Foreword

by Harjit Pal Bhattoa, Editor EFLM EuroLabNews

This autumn issue of the EuroLabNews commences with our regular Hot Topic column, this time around Professor Dilan Aslan, Pumakkale University, Turkey, presents the Importance of Process and Project Management Competencies in Laboratory Management, Quality Management and ISO 15189 Laboratory Accreditation. The EFLM Academy is announced by Professor Giuseppe Lippi, the EFLM Executive Board Secretary. To be launched on the 1st of January, 2020, it is a promising synthesis of all membership benefits on a common platform. Florent Vanstapel (Chair of the EFLM Quality and Regulations Committee) and Christa Cobbaert (Chair of the EFLM Working Group Test Evaluation) summarizes the main points of the new In vitro diagnostic medical devices regulation (IVDR), that replaces the former (98/79/EC) IVD directive (IVDD). One may want to note the transitions and various implications that will apply to laboratories in the EU. The EFLM Basic Biostatistics for Postgraduates / Specialists in Laboratory Medicine in collaboration with ACBI will be held on November 7th 2019, Athlone, Ireland. The author of this issue’s Hot Topic Professor Dilan Aslan will be holding a Webinar “How should a medical laboratory specialist prepare for accreditation according to the ISO 15189” on the 8th of October. Daniel Rajdl, Chair of the Communication Committee gives an update of the EFLM publications. The Spanish Society of Laboratory Medicine present their latest activities, and the Croatian Society of Medical Biochemistry and Laboratory Medicine detail their National recommendations for blood collection, processing, performance and reporting of results for coagulation screening assays. The IFCC corner summarizes the global happenings in Laboratory Medicine. Last but not least, the Calendar of Events lists all events in our field.

HOT TOPICS IN LABORATORY MEDICINE
Importance of Process and Project Management Competencies in Laboratory Management, Quality Management and ISO 15189 Laboratory Accreditation

by Dilan Aslan, Emeritus Prof, Pamukkale University, Medical Faculty Dept. of Biochemistry. D-Tek Technology Development Ltd. Comp. Pamukkale Technology Development Area. Denizli-Turkey (daslan@pau.edu.tr, www.d-tek.com.tr)

Medical laboratory has a critical role in patient care and safety, and must provide the reliable test results in time, and cost-effectively. In order to fulfill these requisites, laboratory management should be organized by considering both the quality management system and accreditation requirements during the establishment. If a laboratory is organized according to the total testing process and its sub-processes in the context of the business process (BPM) and project management (PM), the requirements of quality management system and accreditation can be fulfilled more successfully, and continuous improvement can be implemented systematically. The process approach that incorporates the Plan-Do-Check-Act (PDCA) cycle and risk-based thinking is employed in the new version of the “ISO 9001:2015 Quality management systems - Requirements” (1). The “ISO 17025:2017 General requirements for the competence of testing and calibration laboratories” also employs risk-based thinking, and is based on the ISO 9001:2015 (2).

To be continued on page 2
The “ISO 15189:2012 Medical Laboratories - Requirements for Quality and Competence” that is an internationally accepted accreditation standard is under review for the new version (3). Lucia Berte, a member of the ISO TC 212 Working Group 1, explained that the structure of this new version would be based on the structure of the ISO 17025:2017 and hence the ISO 9001:2015, because ISO 9001:2015 is a high-level quality standard therefore, the common structure is mandated by the ISO Secretariat. The table of contents for the new version will be changed similar to the ISO 17025:2017. Some clauses will be as follows: “4-General requirements (impartiality, confidentiality, ethics), 5-Management/Structural requirements (legal entity, laboratory director, laboratory services, and other sections), 6-Resource requirements (personnel, facilities, equipment, externally provided products and services), 7-Process requirements (pre-examination, examination, post-examination processes), 8-Management system requirements (Option A Management system documentation, document control, records control, risks and opportunities, improvement, corrective action, internal audit, management review). The process approach and risk-based thinking are common and basic approaches of these quality system and accreditation standards. In this context, process and project management knowledge, skills and competencies should be gained during the specialist education and training. However, the real life shows those subjects cannot be gained properly, although process management is in the Syllabus of European Federation of Clinical Chemistry and Laboratory Medicine (4). If a medical laboratory is organized with the knowledge of the business process lifecycle (5), then the quality system and accreditation standards and/or guidelines can be adapted easily. There are many tools in order to analyze the processes, and to determine and solve problems. The “Suppliers-Inputs-Process-Outputs-Customers (SIPOC) Diagram” and “Customers-Actors-Transformation-Worldview-Owner-Environment (CATWOE) Analysis” are some of useful tools (6,7).

