This leaflet aims to provide information on infusion devices that are used in your care while you are in hospital. It is to help you, your family or carer understand some of the technical terms associated with infusion therapy. Do ask the staff caring for you if you need further information.

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Your infusion device
An infusion device is a small machine that makes sure the drugs or fluids prescribed by your doctor are infused smoothly and accurately into your body.

There are four types of infusion devices:
1 Syringe pump
infuses small amounts of drugs or fluids into a vein.
2 Volumetric pump
infuses larger amounts of fluids or drugs into a vein.
3 Patient controlled analgesia (PCA) pump
allows the patient to press a button and activate the infusion device to deliver a small dose of a drug.
4 Ambulatory pump
used by patients at home as well as in hospital, is commonly worn on a belt so that the patient can move around more freely.

Your infusion could last from a few minutes to more than a day depending on your treatment. The nurse or doctor setting up your infusion will be able to tell you how long your infusion will last.

Reasons for an infusion
Infusions can be given for a number of different purposes, such as:
- keeping the level of fluid in your body steady and preventing dehydration;
- infusing drugs, such as antibiotics, to maintain your general health;
- chemotherapy to treat cancer;
- controlling pain with painkillers; and
- feeding nutrients directly into your body through a vein.

Attaching the infusion device
A plastic tube called a cannula is inserted into a vein, using a small needle. This allows an intravenous infusion to be given.

Occasionally, the cannula is inserted just under the skin. This is called a subcutaneous infusion.

Some patients have a cannula placed in larger veins called a central line, instead of a cannula, if more frequent or complex infusions are needed.

The cannula or central line is attached to the infusion tube which connects to the pump. The appropriate flow of the drug is then set on the infusion device.

The most common place for the cannula is the back of the hand or the forearm. When a central line is used, it may be placed in the shoulder or at the side of the neck.

The doctor or nurse inserting the cannula should ask where you would like the tube to be inserted. It is often most comfortable in your non-dominant hand or arm (for example, your left hand if you are right handed), so that your movements are less restricted.

You may feel a stinging sensation when the cannula is first inserted, but this should ease quickly. If you feel any pain during the infusion, you should immediately tell a member of the healthcare team looking after you.
Moving around with an infusion device attached

Your movement may be restricted but you should be able to undertake actions such as reading and eating. Getting dressed or washing can be awkward but are possible with help.

If you need to move any distance, such as going to the toilet, you may need help from a nurse. The infusion device can be unplugged because it has a back-up battery which keeps the pump working while it is unattached to the electrical mains. Wherever possible, the infusion device should always be connected to the mains.

Your infusion device may be attached to a drip stand with wheels at its base. You will be able to move about but be careful that the wires do not get caught on door handles or trail behind you.

When the infusion finishes

An alarm sounds when the infusion finishes. It alerts the nurse that another infusion has to be started or that the infusion device is ready to be removed.

If the nurse does not attend quickly, you should use your patient call button to attract attention.

Your body’s response

Let a nurse know immediately if you notice any of the following symptoms. It may be that the cannula is failing and needs to be replaced:

Reddening

Reddening near where the cannula enters the vein, or in a line going up your arm, could indicate an infection.

Pain

Some soreness is normal but should you feel pain where your cannula enters the vein it could mean the infusion is not working or you have an infection.

Swelling

If you see a large swelling where the cannula enters the vein, the infusion may not be working.

Things to look out for

The infusion device

Alarms

Alarms are sensitive and can go off regularly. A common reason is the cannula into the vein or the infusion line has ‘kinked’.

Air bubbles

Do not worry if there are very small air bubbles present in the infusion line. A safety feature in the infusion device stops the infusion and alarms if there are larger ones that can be harmful.

Blood backing up in the infusion line

This can occur but is not dangerous. If you are concerned alert one of the healthcare staff looking after you and ask them to check the infusion.
Nursing care

Cleanliness
Nurses and doctors must clean their hands before touching the spot where the infusion device is connected to you.

Securing the line
The cannula and infusion line should be secured with a dressing and tape so that the cannula cannot fall out and the line is not trailing down the side of your bed. The dressing should be checked regularly by the nurse.

Self-administering Morphine (with PCA infusion device)
The infusion device is set so that you cannot overdose. If you have any concerns please ask your nurse.

Here to help
All the staff looking after you will do their best to make sure your personal needs and mobility are restricted as little as possible. Do feel free to ask them if you have any questions about the infusion device.

Some definitions

The infusion tube (sometimes called an ‘infusion line’)
It goes between the cannula or central line (in your vein) and the bag of fluid or syringe.

Cannula
The small tube inserted into a vein.

Central line
A cannula inserted into a large vein to give certain drugs or special nutrients when normal feeding is not possible. These veins can be accessed through your upper arm, shoulder or neck.

Hickman® Line
An example of a particular make of central line.

Infusion device
The machine that controls the rate of your infusion.

Intravenous therapy
The infusion of a drug or fluid into a vein (or IVT).

Oedema (edema)
A swelling around the infusion site.

Phlebitis (flebitis)
An infection of the vein.

Subcutaneous infusion
The infusion of a drug or fluid just under the skin, rather than into a vein.