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| **Module** | Anticoagulation management: patient’s guide to self-monitoring |
| **Topic** | How patient self-testing of oral anticoagulation works in practice |
| **Audience** | Self-monitoring patient |
| **Type** | Core content |
| **Version** | 7 |

**1. Introduction**

The aim of this topic is to give you an understanding of what will happen when you start self-testing

By the end of this topic you should be able to:

1. Summarise the steps you should take before you start self-testing
2. Describe your responsibilities as someone who is self-testing their INR
3. Describe the responsibilities of the anticoagulant clinic supporting you self-testing

 **2. Check your understanding**

Before you start reading this topic check how much you already know by taking a short quiz. You will have an opportunity to take the quiz again at the end of the module, where we will reveal the correct answers.

Patient self-monitoring of oral anticoagulation can be described as the follows: (Please select the response that you think best answers this question)

a) You should discuss the idea of self-testing with your anticoagulant clinic before buying a coagulometer

**True** / False

b) There is no need to have any education and training before self-testing

True / **False**

c) Once you start self-testing there is no need to return to the clinic for another appointment

True / **False**

d) Listed below are some of your responsibilities as someone who is self-testing their INR. Please select those that apply (there may be more than one choice).

1. **Perform INR tests at the time agreed with your anticoagulation practitioner**
2. Decide on the dose of warfarin to take
3. **Let the clinic know if you have had any changes to your medication**
4. **Attend the clinic for a six-monthly review**

e) Listed below are some of the responsibilities of the anticoagulant clinic in supporting you self-testing. Please select those that apply (there may be more than one choice).

1. **Advising you on the dose of warfarin to take**
2. Performing maintenance on your coagulometer
3. **Performing quality assurance on your coagulometer**
4. Supplying your INR test strips

f) You do not need to let the anticoagulant clinic know of your INR is within the correct range

True / **False**

**3. What should I do before buying a coagulometer?**

*(image 115\_MP900448683.JPG)*

Before buying your coagulometer you should do the following:

i) Discuss the idea of self-testing with your anticoagulant clinic. Self-testing is where you measure your INR at home and your clinic will then advise you on the dose of oral anticoagulant you should take. It is not suitable for everyone and your anticoagulation practitioner will be able to give you guidance on whether it is likely to be good for you. You may also wish to involve carers, family members or friends.

To find out a little bit more about the considerations that may be used to guide a decision on whether self-testing is suitable for you please take a look at this *(-> Extra content (selection criteria))*

ii) Get agreement from your anticoagulant clinic that they are willing to supervise your self-testing. This may be in the form of a written agreement between the anticoagulation clinic and yourself. Your GP may wish to see this agreement before prescribing test strips.

iii) Ask if your GP will prescribe the testing strips. If they are not able to do this, you may need to buy them yourself. They cost over £2 per testing strip.

iv) Read and understand Helicon Health’s educational material. This is very important, as it will give you the essential understanding of the important aspects of warfarin and monitoring, including the following:

* How blood clots
* How oral anticoagulants work
* How warfarin is monitored (the INR test)
* How other medicines, diet, lifestyle and illness can affect your INR
* How to measure your INR on a coagulometer

**4. What should I do once I have my coagulometer?**

*(Image go.JPG)*

Once you have your coagulometer, you should arrange an appointment with your anticoagulation practitioner.

Roche, the manufacturer of the CoaguChek XS ® machine, provides a DVD with the machine. This DVD explains the different functions of the CoaguChek XS ® and how to perform a self-test. You are advised to watch this DVD prior to your first appointment.

**5. What will happen on my first self-testing visit?**

*(image number 1.JPG)*

At this visit, your anticoagulation practitioner will ask you to demonstrate how you measure your INR. They will show you how to do an INR test if necessary.

Your anticoagulation practitioner will also take a sample of blood from your vein from which they will test your INR on the laboratory machine. They will then compare this result with that from your coagulometer. This is to check that your coagulometer will give you correct INR readings.

This visit is an opportunity for you to ask any questions you may have about self-testing.

You will then be asked to test and record your INR results at home for a short time period before attending a second appointment. This is for practice and is to get you used to measuring your own INR.

**6. What will happen on my self-testing visit?**

*(Image number 2.JPG)*

At this second visit, your anticoagulant practitioner will check that you are able to perform an INR test, and that you are comfortable with doing this.

At this visit, your anticoagulant practitioner will go through the following with you:

* The procedure for self-testing, including how you should communicate your INR results to your anticoagulation practitioner and when you should seek help from them.
* How to accurately record your INR results
* When you should next come to the anticoagulant clinic for a review. It is recommended that those who are self-testing are seen at least once every six months. In addition to giving you the opportunity to discuss any issues with your anticoagulation practitioner, this review also allows them to check that your coagulometer is working correctly. This is known as quality assurance (QA). Your coagulometer performs its own check automatically every time you do an INR test and will not give you a result if detects any error. However, your anticoagulation practitioner can carry out tests to provide extra assurance

To find out a little bit more about how the clinic makes sure that your coagulometer is performing correctly please take a look at this *(-> Extra Content (QA))*

If you would like a little more support with self-testing before the six-monthly review, you should not hesitate to make an appointment with your anticoagulation practitioner.

