



COUNCIL FOR THE PROFESSIONS  
COMPLEMENTARY TO MEDICINE

Benchmarking document

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Clinical Perfusion

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**The Council for the Professions Complementary to Medicine is issuing this Benchmarking Document for Clinical Perfusion in the performance of its functions as defined by Article 27 of the Health Care Professions Act, Chapter 464 of the Laws of Malta and in terms of Article 28 Health Care Professions Act, Chapter 464 of the Laws of Malta and Subsidiary Legislation 454.16 Professions Complimentary to Medicine (Licence to Practice) Regulations.**

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## **Introduction**

This document outlines Malta's Council for the Professions Complementary to Medicine (CPCM) standards of proficiency for Perfusionists. Through this document CPCM is setting the minimum registration requirements for Perfusionists to practice in Malta. These standards are the threshold standards considered necessary to protect members of the public and through which qualified Perfusionists are able to apply for registration in the Perfusionist Register held by the CPCM.

This benchmarking document has been agreed by the CPCM to evaluate and assess applications to be registered as Perfusionists and practise within the jurisdiction of Malta. They also serve as guidance to the CPCM on how to address substantive differences from these Standards.

## **Description and Scope of Practice**

The Perfusionist shall be in possession of a valid EBCP (European Board of Cardiovascular Perfusion - <https://www.ebcv.eu/>) and/or CCPS (College of Clinical Perfusion Scientists of GB and Ireland - <https://www.scps.org.uk/college/the-college>) certification. Throughout employment as a Perfusionist in Malta, a Perfusionist is to renew his/her professional certification as requested by the CPCM and by either of the aforementioned professional bodies.

## **Occupational Description**

A clinical perfusionist is an academically and clinically qualified, skilled healthcare professional who operates and manages equipment providing extracorporeal circulatory support to the patient. Apart from the technical aspect of the profession, the Perfusionist is also accountable for ensuring safe management of various physiological parameters during such procedures by means of numerous monitoring and analytical equipment.

## **Scope of Practice**

The Clinical Perfusionist shall:

- Provide his/her services to the patient upon prescription of a physician/surgeon. He/she should adopt methods and techniques that promote and safeguard the wellbeing and safety of the patient.
- Supervise and instruct perfusion techniques conducted by perfusion trainees who are following an established course of study.
- Perform cardio-pulmonary bypass with the assistance of another perfusionist/trainee perfusionist.
- Use the appropriate equipment and techniques based on his/her clinical judgement and in line with established protocols and liaise with the rest of the Cardiac Team in order to ensure the health and safety of staff and patient.
- Respect the confidentiality of any restricted information encountered during the course of his/her professional practice.

- Practice collaborative teamwork both intra- and inter- professionally for the benefit of the patient.
- Write protocols for both routine and emergency procedures when required.
- Compile detailed perfusion-related records at specific time intervals during procedures, as established by the protocol. These records should also include an appropriate checklist.
- Perform quality control, troubleshooting, preventive and routine maintenance on all the equipment used. This responsibility is also inclusive to analytical equipment and monitoring devices. Appropriate records are to be kept to this regard.
- Record all perfusion-related incidents, accidents and failure of equipment and report these to the appropriate authority.
- Adjudicate and evaluate perfusion-related equipment and consumables.
- Practice perfusion-related emergency drills on a regular basis.
- Keep abreast with developments in perfusion technology and practice by engaging him/herself in continuing professional development. It is highly recommended that every Clinical Perfusionist carries out Continuing Professional Development.
- Ensure maintenance of perfusion accreditation via clinical and academic exposure as per the recertification policies of the aforementioned professional bodies (EBCP and/or CCPS).

## **Level of Qualification**

Registration with CPCM shall only be granted if a qualified Perfusionist satisfies the following:

- Holds a valid perfusion registration with the EBCP and/or CCPS. CPCM holds the right to enquire directly with the representing professional body on the validity of the certification documents.
- Is to provide a proof of all the clinical and academic exposure since the last submission for recertification. Document is to be endorsed by former superiors and employers. Document is to contain all details normally requested by the representing professional body for recertification purposes. This same document must satisfy the minimum requirements for the subsequent recertification application.

### **The applicant needs to:**

- Provide a detailed transcript of Theoretical and Practical Training and studies in hours associated with the Perfusion Course and authenticated by the Dean/Head of the Accredited Institution.

## **Language Proficiency**

The CPCM requires those applicants who wish to enter the Clinical Perfusion register, to provide proof of language proficiency as defined in Annex A.

## **Evaluation of Application**

On evaluation of the application the Council may choose to do one of the following:

- Grant registration;
- Ask for further clarification when required;
- Ask for the applicant to attend an interview;
- Reject the application if the qualification is not adequate and in line with this benchmark; and
- Be asked to carry out a period of supervised practice or undergo an aptitude test.

## **Minimum Curriculum Requirements**

Benchmarking ensures that the curriculum meets the standards for professional knowledge, skills and attitudes as expected by CPCM and therefore the applicant would be considered fit to practise in Malta.

The CPCM is aware that standards are continuously being updated over time. This document refers to the minimum general subject areas (but not restricted to) that the course needs to offer for the applicant to be successfully considered as a Registered Perfusionist. The course programme once successfully completed will reflect the skills and knowledge base that ensure that an applicant, once registered, is able to work as an independent and autonomous practitioner.

