USING THE MODEL OF QUALITY INDICATORS: A PILOT STUDY

Turkish Biochemical Society Working Group of Laboratory Errors and Patients Safety

International Federation of Clinical Chemistry and Laboratory Medicine

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IFCC - Education and Management Division

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Working Group: Laboratory Errors and Patient Safety

In 2008

9.3.8. Laboratory Errors and Patient Safety (WG-LEPS)

- The WG mission is
- to stimulate studies on the topic or errors in laboratory medicine,
- to collect available data on this topic and
- to recommend strategies and procedures to improve patient safety.

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Working Group: Laboratory Errors and Patient Safety

9.3.8. Laboratory Errors and Patient Safety (WG-LEPS)

- The overall aim of the project is to create a common reporting system for clinical laboratories based on standardized data collection, and to define state-of-the-art and Quality Specifications (QSs) for each QI.

- As can serve external quality assurence program

Current projects

- Improving awareness of laboratory professionals
- Implementing pilot studies
- Implementing projects for error reduction

Current projects

- Organizing meetings and scientific sessions
- Supporting the publications of papers on the topic of laboratory errors and patient safety

Quality indicators

- Quality indicators are major tools to quantify the quality of all operational processes by comparing it against a defined criterion (Plebani et al. 2014)

- Quality indicators improve the quality of patient care.

- The identification of reliable QIs is a key step to quantify the quality of laboratory services.

Quality indicators

- Patient-centered to promote total quality and patient safety;
- All stages of the TTP, from initial pre-pre-analytical steps (test request and patient/sample identification) to post-post-analytical steps
- Consistent with the requirements of the ISO 15189

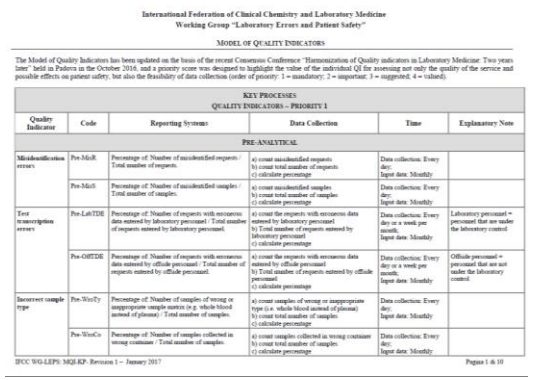
The measurement and monitoring of QIs in laboratory medicine

- Document the quality of the service provided
- Improve performance and patient safety
- Make comparison to benchmark over time between laboratories
- Support accountability, quality improvement and accreditation.

Pilot study

- A working group established in the Turkish Biochemical Society, 2017
- In Turkey, two laboratories have started to submit their QI data since 2017.
- Istanbul Bağcılar Training and Research Hospital Central Laboratory is one of them.
- The laboratory reports more than 10 million tests per year

MODEL OF QUALITY INDICATORS (MQI)



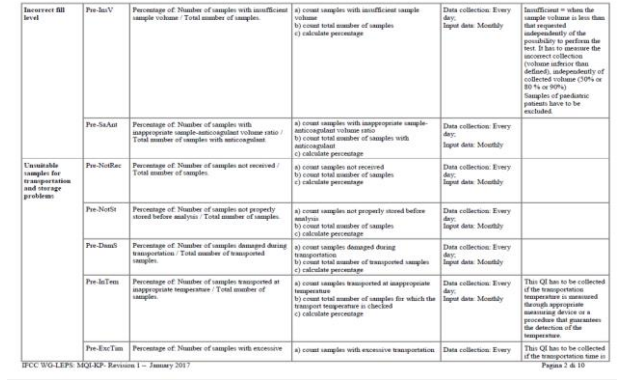
International Federation of Clinical Chemistry and Laboratory Medicine
Working Group "Laboratory Errors and Patient Safety"

MODEL OF QUALITY INDICATORS

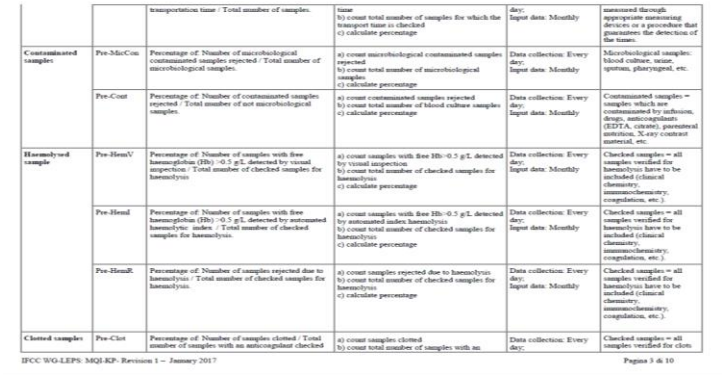
The Model of Quality Indicators has been updated on the basis of the recent Consensus Conference "Harmonization of Quality indicators in Laboratory Medicine. Two years later" held in Padova in the October 2016, and a priority score was designed to highlight the value of the individual QI for assessing not only the quality of the service and possible effects on patient safety, but also the feasibility of data collection (order of priority: 1 = mandatory; 2 = important; 3 = suggested; 4 = valued).

KEY PROCESSES
QUALITY INDICATORS – PRIORITY 1

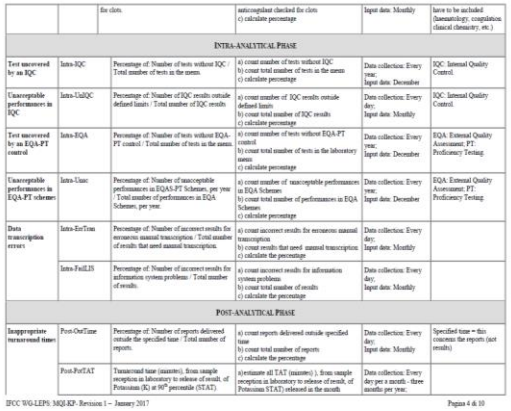
Quality Indicator	Code	Reporting Systems	Data Collection	Time	Explanatory Note
PRE-ANALYTICAL					
Misidentification errors	Pre-MisR	Percentage of: Number of misidentified requests / Total number of requests.	a) count misidentified requests b) count total number of requests c) calculate percentage	Data collection: Every day; Input data: Monthly	
	Pre-MisS	Percentage of: Number of misidentified samples / Total number of samples.	a) count misidentified samples b) count total number of samples c) calculate percentage	Data collection: Every day; Input data: Monthly	
Test transcription errors	Pre-LabTDE	Percentage of: Number of requests with erroneous data entered by laboratory personnel / Total number of requests entered by laboratory personnel.	a) count the requests with erroneous data entered by laboratory personnel b) Total number of requests entered by laboratory personnel c) calculate percentage	Data collection: Every day or a week per month. Input data: Monthly	Laboratory personnel = personnel that are under the laboratory control.
	Pre-OffTDE	Percentage of: Number of requests with erroneous data entered by offside personnel / Total number of requests entered by offside personnel.	a) count the requests with erroneous data entered by offside personnel b) Total number of requests entered by offside personnel c) calculate percentage	Data collection: Every day or a week per month. Input data: Monthly	Offside personnel = personnel that are not under the laboratory control.
Incorrect sample type	Pre-WrnTy	Percentage of: Number of samples of wrong or inappropriate sample matrix (e.g. whole blood instead of plasma) / Total number of samples.	a) count samples of wrong or inappropriate type (i.e. whole blood instead of plasma) b) count total number of samples c) calculate percentage	Data collection: Every day; Input data: Monthly	
	Pre-WrnCo	Percentage of: Number of samples collected in wrong container / Total number of samples.	a) count samples collected in wrong container b) count total number of samples c) calculate percentage	Data collection: Every day; Input data: Monthly	



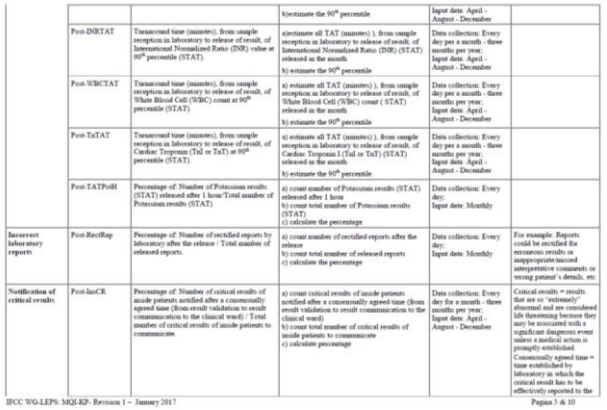
Incorrect fill level	Pre-InsV	Percentage of: Number of samples with insufficient sample volume / Total number of samples.	a) count samples with insufficient sample volume b) count total number of samples c) calculate percentage	Data collection: Every day; Input data: Monthly	Insufficient = when the sample volume is less than that requested independently of the possibility to perform the test. It has to measure the incorrect collection (volume inferior than defined), independently of collected volume (30% or 80 % or 90%) Samples of paediatric patients have to be excluded.
	Pre-SaAut	Percentage of: Number of samples with inappropriate sample-anticoagulant volume ratio / Total number of samples with anticoagulant.	a) count samples with inappropriate sample-anticoagulant volume ratio b) count total number of samples with anticoagulant c) calculate percentage	Data collection: Every day; Input data: Monthly	
Unsuitable samples for transportation and storage problems	Pre-NotRec	Percentage of: Number of samples not received / Total number of samples.	a) count samples not received b) count total number of samples c) calculate percentage	Data collection: Every day; Input data: Monthly	
	Pre-NotSt	Percentage of: Number of samples not properly stored before analysis / Total number of samples.	a) count samples not properly stored before analysis b) count total number of samples c) calculate percentage	Data collection: Every day; Input data: Monthly	
	Pre-DamS	Percentage of: Number of samples damaged during transportation / Total number of transported samples.	a) count samples damaged during transportation b) count total number of transported samples c) calculate percentage	Data collection: Every day; Input data: Monthly	
	Pre-InTem	Percentage of: Number of samples transported at inappropriate temperature / Total number of samples.	a) count samples transported at inappropriate temperature b) count total number of samples for which the transport temperature is checked c) calculate percentage	Data collection: Every day; Input data: Monthly	This QI has to be collected if the transportation temperature is measured through appropriate measuring devices or a procedure that guarantees the detection of the temperature.
	Pre-ExcTim	Percentage of: Number of samples with excessive	a) count samples with excessive transportation	Data collection: Every	This QI has to be collected if the transportation time is



