

**Nephrology Department**

**Anaemia in**

**Chronic Kidney Disease (CKD)**

**Patient Information**

**Contact Information**

Emma Head, Renal Advanced Nurse Practitioner
01553 613076

 (Available Monday - Friday 8:30am until 2pm)

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**What is anaemia?**

Anaemia is when there is a shortage of haemoglobin (Hb) in the blood. Hb is needed to carry oxygen from your lungs to all parts of your body, including your organs and muscles, and gives you the energy you need to perform your daily activities.

**What are the symptoms of anaemia?**

* Shortness of breath
* Feeling tired and lacking energy
* Noticeable heart beats (palpitations)
* Feeling dizzy and having headaches
* Have trouble thinking clearly
* Trouble sleeping
* Pale complexion
* Feeling cold
* Poor appetite
* Feeling depressed or “down in the dumps”

**Why do people with kidney disease get anaemia?**

The kidneys produce a hormone called erythropoietin (EPO). Hormones are a chemical messenger and they travel to the body’s tissues and organs to help you stay healthy. EPO tells your bone marrow to make red blood cells. When someone has kidney disease they are unable to make enough EPO. This low level of EPO causes the red blood cell count to drop and therefore anaemia develops.

Most people with kidney disease develop anaemia. It can develop at any stage and usually gets worse as the kidney function deteriorates.

Kidney disease also reduces the body’s ability to absorb and use iron to make new red blood cells.

**How is anaemia treated in kidney disease?**

Treatment of anaemia depends on the exact cause.

Drugs called erythropoiesis stimulating agents (ESA’s) can be given to help your body to make red blood cells. These are given in the form of a subcutaneous injection (which means it is given just under the skin). These injections replace the EPO that healthy kidneys would usually be producing.

Your body also requires iron to make red blood cells – especially if you are receiving an ESA as otherwise the treatment will not work as well. Iron can be given either as tablets or intravenous iron infusions.

**What should my Hb level be?**

The target Hb for patients with kidney disease in 100 – 120g/L

**What side effects do ESA’s have?**

Side effects from ESA’s are rare however the following are possible:

* High blood pressure (especially if the Hb level rises rapidly or becomes too high)
* Clotting of fistulas used for haemodialysis may be more likely if Hb levels are too high.
* Heart disease and stroke are more common if treatment is adjusted to increase the Hb to normal levels.
* Very rarely patients react to EPO, and make antibodies to it. The bone marrow then stops producing red blood cells and this is known as a condition called “pure red cell aplasia” which is a very severe anaemia that can only be treated with blood transfusions.

**Further information**

Further information about your medication can be found in the patient information leaflet found in the medication box or on the container.