

# Medications after an Acute Coronary Syndrome (ACS)

**This leaflet provides information about some of the medicines that may be given after a heart attack. The medical team will choose the best combination of medications for you, including the doses and how often to take them. If you have any questions or concerns, please speak to a doctor, pharmacist or nurse.**

## What are side effects?

Side effects are unwanted symptoms caused by medicines. A small number of people will have side effects but not many people get them. The doctor, pharmacist or nurse will warn you if there are any important side effects for which to be aware. Please read the patient information leaflet inside the box and tell a healthcare professional if you think you are experiencing any side effects from your medication. **Do not stop taking your medicine unless you have been instructed to do so by a healthcare professional.**

## Drugs Commonly Given After Experiencing a Heart Attack

### Medicines to reduce blood clotting

You will have been prescribed a combination of antiplatelet agents.

Platelets are cells that circulate around the body in the bloodstream. They are responsible for blood clotting, which is normally a very useful function; for example, when you cut yourself, it stops you from bleeding excessively. Sometimes, a blood clot can form in the wrong place, within a blood vessel and cause a blockage. These medications make the blood less “sticky” and reduce the likelihood of a blood clot forming. They also reduce the risk of death and lasting damage from cardiovascular events and reduce the risk of having another heart attack.

Please note that all the below medications can cause bruising and bleeding as a side effect.

- Clopidogrel:** Makes your blood less sticky and is taken **once** a day.  
Side effects: For some people it causes stomach irritation, indigestion, or diarrhoea.  
To prevent this take it with or after food.  
Some patients experience a rash – if this happens see your doctor immediately.
- Aspirin:** Makes your blood less sticky and is taken **once** a day.  
Side effects: For some people it causes stomach irritation and indigestion.  
This must be taken with or after food.

- **Ticagrelor:** Makes your blood less sticky and is taken **twice** a day.  
Side effects: For some people it causes stomach irritation and indigestion. To prevent this take it with or after food.  
Some patients experience shortness of breath – if this becomes debilitating, please contact the cardiac team.
- **Prasugrel:** Makes your blood less sticky and is taken **once** a day.  
Side effects: Anaemia, nose bleeds or rash.

### Medicines to protect the stomach

- **Lansoprazole, Omeprazole and Famotidine**  
These are from a class of drugs called protein pump inhibitors (or PPIs). These are used to protect the stomach from irritation or indigestion from medicines that thin the blood. It will depend on your risk factors whether you are given one. The medication you use may be changed due to interactions with newly started medications.  
Side effects: Diarrhoea, constipation, nausea and an increased risk of fractures.

### Medicines to lower cholesterol / stabilise plaque in blood vessels

- **Statins, e.g. Atorvastatin, Rosuvastatin, Pravastatin, Simvastatin**  
These are used to reduce the amount of cholesterol that is produced by the liver. High levels of cholesterol can make your arteries narrow, which can cause heart attacks. Statins, together with dietary changes of reducing your saturated fat intake, can help lower cholesterol levels in the blood. Statins are normally taken once daily at night time but **Atorvastatin** and **Rosuvastatin** can be taken at any time of the day. If your cholesterol is not well controlled, then another medication might be added to optimise your treatment.

A rare side effect of statins is inflammation of the muscles. It is very important to tell your doctor straight away if you notice any unexplained muscle pain or weakness. Statins can also cause tiredness, headache, nausea, vomiting, diarrhoea and altered liver function.

### Medicines to lower blood pressure

Ensuring your blood pressure is well controlled reduces the risk of another heart attack. To help your blood pressure medication work well, you should try to cut down on salt in your diet and exercise more often by following the cardiac rehabilitation guidelines.

- **Angiotensin Converting Enzyme Inhibitors (ACE-inhibitors), e.g. Ramipril, Lisinopril, Enalapril, Perindopril**  
ACE-inhibitors are used to lower blood pressure and to help prevent heart failure. These medications cause the blood vessels to relax and widen, therefore reducing the workload on your heart. This in turn, makes it easier for your heart to pump blood around your whole body.

Side effects: Dry cough, dizziness or swelling of your lips and / or tongue. If you have a dry cough, you can speak to your GP about switching to an alternative agent. If you experience any swelling of the lips or tongue, seek medical attention immediately. ACE-inhibitors can affect your kidney function so regular blood tests may be needed.

□ **Angiotensin II Receptor Antagonists (ARBs), e.g. Candesartan, Losartan, Irbesartan.**

These work similarly to ACE-Inhibitors but do not cause a cough that you might experience with ACE-Inhibitors. Side effects: Dizziness / vertigo, headache.

□ **Sacubitril / Valsartan (Entresto)**

This medication is known as an Angiotensin Receptor – Neprilysin Inhibitor (ARNi). It might be prescribed instead of an ACE-Inhibitor or ARB. This medication can improve your heart function and help relieve symptoms of heart failure. It reduces the strain on your heart by relaxing blood vessels, increasing blood flow and lowering blood pressure. Side effects: Raised potassium levels, dizziness, headache, low blood pressure, cough, diarrhoea and nausea.