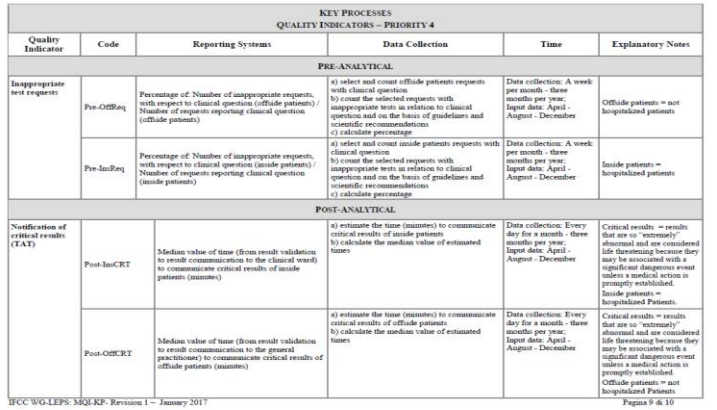
		transportation time / Total number of samples.	time b) count total number of samples for which the transport time is checked c) calculate percentage	day; Input data: Monthly	measured through appropriate measuring devices or a procedure that guarantees the detection of the times.
Contaminated samples	Pre-MicCon	Percentage of: Number of microbiological contaminated samples rejected / Total number of microbiological samples.	a) count microbiological contaminated samples rejected b) count total number of microbiological samples c) calculate percentage	Data collection: Every day; Input data: Monthly	Microbiological samples: blood culture, urine, sputum, pharyngeal, etc.
	Pre-Cont	Percentage of: Number of contaminated samples rejected / Total number of not microbiological samples.	a) count contaminated samples rejected b) count total number of blood culture samples c) calculate percentage	Data collection: Every day; Input data: Monthly	Contaminated samples: = samples which are contaminated by infusion, drugs, anticoagulants (EDTA, citrate), parenteral nutrition, X-ray contrast material, etc.
Haemolysed sample	Pre-HemV	Percentage of: Number of samples with free haemoglobin (Hb) >0.5 g/L detected by visual inspection / Total number of checked samples for haemolysis	a) count samples with free Hb>0.5 g/L detected by visual inspection b) count total number of checked samples for haemolysis c) calculate percentage	Data collection: Every day; Input data: Monthly	Checked samples = all samples verified for haemolysis have to be included (clinical chemistry; immunochemistry; coagulation, etc.).
	Pre-HemI	Percentage of: Number of samples with free haemoglobin (Hb) >0.5 g/L detected by automated haemolytic index / Total number of checked samples for haemolysis.	a) count samples with free Hb>0.5 g/L detected by automated haemolytic index b) count total number of checked samples for haemolysis c) calculate percentage	Data collection: Every day; Input data: Monthly	Checked samples = all samples verified for haemolysis have to be included (clinical chemistry; immunochemistry; coagulation, etc.).
	Pre-HemR	Percentage of: Number of samples rejected due to haemolysis / Total number of checked samples for haemolysis.	a) count samples rejected due to haemolysis b) count total number of checked samples for haemolysis c) calculate percentage	Data collection: Every day; Input data: Monthly	Checked samples = all samples verified for haemolysis have to be included (clinical chemistry; immunochemistry; coagulation, etc.).
Clotted samples	Pre-Clot	Percentage of: Number of samples clotted / Total number of samples with an anticoagulant checked	a) count samples clotted b) count total number of samples with an	Data collection: Every day;	Checked samples = all samples verified for clots



		for clots.	anticoagulant checked for clots c) calculate percentage	Input data: Monthly	have to be included (haematology, coagulation clinical chemistry, etc.)
INTRA-ANALYTICAL PHASE					
Test uncovered by an IQC	Intra-IQC	Percentage of: Number of tests without IQC / Total number of tests in the menu.	a) count number of tests without IQC b) count total number of tests in the menu c) calculate percentage	Data collection: Every day; Input data: December	IQC: Internal Quality Control.
Unacceptable performances in IQC	Intra-UnIQC	Percentage of: Number of IQC results outside defined limits / Total number of IQC results	a) count number of IQC results outside defined limits b) count total number of IQC results c) calculate percentage	Data collection: Every day; Input data: Monthly	IQC: Internal Quality Control.
Test uncovered by an EQA-PT control	Intra-EQA	Percentage of: Number of tests without EQA-PT control / Total number of tests in the menu.	a) count number of tests without EQA-PT control b) count total number of tests in the laboratory menù c) calculate percentage	Data collection: Every year; Input data: December	EQA: External Quality Assessment. PT: Proficiency Testing.
Unacceptable performances in EQA-PT scheme	Intra-Unac	Percentage of: Number of unacceptable performances in EQAS-PT Schemes, per year / Total number of performances in EQA Schemes, per year.	a) count number of unacceptable performances in EQA Schemes b) count total number of performances in EQA Schemes c) calculate percentage	Data collection: Every year; Input data: December	EQA: External Quality Assessment. PT: Proficiency Testing.
Data transcription errors	Intra-InTran	Percentage of: Number of incorrect results for erroneous manual transcription / Total number of results that need manual transcription.	a) count incorrect results for erroneous manual transcription b) count results that need manual transcription c) calculate the percentage	Data collection: Every day; Input data: Monthly	
	Intra-FailLIS	Percentage of: Number of incorrect results for information system problems / Total number of results.	a) count incorrect results for information system problems b) count total number of results c) calculate the percentage	Data collection: Every day; Input data: Monthly	
POST-ANALYTICAL PHASE					
Inappropriate turnaround time	Post-OutTime	Percentage of: Number of reports delivered outside the specified time / Total number of reports.	a) count reports delivered outside specified time b) count total number of reports c) calculate the percentage	Data collection: Every day; Input data: Monthly	Specified time = this concerns the reports (not results)
	Post-PerTAT	Turnaround time (minutes), from sample reception in laboratory to release of result, of Potassium (K) at 90th percentile (STAT).	a)estimate all TAT (minutes)), from sample reception in laboratory to release of result, of Potassium STAT) released in the month	Data collection: Every day per a month - three months per year;	



			b)estimate the 90th percentile	Input data: April - August - December	
	Post-INRTAT	Turnaround time (minutes), from sample reception in laboratory to release of result, of International Normalized Ratio (INR) value at 90th percentile (STAT)	a)estimate all TAT (minutes)), from sample reception in laboratory to release of result, of International Normalized Ratio (INR) (STAT) released in the month b) estimate the 90th percentile	Data collection: Every day per a month - three months per year; Input data: April - August - December	
	Post-WBCTAT	Turnaround time (minutes), from sample reception in laboratory to release of result, of White Blood Cell (WBC) count at 90th percentile (STAT).	a) estimate all TAT (minutes)), from sample reception in laboratory to release of result, of White Blood Cell (WBC) count (STAT) released in the month b) estimate the 90th percentile	Data collection: Every day per a month - three months per year; Input data: April - August - December	
	Post-TnTAT	Turnaround time (minutes), from sample reception in laboratory to release of result, of Cardiac Troponin (TnI or TnT) at 90th percentile (STAT).	a) estimate all TAT (minutes)), from sample reception in laboratory to release of result, of Cardiac Troponin I (TnI or TnT) (STAT) released in the month b) estimate the 90th percentile	Data collection: Every day per a month - three months per year; Input data: April - August - December	
	Post-TATPotH	Percentage of: Number of Potassium results (STAT) released after 1 hour/Total number of Potassium results (STAT)	a) count number of Potassium results (STAT) released after 1 hour b) count total number of Potassium results (STAT) c) calculate the percentage	Data collection: Every day; Input data: Monthly	
Incorrect laboratory reports	Post-RectRep	Percentage of: Number of rectified reports by laboratory after the release / Total number of released reports.	a) count number of rectified reports after the release b) count total number of released reports c) calculate the percentage	Data collection: Every day; Input data: Monthly	For example: Reports could be rectified for erroneous results or inappropriate/missed interpretative comments or wrong patient's details, etc
Notification of critical results	Post-InsCR	Percentage of: Number of critical results of inside patients notified after a consensually agreed time (from result validation to result communication to the clinical ward) / Total number of critical results of inside patients to communicate.	a) count critical results of inside patients notified after a consensually agreed time (from result validation to result communication to the clinical ward) b) count total number of critical results of inside patients to communicate c) calculate percentage	Data collection: Every day for a month - three months per year; Input data: April - August - December	Critical results = results that are so "extremely" abnormal and are considered life threatening because they may be associated with a significant dangerous event unless a medical action is promptly established. Consensually agreed time = time established by laboratory in which the critical result has to be effectively reported to the



