Practical

INR and self-testing with APS

Most antiphospholipid syndrome (APS) patients will take life-long anticoagulation and, for those who have had a serious clotting event, the current treatment usually takes the form of warfarin; however, some patients are now being treated with direct oral anticoagulants, such as rivaroxaban, that do not need to be monitored at all.

The purpose of warfarin is to make the blood "thinner" i.e. less prone to clot. This can be measured using a test called the International Normalised Ratio or INR, which is the ratio of how fast the patient's blood clots to how fast normal blood clots for a person not taking warfarin. So if your INR is 2.0, your blood takes twice as long to clot as normal blood.

For patients taking warfarin there is an ideal INR range – not so high so that there is a risk of excessive bleeding, but not so low that it does not protect you against clots. Many patients with APS have a target INR between 2.0 and 3.0 but some, especially those with previous strokes, have a target between 3.0 and 4.5. Your anticoagulation clinic will tell you what your target range is.

As warfarin is affected by many external factors including diet, alcohol and other medication, it can take several weeks until your target INR is reached and becomes stable. Many APS patients will find that their INR fluctuates for reasons still unknown, and that it varies from day-to-day or week-to-week. Consequently, a lot of people have benefitted from INR self-testing as it means they are free from frequent visits to the anticoagulation clinic to have blood taken for hospital laboratory INR tests.

You self-test using a hand-held machine to measure the INR in a drop of blood. In the UK, there are currently several on the market including the Coaguchek and Accutrend monitors. You give your INR readings to your doctor or nurse and they will then advise you on the dose of warfarin you need to take. Following training and experience, some people feel confident enough to self-manage. This means they take the INR reading and adjust the dosage themselves.

Finger-prick testing is as accurate as hospital laboratory tests with many surgeries now opting for finger-prick testing as standard, but be aware that it is common for the INR results between finger-prick tests and hospital tests to differ slightly. Therefore, it is important to run parallel testing for several weeks in which your own monitor results are compared to those obtained in the anticoagulation clinic, and that your healthcare team is aware of this difference.

We advise that you re-check this differential each time you use a new batch of testing strips as it can vary slightly. When you open a new batch of strips, ensure you get a hospital laboratory reading from the anticoagulation clinic, compare this with your monitor's results and make a note of the difference.

Once the differential has been identified, self-testing for APS patients is considered to be safe but there are special precautions for people who test positive for the lupus anticoagulant (LA). In a very small number of cases the LA has been found to interfere with the reagents used in the self-testing strips and have given false high INR readings. If you are LA positive, then your anticoagulation clinic needs to be aware of this, and should run parallel hospital laboratory testing alongside your own finger-prick readings for three months.

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Points to consider before buying a self-testing machine

Self-monitoring is not for everyone, but it can give you a better quality of life and lets you play an active role in your own health care. However, before you make the decision to buy a monitor, please consider the following points:

1 Will you have the full support of your GP and/or anticoagulation clinic?
This is essential as they will help to train you to use the monitor, be prepared to take your readings and decide what to do with the results. We suggest you make an appointment with your GP surgery/ clinic to discuss your options before you consider buying the monitor.

2 Are you manually dexterous?
Operating the machine involves taking a finger-prick test and applying it to a test strip.

3 Do you have reasonable eyesight?
You will need to be able to see clearly so you can take readings as well as use the monitor.

4 Can you get the test strips on prescription?
If your GP's surgery is unable to prescribe the testing strips they cost approximately £70 excluding VAT for a box of 24 (based on 2019 prices).

5 Can you afford the self-test machine?
The Coaguchek INRange currently retails for £299 excluding VAT and are not available on the NHS.

6 Are you aware that you will still need to make regular visits to the surgery/clinic?
The readings you take from your monitor need to be compared to the readings obtained at the clinic.

7 Are you positive for the lupus anticoagulant?
If so, there could be a small chance that the readings are falsely high, so it is important that you run parallel tests at the anticoagulation clinic for at least three months.