



ASSOCIATION of CLINICAL BIOCHEMISTRY SPECIALISTS
EXTERNAL QUALITY CONTROL PROGRAM

BLOOD GAS PROGRAM-INSTRUCTIONS

Cycle: 3

Lot: G2019, SKT: 2020-03, REF: KBUDGAS

Program Code: G

Store at +2–8°C

Bring to +20–23°C before use



Purpose of use

The KBUDEK Blood Gas External Quality Control Program is designed to enable the comparison of the performance of each laboratory participating in this program with other laboratories on a test, method and device basis.

Privacy

KBUDEK gives great importance to the confidentiality of program participants. Each participant is identified only by a code known to them and KBUDEK. The laboratory code, user code and password are defined for each participant to input and review data on the internet. Users can change their user codes and passwords themselves.

Tests

Glucose, Calcium ionized, Chloride, Lactate, pCO₂, pH, pO₂, Potassium, Sodium, Total CO₂

Safety Precautions and Warnings

⚠️WARNING: Biological source. Potentially infected material. For external use only. Do not pipette by mouth. The procedures applied for handling laboratory reagents should also be applied for these materials.

Product safety data sheets are available on request.

Sample Preparation

The bottle specified for each month on the label should be brought to +20-23 °C before use. At least 4 hours will be needed for ampoules to equilibrate to this temperature before testing. Mix gently by inverting the ampoules 15 to 20 times immediately prior to testing.

Lightly tap the solution remaining at the top of the ampoule to restore it to the bottom of the ampoule. Break the top of the ampoule. Do this by using gloves, gauze or a suitable tool to avoid injury. Immediately introduce the solution from the ampoule to the instrument. Do not transfer from ampoule to another container. Samples should be handled in the same way as patient samples. If possible, it should be taken into daily processes without the knowledge of laboratory staff.

Note: It is recommended to run the External Quality Control samples (as repetition) once.

Storage Conditions

Unopened sample: Store at +2–8°C. Stable to expiration date printed on individual vials. Avoid freezing and temperatures higher than 30 °C

Opened sample: For pH/blood gas values, the control should be analysed within 1 minute of opening. For electrolytes it should be analysed within 1 hour after opening. Do not reuse the samples.

Working times of samples

The box contains 12 (twelve) labeled samples, one for each month, to be studied in a year, respectively. Information on which month it should be worked is available on the label. Each sample should be run on the date indicated on the back page of this document.

Submission of results

The results should be entered to the system at the latest business day of the related month by using the internet code, user code and password that are reported to you via the internet at www.kbudek.com. Before entering your results, be sure to make test identifications and choose the correct test units to report the result.

Late results

Late results do not affect the mean and standard deviation values that are already calculated and published but those values are used to calculate late results. The report contains information that the results are late. No evaluation shall be made for late results after the cycle is closed.

Monitoring performance results

Evaluation results are published on the internet in the second week of the following month. Each participant will only be able to see their results by entering with his own laboratory code, user code and password.

When reports are published participants are informed with text messages.

Device or method changes

Any changes related with participant's analyser, test method or unit should be updated via the website.

For current tests and methods used in the program, please refer to the program instructions published at www.kbudek.com

Materials provided:

Blood Gas Control samples-12 ampoules – liquid- 1.8 ml



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Schedule

Month	Sample Number	Recommended working date	Last date to enter results
January	1	21.01.2019	31.01.2019
February	2	18.02.2019	28.02.2019
March	3	18.03.2019	31.03.2019
April	4	15.04.2019	30.04.2019
May	5	20.05.2019	31.05.2019
June	6	17.06.2019	30.06.2019
July	7	22.07.2019	31.07.2019
August	8	19.08.2019	31.08.2019
September	9	16.09.2019	30.09.2019
October	10	21.10.2019	31.10.2019
November	11	18.11.2019	30.11.2019
December	12	16.12.2019	31.12.2019

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Tests and Methods in the program

Tests	Methods
Glucose	Other methods Enzymatic Electrode Fluorescent optical electrode Ion Selective Elektrode (ISE) Hexokinase Glucose Oxidase Colorimetric
Calcium, Ionized	Other methods Fluorescent optical electrode Ion Selective Elektrode (ISE) Calculated Colorimetric
Chloride (Cl)	Other methods Fluorescent optical electrode Ion Selective Elektrode (ISE)
Lactate	Other methods Enzymatic Electrode Fluorescent optical electrode Ion Selective Elektrode (ISE) Colorimetric
pCO₂	Other methods Fluorescent optical electrode Ion Selective Elektrode (ISE)
pH	Other methods Fluorescent optical electrode Ion Selective Elektrode (ISE)
pO₂	Other methods Fluorescent optical electrode Ion Selective Elektrode (ISE)
Potassium (K)	Other methods Fluorescent optical electrode Ion Selective Elektrode (ISE) Colorimetric
Sodium (Na)	Other methods Fluorescent optical electrode Ion Selective Elektrode (ISE)
Total CO₂ (tCO₂)	Other methods Fluorescent optical electrode Ion Selective Elektrode (ISE) Calculated