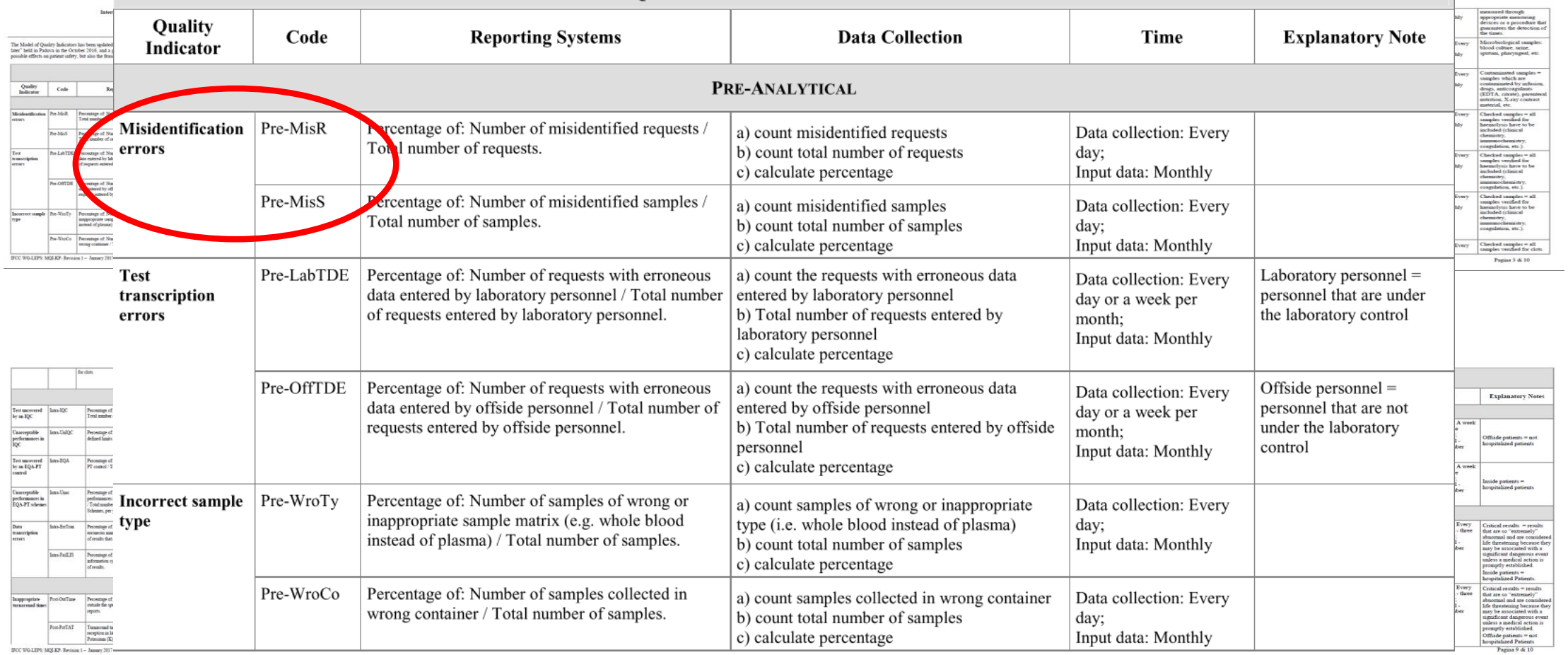
KEY PROCESSES
QUALITY INDICATORS – PRIORITY 4

Quality Indicator	Code	Reporting Systems	Data Collection	Time	Explanatory Notes
PRE-ANALYTICAL					
Inappropriate test requests	Pre-OffReq	Percentage of: Number of inappropriate requests, with respect to clinical question (offside patients) / Number of requests reporting clinical question (offside patients)	a) select and count offside patients requests with clinical question b) count the selected requests with inappropriate tests in relation to clinical question and on the basis of guidelines and scientific recommendations c) calculate percentage	Data collection: A week per month - three months per year; Input data: April - August - December	Offside patients = not hospitalized patients
	Pre-InsReq	Percentage of: Number of inappropriate requests, with respect to clinical question (inside patients) / Number of requests reporting clinical question (inside patients)	a) select and count inside patients requests with clinical question b) count the selected requests with inappropriate tests in relation to clinical question and on the basis of guidelines and scientific recommendations c) calculate percentage	Data collection: A week per month - three months per year; Input data: April - August - December	Inside patients = hospitalized patients
POST-ANALYTICAL					
Notification of critical results (TAT)	Post-InsCRT	Median value of time (from result validation to result communication to the clinical ward) to communicate critical results of inside patients (minutes)	a) estimate the time (minutes) to communicate critical results of inside patients b) calculate the median value of estimated times	Data collection: Every day for a month - three months per year; Input data: April - August - December	Critical results: = results that are so "extremely" abnormal and are considered life threatening because they may be associated with a significant dangerous event unless a medical action is promptly established. Inside patients = hospitalized Patients.
	Post-OffCRT	Median value of time (from result validation to result communication to the general practitioner) to communicate critical results of offside patients (minutes)	a) estimate the time (minutes) to communicate critical results of offside patients b) calculate the median value of estimated times	Data collection: Every day for a month - three months per year; Input data: April - August - December	Critical results = results that are so "extremely" abnormal and are considered life threatening because they may be associated with a significant dangerous event unless a medical action is promptly established. Offside patients = not hospitalized Patients

MODEL OF QUALITY INDICATORS

KEY PROCESSES QUALITY INDICATORS – PRIORITY 1					
Quality Indicator	**Code**	**Reporting Systems**	**Data Collection**	**Time**	**Explanatory Note**
PRE-ANALYTICAL					
Misidentification errors	Pre-MisR	Percentage of: Number of misidentified requests / Total number of requests.	a) count misidentified requests b) count total number of requests c) calculate percentage	Data collection: Every day; Input data: Monthly	
	Pre-MisS	Percentage of: Number of misidentified samples / Total number of samples.	a) count misidentified samples b) count total number of samples c) calculate percentage	Data collection: Every day; Input data: Monthly	
Test transcription errors	Pre-LabTDE	Percentage of: Number of requests with erroneous data entered by laboratory personnel / Total number of requests entered by laboratory personnel.	a) count the requests with erroneous data entered by laboratory personnel b) Total number of requests entered by laboratory personnel c) calculate percentage	Data collection: Every day or a week per month; Input data: Monthly	Laboratory personnel = personnel that are under the laboratory control
	Pre-OffTDE	Percentage of: Number of requests with erroneous data entered by offside personnel / Total number of requests entered by offside personnel.	a) count the requests with erroneous data entered by offside personnel b) Total number of requests entered by offside personnel c) calculate percentage	Data collection: Every day or a week per month; Input data: Monthly	Offside personnel = personnel that are not under the laboratory control
Incorrect sample type	Pre-WroTy	Percentage of: Number of samples of wrong or inappropriate sample matrix (e.g. whole blood instead of plasma) / Total number of samples.	a) count samples of wrong or inappropriate type (i.e. whole blood instead of plasma) b) count total number of samples c) calculate percentage	Data collection: Every day; Input data: Monthly	
	Pre-WroCo	Percentage of: Number of samples collected in wrong container / Total number of samples.	a) count samples collected in wrong container b) count total number of samples c) calculate percentage	Data collection: Every day; Input data: Monthly	

