerative complications), NSAIDs should be avoided or the use of selective COX-2 in combination with PPIs and/or misoprostol should be preferred.

In all cases, patients are examined for HP infection and, if it is detected, treated with eradication therapy before taking NSAIDs.

Adequate assessment of the risk factors for the occurrence of NSAID-associated gastropathy, the correct choice of the most optimal drug for this patient in this group, and the creation of a "cover" in the form of PPI or misoprostol prescribing, if necessary, can reduce the risk of such lesions and prevent the development of serious complications.

Secondary prevention of peptic ulcer disease is aimed at reducing the risk of exacerbations and relapses of an existing disease. Secondary prevention includes dispensary monitoring of patients with peptic ulcer disease, non-medicinal and drug-based methods of prevention:

•with secondary prevention of peptic ulcer disease, all measures of primary prevention will be relevant;

•the earliest possible detection of helicobacteriosis and H. pylori eradication in patients with uncomplicated peptic ulcer disease. Eradication of H. pylori infection in patients with UD leads, first of all, to a decrease in the frequency of subsequent relapses of UD during the year from 70 to 4-5%, and this frequency remains just as low in subsequent years;

•eradication of H. pylori in patients with a complicated form of peptic ulcer disease and further lifelong use of half-dose PPIs. It is recommended to take the following PPI medications (omeprazole 20 mg or lanzoprazole 30 mg or rabeprazole 20 mg or esomeprazole 20 mg – - 1 time per day;

•after H. pylori eradication, the rate of recurrent ulcers after surgical treatment decreases;

•an important place in the prevention of peptic ulcer disease and its relapses is occupied by sanatorium-resort treatment, which is carried out no earlier than 2 years after the exacerbation subsides in sanatoriums, which includes mud and peat treatment, coniferous sea baths, drinking alkaline mineral waters.

5.4. DISEASES OF THE BILIARY SYSTEM.

Epidemiology.

Diseases of the biliary system are registered in 294 people per 100,000 population, they account for more than 25% (up to 50%) of patients with pathology of the digestive system. In approximately 5-10% of cases, gallbladder pathology is registered in patients of a general therapeutic hospital.

Chronic cholecystitis occupies a central place among the diseases of the biliary system. With this diagnosis, more than 1,000,000 people are hospitalized

annually, and the number of bed days exceeds 15 million. According to surgeons, gallstones were found in 60-80% of patients with cholecystitis.

Dyskinesia of the gallbladder and sphincter apparatus accompanies almost 100% of diseases of the upper gastrointestinal tract. Cholelithiasis (GI) is one of the most common diseases. So in the United States alone, there are 15,000,000 such patients. In Europe and the United States, about 1/3 of women and about 1/4 of men over the age of 50 suffer from GI. There is a clear link between prevalence and gender. There are still unexplained differences in the incidence of GI: in Ireland, GI affects 5%, and in Sweden – 38% of residents.

5.4.1. Dysfunctional disorders of the biliary tract.

Dysfunctional biliary tract diseases – This is a complex of clinical symptoms that developed as a result of motor-tonic dysfunction of the gallbladder, bile ducts and sphincters.

Pathogenesis of dysfunctional disorders of the biliary tract.

The parasympathetic and sympathetic divisions of the autonomic nervous system, as well as the endocrine system, take part in regulating the motor activity of the biliary system, providing a synchronized sequence of contraction and relaxation of the gallbladder and sphincter apparatus. Moderate irritation of the vagus nerve has been shown to cause coordinated activity of the gallbladder and sphincters, while severe irritation causes spastic contraction with delayed bile evacuation. Irritation of the sympathetic nerve helps to relax the gallbladder. Among the gastrointestinal hormones, the leading role belongs to cholecystokinin-pancreosimin, gastrin, motilin, glucagon. There are primary and secondary dysfunctional disorders. Primary accounts for an average of 10-15%. At the same time, a decrease in the contractile function of the gallbladder can be associated with both a decrease in muscle mass and a decrease in the sensitivity of the receptor apparatus to neurohumoral stimulation. Secondary dysfunctional disorders of the biliary tract can be observed with hormonal disorders, in the presence of inflammation and gallstones, etc.

Risk factors for the development of primary dysfunctional disorders of the biliary tract:

•errors in the diet: excessive consumption of fatty, fried foods, irregular meals with uneven distribution of food volume between its meals, the use of canned and freeze-dried food;

•asthenic body type;

•overweight or underweight;

•dysfunctions of the autonomic nervous system (neurocirculatory dystonia), hypomotor biliary dyskenesia (JD) are associated with sympathicotonia, and hypermotor - with vagotonia;

•neuroses and neurosis-like states;

•food allergy and atopic diathesis;

•family hereditary predisposition and lifestyle features;

•physical inactivity;

•chronic foci of ENT infection;

•endocrine pathology – obesity, thyrotoxicosis, diabetes mellitus;

•disorders of endocrine regulation – violation of the production and imbalance of secretin, somatostatin, oxytocin, corticosteroids, and sex hormones.

Causes of secondary dysfunctional disorders of the biliary tract:

•abnormalities in the development of the gallbladder and biliary tract;

•chronic gastroduodenal pathology that causes an increase or decrease in intraduodenal pressure;

•previous viral hepatitis;

•parasitic infections (giardiasis, etc.).

5.4.2. CHRONIC CHOLECYSTITIS.

Chronic cholecystitis - chronic inflammatory disease of the gallbladder wall, accompanied by motor-tonic disorders of the biliary system and changes in the biochemical properties of bile.

Risk factors for developing chronic cholecystitis:

•bile stasis – functional disorders of the neuromuscular system of the biliary system with the development of hypo - and atony of the gallbladder;

•infection (bacterial and viral); parasitic invasion (opisthorchiasis, fasciasis, strongyloidosis, ascariasis); pathogenic fungi (Candida genus);

•hereditary burden on the pathology of the gastrointestinal tract;

•injuries to the gallbladder and liver;

•intestinal dysbiosis;

•immunodeficiency states;

•diseases of the gastrointestinal tract, leading to a violation of bile outflow;

•pregnancy;

•alimentary errors (irregular meals, heavy meals at night, excess of flour and sweet foods, protein foods, lack of dietary fiber);

•age, gender – women over 35 are more likely to get sick;

•diseases of the endocrine system;

•psychovegetative instability.

Etiopathogenesis.

Against the background of hereditary or acquired inferiority of the biliary system, or its congenital anomalies, with a decrease in the adaptive mechanisms of regulation of bile formation and bile secretion, infection enters the biliary system by ascending (from the intestine), hematogenic (from the large circle of blood circulation) and lymphogenic (with inflammatory processes in the pelvis, appendicitis, suppurative lung diseases) routes.

With psychovegetative instability, prerequisites are created for functional changes in the gallbladder and bile ducts. Impaired neurohumoral mechanisms of regulation of the biliary system lead to the development of biliary dyskinesia, stagnation and thickening of bile with a violation of its physico-chemical properties and biochemical composition.

Dyscholia also causes changes in the state of local tissue structures of the gallbladder, damage to its nerve elements, then the mucous and muscular membranes. Local circulatory disorders also occur, and neurogenic dystrophy develops, followed by serous edema of the organ wall (due to the inclusion of an allergic component and exposure to histamine-like substances). All this leads to the development of inflammation in the biliary system.

As a result of autoimmune processes, non-microbial (aseptic) inflammation may occur, which develops against the background of:

•irritations of the nervous system of the gallbladder and its mucous membrane;

•irritation of the mucous membrane with condensed bile with changes – with a shift in pH to the acidic side, a decrease in the content of bile acids, an increase in the concentration of cholesterol.

5.4.3. CHOLELITHIASIS.

Cholelithiasis (GI) - a disease of the hepatobiliary system caused by a violation of cholesterol and (or) bilirubin metabolism and characterized by the formation of concretions in the gallbladder and (or) in the bile ducts.

Risk factors for cholelithiasis:

•heredity;

•gender, age – women over 35 are more likely to get sick;

•pregnancy and childbirth, menopause;

•diseases of the biliary system that lead to impaired bile outflow;

•concomitant diseases: diabetes mellitus, Crohn's disease, small bowel resection;

•medications (estrogens, oral contraceptives, nicotinic acid);

•type IV hyperlipidemia;

•unbalanced diet – food with a high cholesterol content:

•hemolytic anemia:

•chronic liver diseases involving the biliary tract in the inflammatory process (chronic cholestatic cholecystitis, primary and secondary biliary cirrhosis of the liver).

Etiopathogenesis.

1. Etiological factors of GI in which the ratio is violated:

–phospholipids/ bile acids/ cholesterol (for cholesterol stones);

–direct bilirubin/ indirect bilirubin (for bilirubin stones):

•increased exogenous cholesterol intake (dietary features, excessive consumption of cholesterol-rich foods);

•chronic liver diseases (cirrhosis, hepatitis, fatty hepatosis, alcoholic liver disease), accompanied by a deficiency of synthetic function (lack of bile acids, phospholipids, glucuronic acid);

•chronic diseases of the organs of the hepatoduodenal zone and small intestine (chronic pancreatitis, irritable bowel syndrome, dysbiosis) accompanied by malabsorption-maldigestion syndrome, which leads to impaired absorption of bile acids in the small intestine and the development of bile acid deficiency;

•increased hemoglobin breakdown, hemolytic jaundice of any genesis, genetic abnormalities (excess of indirect bilirubin).

