

Seminar 16.

Topic № 16. Merchandising analysis of drugs. The main stages, methods of implementation. Registration of the results of commodity analysis. Commodity analysis of dressing materials and products made from them, items and means intended for the care of the sick, newborns and children under the age of three years. The main stages, methods of implementation. Registration of the results of commodity analysis.

Questions for theoretical discussion

1. Merchandising characteristics of groups of cardiovascular drugs.
2. Contraceptives. Hormonal contraception. Commodity analysis of contraceptive drugs: packaging, labeling, acceptance control, storage rules.
3. General characteristics and approaches to the classification of drugs used in diseases of the gastrointestinal tract, approaches to classification. Commodity characteristics of drugs used in the treatment of diseases of the digestive system. Algorithm for conducting a commodity analysis of drugs used in the treatment of diseases of the gastrointestinal tract.
4. Characteristics of groups of drugs used in the treatment of nonspecific lung diseases. Commodity analysis of drugs used in the treatment of nonspecific lung diseases: packaging, labeling, acceptance control, storage rules.
5. Medicines used in the treatment of the central nervous system. Commodity analysis: packaging, labeling, acceptance control, storage rules.
6. General characteristics, classification, assortment of dressing materials and means.

Pharmacy organizations, individual entrepreneurs licensed for pharmaceutical activities, along with

- with medicines have the right to purchase and sell, including remotely,
 - medical products,
 - disinfectants,
 - items and means of personal hygiene,
 - dishes for medical purposes,
 - items and means intended for the care of the sick, newborns and children under the age of three,
 - spectacle optics and care products,
 - mineral water,
 - products of medical, children's and dietary nutrition,
 - biologically active additives,
 - perfumes and cosmetics,
 - medical and health-educational publications designed to promote a healthy lifestyle.

SCHEME FOR CARRYING OUT THE COMMODITY ANALYSIS OF MEDICINES

1. Name of the medicinal product (trade and international non-proprietary).
2. Name of the pharmacotherapeutic group.
3. Dosage form, dosage, quantity in the package.
4. Organoleptic properties (color, smell, uniformity, etc.).
5. Packaging: primary, secondary (if any).
6. Availability of marking, its compliance.
7. Features of storage.
8. Accompanying documentation.

Scheme for conducting a commodity analysis of medical devices

1. Product name.
2. Class and subclass of goods.
3. Product drawing.
4. Functional purpose.
5. Commodity varieties.
6. Raw material.
7. Design features and technical requirements (quality control).
8. Packing.
9. Marking.
10. Accompanying documents.
11. Features of storage.

Cardiovascular diseases are the leading cause of early disability and death of patients in all countries of the world. In our country, the mortality from these diseases reaches 52%, which exceeds the mortality from cancer and other diseases in total. In recent years, significant progress has been made in the fight against atherosclerosis and its complications, which significantly reduces mortality from coronary artery disease and stroke (40-50%).

National programs for the prevention of cardiovascular diseases and the introduction into clinical practice of new highly effective means of preventing and treating these diseases have also been developed and are being implemented.

Classification of cardiovascular drugs

According to the pharmacotherapeutic classification and coding systems adopted in Russia, drugs used to treat this group of diseases include:

- preparations of cardiac glycosides (cardiotonic)
- antiarrhythmic
- antispasmodic and hypotensive
- diuretic
- affecting blood clotting.

Classification of various methods of contraception

1. *Hormonal contraception* :
 - combined oral contraceptives;
 - preparations containing only gestagens (tablets, injections, subcutaneous implants).
2. *Intrauterine contraceptives* :
 - copper-containing;
 - secreting hormones.
3. *Emergency contraception*.
4. *Traditional methods of contraception*:
 - barrier methods (condom, female barrier means, coitus interruptus);
 - spermicides;
 - physiological method.
5. *Surgical methods of contraception* :
 - female sterilization;
 - vasectomy in men.

Hormonal contraception

One of the most effective and widespread methods of birth control is currently hormonal contraception. Apply combined oral contraceptives, vaginal hormonal contraception, as well as contraceptives containing only gestagens.

Combined oral contraceptives

Combined oral contraceptives (COCs) contain a combination of 2 classes of synthetic hormones: estrogens and gestagens.

