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| **Module** | Anticoagulation management: patient’s guide to self-monitoring |
| **Topic** | An introduction to monitoring your own anticoagulation |
| **Audience** | Self-monitoring warfarin patient |
| **Content** | Core content |
| **Version** | 7 |

**1. What should I learn from this topic?**

The aim of this topic is to give you a greater understanding of patient self-monitoring of oral anticoagulation (warfarin treatment).

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

1. Describe self-monitoring of oral anticoagulation
2. Describe the differences between self-testing and self-management
3. Summarise the benefits of self-monitoring
4. Assess if self-monitoring may be right for you

**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.

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

i) It is when I visit the anticoagulant clinic and I suggest the dose of warfarin I think I should take

**ii) It is when I measure my INR from a small drop of blood at a location convenient to me, using a device called a coagulometer**

iii) It is when I check myself carefully for signs of bruising or bleeding from warfarin

b) If I am self-testing my oral anticoagulation I can alter the dose of warfarin myself?

True / **False**

c) If I am self-managing my oral anticoagulation I can alter the dose of warfarin myself?

**True** / False

d) Below is a list of possible benefits that might come from self-monitoring of oral anticoagulation. Please select ALL of those that are true.

**Less risk of having a blood clot**

**Less risk of having a minor bleed**

Less tiredness

**Provide reassurance that the INR is in therapeutic range**

**May be more convenient**

**Reduction in daily ‘hassles’**

**Greater confidence in tackling health-related problems**

**3. What is patient self-monitoring of oral anticoagulation?**

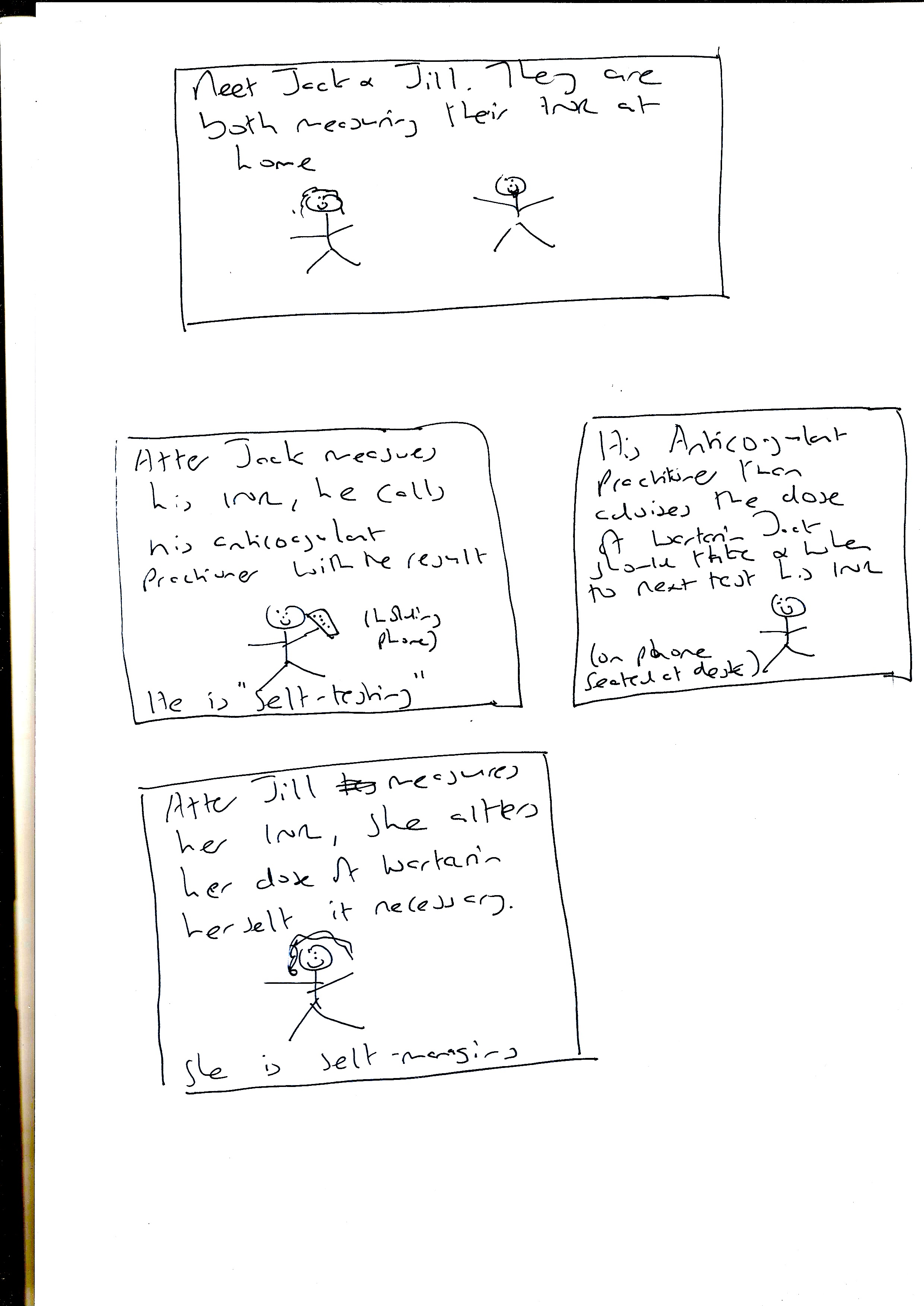
Those treated with insulin for diabetes have been testing their blood glucose at home for some years. Their dose of insulin is then adjusted based on this test result. In a similar way, home monitoring of the INR is now possible.