Figure 1 shows the process analysis example by means of the SIPOC Diagram for the total testing process of a medical laboratory that the detailed information can be found in the article of “Which skills are needed and how they should be gained by laboratory medicine professionals for successful ISO 15189 accreditation” (8).

The SIPOC Diagram provides an overall picture of a process. The requirements for inputs, process, outputs and of customers should be set on the SIPOC Diagram of a process. These requirements provide the requirements in the clauses of the new version of the ISO 15189 as seen above.

This diagram in the Figure 1 is for the business process of a medical laboratory. The standard operation procedure can be written according to this overall view to the TTS, and the specific procedures for each test can be prepared according to their requirements. The management and support processes that can be extracted from the SIPOC Diagram are designed according to the legal regulations, standards, guidelines, scientific papers, and analysis/measurement methods, and the documents are prepared for providing reliable test results in time and cost-effectively (9). The problem solving skills is one of the main tools for continuous process improvement. The CATWOE and root-cause analysis with the project management knowledge is valuable for improvement activities.

Main challenge is to combine the interrelations of all components and elements in the context of requirements that are changing rapidly. The use of the business process and project management tools are recommended, because evidence shows that standardized and continually optimized processes are enormously influence diagnostic performance, patient safety and patient life quality, and provides systematic review for continuous improvement (10).

References
7. Aslan D. Which skills are needed and how they should be gained by laboratory medicine professionals for successful ISO 15189 accreditation. eJIFCC2018Vol29No4pp264-273. 2018:1-18.
Figure 1. SIPOC Diagram for total testing process (TTS) of a medical laboratory. *The numbers in the first row show the step sequences in the analysis of a process.*
**NEWS FROM EFLM FUNCTIONAL UNITS**

**News from the EU IVDR front**

by Florent Vansndapel\(^1\) and Christa Cobbaert\(^2\), EC observers in IVD WG#8 under the MDCG for the IVDR

\(^1\)Chair of the EFLM Quality and Regulations Committee, 
\(^2\)Chair of the EFLM Working Group Test Evaluation

The new *In vitro diagnostic medical devices regulation* (IVDR) was published 5 May 2017 and can be consulted at (Click here for more information). It replaces the former (98/79/EC) IVD directive (IVDD).

The IVDR introduces scope enlargement and a risk-based classification of medical tests. This brings along expanded involvement of notified bodies that have to assess the majority (ca. 85%) of IVDs with respect to IVDR compliance (namely for class B, C and D tests), requires evaluation and documentation of clinical evidence (i.e. scientific validity, analytical and clinical performance of tests), introduces universal device identification codes (UDI), and necessitates the set-up of an EudaMed database (Click here for more information) for the deposition by IVD-industry of information about devices, lot-specific data, and post-market surveillance data. Although exempted from CE-IVD regulations, the requirements that labs have to fulfill to run in-house developed tests are also addressed.

**Transition Period**

From 25 May 2022, the IVDR fully applies. For devices placed on the market under the IVDD a transition period is provided. Certificates issued under the IVD directive before that date remain valid for an additional 2 years, and devices already on the market may continue to be made available until 27 May 2025. From 26 May 2024 all devices placed on the market must conform to the IVDR.

**Implementing Regulations**

The EU Commission has installed a Medical Device Coordination Group (MDCG) – *in vitro Diagnostic Working Group* to develop the essential implementing acts and actions (Click here for more information). To follow progress a portal has been opened at Click here for more information, and the rolling plan can be consulted at Click here for more information.

