

External Quality Assessment Scheme

Faecal bacterial pathogens multiplex, nucleic acid detection Round 1, 2023

Specimens

Please find enclosed 2 lyophilized samples S001 and S002 and 1 liquid sample S003, 1 mL. In addition, vials of rehydration fluid, each 0.5 mL, for samples S001 and S002.

Caution

Specimens simulate patient samples and they should be handled in the same way as corresponding specimens capable of transmitting infectious disease.

Examinations

Aeromonas
Campylobacter
Plesiomonas
Salmonella
Shigella
Yersinia

Enterohemorrhagic *E. coli* (EHEC), Verotoxigenic *E. coli* (VTEC), Shiga-toxigenic *E. coli* (STEC)

Enteroaggregative *Escherichia coli* (EAEC)

Enteroinvasive *Escherichia coli* (EIEC)

Enteropathogenic *Escherichia coli* (EPEC)

Enterotoxigenic *Escherichia coli* (ETEC)

Storage and use

After arrival, the samples should be stored at +2...8 °C.

Lyophilized samples S001 and S002:

1. Let the sample (blue-capped vial inside the foil package) and the rehydration fluid (vial with white cap) warm up to room temperature.
2. Aseptically remove the pellet with sterile forceps from the blue-capped vial and place it in the rehydration fluid vial (white cap). Alternatively, you may add the rehydration fluid (à 0.5 mL) directly into the blue-capped vial.
3. Crush the pellet with a sterile loop until the suspension is homogenous.
4. Incubate the vial for 30 minutes in +35...37 °C.
5. Check that the pellet has dissolved properly.
6. Mix well the contents of the vial and proceed immediately with the examination similar to a patient sample.

Liquid sample S003:

The sample is ready for use and should be analysed as patient sample. Perform the analysis according to the manufacturer's instructions for a liquid sample. Note! The sample is suitable for direct nucleic acid detection only. The sample cannot be cultured.

Result reporting

Please enter the results via LabScala (www.labscala.com). If you cannot find your interpretation or method from the list, please contact the EQA Coordinator. Report to the clinician part will be scored.

2023-03-28

INSTRUCTIONS

Product no. 5191
LQ762423011-013/US
UN3373

Subcontracting: Sample pretesting

If the kit is incomplete or contains damaged specimens, please report immediately to info@labquality.fi.

The results should be reported no later than **April 21, 2023.**

The expected results of the round are published in LabScala in the View Reports section by April 26, 2023.

Inquiries

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Faecal bacterial pathogens multiplex, nucleic acid detection

S001



S002



S003

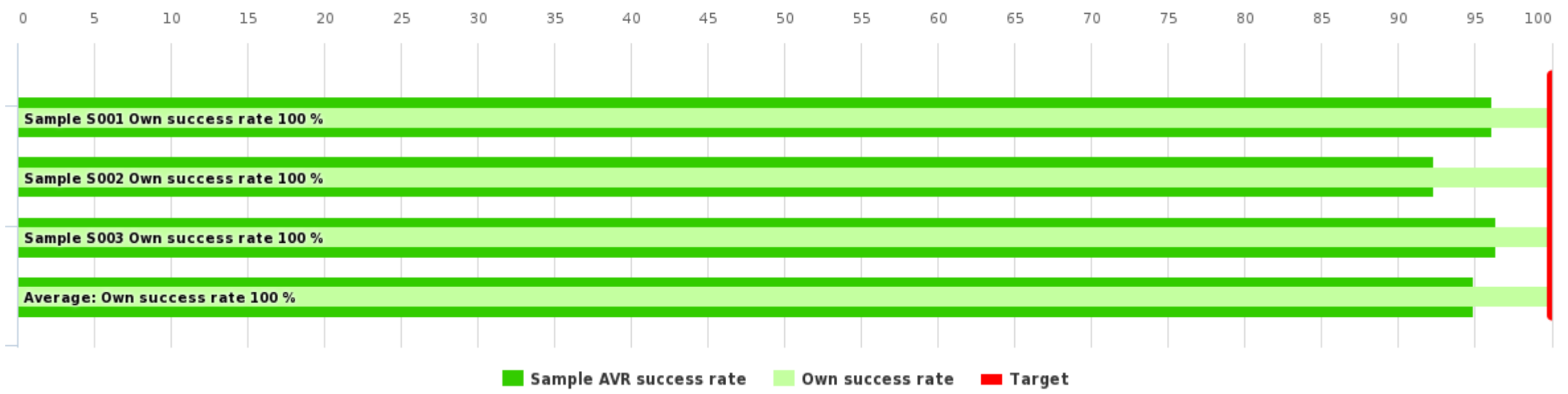


Client report

	No of participants	No of responded participants	Response percentage
Faecal bacterial pathogens multiplex, nucleic acid detection, April, 1-2023	124	111	89.5 %

Summary

Overall success rate by samples

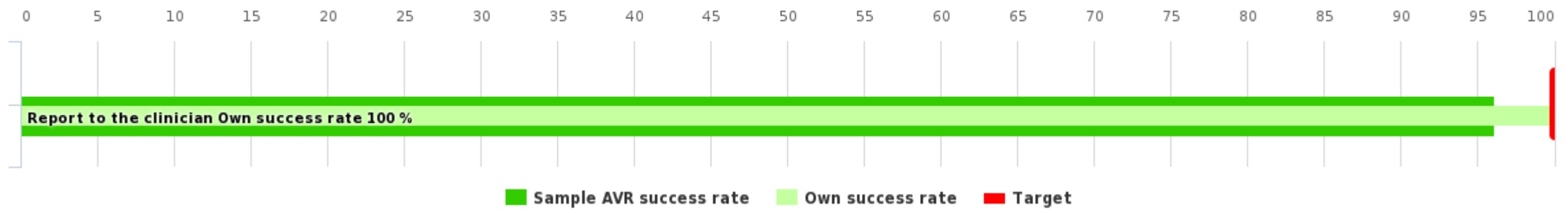


Summary	Own score	Max score	Own success rate	Difference	AVR success rate
Sample S001	4	4	100 %	3.9 %	96.1 %
Sample S002	4	4	100 %	7.7 %	92.3 %
Sample S003	4	4	100 %	3.6 %	96.4 %
Average:			100 %	5.1 %	94.9 %

