



Nordic recommendation

Venous blood sampling

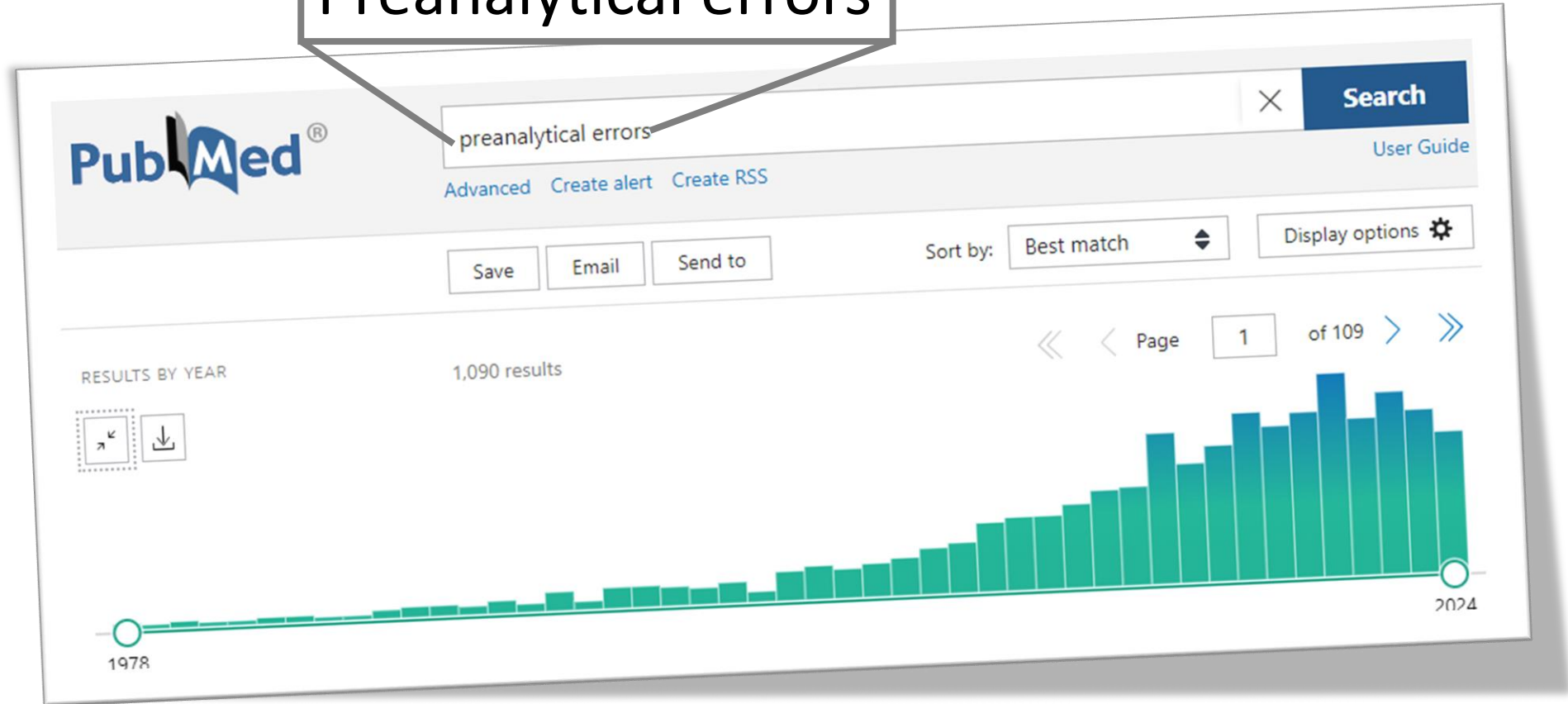
Guidelines

Quality control

Britta Willman, PhD, BMA



Preanalytical errors



1978

2024

Bölenius et al. *BMC Health Services Research* 2013, **13**:463
<http://www.biomedcentral.com/1472-6963/13/463>

RESEARCH ARTICLE

Impact of a large-scale e-learning program on venous blood collection practices

Karin Bölenius^{1*}, Marie Lindkvist^{2,3}, Christine Brulin¹, Kjell

DE GRUYTER

Britta Willman, Kjell Grankvist and Karin Bölenius

Evaluation of the clinical impact of a large-scale online e-learning program on blood specimen collection

The Joint Commission Journal on Quality and Patient Safety 2021; 47:519–525

IMPROVEMENT BRIEF

A Quality Improvement Initiative to Reduce Rejected Laboratory Samples and Enhance Specimen Acceptability

Poonam Gupta, MBBS, MPH, CPHQ, CMQ; Mincy Thomas, RN, BSN; Nidal Sbetan; Gracy Chacko, RN, BSN; Indirani Savarimuthu, RN, BSN; Pulikana Cherian, RN, BSN; Asma Abas, RN, BSN; Shiny Shiju, RN, BSN; Sabir Karim; Sara Al Badi