2. Etiological factors of GI in which the processes of bile removal, bile concentration are disrupted and favorable conditions for stone formation are created.:

•any diseases of the hepatobiliary system in which cholestasis is observed (congenital and acquired anomalies of the gallbladder and bile ducts, duodeno-biliary and duodeno-pancreatic refluxes, duodenostasis, infectious and parasitic lesions of the hepatobiliary system);

•chronic inflammatory process in the gallbladder cavity (first of all, chronic stone-free cholecystitis, since the omitted epithelium, bacterial aggregates act as the "primary core", "matrix" for stone formation);

•hypercalcemia;

•physiological or pathological hormonal imbalance (pregnancy, menopause, taking hormonal contraceptives).

The increased risk of stone formation during pregnancy is due to the influence of high concentrations of estrogens and progesterone, which reach a maximum in the second half of pregnancy. Under the influence of estrogens, the synthesis of cholesterol in the liver and its content in hepatic and cystic bile increases. High levels of estrogens also affect bile acid metabolism. During pregnancy, the secretion of bile acids increases by 50%. In addition, progesterone causes inhibition of intestinal motor activity and, as a consequence, a slowdown in the absorption and enterohepatic circulation of bile acids, this further changes the ratio of bile acids in the bile. Under the influence of estrogens, the activity of liver transport proteins that ensure the transfer of phosphatidylcholine to the bile ducts decreases. All these factors together determine the increase in bile lithogenicity. Estrogens increase the activity of an enzyme that increases cholesterol synthesis, esterification, and excretion in the bile. Additional risk factors for developing GI during pregnancy include increased body mass index, obesity, low physical activity, and high leptin levels.

In cholelithiasis, the following characteristic changes in bile are detected::

1. reducing the content of bile acids;

2. violation of the ratio of cholic and deoxycholic acids;

3. increase the amount of cholesterol.

Due to a decrease in the content of free cholesterol, bile acids synthesized from it, mainly chenodeoxycholic, decrease, which leads to a drop in the colloidal stability of bile and the formation of gallstones.

In the process of formation of cholesterol stones (cholelithiasis), there are 2 points::

1. Crystallization of cholesterol from bile saturated with it (in conditions of increased cholesterol synthesis by the liver and a decrease in the formation of bile acids and phospholipids, which prevent the loss of cholesterol crystals at a sufficient concentration).

2. Increased secretion of mucin by the epithelium of the gallbladder mucosa, which, enveloping and adsorbing cholesterol crystals, forms a matrix – the "germ" of the forming stone.

The appearance of pigmented stones is associated with an increase in the activity of the enzyme beta-glucuronidase. With the deposition of salts, trace elements, cholesterol and bile pigments in the stones, their color changes. Depending on the composition, calcareous, cholesterol, pigmented and mixed concretions are distinguished.

Primary prevention of biliary tract diseases:

•normalization of body weight;

•physical education and sports classes;

•exclusion of easily digestible carbohydrates from high-calorie meals (sugar, cakes, cookies, sweets, etc.), since they form endogenous cholesterol, and restriction of foods rich in cholesterol (egg yolk, liver, kidneys, etc.);

•intake of foods rich in polyunsaturated acids, antioxidants, phospholipids (vegetable oil, buckwheat groats, green peas, etc.)

•sufficient amount of vegetables and fruits;

•regular meals (every 3-4 hours), exclude a long break between meals;

•intake of sufficient fluids (at least 1.5 liters per day);

•eliminate smoking, limit alcohol intake;

•eliminate rapid weight loss (as a result of dieting);

•limit stressful influences as much as possible;

•treatment of endocrine pathology;

•treatment of diseases of the gastrointestinal tract;

•rehabilitation of chronic foci of infection;

•people with an increased risk of developing GI should not be prescribed fibrates, thiazide diuretics, cholestyramine, nicotinic acid, somatostatin analogues, ceftriaxone, progestin-based contraceptives, as well as estrogens and their analogues;

•after operations on the stomach and intestines, when reducing body weight with hypocaloric diets, prolonged immobilization, estrogen replacement therapy, parenteral nutrition, patients are recommended to take long-term bile acid preparations (ursodeoxycholic).

5.5. HEPATITIS RISK FACTORS, PREVENTION.

Viral hepatitis is an infectious disease that affects the internal organs and, in particular, the human liver. Despite significant differences in symptoms and modes of transmission, all viruses have an inflammatory effect and have a negative impact on health. Currently, the most common five hepatitis viruses, each of which is dangerous to humans: A, B, C, D and E.

According to WHO data for 2019, there are 325 million people living with chronic hepatitis B or C. However, there are positive trends in the world, and the incidence is decreasing. From 2014 to 2018 – 1.4 times. The disease is treatable. A positive outcome requires timely prevention and diagnostic testing.

5.5.1. Types of hepatitis, risk factors, treatment and prevention.

Hepatitis is a common name for acute and chronic inflammatory liver diseases of various etiologies, or simply liver inflammation. This is a disease in which viruses or other mechanisms cause inflammation in liver cells, which leads to injury or death of these cells. The liver is the largest internal organ in the body, occupying the upper right side of the abdominal cavity.

It performs more than 500 vital functions. Some key roles of the liver:

- the liver processes all the nutrients that the body requires, including protein, glucose, vitamins, and fats;

- the liver is the" factory " of the body, where many important proteins are synthesized. The protein albumin in the blood is one of the examples of proteins that are often insufficient in patients with cirrhosis of the liver;

the liver produces bile , a greenish liquid that is stored in the gallbladder and helps digest fats.;

- one of the main functions of the liver is to neutralize potentially toxic substances, including alcohol, ammonia, nicotine, drugs and harmful digestive byproducts.

The esophagus, stomach, small and large intestines – mediated by the liver, gallbladder and pancreas-convert the nutritious components of food into energy and release non-caloric components in waste.

Liver damage can disrupt these and many other processes. Hepatitis varies in severity from a self-limiting condition and full recovery to a life-threatening or lifelong condition.

Causes of hepatitis.

In the most general form of hepatitis (viral hepatitis), specific viruses injure liver cells and the body activates the immune system to fight infection. Certain immune factors that cause inflammation and injury become redundant.

Types of hepatitis.

According to the nature of the course, there are acute and chronic hepatitis, typical and atypical. Acute cases are characterized by severe symptoms and have two possible outcomes: complete cure or transition to a chronic form.

Types of hepatitis

All hepatitis B viruses can cause an acute (short-term) form of liver disease. Some specific hepatitis viruses (B, C, and D) and some non-viral forms of hepatitis can lead to chronic (long-term) liver disease. At the same time, hepatitis A and E viruses do not cause chronic disease.

Acute hepatitis. Acute hepatitis can start suddenly or gradually, but it has a limited course and rarely lasts more than 1 or 2 months, although it can sometimes last up to 6 months. As a rule, in acute hepatitis, there is only minimal damage to liver cells and evidence of scant activity of the immune system. Rare, but acute hepatitis due to the form. B can lead to serious, even life-threatening, liver damage.

Chronic hepatitis. If hepatitis is not cured in 6 months, then it is considered chronic. Chronic forms of hepatitis occur for a long time. Doctors usually classify chronic hepatitis by its severity.

Viral hepatitis.

Most cases of hepatitis are caused by viruses that infect liver cells and begin to multiply. They are indicated by the letters from A to D.

Hepatitis A, B, and C They are the most common forms of viral hepatitis.

Hepatitis D and E they are less common hepatitis viruses. Hepatitis D is a serious form of hepatitis that can be chronic. This is due to hepatitis, since the D virus depends on replication (renewal, repetition, doubling) of the B virus (thus, hepatitis D cannot exist without the B virus being present at the same time). Hepatitis E is an acute form of hepatitis transmitted through contact with contaminated food or water.

Infection with viral hepatitis occurs in various ways.

Hepatitis A and E viruses are transmitted primarily through contaminated water, food, and dirty hands. Transmission of hepatitis B, C and D viruses is carried out through the blood (when injecting narcotic drugs, using non-sterile instruments when applying tattoos, piercings, performing cosmetic, manicure, pedicure and other procedures related to the violation of the integrity of the skin and mucous membranes), as well as from an infected mother to a child during childbirth and during unprotected sexual contact. The greatest risk of infection with hepatitis B, C and D viruses is associated with injecting drug use.

The spread of the disease is facilitated by the fact that in the vast majority of cases it is hidden and asymptomatic. Without treatment, chronic viral hepatitis often leads to cirrhosis or liver cancer. However, many infected people do not even know about their illness and not only do not treat themselves, but they can also unknowingly become a source of the virus for other people.

Alcoholic hepatitis. About 20% of heavy drinkers develop "alcoholic hepatitis" - usually between the ages of 40 and 60. In the body, alcohol breaks down into various chemicals, some of which are very toxic to the liver. After several years of alcoholism, liver damage can be very severe, leading to cirrhosis of the liver.

Non-alcoholic fatty liver disease (NAFLD) affects 10-24% of the population. It covers several conditions, including non-alcoholic steatohepatitis (NASH). NAFLD has similarities to alcoholic hepatitis, especially fatty liver, but it occurs in people who drink little or no alcohol at all. Severe obesity and diabetes are major risk factors for NAFLD, and they also increase the likelihood of

complications from NAFLD. NAFLD is usually a benign disease that progresses very slowly.

Drug-induced hepatitis. Since the liver plays such an important role in metabolism (metabolism, chemical transformations that occur from the moment nutrients enter the living body to the moment when the end products of these transformations are released into the external environment), hundreds of drugs can cause reactions that are similar to those in acute viral hepatitis.

Toxic hepatitis. Certain types of plants and chemical toxins can cause hepatitis. These include toxins found in poisonous mushrooms and industrial chemicals such as vinyl chloride.