History	Test nr.	Own success rate	Difference	AVR success rate
History not found				

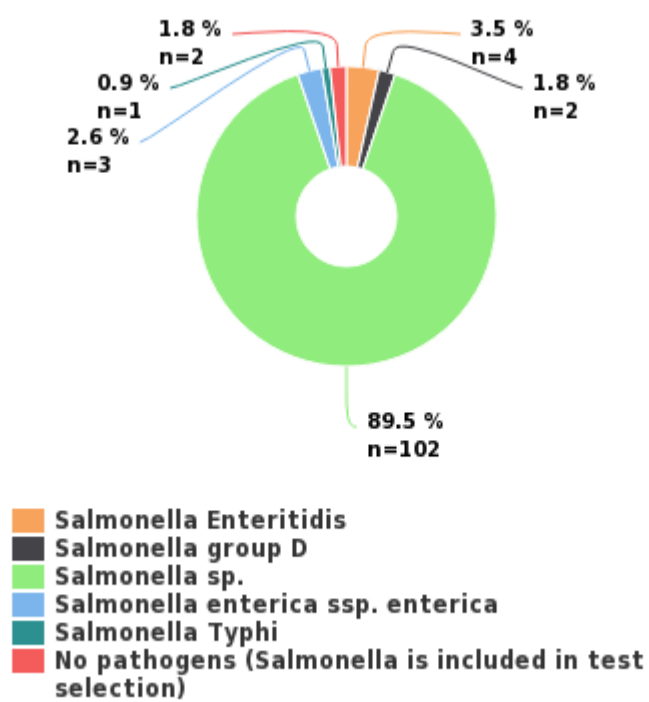
Sample S001 | Salmonella Enteritidis

Sample S001 success rate

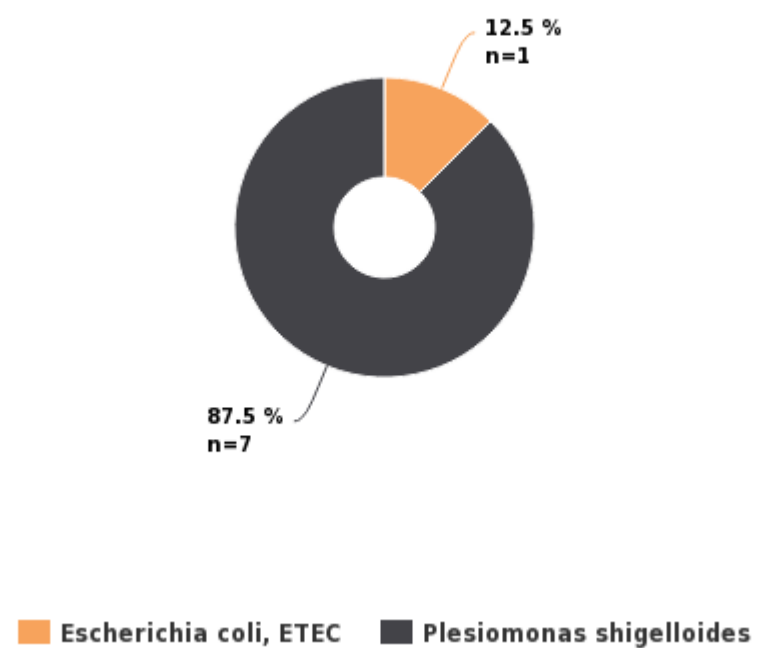


Sample S001 results	Responded	AVR success rate	Count
	Report to the clinician	96.1 %	122
	Identification tests: NAT	-	124

Sample S001 Salmonella Enteritidis



Sample S001 Additional finding



LABORATORY SPECIFIC SCORING TABLE

Finding group	Finding	Referred	Own score	Max score	Own success rate	Difference	AVR success rate
Salmonella Enteritidis	Salmonella sp.	Not referred for further action	4	4	100 %	2.2 %	97.8 %
Total:			4	4	100 %	3.9 %	96.1 %

REPORT TO THE CLINICIAN

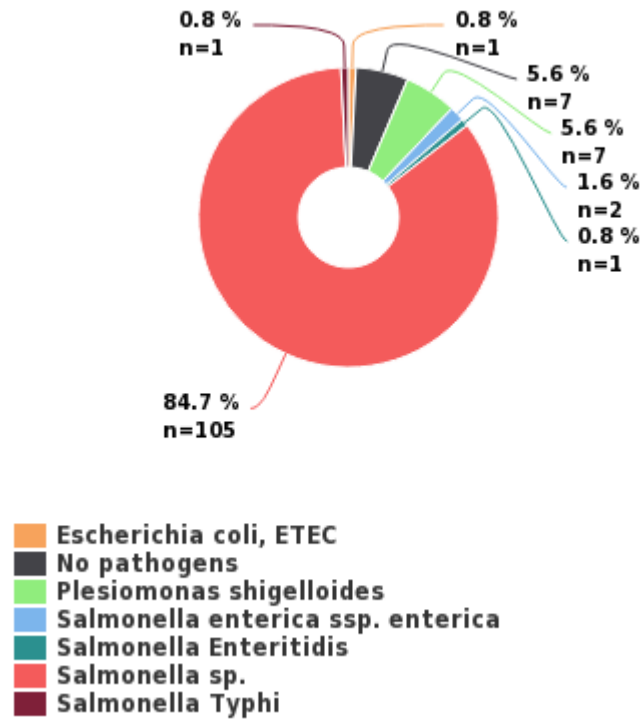
Finding group	Finding	Finding count	Referred	Not referred	AVR success rate
Salmonella Enteritidis		114			97.8 %
	Salmonella Enteritidis	4	1	3	
	Salmonella group D	2	1	1	
	Salmonella sp.	102	61	41	
	Salmonella enterica ssp. enterica	3	3		
	Salmonella Typhi	1	1		
Additional finding	No pathogens (Salmonella is included in test selection)	2	1	1	
		8			-
	Escherichia coli, ETEC	1	1		
	Plesiomonas shigelloides	7	3	4	
Total:		122			96.1 %