At the first stage of their use, preparations with a high content of these hormones (enovid, infecundin) were created, which had many serious side effects. At the second stage of the creation of these drugs, contraceptives with a low content of estrogens (up to 30–35 µg) and progestogens with a selective effect appeared, which made it possible to significantly reduce the frequency and nature of complications when taking them. Third-generation drugs include agents containing low (30-35 mcg) or minimal (20 mcg) doses of estrogens, as well as highly selective progestogens, which have even greater advantages compared to their predecessors.

Since the first use of COCs, the doses of estrogens and progestogens have decreased significantly, which greatly increased their safety for women's health.

Dressings

Dressings are products intended for the prevention and treatment of diseases, to help the seriously ill and to care for the human body. In accordance with the classification according to the purpose of use, dressings are distinguished for closing wound surfaces, for fixing dressings, for fixing joints or compressing limbs, and compression bandages.

The concept of dressings and ready-made dressings

Dressings and ready-made dressings have been known since ancient times, when primitive people used wood, leaves of some plants to dress wounds and various damage to body tissues. Gradually, with the development of science and technology, dressings and ready-made dressings began to be made from cotton, paper and viscose yarn.

Modern dressings are multifunctional, because they perform not only the traditional role of protecting wounds from infection and damage, but also become a medicine, helping the patient to recover as soon as possible.

Dressings are products that are fibers, threads, fabrics, films, non-woven materials and are intended for the manufacture of dressings by industrial enterprises or immediately before use by medical personnel and end users. The dressing may be of natural (eg cotton, viscose), synthetic (eg polymers) or mixed origin. Dressings are fibers, threads, fabrics, films, non-woven materials that are used during operations to remove blood, maintain the cleanliness of the surgical field and wounds, to stop bleeding, and apply bandages.

Wound dressing protects the body from secondary infection and prevents additional damage.

The dressing material is used during operations and dressings for drying the surgical field and wounds, tamponade of wounds in order to stop bleeding and drainage, to apply dressings, protect the wound and burned surface from secondary infection and damage.

As a rule, dressings are made from dressings, that is, medical products intended to be applied to a wound in order to protect against environmental factors (cold, heat, dirt, dust, microorganisms, etc.).

Ready-made dressings are medical devices made from one or more dressings intended for the prevention of infection and for the treatment of wounds. In addition, dressings absorb tissue decay products, microbes, toxins, enzymes, etc. from the wound, thus facilitating their removal.

With the help of dressings, a therapeutic antimicrobial, hemostatic, necrolytic, analgesic, regenerating, antioxidant, immunostimulating effect on the wound process is performed.

Purpose of dressings and means:

- protection of wounds from environmental factors (cold, heat, dirt, dust, etc.);
- prevention of entry of microorganisms from the external environment into the wound, i.e. protection of wounds from secondary infection;
- removal of tissue decay products, microbes, toxins, enzymes, allergens from the wound;
- stop bleeding;
- providing a therapeutic effect on the wound process: antimicrobial, hemostatic, necrolytic, analgesic, regenerating, antioxidant, immunostimulating;

–fixing dressings on the affected part of the body, creating immobilization.

The main requirements for dressing materials and means:

- sterility;
 - atraumatic;
 - strength;
 - plastic;
 - anti-adhesiveness (prevention of bacteria from sticking to the wound, mucous membranes, etc.);
 - permeability to air and pathological substrate;
 - impermeability to microorganisms;
 - comfort;
 - absence of allergic and toxic components;
- must have good absorption capacity and high capillarity;
–must have a neutral water extract reaction;
–must be reliably sterilized, must be accessible and cheap;
–must be strong, plastic, anti-adhesive, permeable (for air and pathological substrate) and impermeable to microorganisms;
–should ensure the comfortable existence of patients;
–be economical and easy to use;
–should not have allergic and toxic components.

In some cases, it becomes necessary to impart additional medicinal properties to dressings by impregnating (impregnating) them with a medicinal substance or using dressings as a substrate for medicines (composites). Modern dressings should be easy to use (simple applications), which facilitates the work of medical personnel and allows them to be used for self-treatment and self-help.

General characteristics of dressings and means

Dressings and dressings are used to make and apply dressings to protect against secondary infection and other external influences, as well as to stop bleeding, dry wounds during surgical operations and immobilize organs and tissues.