Databases for the registration of manufacturers and deposition of data have been opened, or are under development. Currently the focus is on the definition of classification codes, the definition of independent diagnostic software devices, adoption of common technical specifications for class D devices, the format of summary statements about the devices (read inserts).

The EFLM has stakeholder observer status in this process.

**Conformity Assessment**

Existing national conformity assessment bodies are encouraged to apply for notified body status. They can assess both medical and in vitro diagnostic medical devices. By now some 10 IVDR applications are under review. Class A devices are subject to review by EU reference laboratories and expert panels. Other devices (class B-C) will be reviewed by representative device per generic device group. Up to 80% of devices fall in classes A through C.

The EFLM initiated a Task Force to look into the consequences for the laboratory, especially for in house developed tests.
What’s new in EFLM Publications

by Daniel Rajdl, Chair of the EFLM Communication Committee

Practice in financial support of third party organised conferences and courses at a national level for health care professionals in Europe

Daria Pašalić, Evgenija Homšak, Antonio Buño, Katarzyna Bergmann, Ciriaco Carru
Clin Chem Lab Med 2019, Full-Text available here

Two different surveys related to the practice and knowledge of the new Ethical MedTech Code were conducted with European Federation of Clinical Chemistry and Laboratory Medicine (EFLM) National Societies’ (NSs) representatives, and their (NSs) individual members. 25 out of 40 EFLM NS representatives replied; more than half declared that all different types of financial resources were available for supporting the continuing professional education of health care professionals (HCPs). In addition, 322 individual responses collected from 31 NSs, answered that the institutional director (50.3%) or laboratory chief (70.1%) made generally made a decision, without specific criteria. The MedTech Europe Code is already adopted or is about to be adopted in numerous EFLM NSs, but most of them have not implemented it as yet. The use of the Code and better communication between IVD companies and HCPs are necessary to guarantee an improved and fair use of financial support, as well as better choices for the organisation and attendance at scientific events.

Investigations on the clinical utility of apolipoprotein B measurement: a research priority

Michel Langlois
Eur J Prev Cardiol. 2019, Full-Text available here

In the recent publication by Khan et al. (Association of lowering apolipoprotein B with mortality and cardiovascular outcomes across various lipid lowering therapies: A systematic review and meta-analysis) including a systematic review and a meta-analysis including more than 330,000 patients from 29 clinical trials on the association of decrease in apoB concentration with all-cause mortality and cardiovascular outcomes across different lipid-lowering drug classes, it was found that statins and other therapies which clear apoB by upregulating low-density lipoprotein (LDL)-receptor expression reduce cardiovascular risk proportional to the decrease in apoB concentration, whereas interventions which lower apoB independent of LDL-receptor did not demonstrate this association. Reduction in all-cause mortality per decrease in apoB was found only with statins. This invited editorial discusses the clinical utility of apolipoprotein B measurement by evaluating the key characteristics for a diagnostic biomarker defined by EFLM Working Group on Test Evaluation - analytical performance, clinical performance, clinical effectiveness and cost-effectiveness - to become a medically useful test. In conclusion, apoB is promising but not yet ready for therapeutic decision making and follow-up in clinical practice. Given the potential of apoB assays to provide accurate and comparable test results across laboratories worldwide, a prerequisite which cannot be met with standard LDL-cholesterol measurements or calculations, the research priority now is to investigate the clinical effectiveness and cost-effectiveness of apoB measurements.

Systematic review and meta-analysis of within-subject and between-subject biological variation estimates of 20 haematological parameters

Clin Chem Lab Med 2019, Full-Text available here

The publication from Working Group on Biological Variation and Task Group for the Biological Variation Database includes appraisal of the quality of publications reporting BV data for CBC parameters by systematic literature search compliance evaluation with the 14 BV Data Critical Appraisal Checklist (BVAC) criteria (scored as A, B, C or D, indicating decreasing compliance). In total, 32 studies were identified; four received a BVAC grade A, 2, B, 20 C and 6 D. Meta-analysis derived CVI and CVG estimates were generally lower or in line with those published in a historical BV database available online. Except for reticulocytes, CVI estimates of erythrocyte related parameters were below 3%, whereas platelet (except MPV and PDW) and leukocyte related parameters ranged from 5% to 15%. A systematic review of CBC parameters has provided updated, global estimates of CVI and CVG that will be included in the newly published European Federation of Clinical Chemistry and Laboratory Medicine BV Database (https://biologicalvariation.eu/)