SCORING SUMMARY

Finding group	Finding	Finding score	Max score
Salmonella Enteritidis		4	4
	Salmonella Enteritidis	4	4
	Salmonella group D	4	4
	Salmonella sp.	4	4

	Salmonella enterica ssp. enterica	4	4
	Salmonella Typhi	2	4
	No pathogens (Salmonella is included in test selection)	0	4
Additional finding			-
	Escherichia coli, ETEC	-1	-
	Plesiomonas shigelloides	-1	-
Total:			4

Sample S001 Identification tests: NAT

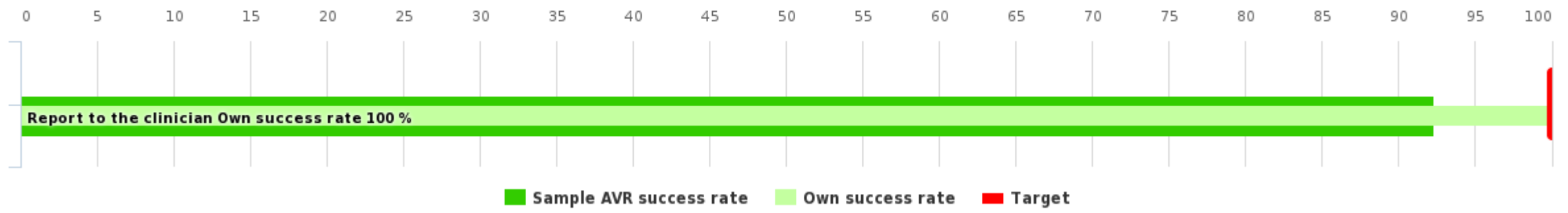


IDENTIFICATION TESTS: NAT

Finding group	Method	Result	Result count
Salmonella Enteritidis	Anatolia Bosphore Gastroenteritis Panel Kit v2	Salmonella sp.	2
	BD MAX Enteric Bacterial Panel	Salmonella enterica ssp. enterica	1
		Salmonella Enteritidis	1
	Salmonella sp.		27
		bioMerieux FilmArray GI Panel	☉ Salmonella sp.
	EntericBio Gastro Panel 2	Salmonella sp.	1
	Hologic/Mobidiag Amplidiag Bacterial GE	Salmonella sp.	3
	In house	Salmonella enterica ssp. enterica	1
		Salmonella sp.	2
	PathoFinder GastroFinder 2SMART	Salmonella sp.	1
	Qiagen STAT-Dx DiagCORE Gastrointestinal Panel V2	Salmonella sp.	8
		Salmonella Typhi	1
	Roche LightMix Modular Gastro Bacteria Multiplex	Salmonella sp.	1
	Seegene Allplex GI-Bacteria(I) Assay	No pathogens	1
		Salmonella sp.	30
	Seegene Allplex GI-Bacteria(II) Assay	No pathogens	6
Seegene Allplex GI-EB Screening	Salmonella sp.	1	
Additional finding	bioMerieux FilmArray GI Panel	Escherichia coli, ETEC	1
		Plesiomonas shigelloides	7
Total:			124