In Russia, in order to increase the efficiency of use and reduce the negative impact on the health of the population of this segment of products, a regulatory and methodological framework has been developed, as well as state registration of goods and quality control during their production.

Dressings are products that are fibers, threads, fabrics, films, non-woven materials and are intended for the manufacture of dressings by industrial enterprises or immediately before use by medical personnel and end users.

A dressing is a medical device made from one or more dressings intended for the prevention of infection and for the treatment of wounds.

Ready-made dressings - prefabricated products made of gauze and cotton wool, non-woven fabric and other materials, ready for use for their intended purpose (bandages, napkins, dressings, dressing bags, adhesive plasters, etc.).

Classification and characteristics of dressing material

Depending on the physical structure:

- woven;
- knitting and knitting-stitching;
- non-woven (non-woven stitching);
- fibrous;
- film (film);
- spongy.

Depending on composition:

- cotton;
- linen;
- viscose;
- cotton-viscose;
- paper, etc.

Cotton dressing cloth, in turn, is divided into:

- severe dressing cloth (calico);
- dressing cloth bleached;
- gauze;
- gauze with impregnation;
- absorbent gauze.

Dressing sheets from other groups are divided into:

- linen cloth;
- hygroscopic medical non-woven canvas-stitched non-threaded fabric;
- paper-banding material, etc.

The main indicators of the quality of dressings:

- humidity,
- absorbency,
- capillarity,
- chemical neutrality,
- color,
- smell.

Humidity - loss in mass due to hygroscopic moisture, which is determined by drying to constant weight.

Absorption capacity - the ability to absorb liquid (water, blood, aqueous solutions, tissue fluids). It is estimated by the amount of water in grams absorbed by 1 g of relatively dry cotton wool.

Capillarity - the ability of a material to lift liquid from the lower layers of the material to its upper layers. It is estimated by the height of the rise of liquid over the material in mm for a certain period of time.

Chemical neutrality is the neutral reaction of an aqueous extract.

Classification and characteristics of finished dressings

Ready-made dressings are made from dressing materials and are finished products for intended use.

Classification of finished dressings depending on the form:

bandages, bags, napkins, plasters, tampons, aerosols (spray foams and spray films), wound coverings.

Bandages are a kind of dressings made from cotton-viscose gauze in the form of rolls of certain sizes; belong to the traditional, widely used ready-made dressings.

Types of bandages: sterile, non-sterile, starched, hydrophilic, plaster, elastic, tubular, adhesive.

Non-sterile gauze bandages are produced in sizes 10 m x 16 cm, 10x10, 5x10, 5x5, 5x7, 7x10, 7x14, 7x7 cm both in secondary and in individual packaging.

Sterile gauze bandages are produced in sizes 5x10, 5x7, 7x14 cm in individual packaging.

bandages contain gypsum, which, after getting wet, is applied to the injured parts of the body in order to fix them; used mostly in traumatology. Available in sizes 3x10, 3x15, 3x20 in individual packaging. In recent years, such bandages have been produced with PVA plasticizer to improve consumer properties.

Bandages are divided into two subgroups:

- *tape;*

- *tubular* .

Elastic bandage is made of harsh cotton yarn, which is based on woven rubber threads, which sharply increase the elasticity of the bandage.

Elastic bandages are not sterilized, they are used for non-rigid tightening of soft tissues.

Elastic medical bandage is intended for applying tight bandages. Made from harsh cotton yarn. Extensibility of at least 50%. They produce a bandage 3 m long, 5 and 10 cm wide. These bandages are very strong (the breaking load of a bandage 5 cm wide is not less than 30 kg / s). Bandages two by two are wrapped in cellophane and a label is attached indicating the manufacturer. Elastic bandages are washed in soapy foam at a temperature not exceeding 40 ° C, and then rinsed in warm water and wrung out without twisting in a towel. Dry on a horizontal surface with the label up, folding into cardboard boxes of 18 pieces (bandages 8,10,12 cm wide) or 36 pieces (bandages 5 cm wide). When washing elastic bandages, do not use synthetic detergents.

Elastic tape bandages have three modifications:

- low stretch bandages;
- medium stretch bandages;
- high stretch bandages.