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Profesionalni rad

ARTIFICIAL INTELLIGENCE IN THE PRE-ANALYTICAL PHASE: STATE-OF-THE ART AND FUTURE PERSPECTIVES

VEŠTAČKA INTELIGENCIJA U PREANALITIČKOJ FAZI:
NAJSAVREMENIJE I BUDUĆE PERSPEKTIVE

Giuseppe Lippi¹, Camilla Mattiuzzi², Emmanuel J. Favaloro^{3,4,5}

RESEARCH ARTICLE

Direct costs of blood drawings with pre-analytical errors in tertiary paediatric hospital care

Henrik Hjelmgren^{1,2*}, Emelie Heintz³, Britt-Marie Ygge^{1,2}, Nina Andersson^{1,2}, Björn Nordlund^{1,2}

1 Astrid Lindgren Children's Hospital, Karolinska University Hospital, Stockholm, Sweden, **2** Department of Women's and Children's Health, Karolinska Institute, Stockholm, Sweden, **3** Department of Learning, Informatics, Management and Ethics, Karolinska Institute, Stockholm, Sweden

* Henrik.hjelmaren@ki.se



Table 2. Average annual healthcare costs of blood drawings with PAEs in a tertiary paediatric hospital.

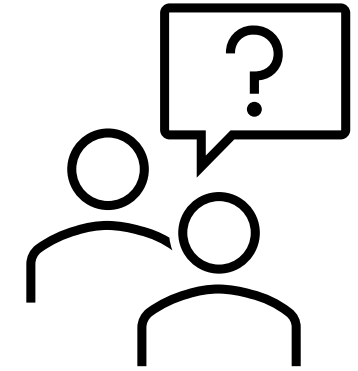
	Cost per blood draw, (€)	Annual cost per 54,040 blood drawings, (€)	Cost due to PAEs (frequency 5.4%*), (€)	Cost proportion, (%)
Personnel cost	15.5	838,160	45,261	60.1
Material cost	1.5	78,898	4,261	5.7
Laboratory analysis cost	2.1	111,322	6,011	8.1
Hospitalisation cost during blood drawings	6.4	346,937	18,735	25.2
Total cost	25.4	1,375,317	74,267	100

*The frequency of PAEs based on FlexLab data (2013–2014).

74 267 €

Are you using the Joint EFLM-COLABIOCLI Recommendation for venous blood sampling at your place of work?

Which guidelines are you using at your institute?



A survey on the practice of phlebotomy in Lithuania and adherence to the EFLM-COLABIOCLI recommendations: continuous training and clear standard operating procedures as tools for better quality

Ricardas Stonys^{*1,2}, Dalius Vitkus^{1,2}

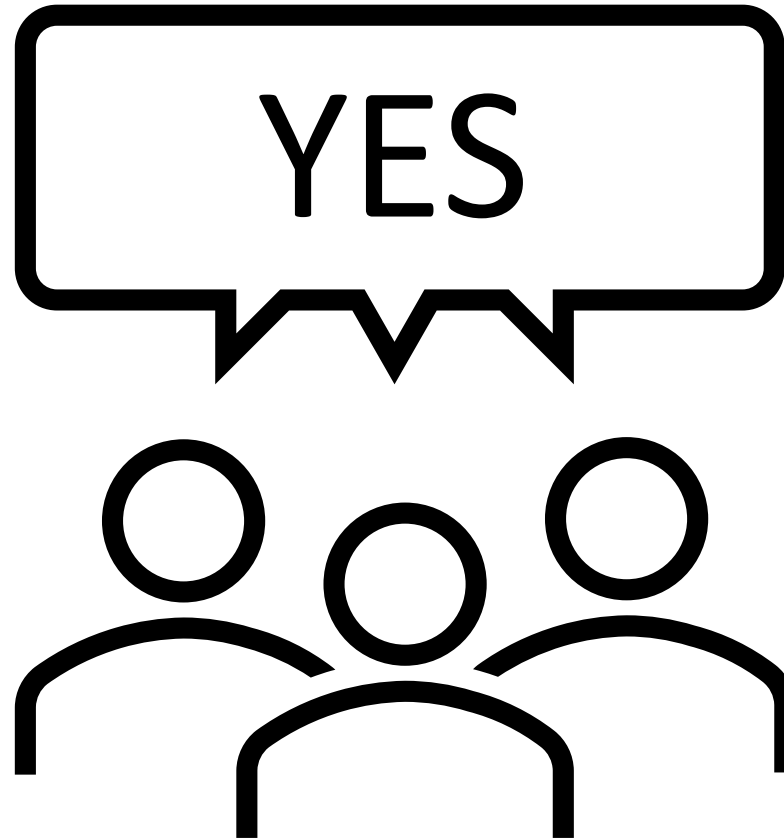
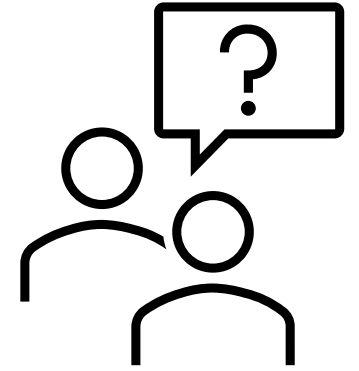
¹Institute of Biomedical Sciences of the Faculty of Medicine, Vilnius University, Vilnius, Lithuania

