EXAM PREPARATIONS

Importance of Correct Preparation for Blood Tests

The correct behavior of the patient before a blood draw significantly contributes to the diagnostic accuracy of the procedure. Conversely, failure to adhere to some simple behavioral rules can considerably alter the blood parameters intended for analysis. It is therefore important to be aware of some conditions that can lead to inaccurate analytical results.

Diet

Food intake causes variations in biochemical parameters. The concentration of triglycerides increases immediately after a meal; in response to fat absorption, the serum/plasma becomes more or less cloudy, which can interfere with the analytical phase. The triglyceride level returns to baseline after 8-10 hours. To standardize this variable as much as possible, it is better to draw blood for any analysis (when possible) while the patient is fasting. When fasting is not possible, it is essential to consider whether the test results may be influenced by food intake. Prolonged fasting has biological effects: for example, it alters the production of many hormones and causes a decrease in the levels of proteins, lipids, and electrolytes in the serum.

Physical Activity

Outpatients should avoid significant physical exercise (e.g., running) before a blood draw. Such activities can affect certain parameters: for example, lactic acid or certain enzymes like CK, LDH, and AST may increase.

Anxiety Control and Special Conditions

Anxiety, fever, excessive stress, vomiting, diarrhea, recent trauma, and all other conditions that deviate from normal can alter blood parameters. These conditions should therefore be communicated to the nurse prior to the test. Where possible, it is recommended to avoid psychological stress; the patient should always be reassured and kept calm. For certain biochemical parameters, there may be alterations due to stress: its influence on the fluctuations in prolactin concentration is well-known, for example.

Sample Acceptability Criteria

For some tests conducted by the Analysis Laboratory, specific preparation guidelines must be followed (see the following points). Failure to adhere to these guidelines may necessitate the repetition of the test. Examples include:

The use of inappropriate containers (or containers different from those specified in the preparation guidelines),

Containers that are dirty externally or do not comply with current safety regulations,

Samples that are not stored or transported properly.

In these cases, and in any instance where a non-compliance is identified during the sample analysis, the user may be contacted to repeat the sample collection or blood draw.



GUIDA PER GLI UTENTI: ISTRUZIONI

EAR SWAB, CULTURE TEST

Instructions for the patients

- The patient must not have undergone any medications instilled into the auricle.



GUIDA PER GLI UTENTI: ISTRUZIONI

GENITAL INFECTIONS: ISTRUCTIONS FOR THE PATIENTS

VAGINAL SWAB

- Genital secretions should not be collected during the menstrual period and at least three days after the end of blood loss.
- Vaginal douches should not be performed and antibiotics should not be administered in the 5 days prior to the sampling.
- Refrain from sexual intercourses within 48 hours prior to the sampling.

STREPTOCOCCUS AGALACTIAE RESEARCH IN VAGINE-RECTAL BUFFER OF PREGNANT WOMEN

- Vaginal douches should not be performed and antibiotics should not be administered in the 5 days prior to the sampling.
- Refrain from sexual intercourses within 48 hours prior to the sampling.

VULVAR SWAB

- Genital secretions should not be collected during the menstrual period and at least three days after the end of blood loss.
- Vaginal douches should not be performed and antibiotics should not be administered in the 5 days prior to the sampling.
- Refrain from sexual intercourses within 48 hours prior to the sampling.
- Do not wash the affected area within 12 hours prior to the sampling.

ENDOCERVICAL SWAB

- Genital secretions should not be collected during the menstrual period and at least three three days after the end of blood loss.
- Antibiotics should not be administered in the **30 days** (PCR/NAAT) or **5 days** (Neisseria *gonorrhoeae* culture) prior to the sampling.
- Refrain from sexual intercourses within 48 hours prior to the sampling.

URETHRAL SAMPLING

 Antibiotics should not be administered within 30 days (PCR/NAAT) or 5 days (culture) prior to the sampling.



GUIDA PER GLI UTENTI: ISTRUZIONI

- Refrain from sexual intercourses within 48 hours prior to the sampling.
- Sampling should be carried out in the morning before urination or, alternatively, two to three hours after the last urination.
- Concerning PCR/NAAT test
 - Get a sterile *wide mouth* container equipped with screw cap suitable for "urinocoltura" (urine culture).
 - Write the patient's surname, first name, date of birth or paste the barcode label.
 - Collect the first stream of urine in the morning or, alternatively, the second one (at least two to three hours after the last urination)
 - o Close carefully the container.



