

## Haematology Department Autoimmune Haemolytic Anaemia (Sometimes referred to in medical notes as AIHA)

### Introduction

This is an information leaflet for patients who have been diagnosed with autoimmune haemolytic anaemia. It explains the condition and its treatment.

### What is autoimmune haemolytic anaemia?

Autoimmune haemolytic anaemia is a rare blood condition. It occurs when the immune system (which normally defends the body against infection) makes an antibody against its own red blood cells. This causes break down of the red blood cells called haemolysis.

### How does this happen?

- Antibodies are proteins which are made by the immune system. These proteins normally attach to the surface of bacteria. They act like labels to tell the immune system to destroy the bacteria.
- Red blood cells carry oxygen from the lungs to the organs and usually live for 120 days. The body is constantly making new red blood cells to replace the old ones. In autoimmune haemolytic anaemia, the immune system makes antibodies that attack healthy red blood cells in error. Red blood cells are broken down more quickly than they can be replaced, resulting in anaemia.
- Anaemia is the condition of having less haemoglobin (the substance on the red blood cells which carries oxygen) than normal. This usually means a reduced number of red blood cells are present.

### What symptoms does autoimmune haemolytic anaemia cause?

- Anaemia may cause tiredness or shortness of breath. It may cause a fast heart rate and, in severe cases, may bring about chest pain or fainting.
- People with anaemia may appear paler than normal.
- When red blood cells are destroyed, they release their haemoglobin. This is broken down by the liver into a substance called bilirubin.
- High bilirubin levels give rise to jaundice, which is a yellow colouring of the skin and eyes. The urine may be dark as it contains haemoglobin and bilirubin.
- Haemolysis (the breakdown of red blood cells) can also cause a higher than normal body temperature (fever).

### What causes autoimmune haemolytic anaemia?

Sometimes a trigger is found, such as a drug, an infection or an autoimmune condition (for example a condition called systemic lupus erythematosus in which the immune system attacks a number of the body's tissues).

Occasionally a cancer of the immune system (lymphoma) or white blood cells (leukaemia) may be the cause. More often, the condition is 'idiopathic', meaning that the cause is not known.

### **How is autoimmune haemolytic anaemia treated?**

- If a drug is found to be the cause it will be stopped. If there is an underlying disease, such as lymphoma, this may need to be treated.
- Steroids are used to stop the immune system from making the antibody causing the red blood cells to be destroyed.
- Steroid treatment will be needed for a long time. Steroids are started at a high dose which is then reduced slowly.
- Long term steroid use can cause side effects. These may include weight gain, thinning of bones and diabetes, so the dose is reduced as low as possible.
- Once the autoimmune haemolytic anaemia is under control the steroids are usually stopped.
- **It is important not to stop steroids unless you are instructed to do so by your doctor.**
- Folic acid is also given with steroids. This helps make more red blood cells to replace the ones that are destroyed.
- If autoimmune haemolytic anaemia is not treated, the haemoglobin level can become dangerously low. If the anaemia is severe, a blood transfusion may be needed.

### **What if the autoimmune haemolytic anaemia recurs?**

When the steroid treatment is reduced or stopped, the immune system may begin to break down red blood cells again.

In this situation, several treatment options are available. This may include other medication to control the immune system. Another treatment may be surgery to take out the spleen. The spleen is the organ which removes the red cells from the blood. Before any of these treatments are recommended your doctor will discuss them with you in detail.