

Low Clearance Clinic Patient Information

The Information Standard 

Information

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Understanding your blood results for kidney patients

This document is designed to help you understand the various test results you will find in your kidney clinic letters. If you are unsure or concerned about anything please ask one of the team.

Albumin

This is the main blood protein. Low levels can be seen if the kidneys are leaking protein as part of an illness or if there is poor nutrition for whatever reason.

Bicarbonate

This is a measure of how acidic the blood is. The kidneys rid the body of waste acid that is produced as a normal bodily function. If the kidneys are not working well this acid builds up. Bicarbonate goes down when acid levels are high so if your bicarbonate level is low we know the blood is too acidic. Acidic blood can cause problems with potassium levels (see below), worsen kidney function in the long run and is bad for bone and blood vessel health.

Vitamin B12

Vitamin B12 is needed for blood production and low levels may prompt the doctor to recommend replacement injections.

Calcium

This is needed for bone, heart and muscle well-being. Levels are typically low in kidney patients due to low levels of vitamin D. High levels may be associated with medication or other illnesses.

Creatinine

This is a breakdown product of muscle. We use it to measure the kidney function because the normal kidney gets rid of creatinine from the body. As a result high levels of creatinine tend to suggest a worsening of kidney function.

Ferritin

This is a protein that measures how much iron you have stored in your body. Kidney patients need more iron than other patients to encourage normal blood production. Low levels may prompt the doctor to suggest iron treatment as tablets or as an injection.

Please turn over:

Folic acid

This is another B vitamin which is needed for blood production. Often deficient in dialysis patients, low levels can be treated with vitamin tablets.

Glomerular Filtration Rate or GFR

This is your kidney function. Essentially it tells us how well your kidneys are cleaning the blood. Normal levels are over 60 and patients typically start dialysis treatment when it is less than 10. This is calculated from the creatinine measurement on your blood test. Watching how GFR changes over time can help us work out how the kidneys might be in the future.

Haemoglobin or Hb

This is the blood count. Patients with chronic kidney disease tend to become anaemic i.e. have low Hb levels. This is because the kidneys produce EPO or Erythropoietin which is a hormone that tells your bone marrow to make blood. Kidney patients tend not to do this so well and then become anaemic. Low Hb can result in feeling tired, cold and lethargic.

Phosphate

This is a salt found in food, especially dairy products. High levels of phosphate in the blood can lead to hardening of the arteries and also cause overactivity of the parathyroid glands (see PTH or parathyroid hormone below) which can weaken bones. This is sometimes represented by the chemical symbol PO_4 .

Potassium

This is often represented by its chemical symbol K. Potassium is a salt that is important for controlling the electrical functions of the body, especially the conduction system in the heart. The kidneys get potassium out of the body so patients with kidney disease, especially if kidney function is very low, have a tendency to get high levels. Dietary restriction of foods containing potassium and avoidance of drugs that raise it are usually necessary.

PTH or parathyroid hormone

This protein is released in response to low calcium levels. Kidney patients will usually develop low vitamin D levels and this tends to cause PTH to become raised. High levels tend to result in weakened bones and hardening of the arteries. High levels may prompt your doctor to suggest special vitamin D tablets. Very high levels of PTH can sometimes lead to the need for an operation to remove the overactive glands.

Sodium

Often represented by its chemical symbol Na, this is essentially salt. Kidney disease tends to result in salt build up and with that comes fluid retention. A diet low in salt can help in the control of high blood pressure.

Urea

This is a breakdown product of protein, produced by the liver. The kidneys get rid of urea from the body and so patients with kidney disease will often have high levels. Very high levels of urea can result in itching, sickness and generally feeling ill. Levels of over 30 might be a sign that dialysis treatment could be needed soon. This is sometimes represented by its abbreviations U or Ur.

This is not an exhaustive list so if you have any questions please ask a member of staff who will be happy to explain things for you.

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