



Common Medication for People Receiving Haemodialysis

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Introduction

This leaflet has been written to give you general information about:

- Common medication your kidney doctor may prescribe
- Some of the possible side effects
- How to make the most of your medication
- Over the counter medicines

Blood Pressure tablets

High blood pressure is a common problem in people who have chronic kidney disease. Ideally we like to keep blood pressure under control to help your heart and prevent strokes. To do this usually requires keeping fluid retention under control (by getting your 'dry' weight correct), sometimes using blood pressure tablets and having a diet low in salt.

There are many different types of blood pressure tablets (often called anti-hypertensives) which lower blood pressure. You may be prescribed one or a combination of blood pressure tablets. Often we are able to reduce the number of blood pressure tablets that you take when you have been on dialysis for a few months as your fluid levels are better controlled. Sometimes tablets to control raised blood pressure can make you feel dizzy and faint when you stand up or make fluid removal on dialysis difficult. Let your dialysis nurse or kidney doctor know if this happens. Sometimes we may suggest that you do not take tablets on dialysis days, or you take them after dialysis.

Commonly used blood pressure tablets include:

- **atenolol, metoprolol**
- **amlodipine**
- **doxazosin**
- **ramipril, enalapril, perindopril, losartan, candersartan, irbesartan** (these may also be prescribed if you have heart failure)

Diuretics (water tablets)

Many chronic kidney disease patients take diuretic tablets before they begin dialysis as they help to reduce fluid retention. The dose of these can sometimes be reduced once you are on dialysis. However we will often continue the diuretics to help your kidneys to produce urine as this can help reduce the amount of fluid that has to be removed during your dialysis treatment.

Common diuretics are **furosemide** and **bumetanide**.

Blood-thinning medication

Aspirin, clopidogrel and dipyridamole maybe used to keep the blood 'thin' in patients after heart attacks and strokes, and often after you have had a 'stent' inserted in one of your blood vessels where there had been a narrowing. Sometimes you only need to take clopidogrel for a few months; the doctor who started you on this medication will inform you if this is the case. These tablets work by interfering with the activity of blood platelets, which are particles in the blood that help the blood to clot.

Warfarin thins the blood in a different way, by interfering with the chemical reaction that makes blood clot. It can be used if you have suffered a blood clot in your leg (DVT) or lungs, if you have an irregular heart beat, if you have a metal heart valve or sometimes to help your dialysis line or

fistula. Warfarin action can be upset quite easily, particularly by changes in other tablets. It is therefore very important for your INR (a measure of how thin your blood is) to be checked regularly as recommended by your warfarin clinic, and to always inform them promptly if you change your other tablets.

All blood-thinning tablets can make you more likely to bleed from cuts, bruise more easily and sometimes suffer internal bleeding. However, often they are vital for your health and should not be stopped without discussion with a doctor who will need to judge the risks for you. They may also need to be stopped before an operation.

Phosphate binders

Phosphate binders are tablets that help to reduce the level of phosphate in your blood. They should be taken alongside food and work by attaching themselves to any phosphate from food, in your gut. This helps to lower the amount of phosphate absorbed and reduces the risk of it building up in your bloodstream leading to problems with narrowing of blood vessels and itching. There are different types of phosphate binders that are taken in different ways. If the one you have been prescribed does not suit you, ask your dietitian, dialysis nurse or kidney doctor about alternatives.

Medication	When to take
Calcichew (Calcium Carbonate)	Chew just before meals.
Adcal (Calcium Carbonate)	Chew just before meals.
Phosex (Calcium Acetate)	Swallow with meals.
PhosLo (Calcium Acetate)	Swallow with meals.
OsvaRen Calcium Acetate/Magnesium Carbonate	Swallow with meals.
Renagel (Sevelamer Hydrochloride)	Swallow with meals.
Renvela Sevelamer Carbonate)	Swallow with meals
Fosrenol (Lanthanum Carbonate)	Chew to a paste and take during or just after meals.

Further information is available in the 'How to control your phosphate level in your blood' information leaflet.

Alfa-calcidol/one alpha

Alfa-calcidol is a form of vitamin D which helps to balance your calcium level and control your parathyroid hormone (PTH) level to keep your bones healthy and strong. This is needed as kidney failure prevents your body making vitamin D in its usual way. It is normally taken as a tablet but may be given directly into your bloodstream when you are on dialysis. It may be prescribed with phosphate binders to control both calcium and phosphate levels.

Regular blood tests will be taken to check your calcium and PTH levels and your alfa-calcidol dose changed to ensure that your blood tests are kept in range.

Cinacalcet

Cinacalcet is a tablet prescribed for patients with very high parathyroid hormone levels who are not able to have a parathyroidectomy operation (parathyroid glands are removed). Because they are very expensive, they can only be prescribed after your kidney doctor has made a special application for their use. They must be prescribed by your kidney doctor and not your GP. You will therefore need to let your dialysis nurse know a couple of weeks before you run out so your prescription can be prepared. You will probably also have to allow time for your pharmacist to order them for you.

