Did you know?

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Medical underwriting: Part 1 – blood tests

All life insurers require a client to undergo medical underwriting procedures above certain ages and/or above certain levels of cover. This week's DYK looks at blood tests and what the results may indicate.

Blood tests (colloquially 'bloods') assist the life insurance underwriter in assessing the risk to the insurer and setting an appropriate premium, commensurate with the risk. All the following tests are performed on blood samples taken from a vein (usually in the arm) by syringe. The blood tests are generally valid for up to 12 months and may be performed by a mobile paramedical service provider, the client's own doctor, or by a pathologist.

Multiple Biochemical Analysis (MBA or MBA20)

This is the common blood test (consisting of 20 different tests) which provides a comprehensive overview of the general health indicators in humans. To ensure a valid result, the applicant should fast overnight or for a minimum of 8 hours. The most useful of the tests are the following:

Total cholesterol:

Cholesterol is a fat-like, waxy substance that naturally occurs in the cell membranes of the body. Excess cholesterol can lead to narrowing of the coronary arteries in the heart, causing angina and heart attacks; narrowing of the carotid arteries supplying the brain can cause strokes; and narrowing of the femoral arteries supplying the legs can cause peripheral artery disease.

HDL or High Density Lipoprotein is good cholesterol. LDL or Low Density Lipoprotein is bad cholesterol, the less of this you have, the better. Laboratories either measure the ratio of total cholesterol to HDL or the LDL/HDL ratio.

Calcium:

Calcium disorders are significant because of their association with bone disease. High calcium concentrations can indicate overactive parathyroid glands and malignant cancers.

Creatinine, urea and electrolytes:

Creatinine/urea ratios may indicate kidney, liver, muscle trauma or use of drugs (e.g. corticosteroids, tetracyclines.) People who are on medication with heart, liver or renal problems commonly exhibit electrolyte abnormalities. High levels of potassium (an electrolyte), called hyperkalaemia, may indicate kidney disease.

Glucose:

Raised glucose levels indicate diabetes. Diabetes is diagnosed on history and an abnormal plasma glucose concentration. Many people have mild increases in glucose levels for some time before the development of full-blown diabetes.

Liver function tests:

This group of tests can detect liver dysfunction such as inflammation of the liver and the presence of the hepatitis B and C virus. Abnormal liver function tests may also indicate excessive alcohol or drug use and obesity.

Uric acid:

A raised uric acid (urate) level increases the risk of gout (a painful type of arthritis usually affecting the big toe joint); the higher the urate, the greater the risk. High urate is also frequently associated with increased cardiovascular risk because of its association with hypertension and with the risk of kidney stones.

AIDS (Acquired Immune Deficiency Syndrome)/HIV (Human Immunodeficiency Virus) antibody test

Concern regarding the spread of AIDS has led insurers to routinely request HIV antibody tests at certain levels of cover. The tests identify the body's reaction to exposure to the virus (that is, antibodies).

Hepatitis B & C serology

The Hepatitis B serology identifies the Hepatitis B Surface Antigen, which provides evidence of current infection with the virus (and the immune system's response) or carrier status. The Hepatitis C test identifies Hepatitis C antibodies and provides evidence of past or current infection with the virus. The spread of this disease most commonly occurs through direct contact with blood or needles contaminated with the Hepatitis C virus.

Full blood count (FBC)

Also known as Full Blood Examination (FBE) or Complete Blood Examination (CBE), this blood profile measures a number of blood components, most notably the number of red blood cells, the haemoglobin level (to identify anaemia), the number and type of white blood cells (germ-fighting cells) and the platelet count (blood-clotting cell fragments). It is important in the diagnosis of conditions where the number of blood cells are abnormally low or high, or to determine whether the cells themselves are abnormal. Apart from anaemia, the test can indicate liver disease, viral illnesses, drug use, leukaemia and other blood cancers.

Prostate specific antigen (PSA) test

A PSA blood test can help indicate the presence of prostate cancer in males. The prostate gland produces PSA, a protein that helps to nourish sperm and normally, only tiny amounts of PSA enter the bloodstream. Cancer cells in the prostate interfere with proper functioning and can cause large amounts of PSA to enter the blood. When high levels of PSA are detected in the bloodstream, this may indicate cancer. Other tests are needed to confirm the diagnosis, because an abnormal PSA test can be due to non-cancerous causes.

Summary

Blood tests are a useful underwriting tool in assessing the risk to a life insurer. They may be performed by a paramedical service provider, a client's own doctor or a pathologist.

For any queries about blood tests, call your underwriter or the CommInsure underwriting hotline **1800 257 328**.

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