ROYAL COLLEGE
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Competency Portfolio for the Diploma in Adult Thrombosis Medicine

Guide for Working Group/AFC-Diploma Subcommittee, Educators, and Candidates

APRIL 2016
VERSION 1.0

DEFINITION

Adult Thrombosis Medicine is that area of enhanced competence within medicine concerned with the investigation, diagnosis, and medical management of patients with venous and arterial thromboembolic disease in a variety of clinical contexts.

GOALS

Upon completion of training, a diplomate is expected to function as a competent specialist in Adult Thrombosis Medicine, capable of an enhanced practice in this area of focused competence (AFC), within the scope of Internal Medicine or Emergency Medicine. The AFC trainee must acquire a working knowledge of the theoretical basis of the discipline, including its foundations in science and research, as it applies to medical practice.

The discipline of Adult Thrombosis Medicine includes responsibility for

- evaluation and management of patients with venous thromboembolism in the ambulatory clinic setting;
- evaluation and management of patients with venous thromboembolism in the inpatient setting;
- assessment of a patient's thromboembolic risk;
- management of periprocedural anticoagulation for patients who are on antithrombotic therapy;
- provision of consultation to other specialists regarding the risks and benefits of combination antiplatelet and anticoagulant therapies;
- engagement with members of other health care professions, administrators, and institutional leadership to improve care for patients with venous thromboembolism; and
- advancement of the discipline of Adult Thrombosis Medicine through scholarship.

Note: All markers must be signed off by supervisor prior to adding to portfolio.

Note: All submitted cases or clinical material must be de-identified to preserve patient privacy. This requires the removal of key identifiers, including but not limited to name, birth date, date of consultation, and location (e.g., hospital/clinic, city). In some cases, even without these identifiers, a patient could be identified by other information included in the case or clinical material (e.g., if the patient has a very rare condition, or lives in a remote area with a limited population size). In these instances de-identification may not be sufficient to ensure patient

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privacy. In such exceptional cases it would be advisable to obtain patient consent for the submission.

Adult Thrombosis Medicine diplomates must demonstrate the requisite knowledge, skills, and behaviours for effective patient-centred care and service to a diverse population. In all aspects of specialist practice, the diplomate must be able to address ethical issues and issues of gender, sexual orientation, age, culture, beliefs, and ethnicity in a professional manner.

At the completion of training, the AFC trainee must demonstrate evidence of acquisition of the competencies listed on the following pages.

In the view of the AFC Program Committee, this candidate has acquired the competencies of the diploma program as prescribed in the *Competency Portfolio* and is competent to practise as a diplomate.

☐ **YES** ☐ **NO**

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COMMENTS

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1. Evaluation and management of patients with venous thromboembolism in the ambulatory clinic setting		
Milestones	**Standards of Assessment**	**Documents to be Submitted**
1.1. Assess, diagnose, and initiate management of patients with suspected and confirmed venous thromboembolism (VTE)	(a) Each letter must include the patient's history and physical findings, and must demonstrate the appropriate selection and interpretation of diagnostic imaging, lab tests and ancillary testing, use of clinical prediction rules, synthesis of clinical information, and the final recommendation, including the choice of appropriate initial anticoagulant with rationale. The case mix must include at least one (1) deep venous thrombosis (DVT) and one (1) pulmonary embolus (PE), and must include at least one (1) of the following features: • recurrent thrombosis • atypical site DVT • isolated calf DVT • subsegmental PE • incidental PE • catheter-related thrombosis	(i) Three (3) consultation letters
	(b) Each mini-CEX must document satisfactory patient counselling to include a discussion of: medication interactions and risks, compliance, signs of recurrent thrombosis, lifestyle implications, and information about anticoagulant therapy. The assessment must document patient-appropriate language, an opportunity for patient check back, and validation of understanding.	(ii) Three (3) mini-clinical evaluation exercise (mini-CEX) assessments

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1.2. Monitor and adjust therapy of a patient with VTE	(a) Each letter must document an assessment of the response to therapy, including but not limited to compliance and complications, and duration of therapy, with rationale and plan for post-treatment imaging. The case mix must include at least one (1) of each of the following patient issues: • patient with an IVC filter • catheter-related thrombosis • use of direct oral anticoagulants • erratic international normalized ratio (INR) • bleeding • inadequate response to therapy	(i) Six (6) followup letters
	(b) Each mini-CEX must document satisfactory patient counselling of a patient with an unprovoked VTE, which must include an assessment of the patient's values and preferences with regard to therapy and provision of appropriate medical information relating to ongoing therapy. The assessment must document use of patient-appropriate language, an opportunity for patient check back, and validation of understanding.	(ii) Two (2) mini-CEX assessments