Symptoms of acute hepatitis: deterioration of health, severe intoxication of the body, impaired liver function, jaundice, an increase in the amount of bilirubin and transaminases in the blood.

In chronic hepatitis, there are: a feeling of heaviness and bursting in the right side, which increases after eating, a tendency to bloating, periodic nausea, loss of appetite and increased fatigue.

Depending on how a person becomes infected, enteral or "food" types of hepatitis are distinguished (for example, A and E) and parenteral or "blood" (for example, B, C, D).

5.5.2. Risk factors and methods of transmission of hepatitis.

Hepatitis A.

Hepatitis A or Botkin's disease is the most common form of viral hepatitis. Its incubation period (from the moment of infection to the appearance of the first signs of the disease) is from 7 to 50 days. During this period, a person can infect others.

Most of the symptoms usually disappear after a few days or weeks, but the feeling of fatigue can last for several months, even if the test results are normalized. No chronic forms of hepatitis A were detected.

Acute hepatitis A is usually manifested by such short-term symptoms of intoxication as general malaise, fatigue, anorexia, nausea, vomiting, and sometimes jaundice (dark urine, discolored stools, yellowing of the sclera and skin).

The source of infection in acute hepatitis A is a person. The virus is excreted in the faeces. It is transmitted in three ways: water, food, and household contact.

In the first case: when using poor-quality drinking water, swimming in polluted reservoirs and swimming pools.

In the second one: when using products contaminated with the virus during production at food, public catering and retail enterprises of any form of ownership. Through berries, vegetables, and herbs that are "infected" with the virus when grown in irrigation fields or in vegetable gardens fertilized with faeces. Through seafood that can be infected when caught in polluted waters.

In-the third: in case of non-compliance with the rules of personal hygiene. Factors of transmission in this case are hands, as well as all objects "infected" with the causative agent of infection.

The risk of hepatitis A and the development of its severe forms are subject to:

- children living in areas with high morbidity rates;
- people traveling to hepatitis A-endemic areas (military personnel, tourists, contract workers);
- preschool teachers, health workers, food workers;
- patients with chronic hepatitis and cirrhosis of the liver.

Risk factors:

- poor sanitary conditions;
- lack of safe water;
- cohabitation with an infected person;
- travel to hepatitis A-endemic areas.

The diagnosis of acute hepatitis A is confirmed by laboratory testing of antibodies (anti-HAV IgM or HAV RNA). Patients who are suspected of having

hepatitis A are hospitalized in the infectious diseases department within 48 hours after the infection is suspected.

All contact persons must be examined by medical personnel with subsequent medical supervision within 35 days from the date of separation from the source of infection.

In the absence of clinical signs of the disease, contact persons who have not previously been vaccinated against hepatitis A and have not had this infection are vaccinated for epidemic indications no later than 5 days from the moment of detection of a patient with acute hepatitis A.

Vaccination is the main preventive measure that is aimed at localizing and eliminating the focus of hepatitis A.

Hepatitis B.

The hepatitis B virus enters the body with blood, semen, water, and other contaminated fluids.

Most often, infection occurs during blood transfusions and blood products, childbirth, dental procedures, injections, household cuts, and other contacts. There is a vaccine against the hepatitis B virus. The earlier a person gets hepatitis B, the higher the probability of its transition to a chronic form. Therefore, the disease is especially dangerous for children under six years of age.

In adults, hepatitis B becomes chronic in about 10% of cases, while the rest recover completely.

Acute form of hepatitis B - treated. The disease passes on its own. Your doctor may recommend rest, a balanced diet, and plenty of water to help your body fight off the infection on its own.

Chronic hepatitis B cannot be completely cured. For chronic hepatitis B, several treatment regimens are used, but they do not lead to a complete recovery and can only reduce the activity of inflammation and liver damage.

Treatment of the chronic form may include: taking antiviral drugs, interferons, in critical cases — liver transplantation, and others.

Hepatitis C.

Hepatitis C — the most severe form of viral hepatitis, which is also called post-transfusion hepatitis. This means that they got sick after a blood transfusion. This is due to the fact that testing of donated blood for the hepatitis C virus began only a few years ago. Quite often, infection occurs through syringes in drug addicts. Sexual transmission from the mother to the fetus is also possible. The greatest danger is the chronic form of this disease, which often turns into cirrhosis and liver cancer.

The chronic course develops in approximately 70-80% of patients. The combination of hepatitis C with other forms of viral hepatitis dramatically worsens the disease and threatens with a fatal outcome.

Symptoms usually occur between 1 and 10 weeks after infection, but may be relatively mild.

The risk of hepatitis C is related to the fact that it can lead to severe chronic hepatitis and cirrhosis of the liver.

A few years ago, direct-acting antiviral drugs were developed that can achieve 95% effectiveness in the treatment of hepatitis C. However, such treatment is still expensive and its effectiveness depends on the subtype of the virus.

Hepatitis D.

Hepatitis D - "satellite disease" that complicates the course of hepatitis B infection.

Hepatitis D is caused by the delta virus. It is manifested as extensive liver damage with extensive clinical symptoms, severe and long-term treatment.

Infection occurs when the causative agent of hepatitis enters the blood. Most often occurs in an acute form, the probability of transition to a chronic one is less than 3%.

The hepatitis D virus can only multiply in the liver in the presence of hepatitis B virus. It uses some hepatitis B virus proteins to build its own envelope and exit the cell.

The symptoms of this disease are very similar to hepatitis B, but are more pronounced. The combined presence of hepatitis B and D viruses significantly increases the risk of cirrhosis and liver cancer. There is no effective treatment for the chronic form of this disease.

Hepatitis E.

The disease is widespread mainly in the countries of Southeast Asia. Signs of hepatitis E infection are similar to those of hepatitis A. But with a severe course of the disease, not only the liver is affected, but also the kidneys.

The prognosis of treatment is almost always favorable. The exception is pregnant women in the third trimester, when the risk of losing a child is close to 100%.

Hepatitis G.

Hepatitis G also enters the body through contaminated food and water, and through contact with contaminated medical equipment.

It is almost asymptomatic. Clinical manifestations are similar to hepatitis C.

It does not go into a chronic form. And it doesn't affect the liver in the same way as other types. Some studies indicate that there is no link between the presence of hepatitis G virus in the body and liver damage.

Hepatitis F.

This type was recently opened. Information about it is still controversial.

The existence of hepatitis F was assumed based on the fact that some patients who, judging by the symptoms, clearly had viral hepatitis, but they did not show any of the known hepatitis viruses. Some evidence suggests that these may be two different viruses.

Common risk factors.

- prolonged exposure to various toxic substances;
- long-term use of medications-antibiotics, sedatives, narcotic drugs, and other medications;
- metabolic and autoimmune system disorders;
- transfusion of infected donor blood;
- repeated use of a single needle, usually infected, by a group of people;
- unprotected sexual contact;
- infection of the child from the mother, the "vertical" (intrauterine) pathway;
- concomitant pathologies, such as HIV, that favor easy penetration of the pathogen into the body;
- tattooing with a non-sterile tool;
- acupuncture treatment;
- poorly sterilized dental equipment;
- direct contact with a sick person.

Complications.

Complications of viral hepatitis can be functional and inflammatory diseases of the biliary tract and hepatic coma, and if a violation in the biliary tract can be treated, then hepatic coma is a terrible sign of a lightning-fast form of hepatitis that ends in a fatal outcome in almost 90% of cases.

In 80% of cases, the lightning course is caused by the combined action of hepatitis B and D viruses. Hepatic coma occurs due to massive necrosis of liver cells. The breakdown products of liver tissue enter the bloodstream, causing damage to the central nervous system and the extinction of all vital functions.

Chronic hepatitis is dangerous because the lack of adequate treatment often leads to cirrhosis, and sometimes liver cancer.

The most severe course of hepatitis is caused by a combination of two or more viruses, for example, B and D or B and C. Even B+D+C is found. In this case, the prognosis is extremely unfavorable.

5.5.3. General rules of prevention.

For all types of hepatitis infection, there are a number of rules that can be followed to avoid viruses entering the body:

1. The main risk factor is unboiled water. You can not drink it, it is not recommended to wash vegetables and fruits in it without subsequent heat treatment. The key to health and protection from hepatitis A is clean water that has been heated to 100°C.

2. The general rule of safety is to avoid contact with other people's body fluids. To protect yourself from infection with hepatitis C and B, first of all, you need to be careful when someone else's blood gets on open wounds, mucous membranes, etc. In microscopic doses, blood can be found on razors, scissors, toothbrushes, and other hygiene items. Therefore, you should not use them together with someone else.

3. Never re-use syringes and needles, and also observe the sterility of the condition of the tools with which you are going to apply a tattoo or make a piercing. Remember-hepatitis lives in the open for a very long time. Unlike the AIDS virus, it can persist for up to several weeks on any surface.

4. Basically, hepatitis B is transmitted through sexual contact, but this method is also possible to get the virus C. Therefore, take maximum protection measures for intimate relationships of any form.

5. A viral infection is also transmitted from mother to child during childbirth, pregnancy, or lactation. It is best to carry out vaccination, since the pathways of infection may remain unknown.

Hepatitis A and E.

These hepatitis viruses infect liver cells by entering the body with poor-quality water, unwashed vegetables, hands, and also by close contact with patients.

For hepatitis A, the incubation adaptation period is 21-28 days, after which the prodromal stage occurs, when the temperature rises, vomiting, cough, and skin discoloration appear. At this stage, you should immediately consult a doctor, if this has not been done before.