Erythropoietin (EPO)

EPO is a hormone which is made by healthy kidneys that stimulates the bone marrow to make red blood cells. In kidney failure the body may not be able to make enough of its own EPO and this can cause renal anaemia. If this happens we may suggest that you take EPO to help your anaemia and increase your energy levels.

EPO is normally injected under the skin. This can be done by yourself or by your dialysis nurses. Sometimes the dialysis nurses will give straight into your blood while you are on dialysis. The anaemia nurse specialist and dialysis doctor will monitor your blood results and will change your dose if necessary to ensure that your blood levels are kept within the recommended range.

Different types of EPO that we use include Micera, Aranesp and Neorecormen.

Iron

To allow your bone marrow and EPO to work to make red blood cells, you also need to have enough stored iron in your body. It is very common for dialysis patients to need extra iron. Before starting dialysis you may have taken iron tablets. These are not needed when you are on haemodialysis as we can give you iron straight into the bloodstream when you are dialysing. As with your EPO dose, your iron dose will be changed if necessary each month depending on your blood results.

Tinzaparin (*Innohep*)

To allow your blood to pass easily through the dialysis machine without clotting, we use heparin to thin it whilst you are dialysing. The dose of heparin is chosen depending on how much you weigh and how long you dialyse for. It may be increased if you have problems with clotting of your dialysis circuits, or reduced if you have problems with bleeding after dialysis.

Antimicrobial lock

An antimicrobial (or antibacterial) lock is a solution for tunnelled and non tunnelled haemodialysis lines. It helps stop bacteria growing in the haemodialysis line which can cause infection. The solution also helps stop blood clots forming in the line, which can cause the line to become blocked.

At the end of each dialysis session your haemodialysis line will be flushed with sterile saline (salt water). The antimicrobial solution is then slowly placed into each tube (or 'lumen') of your line. The solution remains locked inside the line until your next dialysis session. Just before you start your next dialysis session the nurse will remove the solution from your line.

Other medications:

Sodium bicarbonate

Chronic kidney disease patients are often prescribed these capsules before they start dialysis to control the acid balance of the body. Generally these can be stopped once you have been settled onto dialysis. Discuss with your nurse or kidney doctor if you are still taking them.

Allopurinol

Chronic kidney disease patients may suffer from gout; dialysis sometimes helps this. Allopurinol is a common medication used to prevent gout. If your gout flares, you may need additional treatment also and you should consult a doctor. Colchicine may be used but not in a dose of more than 500mcg twice daily.

Quinine sulphate

Sometimes dialysis patients suffer with muscle cramps. These can occur on dialysis or between sessions. Sometimes these can be prevented by adjustment to your dry weight. However, if you are getting cramps with a correct dry weight you may find that quinine sulphate gives good relief. You should discuss with your doctor if you regularly suffer from cramps.

Pain killers

Paracetamol is fine to take for dialysis patients. We are also usually happy for you to use Co-dydramol or Co-codamol (remember these also contain paracetamol) but you may need a lower dose than usual and this should be discussed with your kidney doctor. Anti-inflammatory tablets (such as ibuprofen or diclofenac) can be used with care in dialysis patients but should only be prescribed after discussion with a kidney doctor.

Over the counter medicines

Over the counter medicines are medicines that can be bought without a prescription from supermarkets and pharmacies. These medicines must always be checked with your kidney doctor, dialysis nurse or renal pharmacist as they can cause problems with your other medication and some products contain things that should be avoided (for example potassium and sodium. **Lo-salt** should never be used as contains potassium) and are unsuitable for people with chronic kidney disease. The same advice also applies to herbal remedies and dietary supplements that can be bought from health food shops (e.g. cod liver oil, St John's Wort).

Common remedies to avoid include those for:

- Colds
- Coughs
- Indigestion – avoid antacids as they may interfere with the calcium level in your blood

Your kidney doctor or dialysis nurse will be able to recommend suitable medication.

Keeping accurate and up-to-date information

The dialysis nurses need to know what medication you are taking. It is important that you bring a copy of your medication list when you first start on haemodialysis treatment and when any changes are made. It is a good idea to keep an up-to-date list of your current medication with you and take to every appointment that you have with kidney or other doctors.

You may find that your medication and dose (amount) of medication may need to be adjusted once you start on haemodialysis treatment.

General Advice

Here are some general tips to help you make the most of your medication and avoid problems:

- Read the information leaflet that comes with each of your medicines
- Always tell any doctor or pharmacist about your kidney condition and the medicines you are taking
- Do not share your medicines with anyone else
- Make sure you store your medication in the correct way
- Let your kidney doctor know if you feel you are experiencing any side effects from your medicines
- The renal pharmacist will be happy to discuss your medication with you if you have any questions or concerns
- You will be prescribed medication that is based on your individual needs

Where can I find further sources of information

Further information can be obtained from:

The National Kidney Federation **www.kidney.org.uk**



The Trust provides free monthly health talks on a variety of medical conditions and treatments. For more information visit www.uhb.nhs.uk or call 0121 627 7803

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