



How-to guide: Running a cost-effective anticoagulation clinic

Effective anticoagulation service solutions

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Anticoagulation, or INR, clinics provide a monitoring service for patients on warfarin and other oral anticoagulants. Setting-up and running an anticoagulation clinic has major staffing and workload implications.¹

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In this guide, we look at some of the key areas to consider when setting-up an anticoagulation clinic



Setting-up an anticoagulation clinic

Staff and location

Each area/organisation has its own approach to INR monitoring. Some organisations provide hospital, GP and home-patient services, with separate clinic hours based on monitoring situation (i.e. stabilisation vs stable). Others utilise local pharmacies to carry out patient monitoring. In-hospital and community clinics are usually staffed by nurses and specially trained clinical pharmacists.

Staff competency and training

Clinicians involved in anticoagulation service delivery must be competent in the following areas:

Obtaining adequate blood samples

Determination of INR results

Interpretation and dose adjustment
based on INR results

Recognising where support is needed

Understanding the range of possible
problems when interpreting INR results

Giving dosage instructions, information,
and advice to patients

Identifying patient need

The number of patients for the clinic can be estimated by identifying individuals already receiving anticoagulation treatment.

New patients will be referred to an anticoagulation clinic within the first six weeks of prescription. The number of new patients should be estimated on local statistics.

Some patients may prefer non-clinic monitoring, such as self-testing at home. There have been several studies and initiatives that looked at the benefits and reliability of this approach. However, a recent patient-focused study found a significant number of patients decline self-monitoring/self-testing, or discontinue use shortly after initiation.² This may be due to several factors such as patient age and proximity to clinic.*

*The average age of someone on warfarin in 72³ and in some areas 87.6% of patients travel less than 5 miles to their nearest clinic.³

Establishing an anticoagulation clinic

Clinic costs have many variables including staffing, location, accreditation and ongoing competency training.

For anticoagulation clinics, the repeat monitoring needs of patients can place a high demand on services. However, anticoagulation clinics can provide a source of income in addition to providing vital services to the local population.

‘A properly run anticoagulation clinic can make a significant contribution to practice income’⁴

North West Clinical Senates

All anticoagulation services should follow their local recommendations, and ensure that there are robust clinical governance, risk assessment and quality assurance mechanisms in place.⁴



Equipment

Choosing the appropriate equipment is essential. Initial costs include coagulation systems which can be purchased in isolation, or as full-service products which include computerised decision support software (CDSS).

CDSS supports clinical decision making and can improve the efficiency and quality of anticoagulation control to increase patients time therapeutic range (TTR).¹ This in turn can reduce the number of patient visits to the clinic without compromising quality of care. Reducing the number of clinic visits can alleviate some of the pressure on clinics including time, staffing and ongoing costs.

Reagents and other consumables represent ongoing clinic costs, so it is important to consider long-term business cases when identifying suitable clinic equipment. Specialist haemostasis testing companies such as Hart Biologicals, based in the UK, offer ongoing maintenance of their products and equipment.

Hart Bio provide high-quality support and advice on all their products.

They also have a robust distribution and supply chain, which is an important consideration when identifying equipment, reagent, and consumables providers.



The highest costs to clinics, other than staff, are reagents and consumables used in INR testing

Wet testing vs dry strip testing

Wet testing and dry strip testing both have a place in INR monitoring. Recognising the appropriate test approach can make all the difference to clinic set-up and improve cost efficiencies.

Wet testing methods

Wet tests provide lab-quality results quickly and easily. Hart Biologicals MC1, Thrombi-Stat, provides a cost-effective solution to in-clinic testing.

Wet-test methods, such as the MCR, also afford users the ability to calibrate on-site, a feature not currently available with dry strip testing systems.

Delivering rapid, reliable results at £0.30 per test.

Dry testing methods

Dry strip testing devices can be utilised in community and domiciliary care settings where the additional cost per test (£3+) is offset and justified by the devices' portability.