According to the degree of compression, products are divided into five classes:

- products of zero compression class;
- compression class I products;
- compression class II products;
- products of III class of compression;
- compression class IV products.

Performance characteristics of elastic bandages:

- The change in the linear dimensions of products after the first wash (shrinkage) should be no more than 20% of their linear dimensions before washing;
- The values of residual deformation of products before and after washing should be no more than 10%;
- The values of breaking load, extensibility, working extensibility of products after washing should be no more than 20%;
- The value of the breaking elongation of products must not be less than the value of extensibility;
- The change in the value of the breaking elongation of products after washing should be no more than 20% of their breaking elongation before washing;
- Curvature of elastic bandages - no more than (30±1) mm per 1000 mm of bandage length.

compression bandages with high, medium and low extensibility have been developed and introduced into domestic industrial production . They provide dosed therapeutic pressure and are not inferior in quality to world analogues.

Tubular bandage is a seamless tube made of hydrophilic material. The elasticity of such a bandage is provided by the knitted type of weaving. It is used on various parts of the upper and lower extremities. Available in several diameters for use on various areas of the upper and lower extremities.

Bandages medical tubular are intended for fixing of medical bandages. This is a knitted sleeve made of strong fabric. Two issues are issued: No. 5 and No. 9. Number - determines the sleeve width in centimeters (error ± 1 cm). Produced in rolls in film packaging of 25 m per roll. A segment of the bandage (when cutting the bandage does not dissolve) is put on the applied bandage and fix it well. The extensibility is at least 450% for bandage No. 5 and 650% for bandage No. 9. This means that bandage #5 with a perimeter of 10 cm stretches into a ring with a perimeter of 45 cm and can fix the bandages on the upper and lower extremities. In addition, bandage No. 9 can be applied to the head and hip part.

Elastic tubular medical bandages are designed for the same purposes as knitted bandages, but their extensibility is much greater - up to 800%. They are classified as knitted elastic materials.

They are made from an elastomeric thread braided with synthetic fibers and cotton yarn, having a mesh structure, they do not interfere with the aeration of the body area where they are applied and the observation of this area. Bandages are made in 7 numbers with a free sleeve width of 10, 20, 25, 30, 35, 40, 75 mm. Weight of 1 m² bandage 280 g. The use of tubular bandages saves dressing material and bandaging time.

Tubular mesh bandage - a mesh tube of various diameters, rolled up in the form of a roll. It is intended for fixation of a surgical bandage on a wound. A piece of the required length is cut off from it in order to fix the surgical dressing on the wound.

Bandage hydrophilic - absorbing water; available in two versions: sterile and non-sterile (4–20 cm wide).

Starched bandage - made of starched gauze or organza (thin hard fabric). It is superimposed over hydrophilic bandages (directly on the wound it can “dry up”, damage the skin at the fold) to strengthen the dressing.

containing adhesive bandage is a conventional bandage, on which a thin layer of paste containing glycerin, gelatin, sodium chloride, zinc oxide is applied, i.e. this type of bandage refers to therapeutic ready-made dressings. When dried, such a bandage “sits down” and the bandage becomes very tight, so it is used if it is necessary to avoid tissue swelling, for example, in case of skin inflammatory diseases.

Napkins. Distinguish between dressing napkins and medical napkins.

Dressing napkins - gauze - these are two-layer cuts of gauze measuring 16 × 14 cm, 45 × 29 cm, etc. Sterile napkins are available in a package of 5, 10, 40 pcs., non-sterile - 100 pcs.

Medical wipes are a composite dosage form, the so-called tissue base, impregnated with a medicinal substance or a medical biopolymer on a substrate (most often tissue), in which the medicinal substance is concentrated (immobilized).

Napkins "Coletex" is a composite ready-made dressing, which is a layer of special textile material as a carrier of a biopolymer with a therapeutic effect, with a drug immobilized in it. They contain hemostatic, anti-inflammatory, wound healing and analgesic substances (furagin, chlorhexidine, propolis, sodium alginate, urea, metronidazole) in various combinations. Designed for use as a therapeutic and prophylactic agent for the primary closure of injured tissues, sutured wounds, for the closure of infected and granulating wounds, trophic ulcers, burns, bedsores. Packed in primary packaging in the form of a sterile (inside) paper bag and secondary packaging - cardboard boxes. They can also be used in oncology as a local application radiosensitizing agent for radiation therapy and post-radiation injuries.