Non-specific prevention:

- wash your hands thoroughly after using the street and toilet;
- avoid drinking water from questionable reservoirs;
- pour boiling water over vegetables and fruits before using them;
- maintain cleanliness in the premises.

Hepatitis B, C, and D.

These are more serious diseases, the peculiarity of the disease is latent and long-term development, and then the possibility of transition to cirrhosis of the liver. The incubation period can last up to 120 days. And the first stages of the disease usually go unnoticed-there is nausea, pain in the right hypochondrium, heaviness in the stomach, loss of appetite and joint pain.

To avoid getting the virus, you must:

- protect yourself during sexual contact with a condom;
- avoid drug use and casual intimate relationships;
- do not use other people's nail kits, tweezers, scissors, or razors.

The most effective way to prevent hepatitis is vaccination!

Immunization of the population against hepatitis B is carried out as part of the national calendar of preventive vaccinations. Vaccinations against this infection are provided free of charge to children and adults under the age of 55 who have not previously been vaccinated against this infection.

Immunization against hepatitis A is carried out for people from high-risk groups as part of the calendar of preventive vaccinations for epidemic indications.

Lifestyle. Frequent hand washing after going to the toilet or changing a child's diapers is essential to prevent transmission of hepatitis A. Travelers to developing countries should only use bottled or boiled water for brushing their teeth and drinking, and avoid consuming ice cubes. It is best to eat only well-prepared food and vegetables, and thoroughly clean raw fruits and vegetables.

5.5.4. Prognosis of hepatitis.

Hepatitis A. Hepatitis A is the least dangerous of the common hepatitis viruses. It has only an acute (short-term) form, which can last from several weeks to 6 months, and does not have a chronic form. Most people with hepatitis A recover completely and without relapse. Once people recover, they become immune to the hepatitis A virus.

In very rare cases, hepatitis A can lead to liver failure (lightning-fast liver failure), but it usually occurs in people who already have other chronic liver diseases – such as hepatitis B or C.

Hepatitis C. Hepatitis C can have both acute and chronic forms, but most people (75-85%) who are infected with the C virus develop chronic hepatitis C. Chronic hepatitis C is a risk of developing cirrhosis of the liver, liver cancer, or both. About 60-70% of patients with chronic hepatitis C eventually develop chronic liver disease. About 5-20% of patients with chronic hepatitis C develop cirrhosis of the liver within 20-30 years. The longer the patient carries the infection, the higher the risk. Patients who have had hepatitis C for more than 60 years have a 70% chance of developing cirrhosis of the liver. Of these patients, about 4% eventually develop liver cancer (liver cancer rarely develops without cirrhosis). 1-5% of people with chronic hepatitis C eventually die from cirrhosis or liver cancer. Patients with chronic hepatitis C may also have a higher risk for other liver diseases, including very severe ones.

5.6. CIRRHOTIC STAGE OF CHRONIC HEPATITIS (CIRRHOSIS OF THE LIVER).

Cirrhosis of the liver (CP) It is considered as an irreversible diffuse process characterized by the presence of fibrosis, restructuring of the normal architectonics and vascular system of the liver with nodular transformation and intrahepatic vascular anastomoses.

Prevalence. Cirrhosis of the liver (CP) occupies a significant place in the structure of diseases of the digestive system, remaining an extremely urgent socio-economic, clinical and epidemiological problem of public health in all countries of the world. Currently, the incidence of liver cirrhosis in the world is about 20-40 patients per 100 thousand people, and this figure is steadily increasing (WHOSIS, 2008). **Cirrhosis of the liver is a serious chronic disease.** According to statistics, in developed countries it is **one of the six leading causes of death** people aged 35 to 60 years. In the United States, about 50,000 people die from it every year. This disease is an extensive lesion of the liver, in which the tissues of the organ die and are gradually replaced by fibrous (connective) fibers. In the process of replacement, the structure of the organ changes radically. Violation of the normal structure of the liver leads to the fact that it can no longer perform its functions. This is called liver failure.

Etiology and pathogenesis. In the development of liver cirrhosis, the etiological role of hepatotropic viruses B, C, D, alcohol, genetically determined iron metabolism disorders (hemochromatosis), copper (Wilson-Konovalov disease), alpha-1-antitrypsin deficiency, exposure to certain toxic and medicinal drugs, biliary tract diseases, syphilis, malaria, tuberculosis and others has been proven. The frequency of cirrhosis of unknown etiology (cryptogenic) reaches 25-30%. The evolution of chronic hepatitis into cirrhosis depends on the severity of primary liver damage, which is based on immune and autoimmune processes. The development of irreversible sclerosis in cirrhosis of the liver is due to diffuse damage to the parenchyma, prolonged exposure to the damaging factor, and the predominance of collagen synthesis over its decay.

According to the WHO expert group, cirrhosis of the liver is defined as a process characterized by fibrosis and transformation of the organ into abnormal nodules as a result of:

a) continuous necrosis of parenchymal cells that supports chronic inflammation;

b) continuous regeneration of liver cells;

c) unbalanced fibrogenesis;

d) violations of the architectonics of the hepatic lobule with the appearance of false lobules in the entire liver.

5.6.1. Prevention of cirrhotic stage of chronic diseases

hepatitis.

Primary prevention it consists in dispensary observation and treatment of persons with chronic liver diseases of various etiologies.

Secondary prevention. In the compensation stage, outside of the exacerbation of the process, patients with cirrhosis of the liver are recommended to have a light work schedule, physical and nervous overloads are prohibited, and in the middle of the day such persons need a short rest. If there is activity and decompensation of the process, bed rest is indicated.

Patients with compensated CP are shown a full-fledged balanced diet within the limits of table No. 5. To improve the outflow of bile, intestinal digestion, 4-5 meals a day are indicated.

Etiological treatment is possible only in some forms of CP (alcoholic, drug - induced, and to a certain extent viral), but in advanced stages of the disease, etiotropic therapy is often ineffective.

Stopping alcohol consumption significantly improves liver health. Antiviral therapy for hepatic-cellular dysfunction is advisable for patients with CP at the end of chronic viral hepatitis (B, C, B+B, B+C) in the replication phase. The issue of

prescribing antiviral therapy should be decided individually, taking into account the side effects of drugs, cytopenia, concomitant bacterial infections, and liver failure. Patients with decompensated cirrhosis of viral etiology do not receive antiviral therapy with interferon-type drugs. Nucleoside analogues (lamivudine, entecavir, adefovir, etc.) are the drugs of choice for the treatment of patients with decompensated viral cirrhosis of the liver at the end of CHB.

In order to normalize the metabolic processes of liver structures, vitamin therapy is indicated in the form of balanced multivitamin complexes: bion 3 1 tablet 1 time a day, undevit, decamevit, erevit, revivon, 1-2 tablets a day, duovit 2 tablets 1 time a day. Riboxin, lipoic acid and essentiale, cocarboxylase are used. Hepatosan-enhances detoxification and protein-synthetic functions of the liver, improves the metabolic capacity of liver cells, promotes sorption and elimination of toxins. Take orally in capsules of 0.2 g 15-20 minutes before meals, washed down with a small amount of water. Bile acid preparations (UDCA), hepatoprotectors (essentiale, heptral, hepa-merc), and herbal preparations are prescribed. Enzymes are shown to normalize intestinal function. Among the enzyme preparations, preference is given to pancreatic enzymes (trienzyme, mezim-forte, creon, laminolact, etc.).

In the presence of process activity, hepatocellular insufficiency, with severe cholestatic syndrome, precomatous condition, detoxification therapy is performed by intravenous drip infusions of 300-400 ml of hemodez, 500 ml of hepasol A, 500 ml of 5% glucose (together with 50-100 mg of cocarboxylase), succinic acid preparations - reamberin, remaxol (for a course of 5-12 transfusions). With severe hypoalbuminemia, insufficiency of protein-forming liver function, symptoms of intoxication, intravenous drip administration of solutions of albumin, amino acids - polyamine, infezol, neoalvezin, etc. is advisable.

5.7. CHRONIC PANCREATITIS.

Chronic pancreatitis (CP) - chronic inflammatory-dystrophic disease of the pancreas (RV) with damage to the parenchyma, gradual replacement of its connective tissue and the development of insufficiency of exo - and (or) endocrine function of the gland.

Relevance. CP is a common disease and accounts for 5-10% of all diseases of the digestive system. Men who are of active working age are more likely to get sick. The disease often leads to the development of complications, disability and death.

5.7.1. Etiology and pathogenesis.

1. Diseases of the biliary system (GI, chronic cholecystitis, dyskinesia, anomalies) - contribute to the flow of bile and duodenal contents into the pancreatic duct with the activation of enzymes and damage to the pancreas.

2. Diseases of the duodenum and sphincter of Oddi (peptic ulcer, diverticula, dyskinesia) - increased pressure in the intestine leads to the formation of duodenopancreatic reflux in the Wirsung duct, enterokinase is thrown, which promotes the conversion of trypsinogen into trypsin, followed by the development of autolysis of pancreocytes.

3. Alcohol - It stimulates the external secretion of the pancreas, gradually leading to its depletion and delays the evacuation of pancreatic juice due to an increase in the tone of the Oddi sphincter. It causes the development of the disease in 70-80% of cases.

4. Alimentary factors (unsystematic diet, excessive consumption of fatty and spicy foods, protein and vitamin deficiencies).

5. Toxic factors (lead, arsenic, mercury, phosphorus).

6. Medicinal substances (glucocorticoids, thiazide diuretics, antibiotics, tuberculostatics, cytostatics, estrogens, etc.).