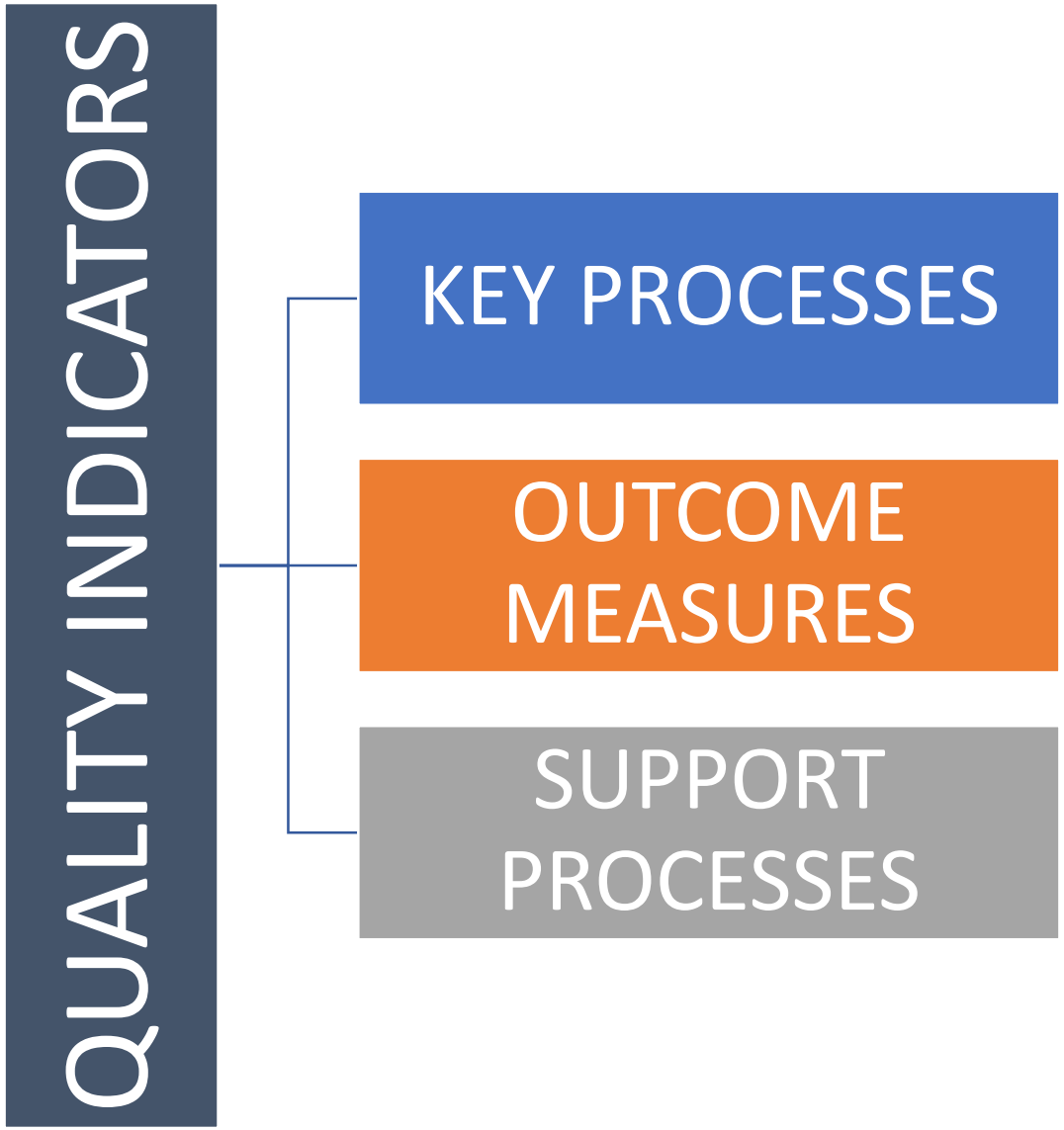
MODEL OF QUALITY INDICATORS

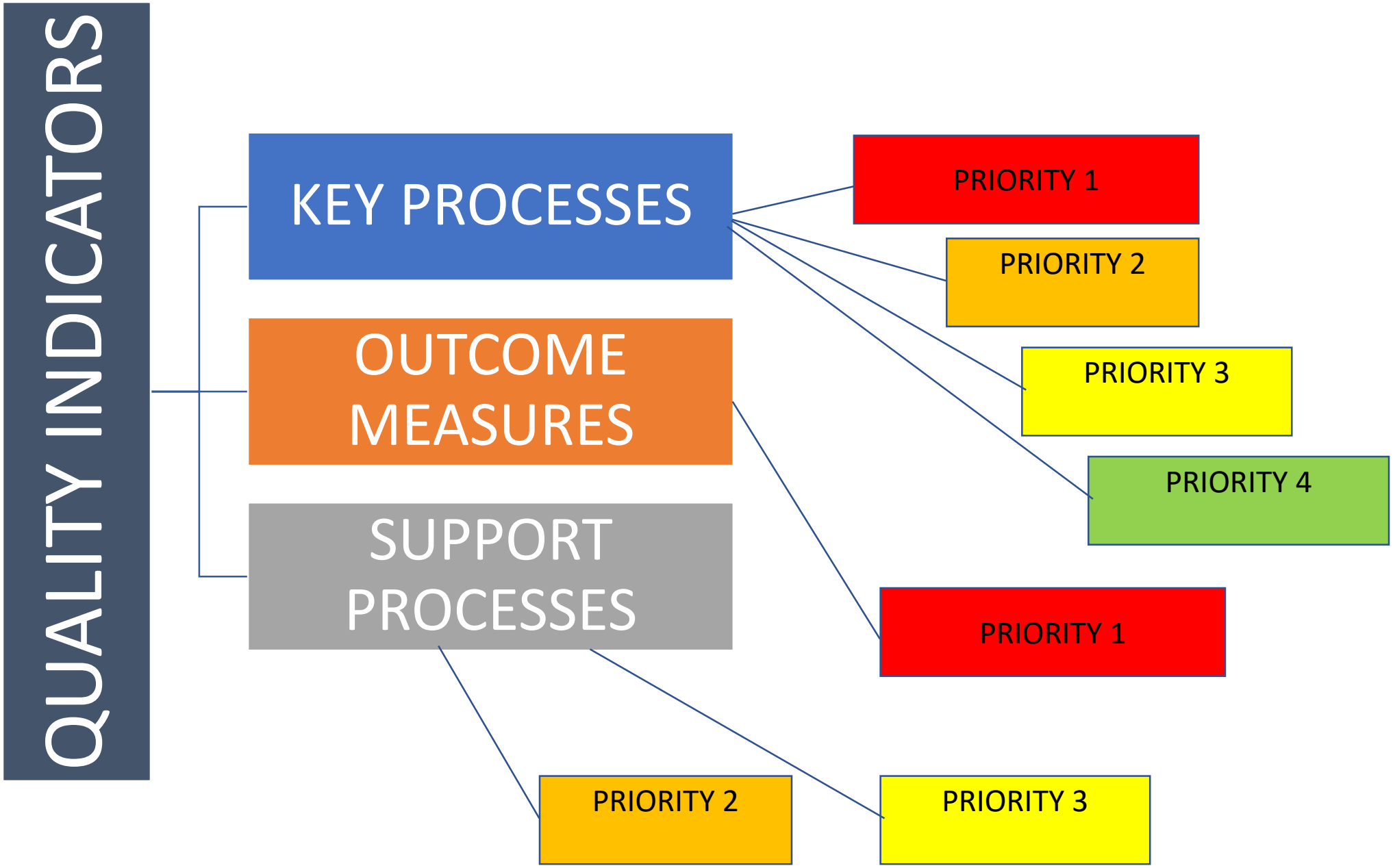


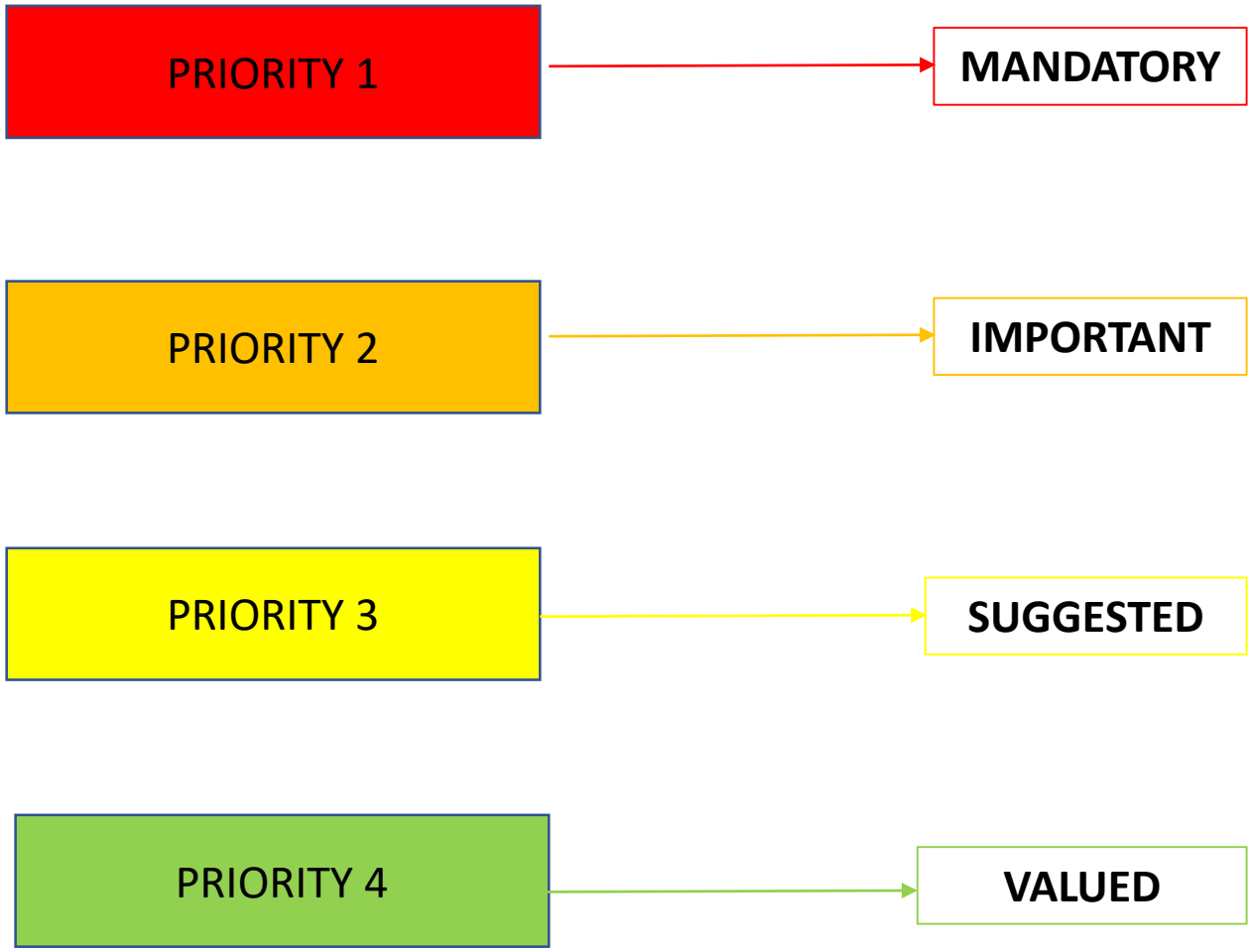
KEY PROCESSES QUALITY INDICATORS – PRIORITY 1					
Quality Indicator	**Code**	**Reporting Systems**	**Data Collection**	**Time**	**Explanatory Note**
PRE-ANALYTICAL					
Misidentification errors	Pre-MisR	Percentage of: Number of misidentified requests / Total number of requests.	a) count misidentified requests b) count total number of requests c) calculate percentage	Data collection: Every day; Input data: Monthly	
	Pre-MisS	Percentage of: Number of misidentified samples / Total number of samples.	a) count misidentified samples b) count total number of samples c) calculate percentage	Data collection: Every day; Input data: Monthly	
Test transcription errors	Pre-LabTDE	Percentage of: Number of requests with erroneous data entered by laboratory personnel / Total number of requests entered by laboratory personnel.	a) count the requests with erroneous data entered by laboratory personnel b) Total number of requests entered by laboratory personnel c) calculate percentage	Data collection: Every day or a week per month; Input data: Monthly	Laboratory personnel = personnel that are under the laboratory control
	Pre-OffTDE	Percentage of: Number of requests with erroneous data entered by offside personnel / Total number of requests entered by offside personnel.	a) count the requests with erroneous data entered by offside personnel b) Total number of requests entered by offside personnel c) calculate percentage	Data collection: Every day or a week per month; Input data: Monthly	Offside personnel = personnel that are not under the laboratory control
Incorrect sample type	Pre-WroTy	Percentage of: Number of samples of wrong or inappropriate sample matrix (e.g. whole blood instead of plasma) / Total number of samples.	a) count samples of wrong or inappropriate type (i.e. whole blood instead of plasma) b) count total number of samples c) calculate percentage	Data collection: Every day; Input data: Monthly	
	Pre-WroCo	Percentage of: Number of samples collected in wrong container / Total number of samples.	a) count samples collected in wrong container b) count total number of samples c) calculate percentage	Data collection: Every day; Input data: Monthly	