UPCOMING EFLM EVENTS

EFLM Postgraduate Course on Biostatistics in Laboratory Medicine in collaboration with ACBI

by AnnMarie O’Grady, ACBI Conference Coordinator

The EFLM Basic Biostatistics for Postgraduates / Specialists in Laboratory Medicine in collaboration with ACBI will be held on November 7th 2019, Athlone, Ireland.

EFLM are delighted to join forces with the Association of Clinical Biochemists in Ireland (ACBI) to deliver this invaluable event at the Radisson Blu Hotel in Athlone, in the heart of Ireland. The workshop is hosted by President-Elect of EFLM Ana-Maria Simundic (Prof, PhD) and her colleague, Vanja Radisic (PhD) who are bringing their knowledge, experience and skills of Biostatistics to the EFLM’s national society members in Ireland (ACBI).

Subject matter includes presentations on data distribution, data summary measures and presentations on how to examine differences between numerical and quantitative data and to more fully comprehend correlation and regression. The course has the added value of finishing with 2 hours of practical examples where Ana-Maria and Vanja both share real life examples they have learnt from their work at their Clinical Hospital Sveti Duh in Zagreb (Croatia). The course finishes with a tour of Athlone Castle to provide that perfect mix of science and culture! ACBI have a small charge of €35 (inclusive of lunch, tea & coffee and tour) for those applying for this packed full day workshop.

For all further information please click here for more information.
how to establish the total testing process and its sub-processes of a medical laboratory specialist and/or laboratory professionals. In this webinar, we will try to explain:

- how to establish the total testing process and its sub-processes of a medical laboratory (also for a specific analyte that has inherent characteristics) according to the process approach and risk-based quality control;
- how to correlate the process components to the requirements for the ISO 15189 and
- which knowledge and competencies are necessary according to the requirements of the ISO 15189.

HOW TO REGISTER

Registration at eLearning platform.
Did you miss any EFLM webinar?
Newly posted recorded webinar: Harmonisation of autoimmune tests
(Speaker: Joanna Sheldon, UK)

EFLM is happy to remind you that the attendance to the webinars is free of charge and that the recording of the lectures will be available afterwards on the EFLM eLearning platform for those unable to attend.

Speaker: Diler Aslan (TR)
Moderator: Sedef Yenice (TR)
Date: 8th October 2019 at 18:00 CET

The “ISO 15189:2012 Medical laboratories – Requirements for quality and competence” Standard is globally accepted accreditation standard for medical laboratories. It is based upon the “ISO 9001 Quality management systems – Requirements” and “ISO 17025 General requirements for the competence of testing and calibration” Standards. The last versions of these standards, ISO 9001:2015 and ISO 17025:2017, focus on process approach and risk-based thinking, and they can be adapted more easily to the “Plan-Do-Check-Act” Cycle that is the fundamental continuous quality improvement tool. It is expected that the next ISO 15189 version has the similar approach since the ISO 9001:2015 is a high-level structure standard in quality management. In this context, if the “Total Testing Process” of a medical laboratory and sub-processes (pre-pre-, pre-examination/analytical, examination/analytical, post-, post-post-examination/analytical processes) are established according to the “Business Process Management” principles, the requirements of ISO 15189 can be fulfilled. Laboratory accreditation impacts positively on patient care and health system if it is executed at the laboratory, health institution, and national levels in a coordinative manner. This positive effect depends upon the knowledge, skills and competencies of the laboratory specialists and/or laboratory professionals. In this webinar, we will try to explain:

- how to establish the total testing process and its sub-processes of a medical laboratory (also for a specific analyte that has inherent characteristics) according to the process approach and risk-based quality control;
- how to correlate the process components to the requirements for the ISO 15189; and
- which knowledge and competencies are necessary according to the requirements of the ISO 15189.
The SEQCML promotes a consensus document about the laboratory tests for the screening, diagnosis and glycaemic control of diabetes mellitus

- The document offers guidelines regarding glucose and HbA1c, both measured in the laboratory medicine and in the bedside testing, as POCT
- It includes the participation of various scientific societies and shows an overview of carrying out these tests in different care areas
- The guideline addresses the latest developments in the use of HbA1c, considering its advantages instead of glucose measurement

Madrid, September 2, 2019.