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<table>
<tr>
<td rowspan="2">1.3. Identify and manage the following chronic complications of VTE
• post-thrombotic syndrome (PTS)
• chronic thromboembolic pulmonary hypertension (CTEPH)</td>
<td>(a) The submission must document the clinical assessment, including the use of validated PTS scales, the formulation of initial plan, and longitudinal followup.</td>
<td>(i) One (1) case summary</td>
</tr>
<tr>
<td>(b) The submission must document the clinical features and appropriate investigations to identify CTEPH, and a management and referral plan for a patient with suspected CTEPH.</td>
<td>(ii) One (1) case summary, real or simulated</td>
</tr>
<tr>
<td>1.4. Facilitate safe transition of care back to referring or primary physician</td>
<td>Each letter must document the appropriate timing for discontinuation of anticoagulant therapy or followup, and referral back to the patient’s referring or primary physician.
Each letter must include a discussion of secondary prophylaxis and signs and symptoms of recurrent thrombosis. For female patients, the letter must include a consideration of the issues surrounding future pregnancies and hormonal therapy use, if appropriate.
The case mix must include one (1) each of a patient with an unprovoked DVT and a woman of reproductive age.</td>
<td>Two (2) discharge letters back to referring or primary physician</td>
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<table>
<tr>
<td>1.5. Assess and manage VTE in specific populations</td>
<td>Each case summary must document the selection and interpretation of appropriate diagnostic testing, and the choice of anticoagulant therapy, risks of that treatment, and documentation of plans for monitoring, followup, and liaising with referring or primary physician.

The case mix must include at least one (1) each of the following:
• pregnancy, including both antepartum and peripartum care
• cancer-associated thrombosis
• chronic kidney disease (CKD)
• extreme body weight
• antiphospholipid syndrome</td>
<td>Five (5) case summaries, real or simulated</td>
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2. Evaluation and management of patients with venous thromboembolism in the inpatient setting		
Milestones	**Standards of Assessment**	**Documents to be Submitted**
2.1. Assess patients with • iliofemoral DVT • submassive pulmonary embolism (PE) • massive PE and recommend treatment	Each submission must include pertinent clinical details, a summary of relevant investigations, the risks and benefits of all available treatments, and the rationale for final decision. The case mix must include one (1) of each of iliofemoral DVT, submassive PE, and massive PE.	Three (3) case summaries, real or simulated
2.2. Assess and manage therapeutic anticoagulation in the setting of labour and delivery	The submission must include pertinent clinical details; a summary of relevant investigations; the timing and nature of delivery; the rationale for management, monitoring and resumption of anticoagulation, and consideration of other interventions, such as IVC filter; and a discussion of risks to the fetus.	One (1) case summary, real or simulated

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2.3. Assess and manage catastrophic thrombotic syndrome	The submission must include pertinent clinical details; a summary of relevant investigations; a summary of anticoagulation treatments to date; the rationale for further anticoagulant choice; the plan for monitoring, duration, and intensity of therapy; and referral for non-anticoagulant therapeutic options. The case must represent one of the following patient scenarios: catastrophic antiphospholipid syndrome (APS), refractory cancer-associated thrombosis, thrombosis in disseminated intravascular coagulation (DIC), or thrombosis in thrombotic thrombocytopenic purpura (TTP).	One (1) case summary, real or simulated
2.4. Assess and recommend management for the patient with complications of antithrombotic therapy	(a) Each submission must document pertinent clinical features, an assessment of thrombosis risk, a summary of relevant laboratory testing, the management plan for reversal and resumption of anticoagulant, and consideration of other therapeutic interventions. Each case must describe a patient with major bleeding who has a need for ongoing coagulation. One (1) submission must be for a patient on warfarin and one (1) for a patient on direct oral anticoagulants.	(i) Two (2) case summaries

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	(b) The submission must document pertinent clinical features and laboratory testing leading to the diagnosis of heparin-induced thrombocytopenia (HIT); the relevant investigations; and the management plan, including choice and duration of anticoagulation, and monitoring. The case must describe a patient with HIT and concurrent thrombosis.	(ii) One (1) case summary, real or simulated

3. Assessment of a patient's thromboembolic risk

Milestones	**Standards of Assessment**	**Documents to be Submitted**
3.1. Interpret the results of thrombophilia testing	The questions must assess the following: • limitations of measurement and testing • factors interfering with testing, including medications, pregnancy, nephrotic syndrome, and timing of acute thrombotic event • incidence of false positives and need for confirmatory testing	Structured oral exam, including questions asked and supervisor sign off of satisfactory completion