**Point-of-care testing (POCT)** devices known as **coagulometers** are used to measure these INR from a small drop of blood from the finger (‘fingerprick’).

These POCT devices are often used in anticoagulant clinics. However, they can also be used for **testing your INR at home**, or at another location convenient to you. This is known as patient self-monitoring of oral anticoagulation. People are monitoring their own INR in many countries around the world, including the UK.

If you would like to know a little bit more about where people are monitoring their own INR, please click here *[ to extra content]*

Therefore, instead of visiting your anticoagulant clinic for an INR blood test, it is possible for you to measure your INR on a coagulometer at a location convenient to you. After measuring your INR, you will then either seek dosing advice from a healthcare professional **(patient self-testing).** Alternatively, you can decide on your dose of warfarin based on personal experience, and supported by written or computerised guidance **(patient self-management).** These ways of managing your oral anticoagulation are illustrated in the following short animation.



In summary:

**Patient self-monitoring.** This is an all-embracing term, suggesting that you measure your INR with a POCT device. When self-monitoring, you can then either self-test or self-manage.

**Patient self-testing (PST).** You measure your own INR, but a healthcare professional will advise you on the dose of warfarin to take.

**Patient self-management (PSM)**. You measure your INR and then interpret the result, altering your warfarin dose as necessary.

**4. Is patient self-monitoring of oral anticoagulation safe?**

In a word, **‘yes’**

Published evidence tells us that self-monitoring your oral anticoagulation is at least as safe as having your INR blood test monitored in an anticoagulant clinic (‘conventional care’). The INR control of those who were self-monitoring was at least as good as, if not better than, the INRs of those attending an anticoagulant clinic. Those who were self-monitoring their INR were less likely to have a blood clot, and also less likely to suffer from a minor bleed.

If you would like to know a little bit more about the studies that have looked at the safety of patient self-monitoring of oral anticoagulation, please take a look at this *[ to extra content]*

**5. Are there other benefits of patient self-monitoring of oral anticoagulation?**

There may be other advantages in self-monitoring your INR in addition to these clinical benefits.

Published studiesare few but do suggest the following benefits:

1. **Reduction in “daily hassles”.** These “daily hassles” were minor, stressful events
2. **Greater confidence in tackling healthcare-related problems.** This is known as improved self-efficacy.

More information on the benefits of self-monitoring is available from unpublished work:

* Greater **convenience.** For some people, self-monitoring gives them the freedom to travel or spend lengthy periods overseas. For others it simply frees them from attending the anticoagulant clinic.
* The **reassurance** of being able to check your INR when concerned
* The ability to be able to take more **control** over their health.
* As a welcome alternative taking a sample of blood from the arm (venous sample). For some people, a venous sample is not possible or desirable.

**ACTIVITY 1**

Now take a look at this video where someone who is self-monitoring her oral anticoagulation describes her experience.

*http://www.youtube.com/watch?v=Hu553aCUh7o&list=PLkKsqqBKDBzDV\_\_r6LLUBNkvfeXVgPbZ4*

**6. Is self-monitoring suitable for me?**

Self-monitoring may be suitable for you if you:

1. Are on **long-term warfarin treatment**
2. Want to **play a more active role** in managing your health
3. Are **able to perform a fingerprick test** (or have someone – a carer, relative or friend – who would be able to do this for you)
4. **Prefer not to travel to, or find it difficult to attend, the anticoagulant clinic**
5. Have a **GP and anticoagulation practitioner who are happy to support you** self-testing

You may have to buy the coagulometer and, in some areas, the INR testing strips used with the coagulometer are not available on prescription. The coagulometer currently costs £299.

In September 2014, The National Institute for Health and Care Excellence (NICE – link to www.nice.org.uk/guidance/dg14) recommended home testing of INR as a way of monitoring warfarin treatment.

It is important that you check the current funding arrangements near you with your anticoagulation professional and GP .

**7. Sources of additional information**

After reading this topic, you may have some questions about self-monitoring of oral anticoagulation. Your anticoagulation practitioner or GP should be able to answer your questions. There are also some excellent on-line resources for those considering self-monitoring, a few of which are listed below.

**Anticoagulation Europe (ACE)**

[*http://www.anticoagulationeurope.org]*

ACE is a UK registered charity that provides information, education and support to those taking anticoagulation. One of its key activities is supporting people to take a more active part in their own healthcare, including self-monitoring.

**Atrial Fibrillation Association (AFA)**

*[http://www.atrialfibrillation.org.uk]*

AFA is an international charity that provides information, support and access to established, new or innovative treatments for Atrial Fibrillation (AF), including self-monitoring of oral anticoagulation.

**CAST YOUR VOTE**

This topic has given you an introduction to self-monitoring of oral anticoagulation. Do you think that it is a good option for you? Please select the response that best represents how you feel.

**Options:**

1. This is an excellent option for me (feedback -> Great! Now read on)

2. This seems good but I need to find out a little bit more about it (feedback -> That is OK. Carry on reading this module to find out more or ask your anticoagulation practitioner)

3. This is not a good option for me (feedback -> That is OK. Self-monitoring is not for everyone)

**DEMONSTRATE MY UNDERSTANDING**

Finally, please try to answer the questions at the start of this topic again