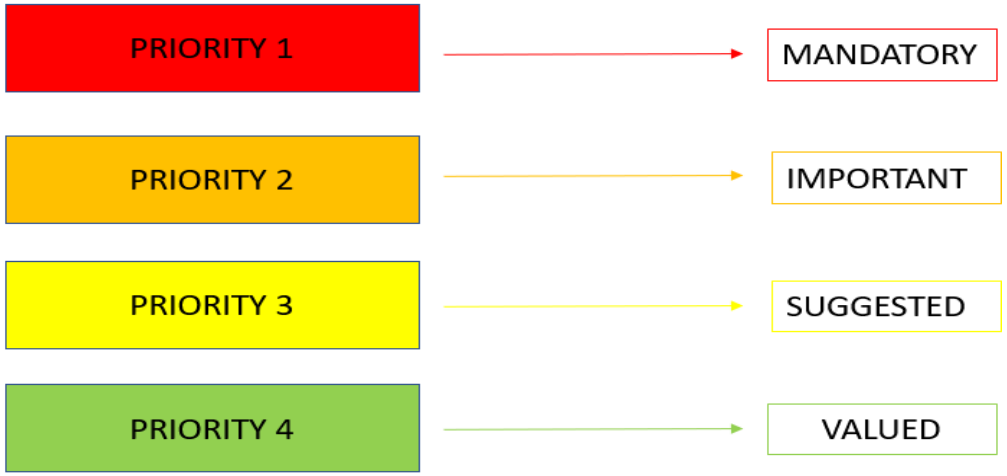
MODEL OF QUALITY INDICATORS

KEY PROCESSES QUALITY INDICATORS – PRIORITY 1				
PRE-ANALYTICAL				
Misidentification errors	Pre-MisR	Percentage of: Number of misidentified requests / Total number of requests.	a) count misidentified requests b) count total number of requests c) calculate percentage	Data collection: Every day; Input data: Monthly
	Pre-MisS	Percentage of: Number of misidentified samples / Total number of samples.	a) count misidentified samples b) count total number of samples c) calculate percentage	Data collection: Every day; Input data: Monthly


QUALITY INDICATORS
KEY PROCESSES
OUTCOME MEASURES
SUPPORT PROCESSES

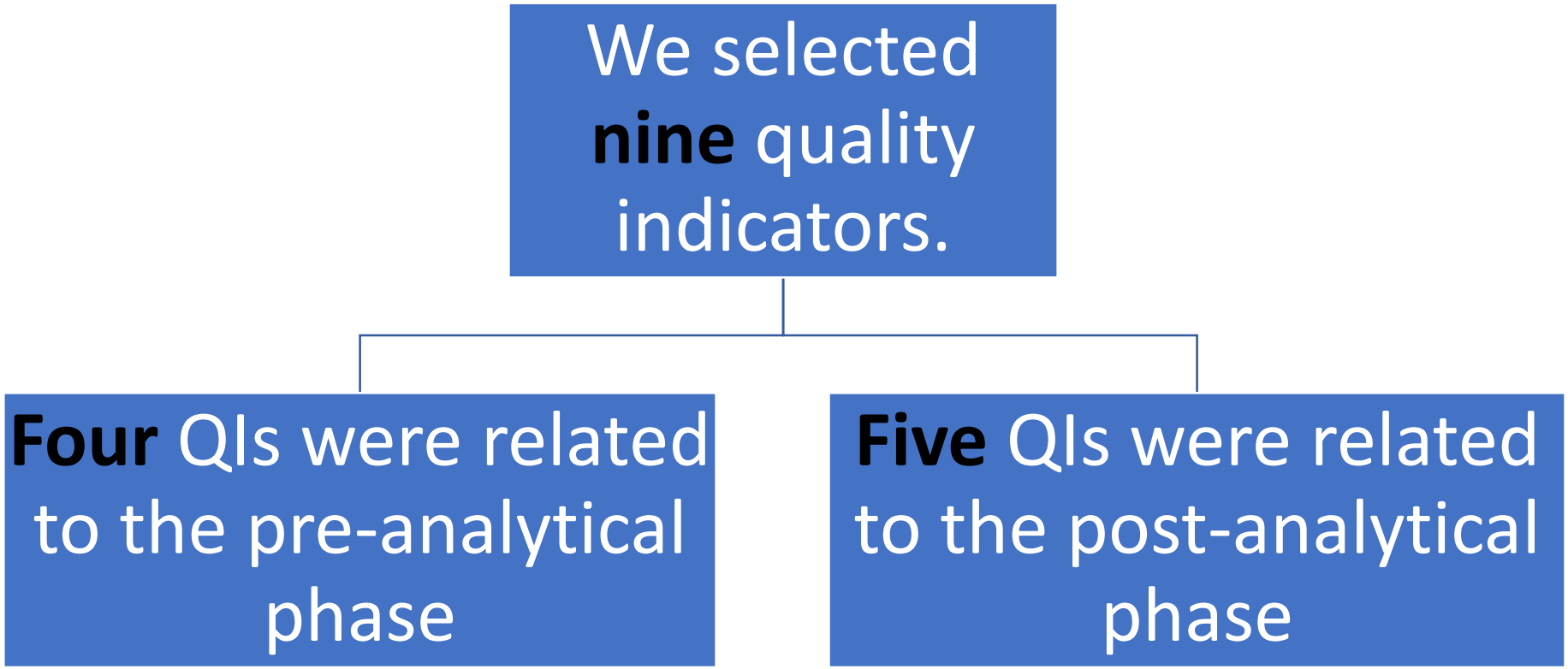

QUALITY INDICATORS
KEY PROCESSES
OUTCOME MEASURES
SUPPORT PROCESSES
PRIORITY 1
PRIORITY 2
PRIORITY 3
PRIORITY 4
PRIORITY 1
PRIORITY 2
PRIORITY 3


PRIORITY 1
MANDATORY
PRIORITY 2
IMPORTANT
PRIORITY 3
SUGGESTED
PRIORITY 4
VALUED



- MQI project does not force laboratories to use all QIs proposed.
- It seems suitable to include in the MQI all the indicators thought to be able to useful in monitoring critical activities
- The individual laboratory should be able to decide how many, and which, QIs are to be adopted.

- We have decided to use quality indicators that are suitable for the type of data which can be obtained from the laboratory information system.



Pre-WroCo

- Percentage of: Number of samples collected in wrong container/Total number of samples.

Pre-InsV

- Percentage of: Number of samples with insufficient sample volume/ Total number of samples.

Pre-HemR

- Percentage of: Number of samples rejected due to haemolysis/ Total number of checked samples for haemolysis

Pre-Clot

- Percentage of: Number of samples clotted/ Total number of samples with an anticoagulant checked for clots.