The term diabetes mellitus (DM) includes a group of diseases characterized by chronic hyperglycaemia. To help patients with these pathologies reducing the risk of developing chronic complications, it is important to diagnose early and regularly identify the intensity of the metabolic disorder. The most common analyses for this are the measurement of glucose and glyated haemoglobin (HbA1c), which can be carried out both in the clinical laboratory and in different environments, within what is known as laboratory tests at the patient care site, or Point-of-Care Testing (POCT). At the present time, there is a lot of heterogeneity regarding how these analytical measurements are done, and the Spanish Society of Laboratory Medicine (SEQCML) considers it necessary to promote an overview in relation to the measurement of glucose and HbA1c for patients with DM. That is why this scientific society has promoted the development of a consensus document, with the participation of various scientific societies representing the different professionals involved in the care of these patients. The result of this effort is the document ‘Glucose and HbA1c in laboratory medicine and Point-of-Care Testing in different clinical settings’, recently published, and in whose preparation have participated, in addition to the SEQCML, members of the Spanish Society of Diabetes (SED), the Spanish Society of Urgent and Emergency Medicine (SEMES), the Spanish Society of Family and Community Medicine (semFYC), the Spanish Society of Family and Community Pharmacy (SEFAC), the Spanish Society of Internal Medicine (SEMI), the Spanish Society of Endocrinology and Nutrition (SEEN), the Spanish Society of Primary Care Physicians (SEMERGEN), and the Spanish Society of Intensive and Critical Medicine and Coronary Units (SEMICYUC). This document seeks to answer questions such as when a glucose or HbA1c determination should be requested to the laboratory medicine and when it can be performed as POCT, how often the measurements should be taken, and how the results should be interpreted in each case, among other issues. New developments in this area are also included, since HbA1c has been included as a diagnostic criterion for diabetes mellitus by the American Diabetes Association (ADA), the International Diabetes Federation (IDF), and the World Health Organization (WHO). This recommendation is based on certain advantages of its measurement instead of glucose, such as the convenience of not requiring the patient to fast and less intra-individual variability.

Overview of the care process

“Health professionals who participate in the care of these patients can come from very different areas. The same patient can be managed in a community pharmacy, then go to a primary care consultation, a hospital emergency department, be admitted to a critical care unit,
News from Croatian Society of Medical Biochemistry and Laboratory Medicine: National recommendations for blood collection, processing, performance and reporting of results for coagulation screening assays prothrombin time, activated partial thromboplastin time, thrombin time, fibrinogen and D-dimer

by Ana Bronić, Desiree Coen Herak, Sandra Margetić and Marija Milić, members of the CSBMLM WG for Laboratory Coagulation

In 2015, Croatian Society of Medical Biochemistry and Laboratory Medicine (CSBMLM) formed the Working Group for Laboratory Coagulation (WGLC). First aim of the WGLC was to assess current practices and policies among laboratories performing coagulation testing in Croatia. A thorough survey was performed and substantial variability in practice and policies in particular areas of coagulation testing was recorded. This prompted the need for creation of a document that should help in standardization of all phases of most commonly performed coagulation assays: prothrombin time (PT), activated partial prothrombin time (APTT), thrombin time (TT), fibrinogen and D-dimer (1). Thus, recent publications and guidelines related to coagulation testing were reviewed and the first version of the recommendations was evaluated by international experts. Following the evaluation and the review, the document was forwarded to public discussion through CSBMLM website for a month. The final version of recommendations was published in 2019 in Biochimia Medica, the official journal of CSBMLM in English language and as the booklet with recommendations in Croatian language (2, 3). Recommendations are primarily intended to laboratory personnel involved in coagulation testing. The purpose of the document was to provide the basic recommendations for all phases of testing for most commonly performed coagulation assays PT, APTT, TT, fibrinogen and D-dimer. The document was divided into three major sections: preanalytical, analytical and postanalytical phase of testing. Procedures of each phase were commented and clear recommendations were listed at the end of each section (2). Section on preanalytical phase in coagulation testing include recommendations related to test request, patient preparation, venipuncture and sample collection. Most of these procedures should be in compliance to already published National recommendations for venous blood sampling (3). Additionally, procedures for correction of citrate volume in samples with high haematocrit values, handling of interferences as well as transport and appropriate timeframes for analysis of coagulation samples were discussed and recommended. Considering analytical phase the most important analytical features of PT, APTT, TT, fibrinogen and D-dimer were highlighted. In addition, main recommendations related to quality control were given. The section on postanalytical phase includes comments and recommendations on reference intervals, cut-off values and harmonization of result reporting wherever it is possible. In addition, suggestions on reporting of critical values and adding of appropriate interpretative comments related to the both preanalytical, analytical and postanalytical phases of testing were proposed.