7. Viral infections (mumps, hepatitis C, B, Coxsackie, cytomegalovirus, infectious mononucleosis).

8. Vascular disorders in the basin of mesenteric vessels and vessels of the pancreas itself (atherosclerosis, vasculitis, thrombosis, embolism).

9. Hyperparathyroidism (violation of calcium metabolism).

10. Hyperlipoproteidemia (DLP types 1 and 5).

11. Heredity (mutation of the gene encoding trypsin synthesis).

12. Hemochromatosis.

13. Autoimmune diseases (SLE).

In some cases, idiopathic pancreatitis occurs.

It is customary to distinguish between primary and secondary pancreatitis. Primary CP (alcoholic, alimentary, toxic, medicinal, viral, idiopathic). Secondary CP (biliary-dependent, due to duodenal diseases, dystrophic-metabolic (due to chronic liver diseases, ulcerative colitis), vascular genesis, etc.

5.7.2. Prevention of chronic pancreatitis.

Primary prevention if the causes leading to the development of CP are excluded, timely rehabilitation of the biliary tract, elimination of their dyskinesia, early detection of stones in the gallbladder and timely adequate treatment, including surgery, are important.

The program of primary prevention of CP includes active identification of risk factors and individuals predisposed to the occurrence of this disease, medical supervision of them, compliance with recommendations for changing the lifestyle, as well as the diet and nature of nutrition.

I.Active identification of healthy individuals with an increased risk of CP includes questionnaires to identify pre-painful conditions (abdominal discomfort, dyspepsia, asthenia), and detection of risk factors.

Risk factors chronic pancreatitis.

1. Toxic (alcohol, smoking, drug addiction).

2. Diseases of the biliary system, duodenum (GI, chronic cholecystitis, dyskinesia, abnormalities, peptic ulcer, diverticula, dyskinesia).

3. Violation of the regime and nature of nutrition (excess of fatty, spicy foods, protein and vitamin deficiencies).

4. Industrial hazards (lead, arsenic, mercury, phosphorus).

5. Long-term use of medications (glucocorticoids, thiazide diuretics, antibiotics, tuberculostatics, cytostatics, estrogens, etc.).

6. Viral infections (mumps, hepatitis C, B, Coxsackie, cytomegalovirus, infectious mononucleosis).

7. Diseases of mesenteric vessels (atherosclerosis, vasculitis, thrombosis, embolism).

8. Metabolic diseases (violation of calcium metabolism in hyperparathyroidism, hypertriglyceridemia, hemochromatosis).

9. Burdened heredity in diseases of the pancreas.

10. Autoimmune diseases (SLE).

11. Psychosocial stress.

12. Chronic foci of infection.

II. Dispensary monitoring of persons at risk of CP with a complex of social and individual measures to eliminate risk factors. The most important thing is a rational diet, the rejection of bad habits, the fight against occupational hazards, adequate treatment of diseases of the biliary tract, duodenum, metabolic diseases, careful use of medicines, etc.

III. Carrying out a complex of general and individual preventive sanitary-educational, hygienic, and educational measures aimed at preserving health and working capacity, with the development and observance of the correct behavioral stereotype defining the concept of "healthy lifestyle", is an indispensable condition for the primary prevention of CP.

Secondary prevention. The goal of secondary CP prevention is to reduce the frequency of relapses and prevent the progression of the disease and the

development of complications. The secondary prevention program includes active identification of patients with clinically expressed forms of CP, frequent exacerbations, and their adequate non-drug and drug therapy. therapy in the period of exacerbation.

During the period of exacerbation, etiological treatment is important (exclusion of alcohol consumption, toxic factors, therapy of diseases of other organs of the gastrointestinal tract and the hepatobiliary system, rehabilitation of the oral cavity, normalization of nutrition.

5.7.3. Principles of dietary nutrition for CP:

- meals should be frequent-approximately every 3-4 hours;
- food should not be plentiful;
- to avoid mechanical irritation of the gastric mucosa, products should be consumed in ground form;
- it is necessary to increase the consumption of protein-containing foods (fish, meat, cottage cheese) to 140-160 g;
- it is necessary to reduce the consumption of foods containing carbohydrates (sugar, honey) to 300-350 g;
- it is necessary to reduce the consumption of foods containing fats to 70-80 g;
- the diet should not include products that have an increased juice-producing effect (cabbage broth, fish and meat broths).;
- if severe pain occurs, it is necessary to follow therapeutic fasting, but not more than 1-2 days.

Foods that can be consumed in the treatment of pancreatitis:

- bread and bakery products (wheat bread of the first and second grades, dried, crackers);
- soups (vegetable, chicken, cereal, vermicelli);

• low-fat meat dishes (chicken, beef, veal) - cutlets, souffle, meatballs, rolls, mashed potatoes);

• fish dishes (low-fat fish varieties, boiled, steamed, in pieces);

• eggs (omelette);

• milk and dairy products (cottage cheese, milk, kefir, cheese);

•fats (unsalted butter, olive oil, refined sunflower oil);

• vegetable dishes (carrot, potato, pumpkin, beetroot, mashed zucchini, boiled);

• cereals and pasta (pasta, vermicelli, oatmeal, semolina, buckwheat, pearl barley, boiled rice, porridge);

• fruits (unsweetened, baked apples, pears);

• sweet dishes (compotes, jellies, jelly);

• drinks (weak tea, decoction of rosehip and wheat bran).

Foods that should be excluded from the diet in the treatment of pancreatitis:

• soups (cabbage, millet, strong meat, mushroom and fish broths);

• dishes made from fatty meats, fried;

• fatty fish dishes, fried;

• beef and lamb fat;

• vegetables and herbs (radish, cabbage, turnip, radish, rutabaga, sorrel, spinach);

• smoked products, sausages and canned goods;

• spicy dishes;

• bread and bakery products (rye bread, butter dough);

• ice cream;

• alcoholic beverages.

Drug therapy for exacerbation of CP is aimed at the main pathogenetic mechanisms.

1. Suppression of secretion PJ: hunger, cold, Borjomi intake, antacids, secretolytics (PPIs, anticholinergics, N_2- histamine blockers, somatostatin (octreotide), enzymes (ermital 10 000-25 000 UNITS, pancitrate, trienzyme).

2. Anti-enzyme drugs (kallikrein-protease inhibitors): trasilol, kontrikal, gordoks, aminocaproic acid.

3. Drugs that reduce pressure in the pancreatic ductal system: cholinolytics, myolytics (mebeverin, halidor, no-shpa).

4. Elimination of dysmotorics: cerucal, raglan.

5. Antibiotics (tetracyclines, cephalosporins, semi-synthetic penicillins).

6. Reducing pain: anticholinergics, antispasmodics, non-narcotic analgesics (baralgin), narcotic drugs (morphine is not allowed), novocaine, eufilin, nitroglycerin.

7. Fight against intoxication, dehydration, and electrolyte disorders: hemodesis, rheopolyglucin, heparin.

8. Correction of dysbiosis (probiotics, prebiotics).

Dispensary monitoring of patients with CP and systematic anti-relapse treatment.

The purpose of medical examination in CP is to stop the progression of the inflammatory and destructive process in the pancreas, prevent the occurrence of complications and involve other organs and systems in the process.

CHAPTER 6. PROMOTION OF A HEALTHY LIFESTYLE.

Promoting a healthy lifestyle - the key to prevention and health promotion, a necessary skill in training a family doctor in a higher educational institution.

6.1. Prevention of diseases and strengthening of health by means of physical culture and hardening.

There are different methods of strengthening and preserving health. The system of these methods is called a healthy lifestyle (HLS). Its components, in addition to physical activity, also include personal hygiene, proper nutrition, hardening, quality rest and the absence of bad habits, which is important for overall health. Even with active physical activity, non-compliance with the remaining points will definitely make itself felt. It is impossible to achieve a result by observing only one thing, and combining all the methods leads to an excellent result, even if not so much time passes. But you can not start something abruptly, everything must be prepared.

Political, economic and social reforms have a powerful impact on the daily life, health and stability of society.

The protection of public health is one of the priority tasks of the state's social policy during the period of socio-economic reforms, and public health is defined as the basis of the country's national security. The definition of health as a condition and form of human life activity that provide him with a physiologically determined life expectancy, sufficient satisfaction with the state of his body and acceptable social capacity, implies the responsibility of society and the person himself, the formation, maintenance and correction of individual health and the health of others.

The experience accumulated by preventive medicine was insufficient for the current situation, since it was developed in completely different conditions - with political stability, relative economic well-being, socially oriented state activities, a collectivist mentality, and a fairly high priority of health in the education and propaganda system. The public health system, which previously did not respond well to calls to engage in prevention, in the conditions of market relations, all the more prefers profitable medical practices.

Healthy lifestyle — a person's lifestyle aimed at preventing diseases and promoting health. In English, it corresponds to both Healthy lifestyle and Health promotion.

The concept of "healthy lifestyle" has not yet been clearly defined.

The main directions, forms and methods of preventive work that existed earlier have mostly been preserved, but the volume of professional examinations has sharply decreased, their quality and the number of dispensary observation groups have decreased, the system of mass physical education and the availability of recreational activities have disappeared.

Health is a state of complete physical, psychological and social well-being. Good health contributes to the success of any type of activity, including mental ones. Memory, attention, and perseverance depend on the general state of health and physical capabilities of a person. Movement, muscle tension, and physical activity are important conditions for the prevention of acute respiratory diseases. "Movement is the key to health" "movement is life". Even Aristotle argued that life requires movement.

Physical education is one of the main components of a healthy lifestyle.

Physical education and sports are a powerful tool in strengthening and maintaining health, preventing and reducing morbidity.