Post-PotTAT	• Turnaround time (minutes), from sample reception in laboratory to release of result, of Potassium (K) at 90th percentile (STAT).
Post-INRTAT	• Turnaround time (minutes), from sample reception in laboratory to release of result, of International Normalized Ratio (INR) value at 90th percentile (STAT).
Post-WBCTAT	• Turnaround time (minutes), from sample reception in laboratory to release of result, of White Blood Cell (WBC) count at 90th percentile (STAT).
Post-TnTAT	• Turnaround time (minutes), from sample reception in laboratory to release of result, of Cardiac Troponin (TnI or TnT) at 90th percentile (STAT).
Post-TATPotH	• Percentage of: Number of Potassium results (STAT) released after 1 hour / Total number of Potassium results (STAT)

IFCC WEB APPLICATION

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IFCC - Education and Management Division

Laboratory

TR008
Biochemistry Laboratory
Istanbul Bagcilar Training and Education Hospital
Istanbul - - TR
Cihan Coskun
kuzeycihan2012@gmail.com

Select Edit to insert new values or Repository to view historical data

ID	Code	Description	Notes		
15	MQI - 1 (Rev. 1)	Key Processes Indicators - Priority 1 (Rev. 1)	Insert your data starting since January 2017	Edit	Repository
16	MQI - 2 (Rev. 1)	Key Processes Indicators - Priority 2 (Rev. 1)	Insert your data starting since January 2017	Edit	Repository
17	MQI - 3 (Rev. 1)	Key Processes Indicators - Priority 3 (Rev. 1)	Insert your data starting since January 2017	Edit	Repository
18	MQI - 4 (Rev.1)	Key Processes Indicators - Priority 4 (Rev. 1)	Insert your data starting since January 2017	Edit	Repository
19	MQI-Outcome (Rev.1)	Outcome Measures (Rev. 1)	Insert your data starting since January 2017	Edit	Repository
20	MQI-Support (Rev.1)	Support Processes Indicators (Rev. 1)	Insert your data starting since January 2017	Edit	Repository

IFCC WEB APPLICATION

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IFCC - Education and Management Division

Laboratory

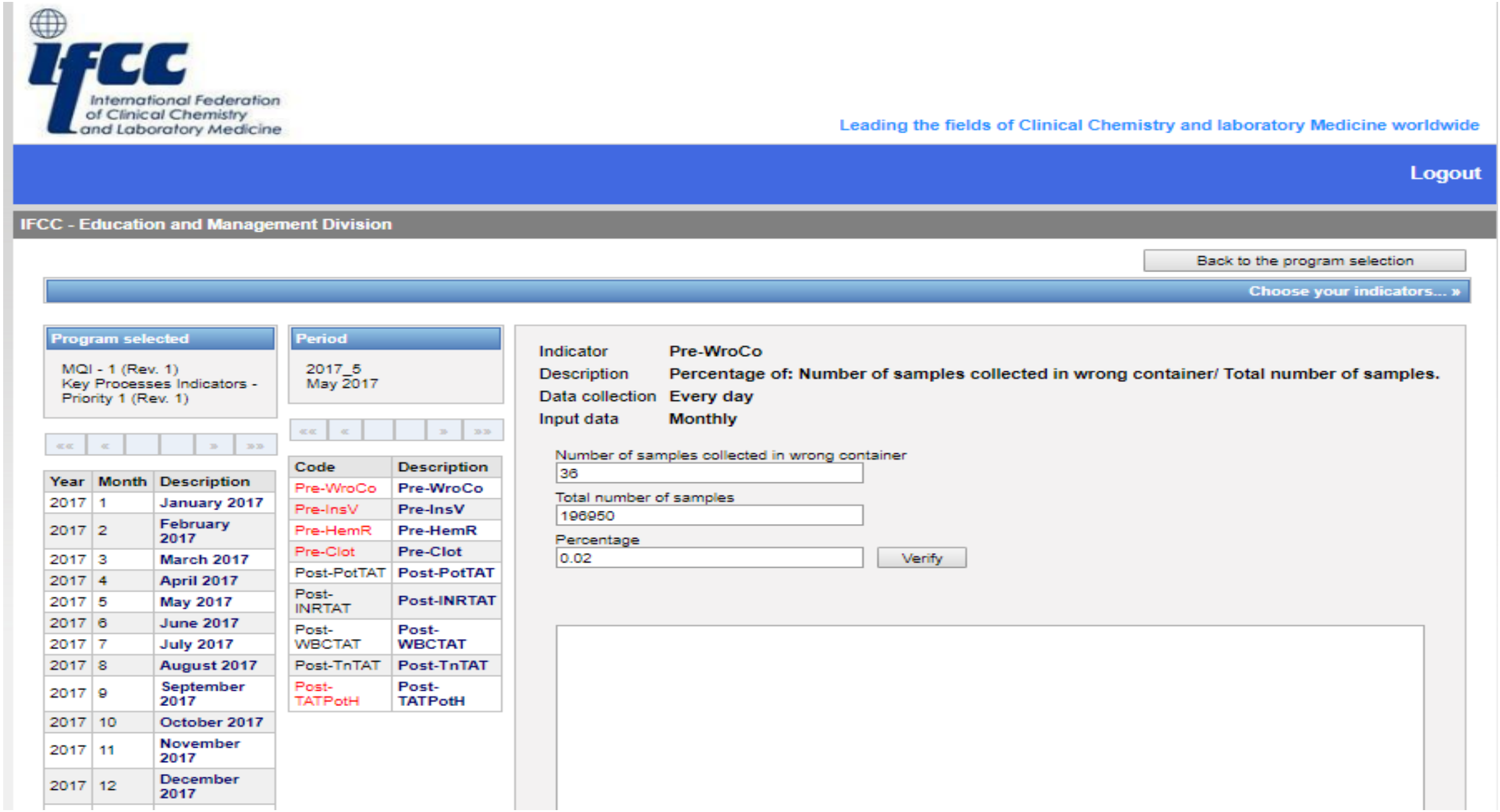
TR008
Biochemistry Laboratory
Istanbul Bagcilar Training and Education Hospital
Istanbul - - TR
Cihan Coskun
kuzeycihan2012@gmail.com

EDIT

Select Edit to insert new values or Repository to view historical data

ID	Code	Description	Notes		
15	MQI - 1 (Rev. 1)	Key Processes Indicators - Priority 1 (Rev. 1)	Insert your data starting since January 2017	Edit	Repository
16	MQI - 2 (Rev. 1)	Key Processes Indicators - Priority 2 (Rev. 1)	Insert your data starting since January 2017	Edit	Repository
17	MQI - 3 (Rev. 1)	Key Processes Indicators - Priority 3 (Rev. 1)	Insert your data starting since January 2017	Edit	Repository
18	MQI - 4 (Rev.1)	Key Processes Indicators - Priority 4 (Rev. 1)	Insert your data starting since January 2017	Edit	Repository
19	MQI-Outcome (Rev.1)	Outcome Measures (Rev. 1)	Insert your data starting since January 2017	Edit	Repository
20	MQI-Support (Rev.1)	Support Processes Indicators (Rev. 1)	Insert your data starting since January 2017	Edit	Repository

DATA INPUT SCREEN



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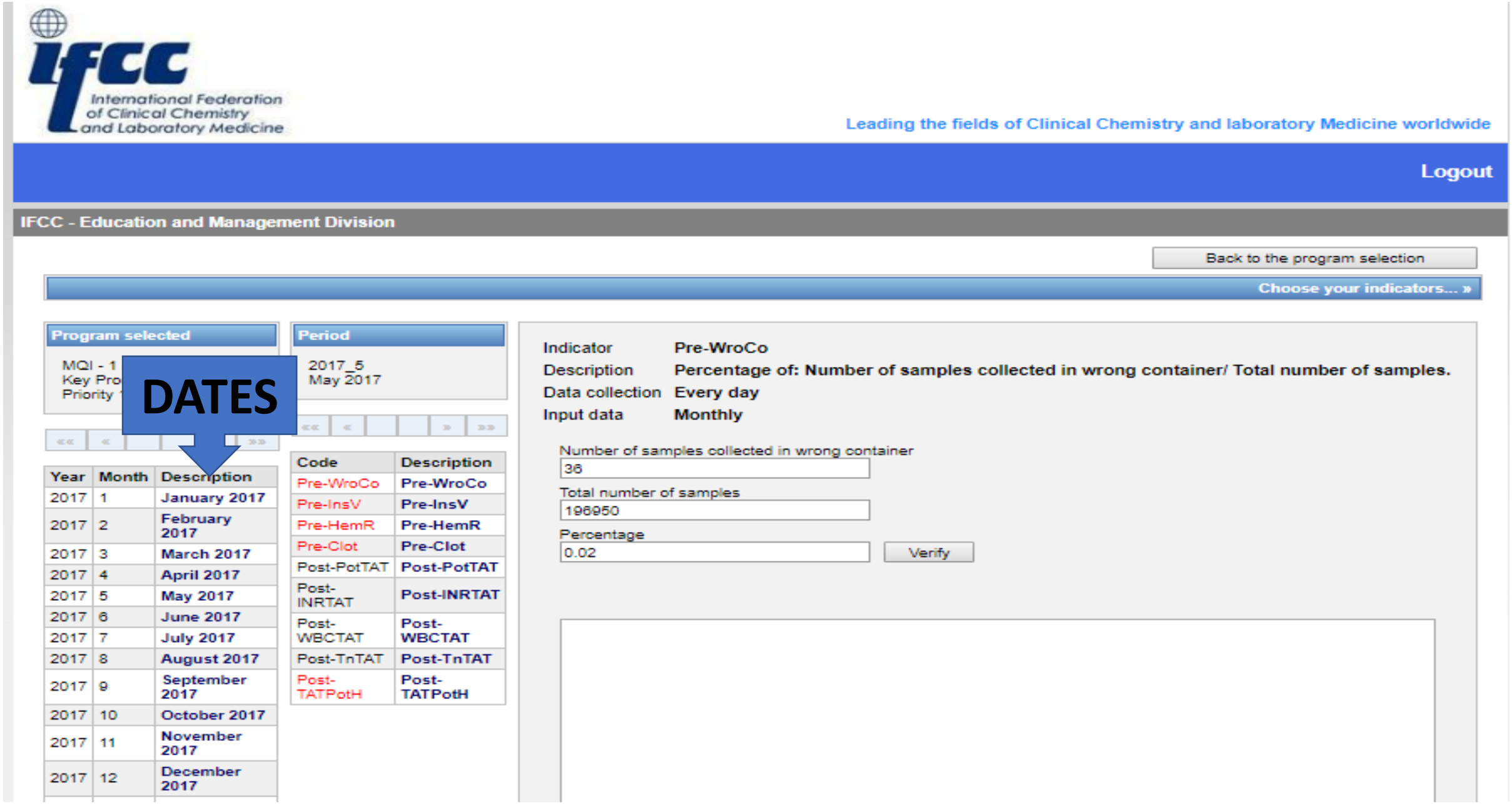

