

INSTRUCTION FOR COLLECTION OF BIOLOGICAL SAMPLES

M lab1.8.2.1/01-2023

BLOOD

Before blood sampling is generally prescribed a fasting period of 8-10 hours which is well extend to 12-14 hours if it is also provided the dosage of triglycerides: for infants may be sufficient a fasting period of 3-4 hours.

If you were to feel the sensation of thirst, during this period you can take up to 1-2 glasses of water: you need to avoid absolutely smoking and alcohol drinking.

The composition of the meal before fasting hours will be the usual one: should be avoided as much as the excesses of the restrictions.

On the way to reach the laboratory, does not make intense physical effort that induce sweating. After the withdrawal, to prevent hematoma formation is useful to sit in the waiting room for a few minutes, without bending the arm and pressing the cotton at the collection point.

Prothrombin time (PT-INR)

Only the determination of the PT-INR in patients undergoing oral anticoagulant therapy (OAT) doesn't require a strict fasting: there can be limited to a light breakfast. In the days before the collection, however, it is necessary to avoid particular vegetables (asparagus, broccoli, cauliflower, cabbage, spinach, salad, lettuce, radishes, beets, parsley, peas, turnips, onions), legumes (soybeans, dry beans, lentils) and other foods such as eggs, mayonnaise, mustard, liver, chocolate.

The examination is performed every day, from Monday to Saturday: the results are available from 1.00 PM.

Prolactin (PRL) assay

The withdrawal must be carried out in the morning after approximately one hour of rest: alternatively, you can withdraw 3 consecutive samples of blood at a distance of 20 minutes from each other.

Renin-Angiotensin-Aldosterone assays

During the 3 days before withdrawal have a light meal, without salt; the first blood collection (clinostatism) is performed in the morning after 10-12 hours of fasting, before getting up (book a home blood collection): the second sampling (orthostatism) is performed after 15 min walk and stay upright.

Therapeutic drugs monitoring (TDM)

Unless otherwise prescribed, the drugs should not be taken in the morning prior blood sampling.

Pregnancy blood test (beta-HCG)

If it is the only analysis required, fasting is not essential.

The results are available from 12.00 AM on the day after of blood collection (except am Saturday).

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URINE

Standard assay

The analysis is performed on the first morning urine, after waking up. Collect the urine sample in a container provided by laboratory or on sale at the pharmacies: do not use containers for another purpose.

During collection, discard the first urine stream and collect only the midstream: if the collection takes place at home, bring the jar to the laboratory within 2 hours. For women of childbearing age is suggested to perform the examination outside of the menstrual cycle.

24-hours urines

Buy the appropriate container at the pharmacy. On the chosen day begin the collection:

1. discard the urines of the first urination of the day and note the time;
2. collect all the urines emitted during the day, including those of the night and those of the first urination of the second day, taking care to match the final harvest time recorded the previous day.

Keep container in a cool place during the collection.

Send in the laboratory before 9:30 AM all amount of urine output or preferably a part of it (100-150 mL) in a normal jar for urines: this operation is very delicate because errors can affect the result of examination.

So, after the harvest please carefully these guidelines:

1. seal with the stopper the container 24 hours;
2. mix the contents by flipping it over 2-3 times;
3. place the container on a horizontal surface and measure the volume using the engraved scale;
4. note the volume measured on the jar and return it to the lab.

Note: containers of 24 hours, once delivered to the laboratory, will not be returned.

24-hour urine acidified

The collection, which is necessary for some particular analysis (ex. urinary catecholamines and their metabolites) is the same described for the 24-hour urine: after the first harvest, you must add the special preservative to the container supplied on request from the laboratory (10 mL 6N hydrochloric acid, a toxic and caustic solution that should be handled with care: in case of accidental contact, wash thoroughly with water and seek emergency).

Urinary cytology

The urine should be collected in a wide-mouth container, on which must be reported name, surname, date of collection and date of birth of the patient. The containers are provided by the laboratory.

It's advisable to carry out the examination on the second morning urine following this procedure:

1. Upon awakening eliminate overnight urine;
2. Drink about half liter of water (non-carbonated, non-tea or other beverages);
3. Before harvesting wash and thoroughly dry the genitals;
4. Discard the first jet of urine;
5. Collect urine following directly in the container with the fixative.