The main goal of physical education of the population is to increase people's interest and motivation. All these are the most effective ways to rationalize motor activity, which will ensure high health-improving efficiency of organizational forms of physical activity in the population.

If we teach people from an early age to value, protect and strengthen their health, if we demonstrate a healthy lifestyle by personal example, then only in this case can we hope that the future generation will be healthier and more developed not only personally, intellectually, spiritually, but also physically.

Systematic physical exercise contributes to health promotion by improving the activity, first of all, of the cardiovascular system, respiratory and digestive

organs, metabolism, and helps to increase the body's resistance to many adverse factors, including colds. In addition, the inclusion of dosed physical education classes in the complex of therapeutic measures is absolutely necessary for the treatment of many diseases, including pathologies of the digestive system.

Regular exercise and physical activity are just as important for a healthy lifestyle as proper nutrition. They support health, protect against diseases and, as more and more evidence suggests, slow down the aging process. Physical education is useful at any age, as normal daily activity can rarely provide sufficient physical activity.

The traditional organization of the creative process with the dominance of a sitting working position requires special measures aimed at preventing and correcting disorders of the musculoskeletal system.

A healthy lifestyle means eating a healthy diet, playing sports, avoiding alcohol and smoking, and much more. Hardening also plays an important role.

Hardening is a scientifically based system of using physical factors of the external environment to increase the body's resistance to colds and infectious diseases.
Hardening is a mandatory element of physical education, especially important for young people, as it is of great importance for improving health, increasing efficiency, improving well-being, mood and cheerfulness. Hardening does not cure, but prevents the disease, and this is its most important preventive role. A hardened person easily tolerates not only heat and cold, but also sudden changes in external temperature, which can weaken the body's defenses.

Hardening is most often considered as a process of adaptation of the body to changing weather and climate conditions. But speaking of tempering as a means of physical education, we mean not only the adaptation of the body that occurs under the influence of unfavorable conditions. Hardening should be considered as a conscious application in a certain system of measures that increase the body's resistance, develop the ability to quickly and without harm to health apply to various environmental conditions. Tempering should begin from the earliest

childhood and continue throughout life, changing the forms and methods of its application depending on the age.

Hardening of the body is inextricably linked with physical exercise. Physical exercises significantly expand the functional capabilities of all body systems, increase its efficiency. Their health-improving and preventive effect is associated with increased physical activity, increased functions of the musculoskeletal system,and increased metabolism.

Hardening does not cure, but prevents the disease, and this is its most important preventive role. A hardened person easily tolerates not only heat and cold, but also sudden changes in external temperature, which can weaken the body's defenses.

The main thing is that tempering is acceptable for any person, i.e. it can be practiced by people of any age, regardless of the degree of physical development. Hardening increases the efficiency and endurance of the body. Tempering procedures normalize the state of the emotional sphere, make a person more restrained, balanced, they give cheerfulness, improve mood. According to yogis, hardening leads to a fusion of the body with nature.

The main factors of hardening are air, sun and water.

Thus, hardening is an important means of preventing the negative effects of cooling the body or the action of high temperatures. The systematic use of hardening procedures reduces the number of colds by 2-5 times, and in some cases almost completely eliminates them. It is an important part of physical culture, as well as preventive and rehabilitation measures, to increase the body's resistance to the adverse effects of physical environmental factors (low and high temperatures, low atmospheric pressure, etc.).

But even in our modern world, you can maintain your health at the highest level. The most important rule of a healthy lifestyle is not to give in to the temptation and want to do it yourself, because no one can help us in this, except ourselves. A healthy lifestyle should be instilled from infancy, because it is at this age that the entire foundation of the future life is laid.

Morning exercises play an important role, because only by remembering to perform daily morning exercises a person can achieve better physical fitness, and then physical perfection. It is important to correctly draw up an exercise plan, choose for individual characteristics of a person. At the same time, you can not apply intense loads, as well as bring yourself to a state of severe fatigue. Morning exercise removes lethargy and puffiness after sleep, tones the nervous system, improves the functioning of the respiratory and cardiovascular systems. Thanks to charging, both physical and mental performance of the body increases. Gradually removing something harmful and unnecessary and implementing something useful in life can almost painlessly move on to a new, more correct and healthy stage.

Due to computerization in all spheres of society, people are moving less and less, their physical activity decreases every year, and their health status worsens due to sedentary work. And although our current life is impossible to imagine without a computer, but it is important not to forget to rest your eyes and exercise your muscles relaxed from sitting. There are many sets of exercises that can be done even at the workplace in the office. This way, your muscles won't stagnate and your overall health won't worsen as much.

Another factor that does not contribute to health promotion is the car. If the distance allows, then you can walk. This will be useful not only for your wallet, but also for your body. Daily walking improves heart health, regulates blood pressure, improves blood circulation, promotes weight loss, reduces the risk of diabetes, strengthens bones, muscles, improves digestion, strengthens the immune system, relieves stress, increases human productivity.

In addition to exercising during the working day, there is another way to stay fit when working sedentary. Amateur sports are an excellent tool for prevention and health promotion. If the road to professional sports may not be open to everyone, then the situation with amateur sports is completely different. The doors to it are open to everyone, only if a person is not forbidden to engage in this sport according to the doctor's indications. Loads in amateur sports should be dosed and feasible to avoid overexertion.

Every person should definitely monitor their health. Health is strongly influenced by human heredity and environmental ecology, but there are other

factors that also affect it. It is important not only to follow the rules of personal hygiene, but also to regularly undergo examinations by a doctor. According to scientists, the conditions and lifestyle of people is the main factor affecting the state of human health. Thus, only the person himself has a greater impact on his health, and only he can either improve his condition or significantly worsen it.

With the development of science, human physical activity is becoming less and less. In ancient times, people plowed the land with their own hands, took care of their own plot of land, while there was no question of cars then. Today, all such work is mechanized, it does not require the same amount of strength as it was required before. There is less work associated with physical labor, and more sedentary work that does not require much physical effort. Such work causes many diseases.

Today, statistics show that there are more and more sick people, it is becoming more and more difficult for them to cope with physical exertion, so physical therapy is becoming quite popular. This type of physical culture is therapeutic and preventive, helps to quickly and more fully restore human health. In addition, it prevents the appearance of complications of various diseases.

Physical exercises in therapeutic physical culture are used as a non-specific stimulus that helps the patient to rehabilitate and get better. These exercises restore not only physical, but also moral strength, help a person move forward, and motivate them to achieve better results. Physical therapy, like regular exercise, also uses natural factors of nature. Without enough air, sun, water, and other factors, you can't get as much benefit as you can get with them. Their beneficial effect increases the patient's recovery rate.

Physical activity has a positive effect on the human immune system. Thanks to it, the immune system fights better against various bacteria and viruses, and the immunobiological properties of blood and skin improve.

In addition, physical activity helps to develop the body's resistance to adverse environmental factors. It can be not only atmospheric pressure or different temperatures, but even some poisons or radiation. Physical exercises relieve stress, bring positive emotions, thereby normalizing many body functions. Under the

influence of moderate loads, a person's working capacity and ability to think creatively increases.

One of the most accessible types of physical culture is considered to be health-improving running. This is an indispensable tool for relieving and relieving nervous tension. In a certain dosage, combined with water treatments, it becomes one of the best methods to combat insomnia, tachycardia, asthmatic and bronchial manifestations. Moderate running or sports walking reduces the risk of high blood pressure, heart failure, vascular diseases, heart attack or stroke conditions. Running contributes to the process of losing weight, improves the body's endurance, increases its immune strength. One of the types of running is morning running, which activates metabolic processes and improves brain activity.

It is impossible to dispute the fact that moderate physical activity has a beneficial effect on the human body. Reduced activity leads to the development of various diseases, withering of the body and shortening of life expectancy. But for people of mature age, the quality of life plays an important role.

People should take physical education more seriously as a means of preventing diseases and promoting health. Sedentary lifestyle and lack of proper physical activity are urgent problems of modern society. We must not allow the situation to worsen, which means that we need to hold sports events, encourage people to participate in them, and show by example how much sport affects human health.

6.2. The role of a healthy lifestyle in the prevention and promotion of health in diseases of the gastrointestinal tract.

Physical education is one of the most important elements in every person's life. Today it is impossible to imagine our life without sports. Most people just like to watch sports competitions, cheer for athletes, enjoy their victories and experience defeats with them. But, unfortunately, not everyone independently engages in physical culture on a daily basis, at least at the level of morning gymnastics. People do not fully understand that it is sports that, having joined the flow of their life, can not only slightly change its course, but also have a beneficial effect on the state of health, not only physically, but also psychologically. After all, it's no secret that physical activity reduces stress levels, bringing psychological

functions to a stable state. Health implies complete physical, spiritual and social well-being.

This topic is extremely relevant in our time and occupies the minds of not only doctors, but also ordinary citizens. The static nature of modern society leads to a deterioration in the state of physical and mental health. It is important to once again draw the public's attention to the current situation, face your problems and say "yes" to a healthy lifestyle.

"Movement can replace any remedy by its action, but all the medicinal remedies in the world cannot replace the actions of movement." Health-improving gymnastics is an integral part of general physical education and one of the most important methods of complex treatment of diseases of the gastrointestinal tract(GIT), as well as an effective means of preventing exacerbations with the right choice of physical exercises. Statistical studies have shown that the most common diseases are: gastroduodenitis, gastritis, duodenal ulcer, cholecystitis, enterocolitis.