At the end of the document, summary list of recommendations for all phases of testing for most commonly performed coagulation assays PT, APTT, TT, fibrinogen and D-dimer was provided in a form of table as an Appendix (2).

Thus, we hope that the document would be helpful in everyday practice. Such recommendations should be considered as an important step towards standardization of procedures and generating harmonized data among Croatian laboratories performing routine haemostasis assays. However, WGLC continues its work on standardization and recommendations would be updated according to new findings.

For more information visit: ACTC (Advances in Circulating Tumor Cells) - Liquid or email Holding Deutschland GmbH - DE

FH ALERT: Identification of Patients with Familial Hypercholesterolemia (FH) by using the Expertise and Resources of the Clinical Laboratory

Optimization of Heart Failure Management using Biomarkers in Patients with Low Risk for Rehospitalization

Marienhospital - DE

Avoiding Insufficient Therapies and Overdosing with Co-Reporting eGFRs for Personalized Drug Therapy and Improved Outcomes – Guy’s and St Thomas’ NHS Foundation Trust - UK

Identifying Untreated Hepatitis B and Hepatitis C via Opt-out Screening Program in Urban ED Settings

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Improving the Safety of Mothers and Babies Using Angiogenic Biomarkers for Pre-Eclampsia

University of Dundee - UK

Intelligent Liver Function Testing (iLFT): A Cost-Effective Way to Increase Early Diagnosis of Liver Disease

University of Dundee - UK

Improved Diagnostic Pathway and Treatment for Hospitalized Patients with Acute Kidney Injury

Ernst von Bergmann Hospital - Dialysis Center Potsdam - Diaverum Kidney Care Center MVZ Potsdam affiliated with Otto-von-Guericke University Magdeburg - DE

Improving the Safety of Mothers and Babies Using Angiogenic Biomarkers for Pre-Eclampsia

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Identifying Untreated Hepatitis B and Hepatitis C via Opt-out Screening Program in Urban ED Settings

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University Medical Center Groningen - NL

FH ALERT: Identification of Patients with Familial Hypercholesterolemia (FH) by using the Expertise and Resources of the Clinical Laboratory

SYNLAB Holding Deutschland GmbH - DE

eJIFCC Vol 30 n°2 - In this issue: Non-coding RNAs as potential laboratory biomarkers. Since the discovery of non-coding RNAs, enormous information has been accumulated about the function of these molecules acting as fine-tuners of cellular processes in development, maintenance of homeostasis up to the generation of malignancies. Altered expression of non-coding RNAs have been implicated in the pathogenesis of diverse human diseases suggesting their potential to become diagnostic or prognostic molecular biomarkers in the near future. This special issue of the eJIFCC incorporates a series of manuscripts that discuss the possibilities and challenges in the use of non-coding RNAs as non-invasive biomarkers in various clinical conditions, especially focusing on cell-free miRNAs in different human diseases. Click here to download your own copy.