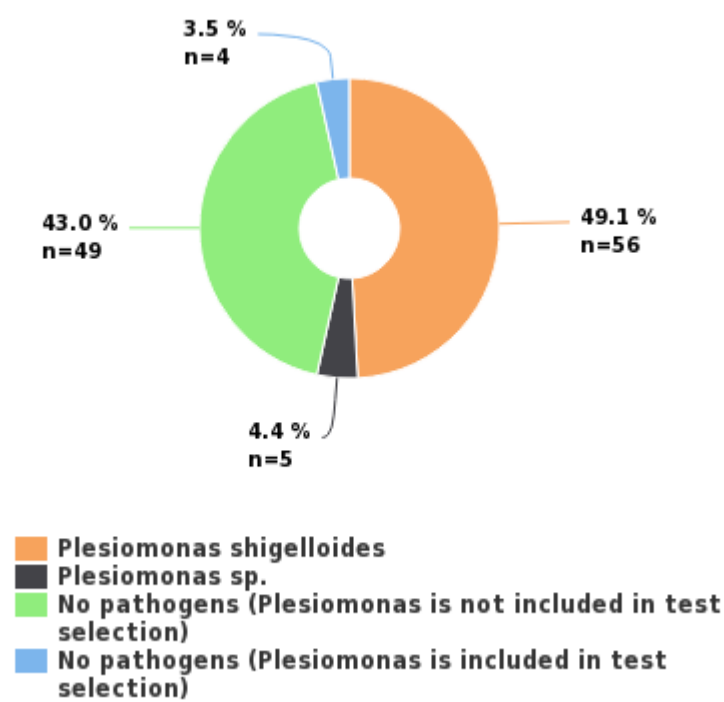
Sample S002 | Plesiomonas shigelloides

Sample S002 success rate

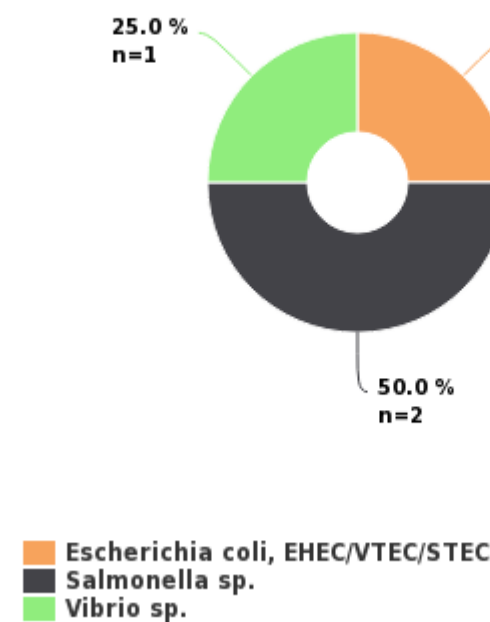


Sample S002 results	Responded	AVR success rate	Count
	Report to the clinician	92.3 %	118
	Identification tests: NAT	-	114

Sample S002 Plesiomonas shigelloides



Sample S002 Additional finding



LABORATORY SPECIFIC SCORING TABLE

Finding group	Finding	Referred	Own score	Max score	Own success rate	Difference	AVR success rate
Plesiomonas shigelloides	Plesiomonas shigelloides	Not referred for further action	4	4	100 %	6.2 %	93.8 %
Total:			4	4	100 %	7.7 %	92.3 %

REPORT TO THE CLINICIAN

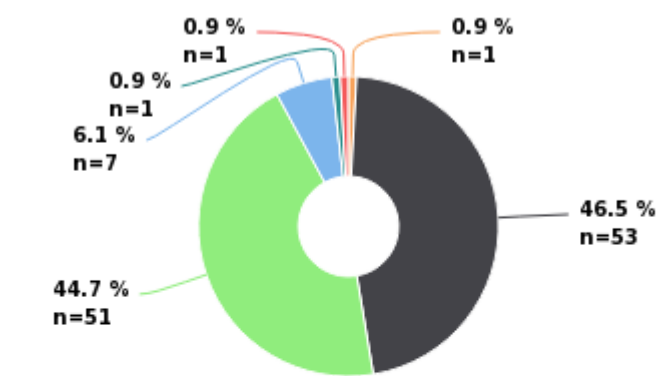
Finding group	Finding	Finding count	Referred	Not referred	AVR success rate
Plesiomonas shigelloides		114			93.8 %
	☉ Plesiomonas shigelloides	56	12	☉ 44	
	Plesiomonas sp.	5	1	4	
	No pathogens (Plesiomonas is not included in test selection)	49	6	43	
Additional finding	No pathogens (Plesiomonas is included in test selection)	4	1	3	
		4			-
	Escherichia coli, EHEC/VTEC/STEC	1	1		
	Salmonella sp.	2	2		
Total:		118		1	92.3 %

SCORING SUMMARY

Finding group	Finding	Finding score	Max score
Plesiomonas shigelloides		4	4
	Plesiomonas shigelloides	4	4
	Plesiomonas sp.	4	4
	No pathogens (Plesiomonas is not included in test selection)	-	-
	No pathogens (Plesiomonas is included in test selection)	0	4

Additional finding			-
	Escherichia coli, EHEC/VTEC/STEC	-1	-
	Salmonella sp.	-1	-
	Vibrio sp.	-1	-
Total:			4

Sample S002 Identification tests: NAT



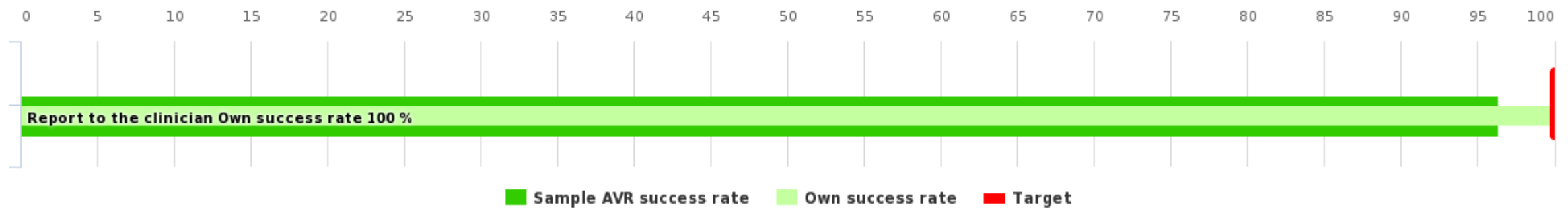
- Escherichia coli, EHEC/VTEC/STEC
- No pathogens
- Plesiomonas shigelloides
- Plesiomonas sp.
- Salmonella sp.
- Vibrio sp.

