

lesson 5

Organization of the work of the prescription-production department. The general procedure for prescribing, prescribing drugs.

A manufacturing pharmacy with the right to manufacture drugs must have a **prescription and manufacturing department**. The functions of this department are to accept prescriptions, manufacture drugs in the pharmacy, control their quality, and release them to patients.

In the sales area (in the public service hall) there is a workplace for accepting prescriptions from the public for the production of drug forms and for the release of drugs made in the pharmacy.

Manufacturing of drugs is carried out in the **production rooms**, which include:

- assistant room;
- analytical room;
- washing room;
- distillation room.

If the manufacturing pharmacy is authorized to manufacture aseptic drugs, it has an aseptic block. The block includes an assistant aseptic room with an airlock and other rooms for the manufacture of aseptic drugs.

Surfaces of walls, ceilings and floor of production rooms must be smooth, without compromising the integrity of the coating. Wet cleaning with disinfectants shall be allowed. The production facilities must have a supply and exhaust ventilation. Equipment must be installed at a sufficient distance from the walls to allow access for cleaning and repair. It is not allowed to hang curtains, lay carpets, arrange flowers, hang posters in the production facilities.

Material and technical equipment of production facilities in a pharmacy organization.

The assistant's room is the main production room It is shown in the figure. It is designed for the manufacture of non-sterile dosage forms. The assistants' room is equipped with the pharmacy tables and chairs, safe, cabinets, table and floor turntables. The turntable is intended for stacking drug stacks. The turntable consists of plastic disks, which are mounted on a metal rod. Special clamps can set the disks at the desired level. Pharmacy chairs are equipped with rotating and height-adjustable seats and backs.

Among the pharmacy inventory items in the assistant's room there are: porcelain mortars of required sizes with pestles; scales; sets of weights; pharmacy pipettes; burette facilities.

The number of workstations in the assistants' room depends on the amount of work. It is recommended to allocate the following workplaces:

- - Manufacturing of dosage forms for internal use;
- Manufacturing of dosage forms for external use.

Provisors and pharmacists carry out the manufacturing of pharmaceuticals. The Provisor has a higher education in the specialty. Pharmacist has a secondary vocational education in their specialty. They must know the regulatory and methodological documents on the technology of production and quality control of medicines, sanitary regime, medical ethics, rules of labor protection and fire safety. The activities of the provisor and pharmacist are regulated by the job description in the workplace.

Provisors and pharmacists are responsible for the proper manufacture of dosage forms and their quality. They keep their workplace, inventory, and equipment in proper order. Before making a dosage form, it is necessary to carefully read the prescription, check the compatibility of ingredients and correct dosage. After making the dosage form, it is necessary to read the prescription again, check the correctness of the ingredients taken, sign the prescription.

The workplace is arranged to work in a "sitting" position. Everything necessary must be within arm's length. The workplace of the pharmacist, who controls the quality of manufactured medicines, is organized so that all pharmacists are in his field of vision. The filling station is placed opposite or next to the workplace of the pharmacist whom they help in their work.

In the picture we see the workplace of the provisor-analyst. It is designed to carry out quality control of manufactured medicines. The workplace of the provisor-analyst is equipped with a desk, a chair with a back, reagents, a turntable with solutions, a lamp and a burette with distilled water.

Washing room is designed for washing pharmacy ware used in the preparation of dosage forms, as well as containers and closures. In the picture you can see the washing room. The washing room must have a hot and cold water supply. In the washing room should be dedicated sinks for washing dishes. It is prohibited to use these sinks for hand washing. In large pharmacy organizations the washing room is equipped with mechanisms for washing dishes. The washing room can be combined with the sterilization room. Then it is equipped with dry-heat cabinets for sterilization of tableware and an autoclave for the preparation of auxiliary material.

Washing room is the workplace of the nurse washer. The position of a nurse washer is occupied by a person who does not have pharmaceutical education.

Distillation room is designed to obtain purified water. Equipped with aqua distillers, collectors for purified water. Collectors must have a clear inscription: "Purified water". The head of the pharmacy appoints a person responsible for receiving purified water.

The **aseptic unit** is intended for the preparation of sterile dosage forms. Premises of the aseptic unit shall be placed in isolation from other premises of the pharmacy. The aseptic block must be separated from the other rooms by an airlock. The airlock is designed to prevent non-sterile air flow into the sterile room. In the airlock the personnel change into a set of sterile clothing and treat their hands.

Prescription drugs shall be dispensed under prescription forms. The Order N 1094n dd November 24, 2021 approves the procedure for prescribing medicines, prescription forms and the order of registration of the forms.

A **prescription** is a medical document of a prescribed form containing a doctor's prescription for a drug for the purpose of dispensing this drug. The prescription can be on paper or in the form of an electronic document.

The functions of a prescription are distinguished:

1. medical - the prescription contains the doctor's request to make and dispense the drug;
2. legal - the doctor and pharmacist shall be legally liable in case of improper prescription, manufacturing and dispensing of the drug;
3. financial - on the basis of the prescription the pharmacy shall reimburse the cost of dispensed medicines;
4. accounting - a prescription shall confirm the fact of dispensing of prescription drugs.



Figure 1: General view of the assistants' room in a pharmacy organization



Figure 2: General view of the analytical pharmacist's workplace



Figure 3: General view of the washing room in a pharmacy

Interview questions:

1. What are the functions of the prescription and manufacturing department? What production rooms does this department include?
2. How should the prescription and manufacturing department of a pharmacy be equipped?
3. What is the assistants' room for? What workplaces are allocated in it?
4. How should the assistants' room be equipped?
5. Who makes the medicines? What do they must to know and do?
6. What is the washing room for? How should it be equipped?
7. What is the distillation room for? How should it be equipped?
8. What is the aseptic unit for? How should it be equipped?
9. Give the definition of a prescription.
10. Name the function of the prescription.