



BCSLs “Under the Microscope” Enewsletter, February 2023

Clinical Biochemist or Clinical Chemist- What’s in a name?

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*What's in a name? That which we call a rose; by any other name would smell as sweet;
— William Shakespeare, Romeo and Juliet*

Clinical biochemistry/ chemistry is a highly specialized discipline of laboratory medicine that utilizes a wide range of analytical techniques in the biochemical investigation of body fluids, such as blood, urine, and cerebrospinal fluid, to aid in the diagnosis, treatment, and management of medical conditions. Clinical Biochemists, or Clinical Chemists, are PhD clinical scientists with specialized post-doctoral training in this discipline. The title of clinical biochemist is preferred in Canada, Australia, New Zealand, and the United Kingdom, whereas clinical chemist is favoured in the United States.

To practice in Canada, clinical biochemists are certified by the Canadian Academy of Clinical Biochemistry (CACB) and/or the American Board of Clinical Chemistry (ABCC). To be eligible for certification, the candidate needs to meet strict educational requirements, acquire professional experience, and pass a comprehensive written and oral examination. An average of 7 fellows completes one of the six Canadian training programs annually. Once certified, continuing professional competence is ensured through participation in the Maintenance of Competence program offered by the CACB. Certification may be withdrawn for breach of ethics, failing to maintain competence, failure to pay professional fees, or any violation of the professional standards required by the Academy.

Clinical biochemists have knowledge and expertise in laboratory testing as well as a thorough understanding of medical concepts and clinical practice guidelines. They have experience in developing, validating and implementing new methods in compliance with regulatory



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requirements and medical laboratory guidelines. They work in healthcare as consultants, educators, laboratory and discipline directors, and researchers. Their primary role is as an advocate for the patient. By assisting healthcare providers with appropriate use of laboratory testing and correct interpretation of laboratory results, and by supporting the laboratory in the production of quality results, clinical biochemists help to ensure patient safety. In consultation with clinical colleagues, clinical biochemists support the development, implementation and monitoring of testing algorithms, appropriate testing turnaround times, practice guidelines and care pathways both locally and internationally. Clinical biochemists collaborate with medical laboratory technologists and medical laboratory assistants in the development of best practices in collection, analysis and reporting of patient results, and support development and maintenance of laboratory quality assurance programs.

Clinical biochemists are valuable members of the clinical team, helping to reduce medical errors and medical costs, while improving patient outcomes and enhancing the value of laboratory medicine.

In summary, and to quote Shakespeare, What’s in a name? That which we call a rose... Be it clinical biochemist or clinical chemist, they work with you to provide the best quality care for your patients.