²Centre of Laboratory Medicine of Vilnius University Hospital Santaros Klinikos, Vilnius, Lithuania

*Corresponding author: ricardas.stonys@santa.lt

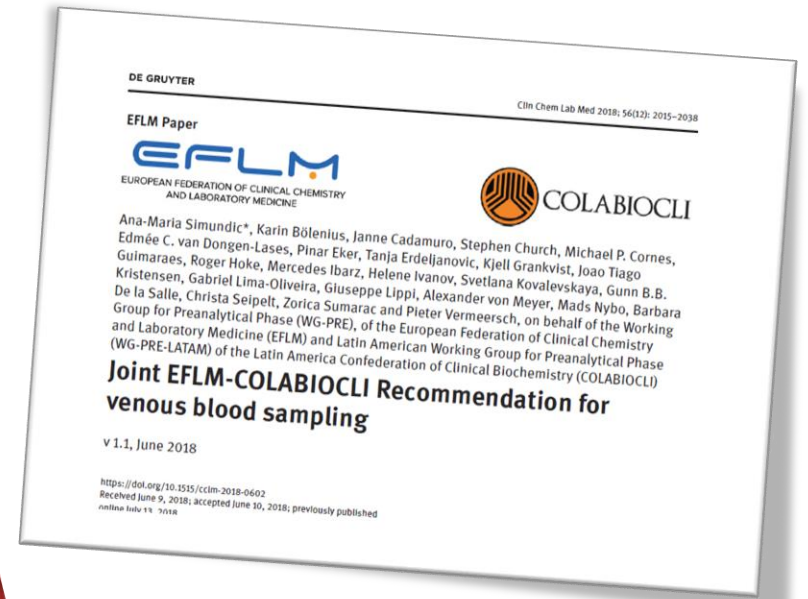
” The findings of this study indicate that the level of compliance with the EFLM-COLABIOCLI recommendations in Lithuania is alarmingly low. ”

Do you think a Nordic sampling guideline would be beneficial?



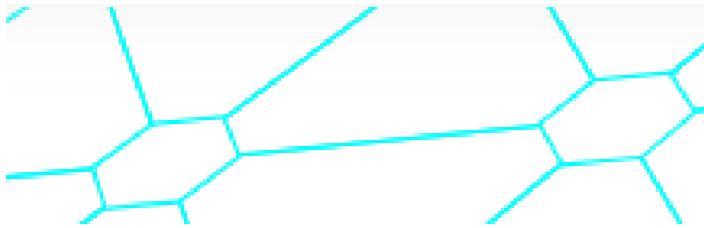


1. Nordic guideline of venous blood sampling



How about quality control?

LABQUALITY



Cases of preanalytical errors



NOKLUS
sammen for god kvalitet

Quality control on blood sampling
Dept. of Clinical Biochemistry and Pharmacology
Odense University Hospital

Observer

Date

Phlebotomist

Sample No

Item #	Question	YES	NO
Item # 1	Is the requisition correctly filled out?		
Item # 2	Was the patient identified according to the CLSI guideline?		
Item # 3	Was the instruction for correct hand hygiene followed?		
Item # 4	Did the phlebotomist assure that the patient was properly prepared (e.g. fasting)?		
Item # 5	Was the tourniquet placed correctly?		
Item # 6	Did the phlebotomist select a suitable venipuncture site?		
Item # 7	Was an appropriate venipuncture device used (not a Safety-Lok™ Blood Collection Set)?		
Item # 8	Was the venipuncture site disinfected properly?		
Item # 9	Was the alcohol allowed to evaporate before the venipuncture?		
Item # 10	Did the venipuncture site remain untouched after disinfection?		
Item # 11	Did the phlebotomist assure that the fist was not clenched when blood flow began?		
Item # 12	Was the tourniquet released immediately after blood flow began?		
Item # 13	Was the correct order of draw followed?		
Item # 14	Were the blood tubes filled properly?		
Item # 15	Were all blood tubes mixed immediately after sampling?		
Item # 16	Was a cotton ball or gauze placed over the venipuncture site after sampling?		
Item # 17	Were syringes etc. disposed correctly immediately after sampling?		
Item # 18	Was the patient advised not to bend the arm?		
Item # 19	Were the tubes labelled in presence of the patient?		

In conclusion, continuous QC of the blood sampling procedure using a structured observation scheme was feasible and useful. It revealed a number of items that were not conducted compliant with the phlebotomy guideline. Also, it supported significant improvements in the adherence to the recommended phlebotomy procedures and facilitated documentation of the phlebotomy quality.



1. Nordic guideline of venous blood sampling

2. Ensure adherence to the guideline – Quality control



Quality control on blood sampling
 Dept. of Clinical Biochemistry and Pharmacology
 Odense University Hospital

Observer _____

Date _____

Phlebotomist _____

Sample No _____

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The total extinction of preanalytical errors: guidelines and quality control do wonders

[Lastname Firstname](#), [Lastname Firstname](#) et al. [Show all authors](#)

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Thank you for your attention!

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