To see how much your anticoagulation clinic would cost, use Hart Biological's online calculator by visiting:

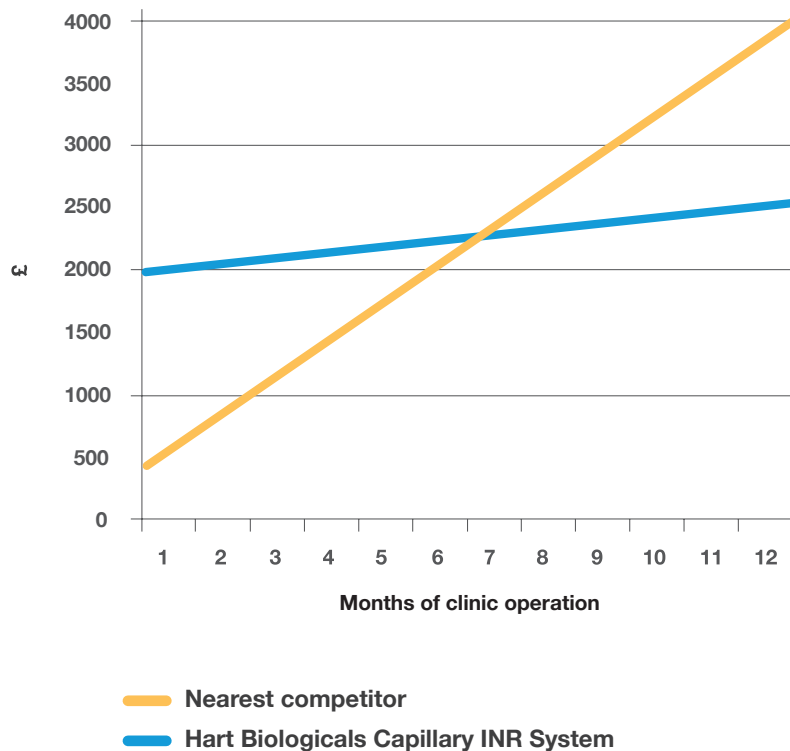
hartbio.co.uk

In-clinic costs over time

Using a Thrombi-Stat MC1 in clinic vs dry strip testing has proven to be more cost effective long-term. The initial cost of purchasing the device is £2,065.36 with the **Manchester Capillary (MC) wet test reagent costing as little as £0.30 per test.**

Dry strip testing may seem an attractive option but with each test costing around £3 the ongoing in-clinic costs can escalate quickly.

In the graph you can see that Hart Biological's MC system (Thrombi-Stat) provides sustainable cost-efficiencies over 12 months.



* Example costs based on Thrombi-Stat MC1 (£0.30p per test) and nearest competitor (£3 per test), in a clinic running 100 tests per month

Thrombi-Stat MC1 provides a long-term cost-saving solution.

MC1 data is compatible with
dosing software including
HiruMed RAID and both
versions of DAWN and INRStar.

**You could save
£30,000 in the
first year***

with potential cost-saving
increasing year on year.

* Based on in-clinic wet test methods (Thrombi-Stat), vs portable dry-strip testing, with 500 patients receiving twice-monthly testing in the first year (including purchase costs).

To discuss the potential
cost-savings in your market
contact a member of our
team via our [website](#) or via
the details on the final page.



Thrombi-Stat provides a solution-orientated approach to monitoring INR from a capillary whole-blood sample

Four reasons why Thrombi-Stat should be your first-choice solution for in-clinic INR testing:

1. It's cost-effective

Our device delivers **90% cost savings** compared to our competitors. The cost of our Thrombi-Stat wet test method is **just £0.30 per test** compared to £3+ for dry strip testing.

2. It delivers rapid results

Our test results have a quick turnaround of **under 2 minutes** for single-sample tests including analysis.

When you purchase one of our instruments, you not only receive a **high-quality product**, but the support services of the entire Hart Biologicals team, who are available to provide **expert advice**, and ongoing maintenance and calibration **support**.

3. It produces precise results backed by expert testing

Our device analyses whole-blood capillary samples, citrated whole-blood, and plasma, enabling the system to be used for INR capillary measurements with outpatients and in primary care clinics. Our in-clinic testing is comparable to laboratory testing and can be calibrated on site, **giving you peace of mind every time.**

4. It generates quality results with just one click

Our device provides near-patient INR testing with rapid results. It is supported by a NEQAS quality assurance scheme, committing us to the **highest standards in the industry.**

If you're interested in running a cost-effective anticoagulation clinic, get in touch to learn more about Thrombi-Stat and how we can support you.

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 Hart Biologicals Limited

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www.hartbio.co.uk

References

1. http://www.nwccsenate.nhs.uk/files/9414/8665/3515/Setting_up_an_anti-coag_clinic.pdf 2. Heneghan C, Perera R, Ward A, et al. (2007) Assessing differential attrition in clinical trials: self-monitoring of oral anticoagulation and type II diabetes. BMC Med Res Methodol 7:18 3. Based on Leeds 2014 where in a survey of 165 ACM patients <https://www.leedscg.nhs.uk/content/uploads/2014/08/Anticoagulation-engagement-report-April-2014.pdf> 4. <https://thrombosisuk.org/downloads/stroke-af-anticoag-082016.pdf>