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For a correct cytological examination, the analysis should be performed on 3 samples collected in 3 days all together and delivered to the laboratory on the morning of the third day from 7.15 to 9.30 AM. The samples of the two previous days should be stored in the refrigerator until the day delivery.

Urine pregnancy test (beta-HCG)

The examination is performed on an urine sample collected preferably in the early morning: the method used does not allow a reliable diagnosis before 8-10 days late in the menstrual cycle. The results are available from 12 AM on the same day.

FECES

Parasites research

Collect a small amount of sample (about the size of a walnut) in sterile container fitted with paddle: request to laboratory or sale in pharmacies.

It's recommended collect a sample of the first morning, but if not possible, feces emitted may be delivered later in the day: refrigerate until delivery.

Because the elimination of parasites is irregular, for a correct test result it is necessary collect stool samples at least for 3 different days.

Search of oxyures eggs (scotch test)

The test involves the application, upon awakening, of a piece of transparent tape near the anus. The adhesive tape is then removed and attached well lying directly on the slide provided, on request, from the laboratory.

Search of stool occult blood

In the days preceding the collection it's not necessary to exclude any food from the diet because the test is sensitive to the human hemoglobin only.

It's necessary, however, do not take medications that can cause gastrointestinal irritation (e.g. aspirin, cortisone, reserpine, phenylbutazone, indomethacin) and do not perform the test with active bleeding (hemorrhoids, gingival lesions, fissures, menstruation). Do not use medicines rectally.

The sample must not be contaminated with urine or blood.

The stool should be collected in the special containers purchased from the laboratory. If it could not be delivered to the laboratory on the same day of collection, the sample will be stored in the refrigerator.

SEMINAL FLUID

Spermiogram

Analysis performed by appointment only.

For a correct examination it is necessary to observe a 2-7 days period of sexual abstinence: a time lower than 2 or higher than 7 days make this test not significant.

The semen must be collected at home, in a sterile container (such as urine) provided by the laboratory.

The collection is carried out according to the instructions provided by

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the laboratory with a specific document.

The sample must be delivered to the laboratory within 30 minutes of collection.

Spermiculture

For a correct examination it is necessary to maintain a period of sexual abstinence of 2-5 days and observe a minimum period of 10 days from the last dose of antibiotic possibly taken.

The collection is carried out according to the instructions provided by the laboratory with a specific document.

The sample must be delivered to the laboratory within 1 hour of collection.

MICROBIOLOGICAL ANALYSIS

For proper results of microbiological investigations, it is necessary that the person isn't in antibiotic therapy by at least five days. If that condition does not exist, you must report as appropriate to the secretary of laboratory.

Urine culture

The analysis aims to identify the presence of bacteria in the urine in sufficient quantity to produce infection. So, it is necessary to carefully follow the instructions given collection to avoid contamination of the sample with bacteria from other areas of body or from environment.

The container should be filled no more than half and delivered to the laboratory within 1 hour from collection: if the delivery is made in next time (no longer than 24 hours) the sample must be stored in the refrigerator.

Female

1. wash your hands with soap and water and dry up;
2. wash thoroughly with soap and water the external genitalia, rinse off with water and dry;
3. keep apart the labia during urination;
4. issue the first part of the urine without pick it up;
5. collect directly into sterile container, the second part, taking care not to touch the inner walls;
6. carefully reseal the container so that urine does not leak during transport.

Male

1. Wash your hands with soap and water and dry up;
2. retract the the foreskin, wash thoroughly with soap and water the orifice of the urethra and the surrounding area, rinse off with water and dry up;
3. keeping the foreskin retracted issue the first part of the urine without pick it up;
4. collect directly into sterile container, the second part, taking care not to touch the inner walls;
5. carefully reseal the container so that urine does not leak during transport.

Infants

1. For infants, the collection is performed using a special plastic

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bag, sterile and adhesive, on sale in pharmacies.

