

## Editorial

# World Biomedical Laboratory Science Day 15<sup>th</sup> April Guardians of Quality and Patient Safety: Biomedical Laboratory Scientists



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The 15th of April, every year, is Biomedical Laboratory Science Day. The International Federation of Biomedical Laboratory Science (IFBLS) chooses a theme to run for 2 years that highlights the role of Biomedical Laboratory Scientists in Healthcare.

This year the IFBLS Board has chosen the theme ***Guardians of Quality and Patient Safety: Biomedical Laboratory Scientists.***

This theme is central to everything a Biomedical Laboratory Scientist is and does. It compliments three recent position papers, approved by the members and published by IFBLS.

### **IFBLS Guidelines for Core Competence**

Biomedical laboratory science combines knowledge, skills and abilities in medicine, physical science, technology, and statistics with emphasis on analysing specimens from patients to aid in diagnosing and treatment of disease.

The Biomedical Laboratory Scientist education and training make the profession unique compared to other professions in terms of knowledge of quality assurance, evaluation of pre-analytical conditions and assessment of their impact, validation of medical laboratory analysis, considerations of uncertainty of measurement and biological variability and understanding of post-analytical situations used for diagnosis of disease, monitoring of treatment and evaluation of health status.

The Core Competences for the Biomedical Laboratory Scientist include a thorough understanding of the fundamentals of scientific and technical biomedical laboratory processes and how these inform clinical decision-making. This includes development and validation of clinical laboratory methods and techniques, implementation and verification of new analytical testing methods, quality assurance of biomedical analysis, the end-to-end process from when an analyte is ordered, and the sample collection through to the validation of the test result, interpretation of the test result and potential clinical implication and communication of the test result.

The Core Competences for Biomedical Laboratory Scientists are built on scientific methods (evidence-based) and the ethics of patient care.

The Biomedical Laboratory Scientist is an important resource for other healthcare professionals and the public regarding the use of safe and appropriate laboratory diagnostic testing.

### **IFBLS Statement on the Role of the Biomedical Laboratory Scientist in the Delivery of Quality Healthcare**

Biomedical Laboratory Scientists use scientific evidence in the provision of screening and diagnostic information; specifically, how a laboratory analytic procedure is selected, used and applied in clinical decisions for screening and diagnostic purposes.

Biomedical Laboratory Scientists are the appropriate professionals to provide diagnostic, screening and other analytical information because of their education and training in quality systems, quality

control, and quality improvement. Biomedical Laboratory Scientists have a specific expertise that is developed during education and clinical internship/experience.

### **IFBLS Position Paper on Patient Safety**

The foundation of patient safety is 'First do no harm'. Improving patient safety requires preventing and reducing errors, and constantly mitigating and avoiding unsafe acts. Patient safety requires that health care delivery is safe, effective, patient-centred, timely, efficient and equitable. Safe healthcare delivery requires all healthcare professionals to assure quality processes and use evidence in their practice, continuously improve processes, incorporate current information technology, work in interprofessional teams to deliver patient (person)-centred care.

#### **Biomedical Laboratory Scientists are responsible for ensuring patient safety by:**

- Adhering to current high standards of practice and the application of quality assured protocols and governance;
- Focusing upon preventing errors in the entire laboratory testing process;
- Ensuring that laboratories conform with national and international standards of accreditation;
- Maintaining high standards for qualifications and continuing professional development;
- Including patient safety concepts and competencies into academic and continuing professional development requirements for Biomedical Laboratory Scientists;
- Improving laboratory testing services applying continuous quality improvement principles.
- Maintaining patient confidentiality throughout all phases of laboratory testing;
- Providing patients with information about laboratory testing prior to specimen collection in order to give informed consent;
- Providing test results and interpretation to inform the diagnosis;
- Focusing on improving patient outcomes using new technologies, such as personalized medicine by contributing our professional expertise.

Our poster celebrates biomedical laboratory science day. It encompasses the entire spectrum of a sample journey from the patient through the laboratory where it is the biomedical laboratory scientist who uses the best methods, with quality assurance, to ensure the correct result which is then interpreted correctly leading to treatment of the patient. Each of us knows that behind every sample we analyse is a person who must be cherished.

I am proud to call myself a biomedical laboratory scientist. I hope that you will join with me, and your colleagues, in celebrating biomedical laboratory science day.

### **References**

1. IFBLS Guidelines for Core Competence. <http://www.ifbls.org/index.php/statements/core-competence-core-curriculum>
2. IFBLS Statement on the role of BLS in the Delivery of quality in healthcare. <http://www.ifbls.org/index.php/statements/role-of-bls-in-the-delivery-of-quality-healthcare>
3. IFBLS Position paper on patient safety. <http://www.ifbls.org/index.php/statements/patient-safety>