IDENTIFICATION TESTS: NAT

Finding group	Method	Result	Result count
Plesiomonas shigelloides	Anatolia Bosphore Gastroenteritis Panel Kit v2	No pathogens	2
	BD MAX Enteric Bacterial Panel	No pathogens	7
		Plesiomonas shigelloides	14
	Plesiomonas sp.		7
		bioMerieux FilmArray GI Panel	No pathogens
		<input checked="" type="radio"/> Plesiomonas shigelloides	28
	Hologic/Mobidiag Amplidiag Bacterial GE	No pathogens	3
	In house	No pathogens	3
	PathoFinder GastroFinder 2SMART	No pathogens	1
	Qiagen STAT-Dx DiagCORE Gastrointestinal Panel V2	Plesiomonas shigelloides	9
	Roche LightMix Modular Gastro Bacteria Multiplex	No pathogens	1
	Seegene Allplex GI-Bacteria(I) Assay	No pathogens	28
	Seegene Allplex GI-Bacteria(II) Assay	No pathogens	6
	Seegene Allplex GI-EB Screening	No pathogens	1
Additional finding	bioMerieux FilmArray GI Panel	Salmonella sp.	1
		Vibrio sp.	1
	EntericBio Gastro Panel 2	Escherichia coli, EHEC/VTEC/STEC	1
Total:			114

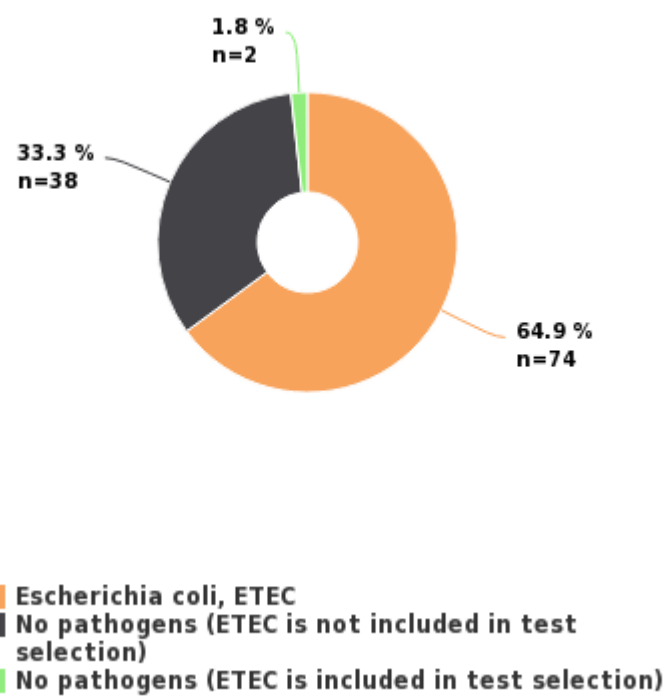
Sample S003 | Escherichia coli ETEC

Sample S003 success rate

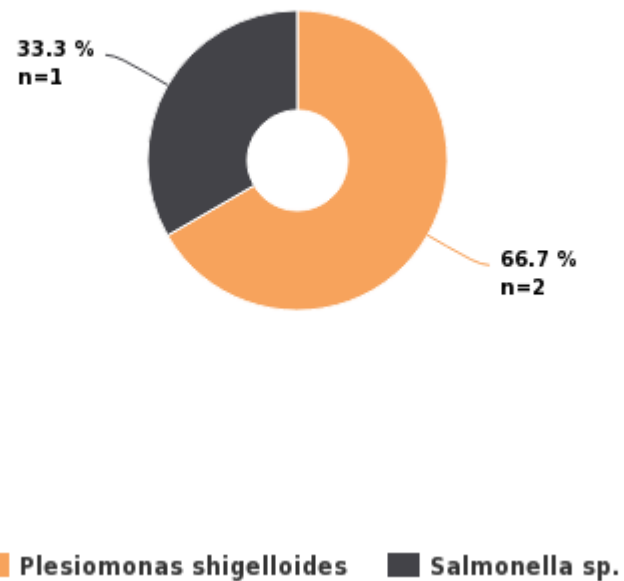


Sample S003 results	Responded	AVR success rate	Count
	Report to the clinician	96.4 %	117
	Identification tests: NAT	-	119

Sample S003 Escherichia coli ETEC



Sample S003 Additional finding



LABORATORY SPECIFIC SCORING TABLE

Finding group	Finding	Referred	Own score	Max score	Own success rate	Difference	AVR success rate
Escherichia coli ETEC	Escherichia coli, ETEC	Not referred for further action	4	4	100 %	2.6 %	97.4 %
Total:			4	4	100 %	3.6 %	96.4 %

REPORT TO THE CLINICIAN

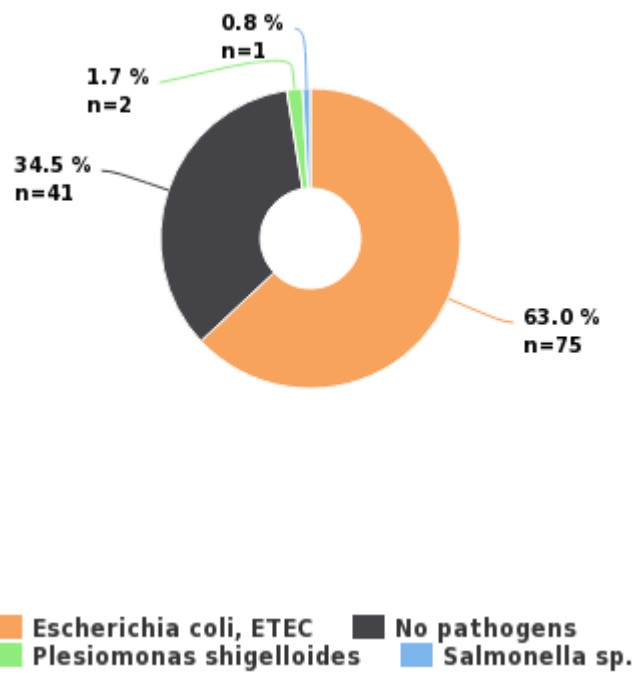
Finding group	Finding	Finding count	Referred	Not referred	AVR success rate
Escherichia coli ETEC	<input checked="" type="radio"/> Escherichia coli, ETEC	74	17	<input checked="" type="radio"/> 57	97.4 %
	No pathogens (ETEC is not included in test selection)	38	3	35	
	No pathogens (ETEC is included in test selection)	2		2	
Additional finding		3			-
	Plesiomonas shigelloides	2		2	
	Salmonella sp.	1	1		
Total:		117			96.4 %