Calendar of EFLM events and events under EFLM auspices

Do not miss the opportunity to have your event listed here. Apply for EFLM auspices! For more information visit: https://www.eflm.eu/site/page/a/1048/ or email eflm@eflm.eu

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<td>4th ACTC (Advances in Circulating Tumor Cells) - Liquid Biopsy: Latest Advances and Future Challenges</td>
<td>2-5 October 2019</td>
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<td>CELME 2019: Emerging Challenges in Laboratory Medicine EFLM Symposium in collaboration with the Czech Society of Clinical Biochemistry</td>
<td>3-4 October 2019</td>
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<td>EFLM webinar: How should a medical laboratory specialist prepare for accreditation according to the ISO 15189</td>
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LABKVALITA 2019 - Biennial Conference with international participation on Quality in Laboratory Testing  
Nový Smokovec (SK) 10-11 October 2019  
Click here for information

17th EEKX-KB National Congress of Clinical Chemistry  
Athens (GR) 21-23 November 2019  
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8th International Conference on Quality of Medical Laboratories in Slovenia  
Ljubljana (SL) 15 October 2019  
Click here for information

JIB 2019: Journées de l'innovation en biologie  
Paris (FR) 21-22 November 2019  
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5th ESPT Congress Precision Medicine and Personalised Health  
Seville (SP) 16-18 October 2019  
Click here for information

13th International Scientific Meeting of the Centre of Metrological Traceability in Laboratory Medicine (CIRME) “The Internal Quality Control in the Traceability Era”  
Milan (IT) 28 November 2019  
Click here for information

EQALM Symposium 2019  
Ljubljana (SL) 17-18 October 2019  
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Journées de biologie praticienne  
Paris (FR) 7-8 December 2019  
Click here for information

International Conference on Laboratory Medicine “From Bench to Diagnostic-Therapeutic Pathways”  
Padova (IT) 23 October 2019  
Click here for information

EFLM webinar: Essential Leadership Management for Laboratory Professionals  
On-line 17 December 2019  
Click here for information

EFLM Postgraduate Course on “How to write a good scientific and professional article” in collaboration with the Turkish Biochemical Society  
Antalya (TR) 26-27 October 2019  
Click here for information

International Congress on Quality in Laboratory Medicine  
Helsinki (FI) 6-7 February 2020  
Click here for information

Joint Congress of 27th Balkan Clinical Laboratory Federation (BCLF) Congress and 30th National Biochemistry Congress (NBC) of TBS  
Antalya (TR) 27-31 October 2019  
Click here for information

42nd LABAC Conference  
Paris (FR) 9 April 2020  
Click here for information

3èmes Journées Francophones de Biologie Médicale  
Monaco (MC) 6-8 November 2019  
Click here for information

XXXVII Nordic Congress in Medical Biochemistry  
Trondheim (NO) 9-12 June 2020  
Click here for information

EFLM Postgraduate Course on Biostatistics in Laboratory Medicine in collaboration with the Association of Association of Clinical Biochemists in Ireland  
Athlon (IR) 7 November 2019  
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The 10th Santorini Conference “Systems medicine and personalised health & therapy” - The odyssey from hope to practice: Patient first - Keeps Ithaca always in your mind  
Santorini (GR), 28 September-1 October 2020  
Click here for information

The Value of Laboratory Medicine into Clinical Medicine  
Erice (IT) 7-9 November 2019  
Click here for information

3rd EFLM Strategic Conference “Demand Management”  
Zagreb (HR) 27-28 November 2020  
Click here for information

42nd Annual ACBI Conference  
Athlone (IR) 8-9 November 2019  
Click here for information

EuroMedLab 2021 - 24th IFCC-EFLM European Congress of Clinical Chemistry and Laboratory Medicine  
Munich (DE) 16-20 May 2021  
Click here for information

51st National Congress of SIBioC – Laboratory Medicine in Frailty and Frailty of Laboratory Medicine  
Padua (IT) 20-22 November 2019  
Click here for information

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EuroLabNews is the digital bi-monthly newsletter of EFLM targeting more than 4,500 laboratory medicine professionals and is also published on the EFLM website. The Newsletter features information on EFLM initiatives and activities of its functional units, news from EFLM National Society members and includes a calendar of the major events in the Clinical Chemistry and Laboratory Medicine field.

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