2. clean with soap and water suprapubic region, perineum and external genitalia;
3. rinse well with water and dry;
4. apply the bag making it adhere to the perineum and the suprapubic region;
5. if after about 60 minutes has not occurred urination, remove the bag and replace them with another: repeating the washing;
6. immediately upon urination remove the bag, close it well and store it in a jar for urine: do not ever pour the urine into the jar.

Coproculture

Collect stool sample in a sterile container fitted with a paddle for sale in pharmacies.

Stool should be collected on a clean dry surface (ex. paper, plastic plate) and introduced into the container with the attached paddle. It's a sufficient amount of sample the size of a walnut.

Deliver the sample in a maximum time of 1 hour after collection: delivery can be performed in times not longer than 24 hours if the sample is stored in the refrigerator.

Pharyngeal swab

Do not use oral mouthwashes. Antibiotic therapy must be suspended for at least 4 days.

Ear swab

The day of sampling the patient should not have been cleaned in any way the ear canal. Antibiotic therapy must be discontinued for at least 6 days.

Expectorate

It should be collected only from patients with pneumonia and productive cough.

Collect the samples before antibiotic therapy; carry out the collection after an overnight fast: remove dentures, make cleaning the mouth and gargling with sterile distilled water.

Expectoration should be emitted with a cough and do not contain saliva collect the sample in a sterile container, wide mouth and deliver the sample to the laboratory within 2 hours.

Urethral swab

The examination includes the search for bacteria (excluding the gonococcus) and yeasts (fungi).

The patient should avoid urinating in the three hours prior to the withdrawal, do not have sex in the three days before and had not taken antibiotics for at least 4 days.

Vaginal swab

The examination shall include the search for bacteria (excluding the gonococcus) and yeasts (fungi). The research gonococcus, chlamydia and mycoplasma are executed in the endocervical swab (see next).

To prepare for the collection, do not douches or vaginal douching within 3-4 days earlier, do not take antibiotics orally or vaginally in the preceding 6 days (unless it has been prescribed by your doctor), do not be menstruating, do not have sex for 3 days before the exam and avoid bathing in a bathtub.

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For pregnant women, the swab is performed by the nursing staff of the laboratory until no later than the 25th week: in the following weeks, the interested ladies can book an appointment with the midwife.

Endocervical swab and PAP test

There are carried out by a midwife by booking an appointment. The methods of preparation are equivalent to the vaginal swab.

Spermiculture

After washing the area with mild soap and water, collect the ejaculate through masturbation directly into a sterile container, taking care not to touch the inside walls with your hands or with the glans. It is recommended that the person concerned to refrain from sexual intercourse and has not taken antibiotics for at least 4 days.

The container is provided by the laboratory or can be bought in pharmacies.

The collection can be done at home or in the laboratory: in the first case, deliver the sample to the laboratory within 1 hour.

BREATH TEST

Lactose, Glucose, Lactulose, Fructose Breath test

The day before the test, eat exclusively with:

- breakfast: a glass of tea + 2 rusks;
- lunch: a plate of boiled rice with a little oil;
- dinner: a steak or a boiled fish.

Furthermore, they should not be hired

- fibers (fruit, vegetables, pasta, bread)
- carbonated drinks
- antibiotics, laxatives, lactic ferments in the previous 10 days

Warning! The patient should not have ongoing diarrhea.

On the day of the test, the patient must be fasting.

Before and during the test (duration 2-4 hours).

- must not smoke
- must not exercise
- must not sleep.

Helicobacter Pylori Breath test

In the 4 weeks preceding the test, no antibiotic therapy, lactic ferments, laxatives, bismuth salts, proton pump inhibitor drugs (omeprazole, lansoprazole and pantoprazole) should be used.

In addition, H2 antagonists (cimetidine, ranitidine, famotidine, nizatidine) antacids and sucralfate should not be taken in the previous 6 days.

The day before the test, lunch with boiled rice seasoned with raw oil is allowed to dine with grilled meat or fish (you can also invert lunch and dinner), avoid fruit, vegetables, bread and pasta.

From 9.00 pm on the previous day, observe complete fasting (you can freely drink water). On the morning of the test, do not use toothpaste to brush your teeth.

Before and during the test (duration 1 hour)

- must not smoke
- must not exercise
- must not sleep.