SCORING SUMMARY

Finding group	Finding	Finding score	Max score
Escherichia coli ETEC	<input checked="" type="radio"/> Escherichia coli, ETEC	4	4
	No pathogens (ETEC is not included in test selection)	-	-
	No pathogens (ETEC is included in test selection)	0	4
Additional finding			-
	Plesiomonas shigelloides	-1	-
	Salmonella sp.	-1	-

Total:			4
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Sample S003 Identification tests: NAT



IDENTIFICATION TESTS: NAT

Finding group	Method	Result	Result count
Escherichia coli ETEC	Anatolia Bosphore Gastroenteritis Panel Kit v2	No pathogens	2
	BD MAX Enteric Bacterial Panel	Escherichia coli, ETEC	21
		No pathogens	7
	bioMerieux FilmArray GI Panel	Escherichia coli, ETEC	29
		No pathogens	1
	EntericBio Gastro Panel 2	No pathogens	1
	Hologic/Mobidiag Amplidiag Bacterial GE	Escherichia coli, ETEC	3
		Escherichia coli, ETEC	2
	In house	No pathogens	1
		Escherichia coli, ETEC	1
	PathoFinder GastroFinder 2SMART	Escherichia coli, ETEC	9
	Qiagen STAT-Dx DiagCORE Gastrointestinal Panel V2	Escherichia coli, ETEC	1
	Roche LightMix Modular Gastro Bacteria Multiplex	No pathogens	1
	Seegene Allplex GI-Bacteria(I) Assay	Escherichia coli, ETEC	1
		No pathogens	27
Seegene Allplex GI-Bacteria(II) Assay	Escherichia coli, ETEC	9	
Seegene Allplex GI-EB Screening	No pathogens	1	
Additional finding	bioMerieux FilmArray GI Panel	Plesiomonas shigelloides	2
	Seegene Allplex GI-Bacteria(I) Assay	Salmonella sp.	1
Total:			119

Report Info

PARTICIPANTS

Altogether 124 laboratories from 19 countries participated in this EQA round.

REPORT INFO

On the front page you can see summaries of overall success rate and sample specific success rates which have been calculated from the scores. The reported results and the scores are presented in the same report but in separate tables.

In general, the expected results are marked with green color. Accepted results may also be indicated with yellow color. Laboratory's own results are indicated with a black radio button . In the participant specific report there is also a laboratory specific scoring table for each sample, where you can find your own result and the scores given.

If you have not reported results you will get a note: "You have not responded in time, only global report is available."

For information on report interpretation and performance evaluation, please see the "EQAS Interpretation guidelines" in LabScala User instructions. In case you have any questions regarding the reports, please contact the EQA Coordinator.

SCORING

The results in the "Report to the clinician" part can be scored when at least 60% of the participants have reported the correct/expected result and when there are at least three reported results. The report includes a sample specific scoring summary. Laboratory's scores have been converted to percentage (own success rate, % from maximum scores) with a target at 100%. Own success rate is compared with the success rate of all results.

The following general rules are applied:

4 points is reached by reporting the expected correct result

1-3 points is given to results that are partly correct/insufficient regarding the expected finding

0 points is given for an incorrect/false result

-1 points is given to false additional pathogenic findings

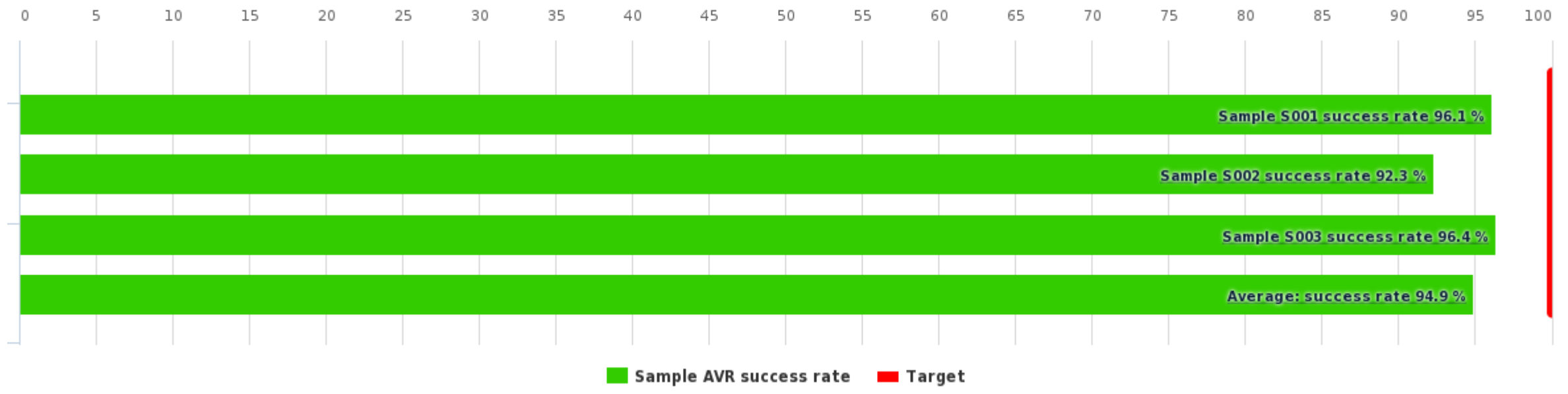
Not in test selection results are excluded from scoring

GLOBAL REPORT

	No of participants	No of responded participants	Response percentage
Faecal bacterial pathogens multiplex, nucleic acid detection, April, 1-2023	124	111	89.5 %