Clinical and physiological justification: the nervous system of the gastrointestinal tract is connected with the entire nervous system of the body, i.e. the processes of food digestion take place under the guidance of the higher parts of the central nervous system (CNS). With violations in the activity of the central nervous system, deviations in the functioning of the digestive organs may occur. At the same time, pathological reflexes from the gastrointestinal tract naturally affect the functional state of the central nervous system. All this indicates the important role of the state of the digestive system in maintaining the physiological balance of the body (homeostasis), in maintaining human health and ability to work. Diseases of the gastrointestinal tract by nature etiologies are divided into infectious and non-infectious. Etiological factors of non-infectious nature are diverse. These include: neurogenic factor – a violation of the nervous regulation of digestion; food factor – the use of coarse, spicy, substandard food; chemical factor-exposure to alkalis and acids, heavy metal salts, medicinal substances, etc. The infection most often affects the intestines, liver, biliary tract, and can cause stomach diseases (phlegmonous gastritis). Diseases of the digestive system are divided into functional and organic. Functional diseases of the stomach: 1. Gastroptosis – omission of the stomach. Causes of this disease: weakening of the abdominal muscles, significant weight loss, asthenic condition,

sedentary lifestyle, etc. 2. Pylorospasm – spasm of the pylorus. Most often occurs reflexively in diseases of other parts of the digestive system (duodenal ulcer 12, colitis). Functional bowel diseases are divided into motor disorders, digestive and absorption insufficiency. Acute and chronic gastritis are organic inflammatory diseases of the gastric mucosa. In acute gastritis, the mucosa is superficially affected due to exposure to acute, irritating or rough hard-to-digest food. The cause of chronic gastritis is the abuse of alcohol and smoking, malnutrition in the form of a lack of animal proteins, vitamins of group A, B, C, and performing intense physical activity immediately after a meal.

Peptic ulcer of the stomach and duodenum is an organic disease in which a peculiar ulcerative process appears in the upper part of the central nervous system of the digestive tract. The development of this disease is caused by many reasons. Local causes include: food factor, exposure to nicotine and alcohol, violation of blood supply in the stomach itself, the occurrence of an inflammatory focus when gastric juice is exposed to the mucous membrane, etc. Factors of general impact include disorders in the central nervous system, excessive nervous and emotional stress, etc. Functional disorders of the liver and biliary tract disorders of liver function are more or less constant in all diseases of the gastrointestinal tract. A common disease is biliary dyskinesia – functional disorders of the tone and motility of the gallbladder and biliary tract. For these diseases, health-improving gymnastics, used in combination with various means of treatment, performs the following tasks::

1. overall strengthening and recovery of the body;

2. influence on neurohumoral regulation of digestive processes;

3. improvement of blood and lymph circulation in the abdominal cavity and small pelvis;

4. improvement of trophic function of the central nervous system;

5. development of full breath function;

6. strengthening of the muscular system and, in particular, the muscles of the abdominal press, back, small pelvis.

7. providing a positive effect on the neuropsychic sphere of the patient, increasing his emotional state.

The basis of the organization of the treatment process in diseases of the gastrointestinal tract is the mode. Its components are the diet and the mode of movement. This is due to the fact that the functional state of the digestive system is actively influenced not only by food, but also by environmental conditions, in particular movements, physical exercises.

Mechanism of action of physical exercises . Physical exercises are indicated for patients in the phase of fading exacerbation, as well as in the phase of incomplete and complete remission. During the period of exacerbation and with a complicated course of the disease of the gastrointestinal tract, physical exercises should be stopped. In diseases of the gastrointestinal tract, exercises for the hands with the participation of large and medium muscle groups, which strengthen the nervous and cardiovascular systems, are of great importance. Exercises for the trunk with the participation of the abdominal muscles, as well as special exercises for the abdominal press, improve the functioning of the nervous system, activate blood circulation in the abdomen, regulate the activity of the gastrointestinal tract and stimulate metabolic processes in tissues. Leg exercises in all starting positions normalize the function of the nervous system, improve blood and lymph circulation in all organs, especially the gastrointestinal tract, train the cardiovascular and respiratory systems, and activate metabolic processes in tissues. Respiratory exercises in diseases of the gastrointestinal tract have a local effect on the abdominal organs by changing the position of the diaphragm - when inhaling (the diaphragm descends) and exhaling (rises). This causes an increase and decrease in intra-abdominal pressure, which improves digestion and increases intestinal motility - as a result, the movement of feces is accelerated. In addition, breathing exercises enrich the blood with oxygen, favorably affecting the redox processes in the digestive organs, and contribute to the rapid healing of ulcers (stomach, duodenal ulcer) and erosion.

For patients with secretory insufficiency, excessive loads are not indicated. In the phase of fading exacerbation, the most effective elementary gymnastic exercises are performed at a slow pace, with a limited range of motion of the limbs, in the initial position lying on the back. Active abdominal exercises are not

recommended. Physical exercises are carried out before meals for 1.5-2 hours or 2-2.5 hours after meals. When the motor-evacuation function of the stomach is weakened, it is recommended to take a position on the right side after eating and perform elementary exercises for the left arm and leg in combination with breathing exercises. To improve the motor-evacuation function of the stomach, normal walking is performed for up to 30 minutes, but not earlier than 30-45 minutes after eating. To activate the trophic processes in the stomach, exercises with a limited effect on the abdominal and back muscles, as well as massage, are used. With gastritis with preserved or increased secretion, the same technique is used as with peptic ulcer. In case of peptic ulcer, exercises are performed in the initial position, standing, sitting and lying down without holding the breath, moving the arms, legs, torso. Also included are exercises with shells (weighing up to 1.5 kg.), with movement for coordination, games. Walking at a slow pace of 3-4 km (70-90 steps / min .) is widely used.

Intestinal dyskinesia. In bowel diseases, the therapeutic effect of physical exercises is largely determined by the correct choice of initial body positions, since intra-intestinal pressure changes significantly with a change in body position. An increase in pressure in the intestine is accompanied by an increase in the tone of its muscles and a decrease in peristaltic oscillations. Exercises performed in a standing position increase the tone of the intestinal muscles more. There are also exercises for the abdominal press, which can even increase the spastic phenomena of the intestine and worsen the patient's condition. The opposite effect is caused by the initial positions lying on your back, resting on your knees. Performing elementary restorative and breathing exercises in these positions activates intestinal peristalsis.

Cholecystitis with biliary dyskinesia. The best conditions for blood circulation in the liver, the formation and secretion of bile are created in the supine position. There are also breathing exercises. To enhance the influence of the diaphragm, breathing exercises are used in the initial position lying on the right side, left side and lying on the back. Performing exercises in the starting position - emphasis - kneeling helps to relax the abdominal muscles and unload the spinal column.

Self-control during health-improving exercises. Self-control is a system of monitoring one's health, physical development and functional state of the body. The main tasks of self-control:

- realize the need for careful attention to their health;

- master the simplest methods of self-observation, learn the simplest ways of recording observations;

- learn to analyze and evaluate indicators of self-control;

- consolidate and put into practice the acquired knowledge.

Self-control includes observations and analysis of objective and subjective states of the body. Objective indicators include indicators that can be measured and quantified: anthropometric - body length, weight, chest circumference, etc .; functional - heart rate (HR), depth of breathing, etc.

Subjective indicators are considered to be well-being, mood, feelings of fatigue and tiredness, desire or unwillingness to exercise, etc. The best form of organizing self-control is keeping a diary. Entries in the self-control diary should be meaningful and useful, for this you need to learn to observe and write. Verbose entries should be avoided. It is preferable to use generally accepted abbreviations such as "good ", " satisfactory", "bad." or use the system of symbols "+", "±", "-", expressing, for example, an assessment of good, satisfactory and poor health.

Well -being is a person's subjective feeling of his state. **Sleep** is a very sensitive indicator of the state of the human body. There are strong, calm and restless sleep, as well as insomnia. Sleep duration and sleep disturbances, such as difficulty falling asleep, should be noted. **Appetite** - marked as good, satisfactory and poor. **Heart rate** is an extremely informative indicator of the human body, the fitness of its cardiovascular system and respiratory apparatus. At rest, heart rate ranges from 40 to 70-80 beats . / m in. With medium volume and intensity loads, the heart rate reaches 130-150, and with significant and large loads - up to 200 or more beats per minute.

Breath. Great information about the potential of the respiratory apparatus has an indicator of VC (vital capacity of the lungs) - the maximum amount of air that a person can inhale after a deep exhalation. VC measurements are carried out using a water or dry spirometer. In self-control, samples with holding the breath on inhalation or exhalation are quite informative.

Body mass. Great importance in self-control should be given to observations of body weight. Body weight should be measured, if possible, weekly, at the same time, on the same scales. The value of body weight gives an idea of the development of the main tissues of the body - muscle, bone and fat. Indicators of muscle strength, dynamics of results are bright and objective signs of the correct construction of the training process. For self-control over the level of your physical fitness, it is advisable to use one or more control exercises. By systematically repeating this exercise, the dynamics of the results are used to judge the effectiveness of the training process, the correct choice of means. In the diary of self-control, it is necessary to briefly record the content of the training session and the feelings associated with it.

Methodology for the construction of recreational activities. Health-improving physical exercises are carried out in the form of microcycles, which are divided into two periods: introductory (or preparatory) and main. In **the introductory (preparatory) period, the** main task is to overcome the reduced adaptation to physical activity, restore motor skills and physical performance (usually lagging behind age standards), achieve a desire to actively and systematically engage in physical exercises.

