**HCP-facing course – learning outcomes**

**Overall aim**

To provide healthcare professionals the knowledge, confidence and skills to make safe, patient-centered clinical decisions to safely manage oral anticoagulant therapy.

**Learning objectives**

After completing the course, learners should be able to:

1. Summarise the benefits of anticoagulation in stroke prevention in those with atrial fibrillation
2. Summarise the indications for anticoagulant therapy
3. Describe how anticoagulant agents – vitamin K antagonists, heparin, antiplatelet agents and the new oral anticoagulants (NOACs) – affect blood clotting
4. Describe how the effect of warfarin is monitored
5. Relate how the pharmacokinetics and pharmacodymanic principles of vitamin K antagonists are used to achieve and maintain anticoagulation control.
6. Apply an understanding of the effects of other medication and dietary & lifestyle changes to response to treatment
7. Describe the side effect profile of warfarin
8. Demonstrate competence in dosing patients, in both the initiation of therapy and in maintenance therapy
9. Describe the advantages of computerised decision support systems (CDSS) for warfarin dose management and their limitations
10. Demonstrate competence in using a CDSS to manage warfarin therapy
11. Demonstrate competence in a patient-centred approach to educating those taking vitamin K antagonists
12. Discuss the advantages and disadvantages of the different models of anticoagulation management
13. Describe the operational processes for running an anticoagulation monitoring and stroke prevention clinic
14. Describe the requirements of clinical governance for anticoagulation management, including the application of audit tools with performance indicators
15. Demonstrate the ability to use a near-patient testing coagulometer
16. Describe the lifestyle modifications that reduce the risk of stroke

**How is success measured?**

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| **Element** | **Success criteria** | **Assessment method** |
| **Knowledge** | | |
| 1. Summarise the benefits of anticoagulation in stroke prevention in those with atrial fibrillation | End of topic quiz - overall score of at least 70%  Reflective exercise (‘Cast your vote’) | On-line (automatic score generation) |
| Summarise the indications for anticoagulant therapy | End of topic quiz - overall score of at least 70%  Response to off-line activities (‘What happens near me’) | On-line (automatic score generation)  Evidence of engagement in activity |
| Describe how anticoagulant agents affect blood clotting | End of topic quiz - overall score of at least 70% | On-line (automatic score generation) |
| Describe how the effect of warfarin is monitored | End of topic quiz - overall score of at least 70%  Response to off-line activities (‘What happens near me’) | On-line (automatic score generation)  Evidence of engagement in activity |
| Relate how pharmacokinetics and pharmacodymanic principles are used to achieve and maintain anticoagulation control. | End of topic quiz - overall score of at least 70% | On-line (automatic score generation) |
| Apply an understanding of the effects of other medication and dietary & lifestyle changes to response to treatment | End of topic quiz - overall score of at least 70% | On-line (automatic score generation) |
| Describe the side effect profile of warfarin | End of topic quiz - overall score of at least 70%  Embedded mini-quiz x 2 | On-line (automatic score generation) |

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| Describe the advantages of computerised decision support systems (CDSS) for warfarin dose management and their limitations | End of topic quiz - overall score of at least 70% | On-line (automatic score generation) |
| Discuss the advantages and disadvantages of the different models of anticoagulation management | Reflective exercise x 2 | Evidence of engagement in activity |
| Describe the operational processes for running an anticoagulation monitoring and stroke prevention clinic | Reflective exercise x 2  Response to off-line activities (‘What happens near me’) | Evidence of engagement in activity  (? Use responses to exercises to generate clinic information sheet) |
| Describe the requirements of clinical governance for anticoagulation management | Response to off-line activities x 3 (‘What happens near me’) | Evidence of engagement in activity |
| Describe the lifestyle modifications that reduce the risk of stroke. | tbc |  |
| **Skills** | | |
| Demonstrate competence in dosing patients | Dosing exercises (within topic 8)  Structured case studies (end of course assessment) | On-line (automatic score generation) |
| Demonstrate competence in using a CDSS to manage warfarin therapy | Demonstrate competence | Local assessment (but likely to be able to assess remotely) |
| Demonstrate the ability to use a near-patient testing coagulometer | Demonstrate ability | Local assessment |
| Demonstrate competence in a patient-centered approach to educating those taking vitamin K antagonists. | Demonstrate ability / Self-reflection using included tool | Local (peer) assessment / self-assessment |