



**NATIONAL
RENAL CARE**



PATIENT EDUCATION

Why Do I Need
So Many
Blood Tests?

Every patient is an individual.

They react differently to each therapy.

Blood results are one sure way to determine how successful Renal Replacement Therapy is for you.

Renal Replacement Therapy:

- = Dialysis
- = Medication
- = Diet Guidelines
- = Fluid Guidelines

Hb – Haemoglobin

10 – 12 g/dl

Haemoglobin is a protein molecule in red blood cells that carries oxygen from the lungs to the body's tissues and returns carbon dioxide from the tissues back to the lungs

Ferritin & Tsats – Iron studies

Ferritin 200- 800mg/l & Tsats 20-50%

Good iron stores are needed to make red blood cells (Hb)

- Ferritin = Iron stores
- Tsats = available iron

Urea and Creatinine

Urea is a waste product formed from the breakdown of proteins.

Creatinine is a waste product made by the muscles

It is an indication of effective residual kidney function i.e. determines clearance of toxins.

Ktv

>1.2 in HD & >1.8 in PD

Measures Dialysis Adequacy

Adequate dialysis maximizes well-being, minimizes morbidity and helps a patient retain social independence.



Sodium

135 – 145mmol/l

Sodium is an indicator of the amount of salt in the blood.

Salt can influence the blood pressure and must be restricted in the diet – it increases thirst

Potassium

3.5 – 5.5mg/ml

Assists with function of muscles, nerves and heart.

An elevated Potassium can cause dysrhythmia of the heart
It can be dangerous or life threatening

Diuretics and some blood pressure medication affects the potassium levels



Calcium

2.1 – 2.4mmol/l

Builds bone and teeth

Plays a role in muscle activity
PTH regulates the withdrawal of calcium out of bones and teeth.

Diet and medication helps with regulation of levels
Vit D influences the absorption of calcium



Phosphate

1.13 – 1.8mmol/l

Phosphate is a mineral found in food and is essential for healthy bone formation and cell function. Control intake through diet. Too much is toxic. NB!!!!

Phosphate binders are needed to get rid of excess Phosphate

PTH = Parathyroid hormone

>600pg/l

Extracts Calcium from bones and teeth
Causes brittle, weak bones and teeth, and involved with calcifications in vascular system and tissues.

Phosphates, Calcium affects PTH levels

Albumin

>35g/dl

Albumin is a marker for protein intake and important for growth and repair of body tissues.

It helps fight infections and prevents muscle loss. Improves long term survival.

. Viral Studies

For your own protection as well as fellow patients and staff

Dialysis prescription should be individualized, monitored and reassessed regularly, taking all blood results in consideration