**7. What are my responsibilities when self-testing?**

Self-testing of oral anticoagulation involves sharing care between you and your anticoagulation practitioner. Therefore, it is important that you and the anticoagulant clinic agree on respective responsibilities.

Examples of your responsibilities are listed below:

* Commit to training and education in self-testing
* Perform INR tests at the time agreed with your anticoagulation practitioner
* Inform the anticoagulant clinic of your INR readings
* Inform the anticoagulant clinic of any factors that may have affected the INR (e.g. changes in medication, diet or general health)
* Take the dose of warfarin as agreed with the anticoagulant clinic
* Order supplies of testing strips and lancets
* Correctly dispose of strips and lancets
* Maintain your coagulometer
* Attend the anticoagulant clinic for six-monthly review and QA of coagulometer
* Inform the anticoagulant clinic if you decide to stop self-testing or move out of the area

 **Examples of your responsibilities as a self-tester**

**8. What are the responsibilities of the anticoagulant clinic in supporting me self-testing?**

Examples of the responsibilities of the anticoagulant clinic are listed in Box B.

* Support educating and training you in self-testing
* Assess if you are able to test your INR
* Be available for help and advice during clinic hours
* Advise you on the dose of warfarin you should take
* Perform quality assurance of your coagulometer at six-monthly review

 **Examples of the responsibilities of the anticoagulant clinic in supporting you as a self-tester**

If you would like to know a little bit more about how the clinic makes sure that your coagulometer is performing correctly, please take a look at this *(-> extra content qa)*

**9. What is the procedure for self-testing?**

Your anticoagulation practitioner will discuss the procedure for self-testing with you.

This will include how you should let them know about your INR test, what you should do if you measure a very high or very low INR, and how you should record your INR result.

They will also advise you on how to dispose of your used test strips and lancets.

If you would like to know a little bit more about the procedure for self-testing, and the questions you may be asked when you contact the clinic with your INR result, please take a look at this *(->* *Extra content (PST process))*

**10. How often should I test my blood?**

*(image 115\_MP900309636.JPG)*

Your anticoagulation practitioner will advise on how often you need to test your INR. The frequency of INR testing will depend on a number of factors. For example:

* How stable your INR blood test results have been
* Whether your dose of warfarin has changed recently
* Whether you have had recent changes to your medication or changes in your diet or alcohol intake.
* If you have been unwell recently

**11. How should I record my INR test result?**

How your INR blood test and the dose of warfarin you are taking are recorded will depend on the practice at your clinic. These results can be recorded in your Anticoagulant Therapy Record Book (‘the yellow book’), on a print out from a computer or electronically. Please check with your anticoagulation clinic their preferred way of keeping these records.

**12. How do I let the anticoagulant clinic know about my INR blood test result?**

Once you have tested your INR you need let the anticoagulant clinic know this result. The way that you inform the clinic of this result will depend on the practice at your clinic. Usually, clinics receive results by telephone, but some may use fax, email or other electronic methods. Again, please check with your anticoagulation clinic how they would like to receive your INR results.

It is essential that you let your anticoagulation practitioner know the results of your INR test, even if your INR test is within the correct range.

**CAST YOUR VOTE…**

Why do you think it is important to let the clinic know your result even it is within the correct range?

Select any option that you think applies. You may select more than one option

a) It gives me, and my anticoagulation practitioner, a complete picture of my INR control

b) It gives me the opportunity to discuss any anticoagulant-related concerns with my anticoagulation practitioner

c) It lets my GP know that my INR is being monitored which allows him / her to issue me a prescription for warfarin

*(All responses are correct)*

**13. Can I adjust the dose of oral anticoagulant myself? (Self-management)**

If you are self-testing you should not alter the dose of warfarin yourself, but seek advice from your anticoagulation practitioner. However, after a period time of self-testing, some people may feel confident enough to adjust their dose of warfarin**.**  As discussed in an earlier topic, this is called self-management. Studies have shown that the INR of those who are self-managing their oral anticoagulation is the therapeutic range more often than those who are self-testing.

However, not all anticoagulant clinics support self-management, and you will need to check with your clinic. If they do support self-management, you and your practitioner will need to feel confident that you will be able to adjust your warfarin dose, with the support of dosing guidance from the anticoagulant clinic.

**DEMONSTRATE YOUR UNDERSTANDING**

Please try to answer the questions at the start of this topic again