GUIDA PER GLI UTENTI: ISTRUZIONI

GLUCOSE: LOAD TEST

On the days before the test the patient should follow a normal diet. On the day of the test, in the morning, the patient must have been fasting for at least 8-12 hours.

Before administering the glucose solution, basal blood glucose must be first determined: if blood glucose values are ≥140 mg/dL, the test is not carried out.

The procedure is as follows: a glucose solution is administered in the form of a syrup to be drunk within 5 minutes. Blood samples are taken based on the type of loading curve prescribed.

The patient must remain seated and refrain from smoking and eating throuhout the examination. If vomiting occurs, it is necessary to stop the test.



GUIDA PER GLI UTENTI: ISTRUZIONI

INSULINE: LOAD CURVE

On the days before the test the patient should follow a normal diet. On the day of the test, in the morning, the patient must have been fasting for at least 8-12 hours.

Before administering the glucose solution, basal blood glucose must be first determined: if blood glucose values are ≥140 mg/dL, the test is not carried out.

The procedure is as follows: a glucose solution is administered in the form of a syrup to be drunk within 5 minutes. Blood samples are taken 30, 60, 90, 120 minutes after the baseline sample.

The patient must remain seated and refrain from smoking and eating throuhout the examination. If vomiting occurs, it is necessary to stop the test.



GUIDA PER GLI UTENTI: ISTRUZIONI

MYCOLOGICAL EXAMINATION (HAIR, SKIN and NAILS)

Instructions for the patient

- At least seven days before the specimen collection, do not use topical disinfectants or topical antifungal medications.
- At least seven days before the specimen collection, oral antifungals therapy should not be taken.
- In case of onychomycosis, do not trim the nail the days before specimen collection.



GUIDA PER GLI UTENTI: ISTRUZIONI

SKIN LESION SWAB (DERMATITIS), CULTURE EXAMINATION

Instructions for the patient

- Do not disinfect or dress the lesion before the sample collection.
- Do not take antibiotics in the 7 days prior to the sample collection.



GUIDA PER GLI UTENTI: ISTRUZIONI

STOOL: STOOL SPECIMEN COLLECTION FOR THE DETECTION OF HIDDEN BLOOD

No special dietary restrictions are required. On the 7 days prior to collection of fecal material and throughout the collection period, avoid nonsteroidal anti-inflammatory drugs.

Do not collect the specimen of stool if live blood is visible in the stool or urine (for example during menstruation, urinary infection, leakages from hemorrhoids). Stool specimen should not be contaminated with urine.

The specimen, which is placed in the appropriate vials, can be stored in the refrigerator up to 7 days max.

Collection method (see next page)

- Use the appropriate vials provided by the laboratory
- o Unscrew and remove the cap equipped with the **rod** from the vial
- o Insert the rod into the stool in 4 different points and cross-rub on the surface.
- o Insert the rod into the vial, screw the cap and shake.

ATTENTION: it is recommeded not to swallow the liquid placed inside the container used for the collection; should the liquid come into contact with eyes, mouth or skin, rinse thoroughly the part of the body involved with water and, if necessary, contact your doctor.



GUIDA PER GLI UTENTI: ISTRUZIONI



REF 1156188

DISPOSITIVO (COLLECTION TUBE) PER LA RACCOLTA DELLE FECI



Porre della carta igienica all'interno del sanitario. caso di utilizzo di un supporto specifico seguire, le istruzioni riportate sullo stesso. Successivamente passare al punto 3.



2 Raccogliere le feci in corrispondenza della carta igienica, evitando toccare l'acqua o le urine. È più facile se ci si siede al contrario



Svitare il tappo verde con l'asta di prelievo, mantenendo il tubo in verticale.

Non agitare il tubo capovolto.



Inserire l'asta nelle feci in 4 punti diversi e strisciare a croce sulla superficie. Ricoprire di feci solo le scanalature dell'asta. Non raccogliere feci in





Reinserire il tappo verde e avvitare a fondo.

Non riaprire.

Agitare gentilmente il tubo tramite inversione.



Restituire il dispositivo di raccolta per l'analisi entro una settimana a temperature ambiente o mantenere il tubo di raccolta in frigorifero e restituirlo entro 2 settimane.





