Anticoagulants: Anticoagulants are medicines that help prevent blood clots. They're given to people at a high risk of getting clots, to reduce their chances of developing serious conditions such as strokes and heart attacks.

A blood clot is a seal created by the blood to stop bleeding from wounds. While they're useful in stopping bleeding, they can block blood vessels and stop blood flowing to organs such as the brain, heart or lungs if they form in the wrong place.

Anticoagulants work by interrupting the process involved in the formation of blood clots. They're sometimes called "blood-thinning" medicines, although they don't actually make the blood thinner.

Although they're used for similar purposes, anticoagulants are different to antiplatelet medicines, such as low-dose aspirin and clopidogrel.

When anticoagulants are used

If a blood clot blocks the flow of blood through a blood vessel, the affected part of the body will become starved of oxygen and will stop working properly.

Depending on where the clot forms, this can lead to serious problems such as:

1. strokes or transient is chaemic attacks (mini-strokes)
2. heart attacks
3. deep vein thrombosis (DVT)
4. pulmonary embolism

Treatment with anticoagulants may be recommended if your doctor feels you're at an increased risk of developing one of these problems. This may be because you've had blood clots in the past or you've been diagnosed with a condition such as atrial fibrillation that can cause blood clots to form. You may also be prescribed an anticoagulant if you've recently had surgery, as the period of rest and inactivity you need during your recovery can increase your risk of developing a blood clot.

Side effects of anticoagulants

1. passing blood in your urine
2. passing blood when you poo or having black poo
3. severe bruising
4. prolonged nosebleeds

5. bleeding gums
6. vomiting blood or coughing up blood
7. heavy periods in women

Anti-Platelet:

Antiplatelet drugs prevent platelets from sticking together and decrease your body's ability to form blood clots. These medications are used to treat, and may help prevent, heart attack and stroke. Aspirin is the most commonly used antiplatelet drug. The main risk associated with antiplatelet therapy is excessive bleeding.

How do antiplatelet drugs work?

Antiplatelets prevent your platelets from clumping together to form a clot.

Blood is made up mostly of:

1. Red blood cells, which carry oxygen throughout your body.
2. White blood cells, which help fight infection.
3. Platelets, which help form blood clots to prevent excessive bleeding.

When your body has an injury, platelets stick or clump together to make a clot. Clots are your body's natural way of stopping bleeding. For example, when you have a deep cut on your skin, a clot will eventually form to slow and then stop bleeding.

What's the difference between anticoagulants and antiplatelet?

Both anticoagulants and antiplatelets reduce or prevent clotting. But they work in different ways.

Antiplatelets interfere with the process of platelets binding together. Anticoagulants, also called blood thinners, interfere with proteins in your blood that are involved with clotting.

Who should use antiplatelet drugs?

Blood clots are an important and natural way your body protects itself. But blood clots in your bloodstream can cause heart attack and stroke. This is more common in people with certain medical conditions, such as:

1. Angina.
2. Atrial fibrillation.
3. Coronary artery disease.
4. History of heart attack or warning signs of a possible heart attack in the future.
5. History of stroke or warning signs of a possible stroke in the future.

6. Peripheral vascular disease (clogged veins and arteries outside of your heart that cause problems with circulation).
7. Surgery, such as coronary artery bypass, angioplasty (placement of stents to open arteries) or heart-valve surgery.

What side effects do antiplatelet drugs have?

1. Shortness of breath.
2. Bleeding longer or heavier with cuts or menstrual periods.
3. Bruises.
4. Hemorrhage.
5. Nose bleeds (epistaxis)
6. Upset stomach.
7. Some side effects can be signs of serious problems. If you have any of the following symptoms, contact your healthcare provider:
8. Blood in your urine (pee), which may look red, pink or brown.
9. Blood in your stool (poop), which may look red or black.
10. Chest pain.
11. Coughing up or vomiting blood, which may look like blood or coffee grounds.
12. Hematoma (a large, raised bruise)
13. Ringing in your ears (tinnitus)
14. Stomach pain.