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3.2. Evaluate a patient referred in the outpatient setting for risk of thrombosis and provide an opinion regarding investigation and management	(a) Each letter must outline the reason for the increased risk, and the rationale for and decision about a management plan. The case mix must include • a patient with cancer-associated thrombosis • a pregnant patient • one of the following patient scenarios: - family history of VTE - referral for consideration of hormonal therapy - other systemic disorders	(i) Three (3) consultation letters
	(b) The mini-CEX must document satisfactory patient counselling to include a discussion of level of patient's thrombotic risk, risk of proposed intervention, signs and symptoms of VTE, and need to seek medical attention. The assessment must document use of patient-appropriate language, an opportunity for patient check back, and validation of understanding.	(ii) One (1) mini-CEX assessment

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3.3. Assess thromboembolic risk in hospitalized patients and recommend prophylaxis as appropriate	Each submission must outline the increased risk and the rationale for and decision about management plan. The range of cases must include one (1) each of the following three (3) patient scenarios: • patient at high risk for bleeding • prophylaxis extended into the outpatient setting • renal dysfunction and one (1) of the following patient scenarios: • recent surgery • immobility • extremes of weight • trauma • active bleeding	Four (4) consultation letters or case summaries

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4. Management of periprocedural anticoagulation for patients who are on antithrombotic therapy		
Milestones	**Standards of Assessment**	**Documents to be Submitted**
4.1. Assess and provide an initial periprocedural management plan	(a) Each letter must outline the pertinent clinical features and the periprocedural plan. The cases submitted must include at least one (1) of each of the following: • mechanical heart valve • acute VTE within previous three (3) months • atrial fibrillation on a direct acting oral anticoagulant At least one (1) case must include moderate or severe renal dysfunction.	(i) Three (3) consultation letters
	(b) The logbook must document the type of anticoagulant, type of procedure, bleeding risk, thrombotic risk, and the presence of relevant comorbid conditions. The logbook must demonstrate a range of cases and anticoagulant options.	(ii) Adult Thrombosis Medicine logbook
4.2. Reassess and modify periprocedural management plans as needed	The submission must include the original indication for anticoagulation, the initial plan, the rationale for the change, and further recommendations.	One (1) case summary or consultation letter

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5. Provision of consultation to other specialists regarding the risks and benefits of combination antiplatelet and anticoagulant therapies		
Milestones	**Standards of Assessment**	**Documents to be Submitted**
5.1. Provide expert opinion on the risk of combination antiplatelet and anticoagulant therapies	The consultation letter must include the reason for referral, the relevant medical and medication history, an assessment of the rationale for and risk of combination therapy, and the recommendation synthesizing the above elements. The submission must be clear and concise, and must approach the recommendation in a logical manner.	One (1) consultation letter

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6. Engagement with members of other health care professions, administrators, and institutional leadership to improve care for patients with venous thromboembolism

Milestones	Standards of Assessment	Documents to be Submitted
6.1. Apply Adult Thrombosis Medicine expertise to participate in quality initiatives at the institutional level	The submission must demonstrate an awareness of current practice standards, institutional practices, and contribution of thrombosis expertise. The submission must be one (1) of the following: • a reflective critique of an adverse patient event, including a brief summary and strategy to address the quality issues arising; this may take the form of a written case summary and critique, or a presentation at morbidity and mortality (M&M) rounds • a revision of, or newly written, standard operating procedure (SOP) • a revision of, or newly written, set of standard orders	One (1) case report, reflective critique, M&M rounds presentation, or revised or newly developed SOP or standard order set

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7. Advancement of the discipline of Adult Thrombosis Medicine through scholarship		
Milestones	**Standards of Assessment**	**Documents to be Submitted**
7.1. Teach topics relevant to Adult Thrombosis Medicine to a variety of audiences	(a) The presentations must demonstrate clarity, accuracy, and appropriate depth of information for the audience. There must be at least two (2) different topics. The target audiences must include at least two (2) of the following groups: residents, medical students, other health care professionals, members of the public, practising physicians	(i) Slides from two (2) presentations
	(b) The list must document the teaching activity, date, topic, and audience. The list must demonstrate a range of topics and sustained engagement in teaching during the period of training.	(ii) A list of teaching activities
	(c) The collated teaching evaluations must demonstrate learner satisfaction with the activity	(iii) Collated evaluations of two (2) teaching activities

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7.2. Participate in a scholarly project relevant to Adult Thrombosis Medicine	The submission must be one (1) of the following: • an abstract, poster presentation, thesis, or manuscript • a research proposal or grant application • a learning module or curriculum or other educational innovation • a quality assurance project • a summary of the literature on a topic suitable for publication or as background to a research proposal or policy document The document must clearly indicate the trainee's role in the project.	Evidence of participation in a scholarly project

Drafted – Adult Thrombosis Medicine AFC working group – 2013
Approved – Specialty Standards Review Committee – December 2015

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