GUIDA PER GLI UTENTI: ISTRUZIONI

URINE: ACIDIFIED 24-HOUR URINE COLLECTION

Instructions for the patient

- Discard the urine from the first morning urination and write down the time.
- Acidification is carried out before starting the collection by pouring approximately 4 tablespoons of <u>muriatic acid</u> into the container (USE UTMOST CAUTION WHEN HANDLING MURIATIC ACID, AS IT IS STRONGLY CORROSIVE AND IRRITANT). In case of 24-hour collection carried out for the measurement of **urinary aldosterone**, you have to add a **30 g sachet of boric acid** which can be purchased at the pharmacy.
- Collect the urine from all subsequent urinations in a single, well-cleaned graduated container which can be purchased at the pharmacy. Keep the container in a cool place throughout the collection.
- The next morning complete the collection with the urine produced at the same time of the previous day.
- When ending the collection, measure the total quantity of the collected urine and thoroughly mix, pour the urine sample into the appropriate standard container, which can be purchased at the pharmacy, writing down the total volume measured.

NB: as regards the dosage of Vanillylmandelic acid and 5-hydroxyindoleacetic acid, it is necessary from 72 hours before the start of the collection and throughout the 24 hours, to observe a diet free of the <u>following food</u> pineapple, avocados, bananas, kiwi, blackberries, red plums, eggplant, tomatoes, dried fruit, tea and chocolate.

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GUIDA PER GLI UTENTI: ISTRUZIONI

URINE: 24-HOUR URINE COLLECTION

- Discard the urine from the first morning urination and write down the time.
- Collect the urine from all subsequent urinations in a single, well-cleaned, graduated container, which can purchased at the pharmacy. Keep the container in a cool place throughout the collection.
- The urine collection will have to be completed the next morning at the same time as the previous day.
- When ending the collection, measure the total quantity of the collected urine and thoroughly mix, pour the urine sample into the appropriate standard container, which can be purchased at the pharmacy, writing down the time.



GUIDA PER GLI UTENTI: ISTRUZIONI

URINE: ALKALIZED 24-HOUR URINE COLLECTION

- Discard the urine from the first morning urination and write down the time.
- Alkalinization procedure is carried out before starting the collection by pouring 4 tablespoons of <u>baking soda</u> into a single graduated, well-cleaned container.
- Collect the urine from all subsequent urinations in a single, well-cleaned graduated container which can be purchased at the pharmacy. Keep the container in a cool place throughout the collection.
- The next morning complete the collection with the urine produced at the same time of the previous day.
- When ending the collection, measure the total quantity of the collected urine and thoroughly mix, pour the urine sample into the appropriate standard container, which can be purchased at the pharmacy, writing down the total volume measured.



GUIDA PER GLI UTENTI: ISTRUZIONI

URINE CULTURE

Instructions for the patient

The urine culture requires a sterile urine cup with a screw cap (provided by the Clinical Laboratory Collection Centre).

Label the container with full first and last name and date of birth. You can apply barcode label when provided by the Clinical Laboratory Collection Centre.

The first urine passed in the morning is preferred, alternatively the second (at least 4 hours after the last urination).

Because of the potential (particularly in women) to contaminate urine with bacteria and cells from the surrounding skin, it is important to first clean the genitalia with soap and water. Men should wipe the tip of the penis; women should spread the labia of the vagina and clean from front to back.

- As you start to urinate, let some urine fall into the toilet, then collect a sample of urine directly in the container provided (10-15 mL).
- Make sure the container does not touch your genitals or your hands when you are collecting the urine.
- Ensure lid is closed on the container.
- Wash hands with soap and water



GUIDA PER GLI UTENTI: ISTRUZIONI

URIN: URINE CULTURE COLLECTION ON PATIENTS WITH URINARY CATHETERS

Instructions for the patient

- Provide a sterile wide-mouth container with screw cap suitable for "urine collection" and a 20 ml-syringe with needle.
- Write down the patient's surname, first name, date of birth.
- Do not collect the urine from the bag and/or by detaching the catheter.
- Close with a clamp the connection tube between the catheter and the bag just below the junction with the catheter for at least one hour.

Disinfect a segment of the catheter just above the junction with the connector or at the designated sampling device area.

- By using the syringe, suction a few ml of urine (for urine culture alone the amount of 1-3 ml is enough, while if physical-chemical examination is also required, 13-20 ml are needed).
- Insert the sample in the sterile wide-mouth container taking care not to touch the edges or outer walls with your hands.
- Carefully close the container.

NOTE:

Since the long-permanent catheter is inevitably colonized by bacteria, in those patients who have had a bladder catheter for at least two weeks, replacement is recommended before proceeding with urine culture.