The core modules expected to be covered during the course of studies are to be in line with those defined by EBCP and/or CCPS as per below.

EBCP: <https://www.ebc.eu/login/files/6fdd5b091fb9dd608d26d02a8fd40e46774005df.pdf>

Teaching of basic sciences:

- Anatomy;
- Physiology;
- Pharmacology;
- Pathology;
- Haematology;
- Microbiology;
- Immunology;
- Cardiopulmonary and vascular pathology;
- Embryology;
- Basic anaesthesia;
- Instrumentation/basic electronics;
- Computer studies;
- Materials science;
- Resource-management; and
- Scientific project.

The clinical programme must include:

- Perfusion management;
- Haemofiltration, haemodilution;
- Haemodialysis, hypothermia;
- Autotransfusion;
- Extra-Corporeal Membrane Oxygenation;
- Various extracorporeal circulatory techniques;
- Paediatric perfusions;
- Intra-aortic balloon pump;
- Blood gas analysis;
- Fluid and electrolyte balance;
- Coagulation;
- Blood pressure monitoring;
- Electrocardiogram;
- Cardiac catheterisation;
- Myocardial preservation;
- Organ preservation;
- Ventricular assist devices;
- Transplantation;
- Cardiac surgery;
- Cardiac investigation techniques;
- The basics of anaesthesia;
- Cardiac anaesthesia; and
- Postoperative care.

The course covers:

- Advanced physiology and disease states of organs that are affected by cardiopulmonary bypass (CPB) and thereby relevant to perfusion science.
- Composition and function of blood and implications of transfusion and use of CPB on function.
- Detailed knowledge regarding pathobiology, epidemiology and symptoms of cardiovascular diseases (coronary artery disease, valve and heart disease, paediatric heart disease) and their current treatments.
- Current pre-clinical and clinical research to improve the treatment of patients with cardiovascular disease.
- A theoretical background in quantitative statistics leading to more advanced knowledge on clinical trial design and management.
- Principles and practical aspects of the currently used techniques in adult and paediatric perfusion science.
- The key elements of a well-designed research project. The programme provides a firm theoretical grounding in the basic scientific principles and clinical applications of perfusion science. In conjunction with work-based practical training, this will provide you with the essential skills for employment or a further degree in this field. In addition, you will also be introduced to key practical techniques that you will require as a perfusion scientist.

Other CPCM documents to be considered in conjunction with this Benchmarking Document:

1. Codes of Professional and Ethical Conduct

<https://deputyprimeminister.gov.mt/en/regcounc/cpcm/Documents/Codes%20of%20Professional%20and%20Ethical%20Conduct%20-%20March%202019.pdf>

2. Code of Practice (Clinical Perfusion)

<https://deputyprimeminister.gov.mt/en/regcounc/cpcm/Documents/Clinical%20Perfusion%20Code%20of%20Practice.pdf>

3. Any other document which comes into effect and recognized by the CPCM and the People and Management Manuals.

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This document has been prepared by the CPCM Clinical Perfusion Subcommittee – March

2020

## ANNEXE A

### **Language Proficiency Requirements by The Council for The Professions Complementary to Medicine**

The Council for the Professions Complementary to Medicine requires applicants to meet the Council's level of Proficiency in the English or the Maltese Language.

All professionals seeking registration are requested to present either one of the following:

1. A Maltese language certificate; **OR**
  - (i) An Ordinary Level MATSEC certificate (MQF level 3); OR  
<https://myexams.gov.mt/matsec-examinations/>
  - (ii) An Advanced/Intermediate Level MATSEC certificate (MQF level 4); OR  
<https://myexams.gov.mt/matsec-examinations/>
  - (iii) A Medical Maltese Proficiency Certificate.  
<https://www.um.edu.mt/arts/malti/korsijiet/medicalmaltesecourse>
2. The applicant can provide evidence that his/her professional qualification(s) (on the basis of which he/she is applying for registration) was/were acquired through the medium of English or Maltese and that practice placements in that/those qualification(s) were undertaken and supervised through the medium of English or Maltese; **OR**

3. The applicant can provide evidence that s/he has **lived in and practised** his/her profession through the medium of English or Maltese in a country that has English or Maltese recognised as the official language of that country for a period of **not less than 2 years in the past five-year period; OR**
4. Any other proof of English or Maltese language Proficiency.

Additionally, should the applicant choose to opt for other forms of proving language proficiency, the applicant can opt for either one of the following Secure English Language Tests.

Should the applicant opt for this, the below is the list of Examining Boards recognized by the Council and the minimum required standards accepted by the Council in terms of the table below (or equivalent);

<b>Examining Board</b>	<b>TOEFL Internet-Based (iBT)</b>	<b>IELTS (Academic)</b>	<b>Cambridge</b>	<b>Occupational English Test (OET)</b>
<b>Required Level</b>	95	6.5	Advanced Certificate	B
<b>Remarks</b>	A writing score of at least 24 is required.	Required with a minimum of 6.0 in all elements.	A pass at a grade C or better is required.	A grade B or better is required in all components.

Any other Secure English Language Tests which are equivalent to those mentioned in the table above will also be considered.