Styrofoam wipes - for the treatment of burns, postoperative wounds, trophic ulcers and bedsores. Replace cotton wool, high hygroscopic properties, also used in the form of balls.

Dressing packages. Dressing bags are a ready-made dressing for applying to a wound in order to protect it from contamination, infections and blood loss. The composition of individual dressing packages includes a sterile hydrophilic bandage (7 cm x 5 m), a cotton pad (13.5x11 cm), which can be sewn to the beginning of the bandage, and a pin to secure the ends of the bandage. Cotton-gauze pads are impregnated with a solution of sublimate. Dressing pads with high anti-adhesive properties are currently being produced. *There are two types of packages: small and large*, in which there is one or two pads (one is sewn to the beginning of the bandage, the second is free). Individual dressing bags are made in such a way that sterility is not violated during constant wear. If, nevertheless, the protective shell is broken, then the core of the bag remains sterile. At present, dressing pads are made that adhere weakly to the wound (they dry little to exuding wounds).

Dressing tampons. This is a small piece of cotton or dressing. Used to close a wound or to stop bleeding.

Plasters. Plasters used as PS, taking into account the purpose of the application, refer to fixing and covering plasters. They may contain a medicinal substance (cover patches), may not contain it (fixing patches).

Distinguish fixing and integumentary plasters.

Cover patches contain a medicinal substance. They are used in dermatology for the treatment of a number of diseases or mechanical damage to the epidermis.

Fixing plasters do not contain drugs. Fixing plasters are used in surgery and traumatology for fixing dressings; cover patches - in dermatology for the treatment of a number of diseases or mechanical damage to the epidermis.

Usually *dressing patches are combined under the conditional name "adhesive plaster"*. In appearance, they are divided into *tape and stripes*. As a rule, adhesive plasters have a sticky (adhesive) layer on one side; in the case of cover adhesive plasters, a gauze pad impregnated with drugs (for example, a bactericidal plaster) is attached to the sticky side.

Adhesive plasters are produced: "Leukoplast", "Siofoplast", "Trikoplast", "Santavik", etc. In addition, perforated plasters on a paper basis are produced under the trade names "Leukopor", "Betabant", etc. The firm "Veropharm" (Russia) produces a series of Uniplast plasters, including: Fixing adhesive medical tape, dimensions 500x10 cm, 500x1.25 cm, 500x2.5 cm, 500x0.5 cm; available in rolls with a protective coating, and in smaller sizes - on coils; the base of the tape is elastic viscose fabric, glued non-woven fabric.

Dressing strips Uniplast Plus provide reliable fixation of the dressing, protect the wound from microbes, do not cause allergic reactions and skin irritation. They have a flesh color, do not leave marks on the skin and clothes. Plasters are made in different sizes and configurations, incl. rectangular or round shape on an adhesive fixing tape with or without perforation. In packs of 8, 10, 20 pcs. one standard size and in the form of sets of 10, 16, 24, 30 pcs. products of various shapes and sizes.

Variety of dressing strips:

- waterproof;
- hypoallergenic;
- elastic (convenient for use on the joints).

The Band-Aid series of antimicrobial patches is manufactured by Johnson & Johnson. It is made of non-woven material, does not stick to the wound, contains benzalkonium chloride antiseptic, transparent. The adhesive coating fixes the patch on the skin, does not cause irritation. Sizes 7x2 cm, 4x1 cm, 4x4 cm, packs of 24 different sizes. Types: antiseptic waterproof, antiseptic tissue - suitable for protecting wounds on the folds.

Medical sponges. This is a dosage form in the form of a porous mass of various sizes and shapes, containing medicinal and excipients. Sponges have the form of plates of different sizes (50×50, 100×100, 90×90, 240×140 mm, etc.).

Available in sterile packaging.

A hemostatic sponge is a dry, porous substance of white color with a yellowish tint, made from human blood plasma with the addition of calcium chloride and aminocaproic acid. It is applied topically, and gradually dissolves in the wound.