Summary

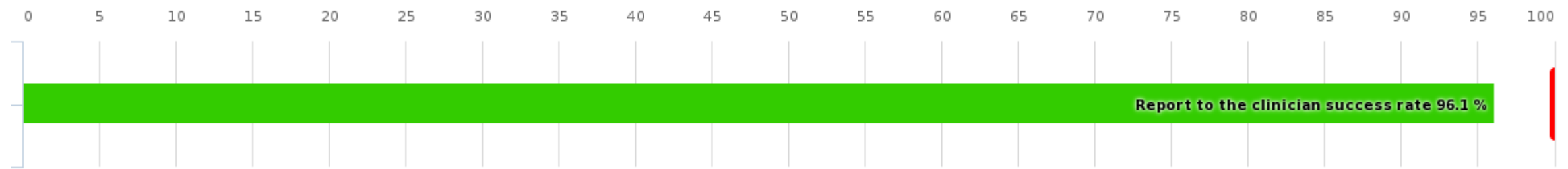
Overall success rate by samples



Summary	AVR success rate
Sample S001	96.1 %
Sample S002	92.3 %
Sample S003	96.4 %
Average:	94.9 %

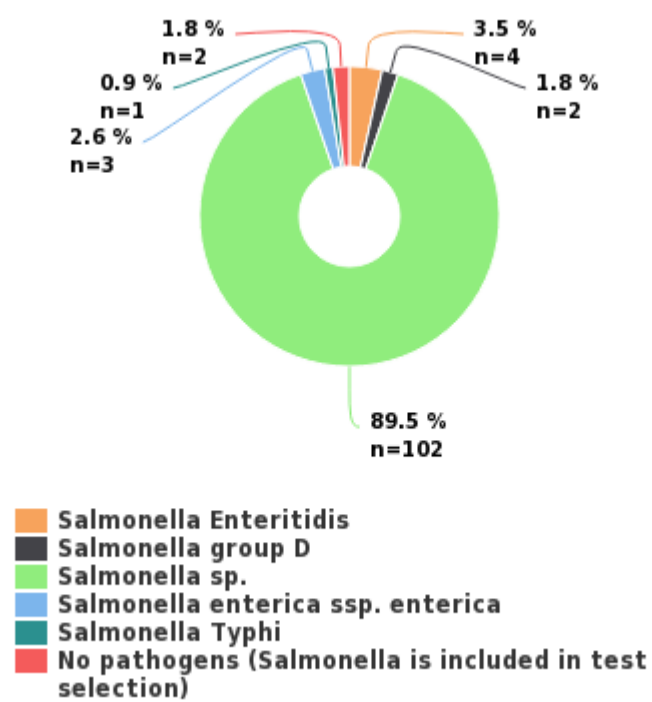
Sample S001 | Salmonella Enteritidis

Sample S001 success rate

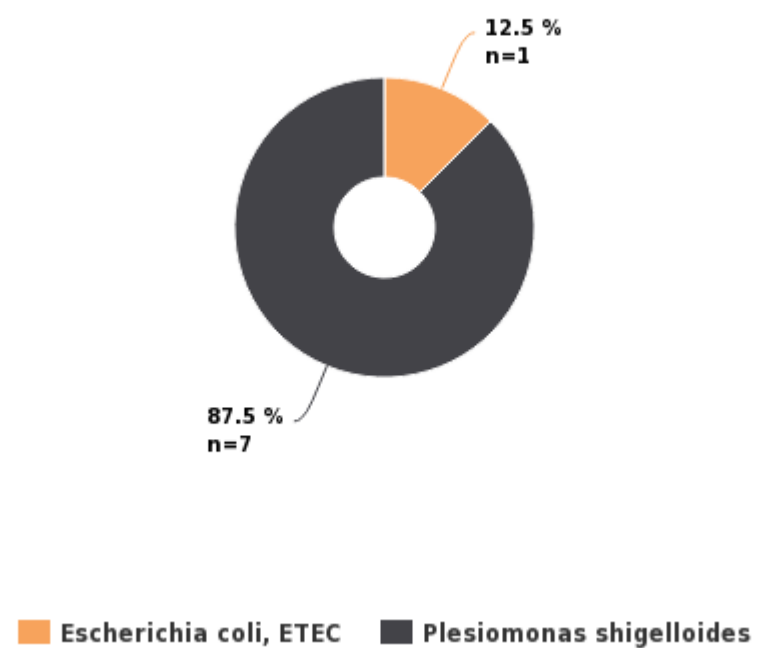


Sample S001 results	Responded	AVR success rate	Count
	Report to the clinician	96.1 %	122
	Identification tests: NAT	-	124