You should not take Entresto together with ARB or ACE inhibitors. If you find you are taking both together, please inform your doctor immediately,

□ **Beta blockers, e.g. Atenolol, Bisoprolol, Carvedilol, Metoprolol.**

These medications reduce the workload on your heart by helping your heart to beat more slowly and with less force. Beta blockers can also reduce blood pressure and reduce the chances of another heart attack.

Side effect: Cold hands and feet. Tiredness which usually wears off. Dizziness / fainting, disturbed sleep, shortness of breath.

### **Medicines to reduce fluid retention**

□ **Bumetanide, Furosemide, Metolazone**

These medications are known as diuretics or they are sometimes called water tablets. They help your body to pass more urine by helping your kidneys get rid of excess fluid. As a result, your heart doesn't have to work as hard to pump blood around your body. Diuretics can help to relieve ankles swelling and shortness of breath.

Side effects: Passing urine more often, dehydration, dizziness, gout caused or worsened, raised blood sugar in people with diabetes.

□ **Eplerenone, Spironolactone**

These medications are known as Mineralocorticoid receptor antagonists (MRAs). They prevent fluid build-up in your body by blocking a hormone called aldosterone. These medications have a mild diuretic effect and help to reduce progression of heart failure and improve life expectancy. Side effects: Diarrhoea, nausea, vomiting, rash, cough, raised potassium levels, reduced kidney function. Spironolactone can rarely also cause gynaecomastia in men (swelling of breast tissue).

#### □ **Empagliflozin, Dapagliflozin**

These medications are known as sodium-glucose co-transporter-2 inhibitors (SGLT2i). They work predominantly by helping your kidneys pass glucose and sodium out of your body, therefore lowering blood pressure and blood glucose in diabetic patients. They can also be used to help improve outcomes in heart failure patients without diabetes. Side effects: Low blood sugar, passing more urine than usual or needing to pass urine more often, urinary tract infections, diabetic ketoacidosis.

#### **Medicines to reduce chest pain**

#### □ **Glyceryl trinitrate (GTN spray or tablets), Isosorbide dinitrate, Isosorbide mononitrate.**

These medications are known as nitrates. They help to dilate blood vessels, increase oxygen supply to your heart and relieve pain. If you need to take a dose due to some chest tightness / pain, make sure you are sitting down for 5-10 minutes after taking as it can cause a sudden drop in blood pressure and dizziness.

Side effects: Headaches, dizziness, feeling faint and facial flushing.

**\*\*\*If you are taking any of the following medications:** Sildenafil (Viagra) or Vardenafil (Levitra) leave at least 24 hours between using your spray and taking one of these tablets. If you are taking, Tadalafil (Cialis) leave at least 48 hours between using your spray and taking one of these tablets.

**If you are also taking isosorbide mononitrate or isosorbide dinitrate tablets, please discuss with your cardiologist if it is advisable for you to take both medications at the same time, as it can cause extreme drops in blood pressure.**

#### **Clinical trials medications**

Some patients take part in clinical trials which can involve taking medications which can be well-known or new medications. If you are taking a clinical trial medication you will be provided with specific information about when to take the medication and any side effects.

#### **How do I get a repeat prescription?**

Your GP will receive a copy of your discharge prescription and they will provide you with a further supply of your medicines unless you are told otherwise. If you are running out of your medications, please contact your GP surgery in good time to renew your supply.

#### **Talk to your community pharmacist**

When you leave hospital, **you are entitled to a free service** to advise you about your medicines from your local community pharmacist. You can visit your pharmacy or speak on the telephone with the pharmacist, who can talk to you about all your medications, what they are for, discuss any side effects and if you have any problems taking your medicines. Your pharmacist can help with stop smoking programmes, healthy living advice and weight management services.

## Contact Us

If you have any questions or concerns about medicines given to you by St George's Hospital, please contact the Patient Medicines Helpline on 020 8725 1033.

**For more information leaflets on conditions, procedures, treatments and services offered at our hospitals, please visit [www.stgeorges.nhs.uk](http://www.stgeorges.nhs.uk)**

## Additional services

### Patient Advice and Liaison Service (PALS)

PALS can offer you on-the-spot advice and information when you have comments or concerns about our services or the care you have received. You can visit the PALS office between 9.30am and 4.30pm, Monday to Friday in the main corridor between Grosvenor and Lanesborough wings (near the lift foyer).

**Tel:** 020 8725 2453 **Email:** [pals@stgeorges.nhs.uk](mailto:pals@stgeorges.nhs.uk)

### NHS Choices

NHS Choices provides online information and guidance on all aspects of health and healthcare, to help you make decisions about your health.

**Web:** [www.nhs.uk](http://www.nhs.uk)

### NHS 111

You can call 111 when you need medical help fast but it's not a 999 emergency. NHS 111 is available 24 hours a day, 365 days a year. Calls are free from landlines and mobile phones.

**Tel:** 111

### AccessAble

You can download accessibility guides for all our services by searching 'St George's Hospital' on the AccessAble website ([www.accessable.co.uk](http://www.accessable.co.uk)). The guides are designed to ensure everyone – including those with accessibility needs – can access our hospital and community sites with confidence.



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