The gelatin absorbent sponge is a hardened sterile foam, soluble in water; absorbs blood in body tissues, creating conditions for its coagulation.

Collagen sponge has the appearance of sterile porous plates obtained from collagen. Used as wound coverings.

Algipor is a sponge made from a polymeric substance (alginate) extracted from seaweed. It is superimposed on the wound and absorbs the discharge of the wound, resolves over time.

It is used to treat trophic ulcers, bedsores, during operations on internal organs.

Algimaf is a modification of algipore, contains a different set of antiseptic substances, promotes accelerated wound healing.

Wound coverings. These dressings are intended primarily for the treatment of chronic wounds.

There are such coatings:

- alginate;
- spongy;
- hydrogel;

- hydrocolloid.

Vapor-permeable films and membranes are also used as wound coverings.

General requirements are imposed on dressings and dressings . They should be:

- 1) sterile and atraumatic;
- 2) strong, plastic, anti-adhesive;
- 3) permeable (for air and pathological substrate) and impermeable to microorganisms;
- 4) soft, but not fragile;
- 5) hygroscopic;
- 6) own good capillarity and wettability;
- 7) have a neutral reaction and be neutral in relation to the body;
- 8) have a certain percentage of humidity;
- 9) be reliably sterilized by one of the sterilization methods without changing its properties;
- 10) harmless to the body, must not have allergic and toxic components;
- 11) low cost and ease of production;
- 12) must ensure the comfortable existence of patients and be economical and convenient to use;

use;

Marking of finished dressings includes a production mark - a distinctive sign of the manufacturer, full trade name, main characteristics of the product, as well as data on the type of product, date of issue, storage conditions, sterility, number of the regulatory document for this product, etc. Nature and content labeling is regulated by regulatory documents.

Marking (on the example of medical dressing packages).

1) On the outside of the rubberized casing, on the wrappers and on the parchment casing, by typographic or other printing method that ensures the legibility of the marking, the following must be printed:

emblem of the Red Cross;

name of the manufacturer and its trademark;

package name;

the word <<sterile>>.

The word <<sterile>> should be in large print or in a different color;

date of manufacture (quarter, year);

best before date;

designation of this standard;

Instructions for opening and using the package:

Package individual and ordinary

<< Tear the outer shell along the notch and remove it (for an individual bag) or tear the outer shell with a thread and remove it (for an ordinary bag). Remove the pin from the fold of the inner shell and remove the inner shell.

Expand the pads, put them on the wound or burn with the side stitched with white thread, bandage them with a bandage and secure with a pin>>

Single Pad First Aid Packs

Tear the sheath or sheath with a thread by twisting the bag and remove it. Take the end of the bandage with your left hand and, holding it with your right hand, unfold it to the roll of the bandage.

Sterilization of dressings. All dressings are sterilized with steam under pressure at a temperature of 120°C in steam sterilizers. Sterilization time depends on the size and volume of the material to be sterilized and ranges from 30 to 40 minutes.

Storage of dressings. Dressings and products are stored in a dry, ventilated room with a constant temperature in cabinets, boxes, on racks, painted inside with light oil paint and pallets, which must be kept clean. Products are placed on racks or in cabinets at a distance of at least 1 m from heating devices. Cabinets where dressings are located are periodically wiped with a 0.2% solution of chloramine. Sterile and non-sterile products are stored separately. Sterile ready-made dressings during storage are placed taking into account the date of their manufacture in order to use them before the expiration date.

Sterile dressings (bandages, gauze pads, cotton wool) are stored in their original packaging. It is forbidden to store it in the original opened package.

Non-sterile dressings are stored packed in thick paper or in bales (bags) on racks or pallets. At the same time, one should strive to ensure a stable temperature, to avoid dampness and the formation of mold. Sterile materials should be stored in a room where the temperature does not fluctuate too sharply so that the packaging does not “breathe” with temperature changes. The shelf life of sterile dressings is 5 years. When storing a sterile dressing in a warehouse, it should be laid out according to the years of procurement, since after 5 years, if the package is intact, it is necessary to selectively check it for sterility. In case of violation of the integrity or wetted packaging, the material is non-sterile. Plaster bandages are stored in dry warehouses, protecting them from mechanical damage. Guaranteed shelf life up to 5 years from the date of issue (depending on packaging).