

# Clinical analysis laboratory services

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**When we fall ill there are visible symptoms** which provide considerable diagnostic information (high temperature, localised pain, inflammation, cough...), but on occasion certain non-visible indicators need to be explored as well: a blood analysis provides particularly useful information about an individual's state of health.

A clinical analysis can be performed on the basis of a blood sam-

ple, a urine sample or a sample of other liquids and bodily secretions. In medicine, clinical analysis is a specialty focusing on the study of bodily fluids and other substances of the human organism. This constitutes a supplementary examination of special value in establishing a diagnosis, monitoring the situation and taking action to prevent and treat an illness.

In order to perform an analysis one must go along to a specialist centre with a referral sheet drawn up by a general practitioner or specialist. It is the doctors who

will know which parameters to assess in each case, in other words which substances must be identified and examined by the laboratory. Armed with such a referral sheet, Assistència Sanitària and Asisa policyholders need simply consult the insurance body's list and select one of the many clinical analysis centres in their area. In general, individuals of all ages should have their blood sample taken on an empty stomach, in order to avoid any levels being distorted by the body metabolising food. This is

why these centres open to the public very early and operate long patient opening hours.

This is one of the medical specialties which has seen the greatest evolution during recent years. These days all analytical laboratories work with the very latest technology in terms of both automatic analytical apparatus and the use of new administrative software, which is essential to unify and standardise processes. Such centres may operate in different fields, such as clinical biochemistry, haematology, immunology, microbiology and parasitology, toxicology, antenatal diagnosis and urgent analyses.

Practically everyone must have given a blood sample or a urine sample for analysis at some time, and what we often remember is the inconvenience of the whole procedure: the prick in the arm or the unpleasant methods required to obtain other bodily secretions. Seldom do we give any thought to what happens in the laboratory itself, or the data obtained. When we go to pick up our results, some names prove familiar. Generally alongside the figures obtained for each parameter analysed there are reference values telling users whether their own figures lie within the normal range. We cannot,

10 |

## User convenience

Some of the laboratories on the Assistència Sanitària and Asisa lists offer patients the option of collecting their results themselves over the internet. With a user code and individual password to identify themselves, they enjoy secure and confidential access to the laboratory's website and can then save the file on their home computer and print off a hard copy of the results.

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however, on our own perform an assessment of the information printed on the results sheet without consulting a doctor.

Users may find it useful to know what the laboratories do and what areas they analyse. For example, an analysis will always have a clinical biochemistry section, which involves analysing the most common chemical parameters: data on glucose, cholesterol, triglycerides, urea and many others provide key information in focusing a diagnosis in the event of illness and assessing the general state of health. One other essential section of such analyses is haematology, which provides information about the blood cells and assists in the diagnosis of various diseases. Data is obtained on the erythrocytes, or red blood cells (number of cells, haemoglobin, haematocrite...); on the leucocytes, or white blood cells (neutrophils, lymphocytes...) as well as data on the platelets (the cells which assist in coagulation).

Recently there have been considerable advances in the development of various areas, such as immunology (allowing a broad spectrum of infectious diseases to be diagnosed and monitored, along with the analysis of auto-immune diseases); the identification of hormones (essential in examining and treating endocrine conditions); tumour markers (which, along with other tests, allow oncologists

to diagnose, treat and track the evolution of cancer patients) and antenatal diagnosis (to establish the risk of a pregnancy being affected by any chromosomal pathology or spinal tube defects).

In the case of A&E or ER patients requiring an analysis, the results reach the doctor rapidly, with printed copies then being given to the patient. Over time, however, procedures have changed, and information can now be collected via other channels. Some of the laboratories on the Assistència Sanitària and Asisa lists offer patients the option of collecting their results themselves over the Internet. With a user code and individual password to identify themselves, they enjoy secure and confidential access to the laboratory's website and can then save the file on their home computer and print off a hard copy of the results. For many users this also means greater convenience, saving on time and travel.