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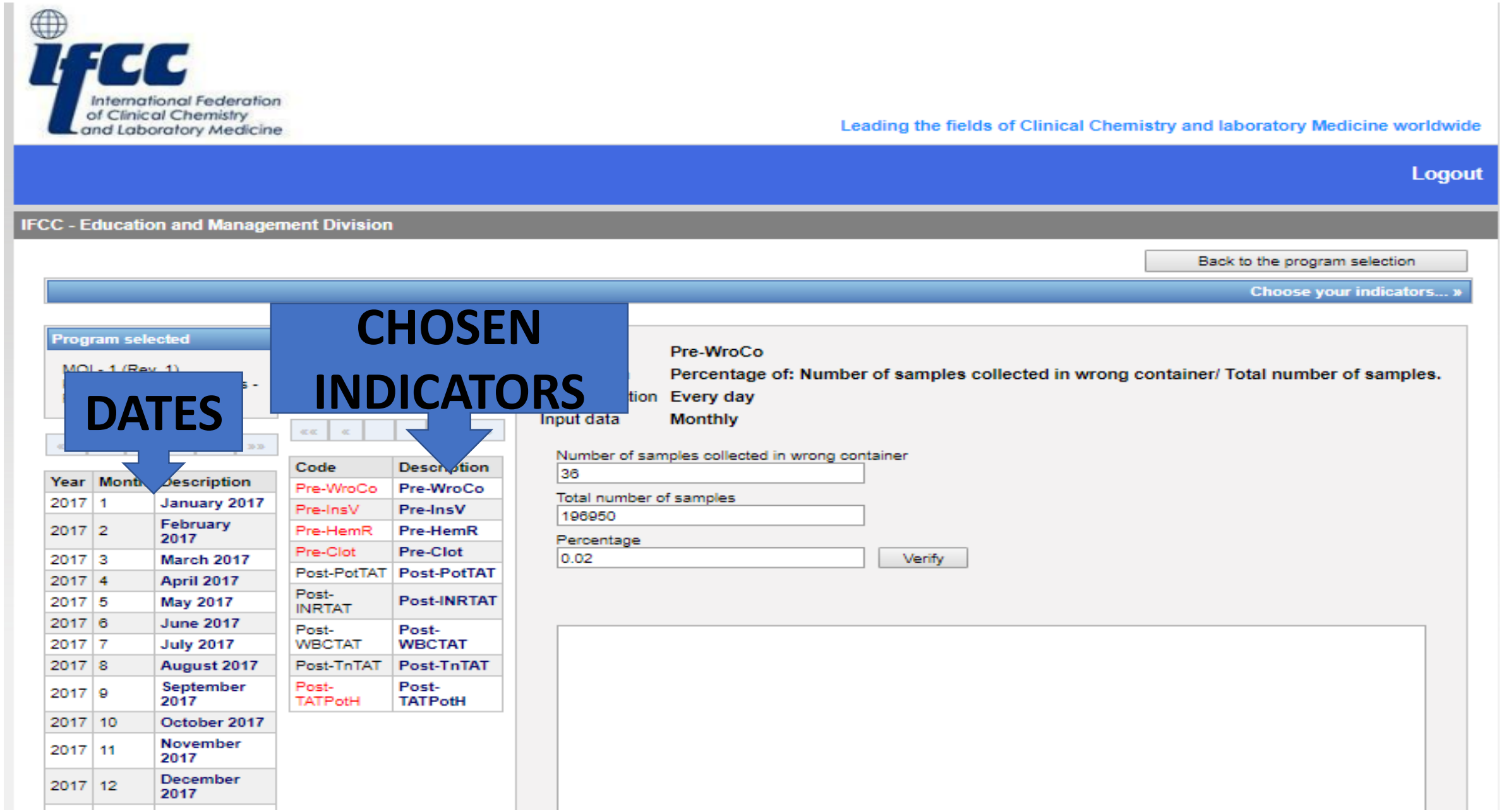

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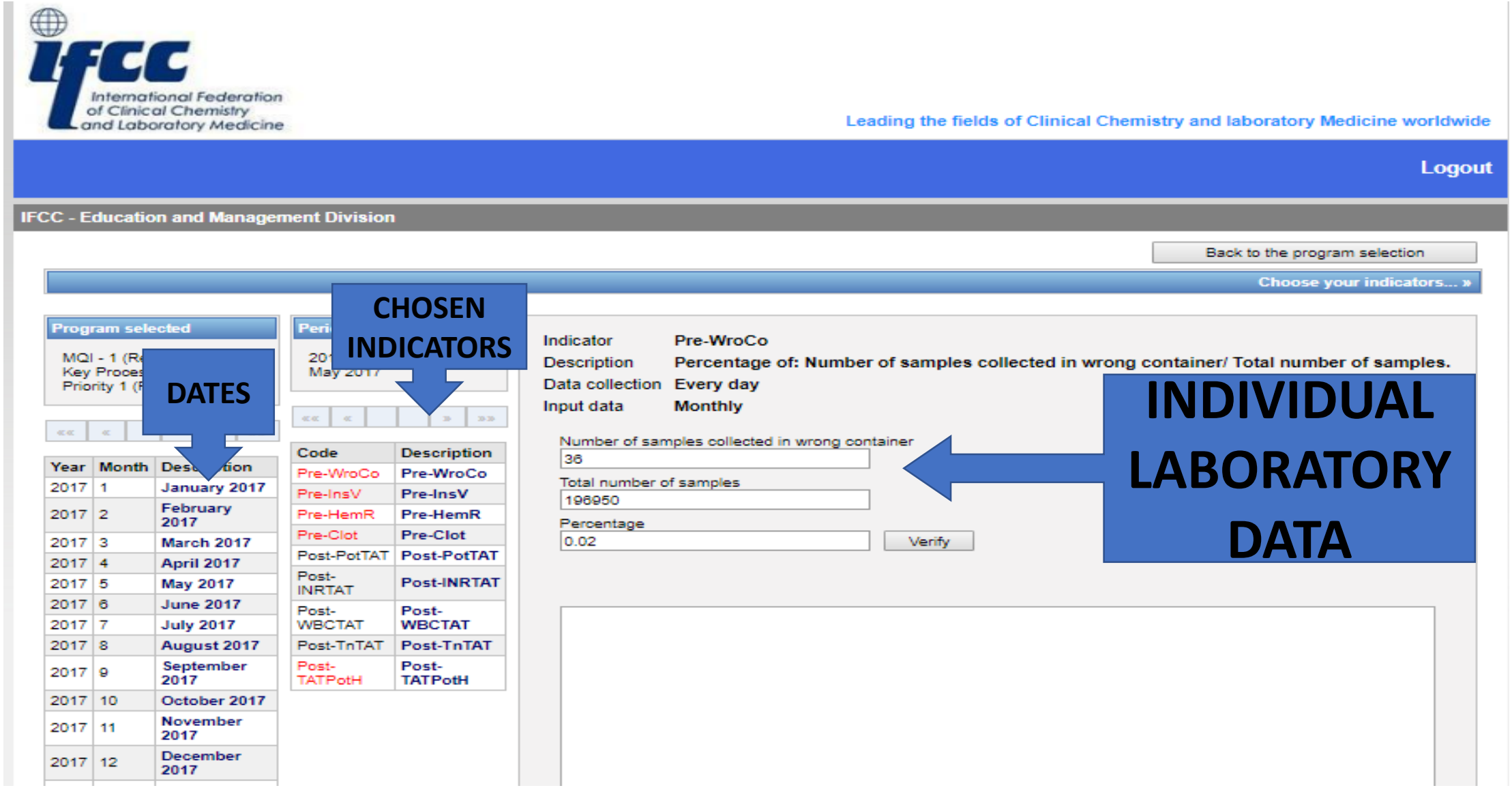

SUMMARY OF PREVIOSLY ENTERED DATA

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Choose your indicators... »

Program selected

MQI - 1 (Rev. 1)
Key Processes Indicators - Priority 1 (Rev. 1)

Indicator

Pre-WroCo
Percentage of: Number of samples collected in wrong container/ Total number of samples.