The main period is intended for the tasks of further restoration and strengthening of health. Physical exercises are aimed at maintaining the achieved results of rehabilitation and achieving a full recovery. In the introductory period, exercises are used for all muscle groups, at a calm pace. Rhythmically, always in combination with breathing exercises and relaxation exercises. The load on the abdominal muscles should be limited. In the main period, with systematic exercises, the total volume, amplitude and intensity of physical exercises gradually increase, exercises with weights are introduced, for coordination of movements, with the resistance of a partner, in balance, etc. The principle of combination: tension - relaxation - breathing exercises must be observed! In the choice of

starting positions for diseases of the gastrointestinal tract, preference is given to: lying on the back, on the right or left side, emphasis on the knees. Diaphragmatic breathing is performed in all of the listed starting positions. The number of exercises in the complex and the number of repetitions of each depends on the characteristics of the course of the disease and physical fitness.

The scheme of occupational health-improving gymnastics . **I. Introductory part:** heart rate calculation, breathing exercises, posture correction exercises.

II. Preparatory part: general developmental exercises for all muscle groups, wellness walking, running, walking with a high raising of the hip, "overlapping" the lower leg, walking on toes, heels, the outer and inner side of the foot, rolling from heel to toe, with a cross step, and others; walking combined with breathing exercises.

III. The main part is a set of special exercises, selected taking into account the form of the gastrointestinal tract disease, physical fitness.

IV. The final part: exercises for stretching working muscles, breathing exercises, exercises for relaxing muscle groups. Heart rate calculation. The lesson includes 75% of special exercises and 25% of general developmental and respiratory exercises. The physiological load curve is multi-peak. The starting positions in the exercises are different. The pace of the exercises is slow (TM), medium (TS), fast (TB).

The ratio of breathing exercises to general developmental and special ones is 1:3.

\CONCLUSION.

Currently, the priority task in the field of prevention and health promotion is to change the position of medical and government workers, as well as the population as a whole, in relation to the health of every citizen of the country. Medical examinations and medical examinations have turned a person into a passive user of medical services, while he should be an active driving force in maintaining his health. The effectiveness of this direction depends on the integration of preventive and health services, as well as public organizations on the issues of improving the health of the population. At the same time, the strategy for the prevention and promotion of the health of the population with diseases of the digestive system, along with the introduction of new directions and changes in tactics, should preserve all the positive that has been accumulated by past experience.

An important problem is the definition of strategic priorities in the field of disease prevention and health promotion in diseases of the digestive system.

Among the socially significant diseases that affect the life expectancy and quality of the population, along with cardiovascular, oncological, neuropsychiatric, respiratory diseases, injuries, include the pathology of the digestive system, the growth of which largely depends on lifestyle, risk factors and bad habits, such as low physical activity, poor nutrition, smoking, as well as alcohol and drug use.

The development experience of many foreign countries has convincingly shown that the state strategy aimed at the prevention of socially significant pathology is beneficial for the country and saves significant human and financial resources. Thus, in 1993, the World Bank report on the contribution of investment in health emphasized that the emphasis on primary health care, accompanied by measures to improve the health and hygiene education of the population, not only does not reduce investment in the treatment of diseases and their complications, but also contributes to economic and social development of the country. The tool for carrying out preventive measures should be the creation of a monitoring assessment of health indicators, the spread of bad habits, and risk factors.

President Republic Uzbekistan Sh . M . Mirziyaev It was emphasized that the key issue of state policy is to improve the quality of life of citizens. A practical step that will significantly improve the quality of life of the population of

Uzbekistan is the implementation of a priority national project in the field of healthcare. It provides for increasing attention to primary health care, strengthening the preventive focus of health care, and meeting the population's needs for expensive types of medical care.

Increasing the priority of primary health care for diseases of the digestive system provides for the revival of the preventive direction in health care, the formation of a culture of health among the population, increasing motivation for its preservation, in-depth medical examination, the formation of a "Health Passport" for each inhabitant of the country, educating the population of health culture skills, inculcate the foundations of a healthy lifestyle. A special place in improving the health of the nation is occupied by medical education, clinical examination of the able-bodied population, as well as those living in rural areas. The most important direction in assessing the activities of medical institutions should be indicators of preventive work.

BIBLIOGRAPHY.

1. Ахмедов В.А. Практическая гастроэнтерология. – М.:Медицинское информационное агенство, 2011. – 416 с.
2. Гадаев А.Г. Внутренние болезни. Ташкент, 2018, 382с.
3. Гадаев А.Г., Ахмедов Х.С. Сборник практических навыков для врачей общей практики. Т., 2010, 287с.
4. Вишневская В.В., Лоранская И.Д., Малахова Е.В. Билиарные дисфункции – принципы диагностики и лечения// РМЖ, – 2009. Т. 17. – №4. – С. 246–250.
5. Гастроэнтерология. Национальное руководство: краткое издание/ Под. ред. В.Т. Ивашкина, Т.Л. Лапиной – М.: ГЭОТАР-Медиа, 2014. – 470 с.
6. Дадвани С.А., Ветшев П. С, Шулутко А.М., Прудков М.И. Желчнокаменная болезнь. – М.: ГЭОТАР-Медиа, 2009. – 178с.
7. Диспансерное наблюдение больных хроническими неинфекционными заболеваниями и пациентов с высоким риском их развития. Методические рекомендации/ Под редакцией С.А.Бойцова, А.Г.Чучалина. – Москва, 2014. – 112 с.
8. Здоровый образ жизни и профилактика заболеваний/ Под редакцией Ющука Н.Д., Маева И.В., Гуревича К.Г. Москва,2012. – 659с.
9. Ивашкин В.Т., Лапина Т.Л. Гастроэнтерология. Национальное руководство. 2014. – 420 с.
10. Ивашкин В.Т., Шептулин А.А. Болезни пищевода, желудка и кишечника. – М.: МЕД пресс-информ, 2009. – С.78–83.
11. Калинина А.М. Концептуальная основа профилактического консультирования пациентов с хроническими неинфекционными заболеваниями и факторами риска их развития / Кардиоваскулярная терапия и профилактика. – 2012. – №4. – С.4-9.
12. Клинические рекомендации по диагностике и лечению язвенной болезни. Ростов-на-Дону: РостГМУ, 2012. – 81 с.
13. Клинические рекомендации по диагностике и лечению холестаза. – Москва, 2013. – 39 с.
14. Маев И.В., Самсонов А.А. Язвенная болезнь. – М.: Миклош, 2009. – 432 с.

15. Маев И.В., Самсонов А.А., Салова Л.М. Диагностика и лечение заболеваний желчевыводящих путей: учебное пособие. М., 2003. – 96 с.
16. Общественное здоровье и здравоохранение. Национальное руководство/ под ред. В.И. Стародубова, О.П. Щепина. – М.: ГЭОТАР-Медиа, 2014.–624 с.
17. Рапопорт С.И. Гастроэзофагеальная рефлюксная болезнь. Пособие для врачей. – М.: МЕДПРАКТИКА-М, 2009. – 12 с.
18. Рекомендации Профилактика хронических неинфекционных заболеваний/ под ред. С.А. Бойцов, А..Чучалин. Москва, 2013. – 138 с.
19. Руководство по медицинской профилактике / под редакцией Р.Г.Оганова и Р.А.Хальфина /М. 2007 г.
20. Рябов С.И., Радченко В.Г., Шабров А.В., Зиновьева Е.Н., Ситкин С.И. Заболевания печени и желчевыводящих путей. – М.: СпецЛит, 2011. – 560 с.
21. Стародубов В.И., Сковердяк Л.А., Соболева Н.П. Проблемы нормативного обеспечения медицинской профилактики// Профилактика заболеваний и укрепление здоровья. 2005.– №5. – С. 4-7.
22. Стародубов, В. И. Соболева Н.П., Сковерняк Л.А. Основные направления в развитии медицинской профилактики/ В. И. Стародубов// Профилактика заболеваний и укрепление здоровья. – 2007. – №2. – С. 3–6.
23. Физическая активность. Методические рекомендации. Организация-разработчик ФГБУ «ГНИЦ профилактической медицины Минздрава России. Москва 2012. – 33с.
24. Циммерман Я.С. Клиническая гастроэнтерология: избранные разделы. – М.: ГЭОТАР-Медиа, 2009. – 4 16 с.
25. Mahadevana U., Kaneb S. American Gastroenterological Association Institute technical review on the use of gastrointestinal medications in pregnancy// Gastroenterology. – 2006. – Vol. 131. – №1. – P. 283-311.
26. Maher D. Ford N. Действия в отношении неинфекционных болезней – уравновешивание приоритетов в области профилактики и лечения. Бюллетень Всемирной организации здравоохранения 2011;89:547-547A.

27. Malfertheiner P., Megraud F., O'Morain C. et al. Management of Helicobacter pylori infection – the Maastricht IV Florence Consensus report// Gut. – 2012. – Vol.61. – P.646-664.
28. Nagata N., Niikura R., Sekine K., Sakurai T., Shimbo T., Kishida Y., Tanaka S., Aoki T., Okubo H., Watanabe K., Yokoi C., Akiyama J., Yanase M., Mizokami M., Uemura N. Risk of peptic ulcer bleeding associated with Helicobacter pylori infection, nonsteroidal anti-inflammatory drugs, low-dose aspirin, and antihypertensive drugs: a case-control study. J Gastroenterol Hepatol. 2015 Feb;30(2):292–8.

Сайты интернета :

1. www.gov.uz –Государственный портал Республики Узбекистан.
2. www.med.uz;
3. www.mediasphera.ru;
4. www.medmore.ru;
5. www.medilexicom.com;
6. www.medlinx.ru,
7. Sciencedirect.com
8. Scopus.com
9. Search.ebscohost.com
10. Library.tma.uz