« « » »

Code	Description
Pre-WroCo	Pre-WroCo
Pre-InsV	Pre-InsV
Pre-HemR	Pre-HemR
Pre-Clot	Pre-Clot
Post-PotTAT	Post-PotTAT
Post-INRTAT	Post-INRTAT
Post-WBCTAT	Post-WBCTAT
Post-TnTAT	Post-TnTAT
Post-TATPotH	Post-TATPotH

« « » »

Period	Number	Total Numb	Percentage		Week
May 2017	36	196950	0.02		0
June 2017	29	169095	0.02		0
July 2017	31	195016	0.02		0
August 2017	35	183905	0.02		0
September 2017	33	190095	0.02		0
October 2017	22	208520	0.01		0
November 2017	42	207868	0.02		0
December 2017	50	206616	0.02		0
January 2018	36	212366	0.02		0
February 2018	55	197802	0.03		0
March 2018	25	210250	0.01		0
April 2018	33	211236	0.02		0
May 2018	47	211556	0.02		0
June 2018	31	180844	0.02		0
July 2018	42	198891	0.02		0

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Selected year: 2018

Back to the program selection

« » »»

Year
2019
2018
2017
2016
2015
2014
2013
2012

Indicator Code	Indicator	Report	Document
Post-TATPotH	Percentage of: Number of Potassium results (STAT) released after 1 hour / Total number of Potassium results (STAT)	Report_Year_2018.pdf	Download

DOWNLOADABLE REPORTS

PARTICIPITANTS REPORTS

QUALITY INDICATORS

Post-TATPotHPercentage of: Number of Potassium results (STAT) released after 1 hour / Total number of Potassium results (STAT)

Laboratory Code: TR008

Laboratory Group: Turkish Laboratories

Laboratory Institution: Biochemistry Laboratory - Istanbul Bagcilar Training and Education Hospi - Istanbul

Statistical Data of Laboratory Results

Data Number	Mean (%)	Median (%)	Sigma Mean
11	16,69	17,39	2,47

Statistical Data of Category Results

Data Number	Mean (%)	Median (%)	Sigma Mean
11	16,69	17,39	2,44

Statistical Data of All Results

Data Number	Mean (%)	Median (%)	Sigma Mean
87	10,72	7,38	2,95

	Laboratory Data				Participants Data							
	Laboratory Value (%)	Laboratory Sigma	Confidence Interval Sigma		Group Sigma		Confidence Interval Group Sigma		Overall Sigma		Confidence Interval Overall Sigma	
			Min.	*Max.*	*Value*	*N.*	*Min.*	*Max.*	*Value*	*N.*	*Min.*	*Max.*
February 2018	18,45	2,40	2,37	2,43	2,40	*1*	2,37	2,43	3,07	*7*	2,89	3,24
March 2018	17,39	2,44	2,41	2,47	2,44	*1*	2,41	2,47	3,10	*7*	2,90	3,28
April 2018	17,83	2,42	2,39	2,45	2,42	*1*	2,39	2,45	3,39	*10*	2,93	3,27
May 2018	18,65	2,39	2,36	2,42	2,39	*1*	2,36	2,42	3,18	*7*	2,99	3,36
June 2018	20,01	2,34	2,31	2,37	2,34	*1*	2,31	2,37	3,27	*7*	3,06	3,46
July 2018	15,91	2,50	2,47	2,53	2,50	*1*	2,47	2,53	3,11	*7*	2,91	3,30
August 2018	15,67	2,51	2,48	2,54	2,51	*1*	2,48	2,54	2,89	*8*	2,77	3,04
September 2018	17,91	2,42	2,39	2,45	2,42	*1*	2,39	2,45	2,98	*6*	2,81	3,14
October 2018	15,18	2,53	2,50	2,56	2,53	*1*	2,50	2,56	3,22	*7*	2,59	2,92
November 2018	10,99	2,73	2,69	2,76	2,73	*1*	2,69	2,76	3,37	*7*	2,77	3,08
December 2018	15,55	2,51	2,49	2,54	2,51	*1*	2,49	2,54	3,02	*8*	2,88	3,16

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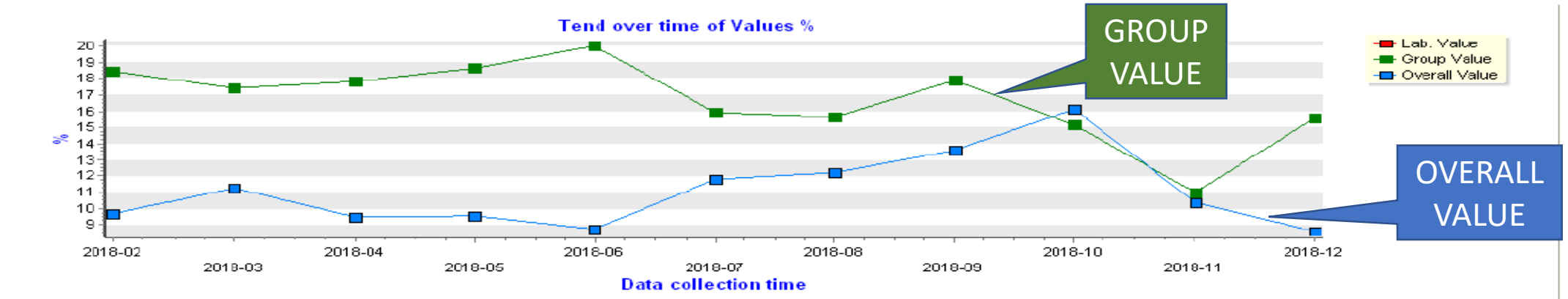

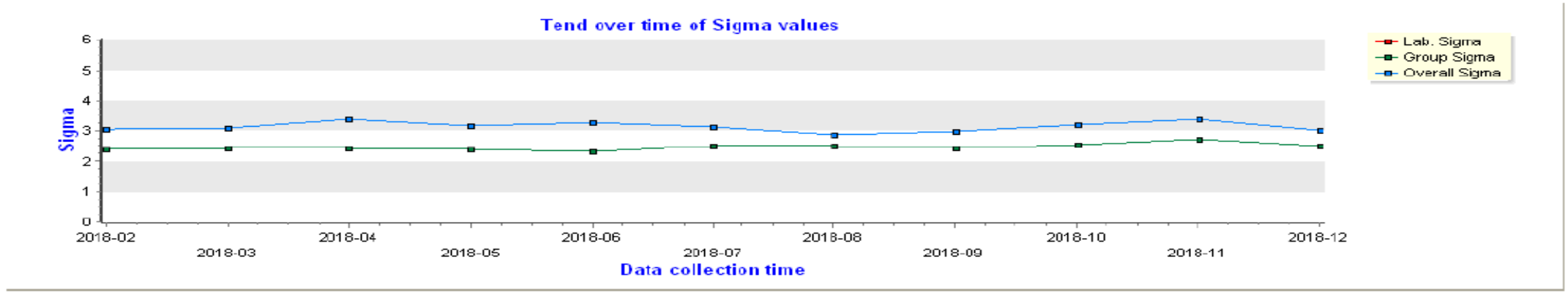

IFCC Working Group "Laboratory Errors and Patient Safety" Participants Report: Year 2018 (December) Lab code: TR008

PARTICIPITANTS REPORTS

QUALITY INDICATORS

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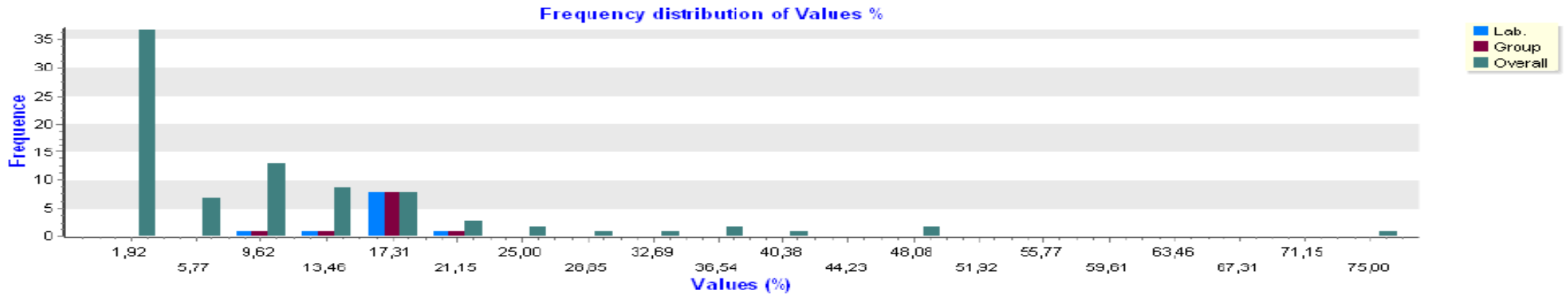

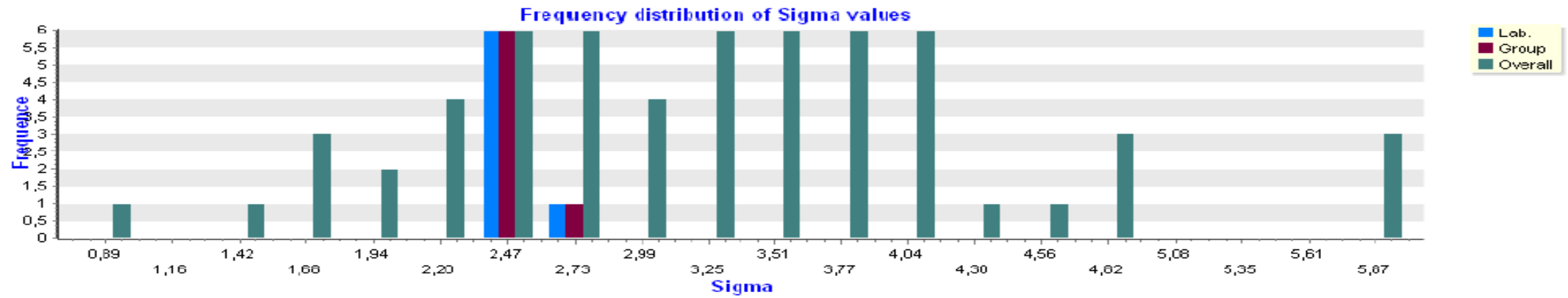

Conclusion

- There are too many quality indicators.
- One of the biggest challenges is the difficulty in understanding some indicators.
- Quality indicators should be translated to all languages and there should be more detailed explanation and calculation methods.

Conclusion

- Due to difficulties in obtaining data from laboratory information system, a common midware is needed.

- MQI covers all total testing processes.

THANK YOU FOR YOUR PATIENCE