Sample S001 Salmonella Enteritidis



Sample S001 Additional finding



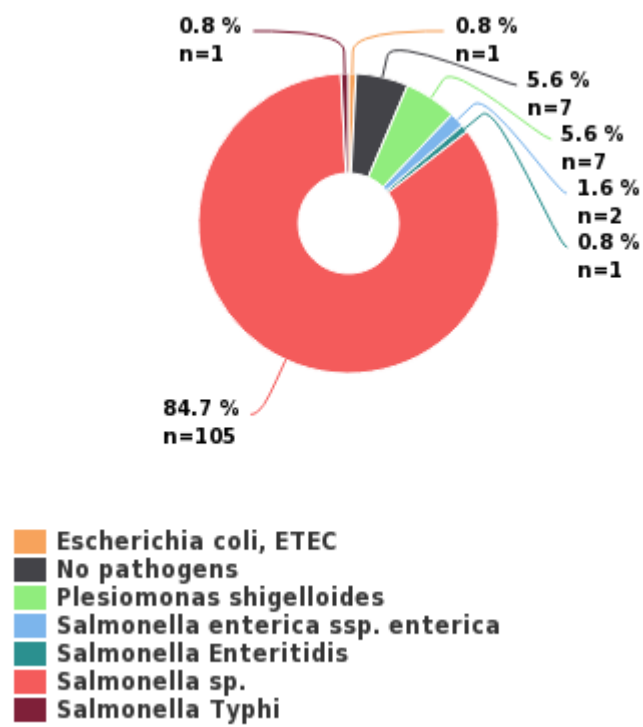
REPORT TO THE CLINICIAN

Finding group	Finding	Finding count	Referred	Not referred	AVR success rate
Salmonella Enteritidis	Salmonella Enteritidis	4	1	3	97.8 %
	Salmonella group D	2	1	1	
	Salmonella sp.	102	61	41	
	Salmonella enterica ssp. enterica	3	3		
	Salmonella Typhi	1	1		
	No pathogens (Salmonella is included in test selection)	2	1	1	
Additional finding		8			-
	Escherichia coli, ETEC	1	1		
	Plesiomonas shigelloides	7	3	4	
Total:		122			96.1 %

SCORING SUMMARY

Finding group	Finding	Finding score	Max score
Salmonella Enteritidis			4
	Salmonella Enteritidis	4	4
	Salmonella group D	4	4
	Salmonella sp.	4	4
	Salmonella enterica ssp. enterica	4	4
	Salmonella Typhi	2	4
	No pathogens (Salmonella is included in test selection)	0	4
Additional finding			-
	Escherichia coli, ETEC	-1	-
	Plesiomonas shigelloides	-1	-
Total:			4

Sample S001 Identification tests: NAT

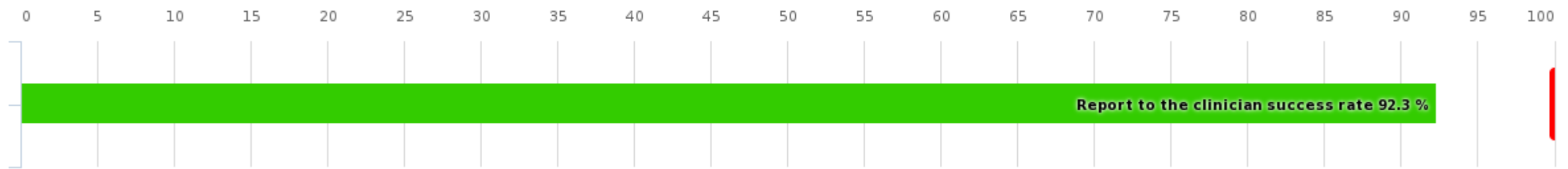


IDENTIFICATION TESTS: NAT

Finding group	Method	Result	Result count
Salmonella Enteritidis	Anatolia Bosphore Gastroenteritis Panel Kit v2	Salmonella sp.	2
	BD MAX Enteric Bacterial Panel	Salmonella enterica ssp. enterica	1
		Salmonella Enteritidis	1
		Salmonella sp.	27
		bioMerieux FilmArray GI Panel	Salmonella sp.
	EntericBio Gastro Panel 2	Salmonella sp.	1
	Hologic/Mobidiag Amplidiag Bacterial GE	Salmonella sp.	3
	In house	Salmonella enterica ssp. enterica	1
		Salmonella sp.	2
	PathoFinder GastroFinder 2SMART	Salmonella sp.	1
	Qiagen STAT-Dx DiagCORE Gastrointestinal Panel V2	Salmonella sp.	8
		Salmonella Typhi	1
	Roche LightMix Modular Gastro Bacteria Multiplex	Salmonella sp.	1
	Seegene Allplex GI-Bacteria(I) Assay	No pathogens	1
Salmonella sp.		30	
Seegene Allplex GI-Bacteria(II) Assay	No pathogens	6	
Seegene Allplex GI-EB Screening	Salmonella sp.	1	
Additional finding	bioMerieux FilmArray GI Panel	Escherichia coli, ETEC	1
		Plesiomonas shigelloides	7
Total:			124

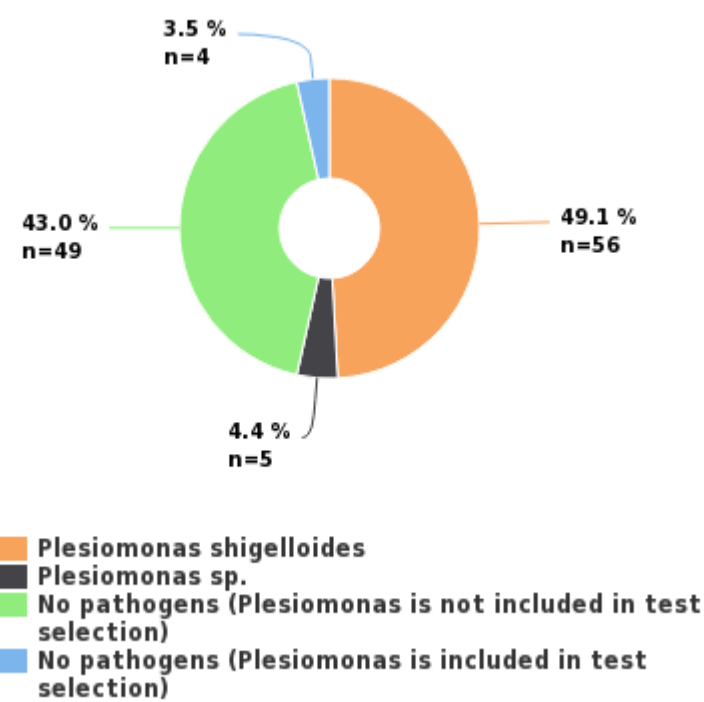
Sample S002 | Plesiomonas shigelloides

Sample S002 success rate

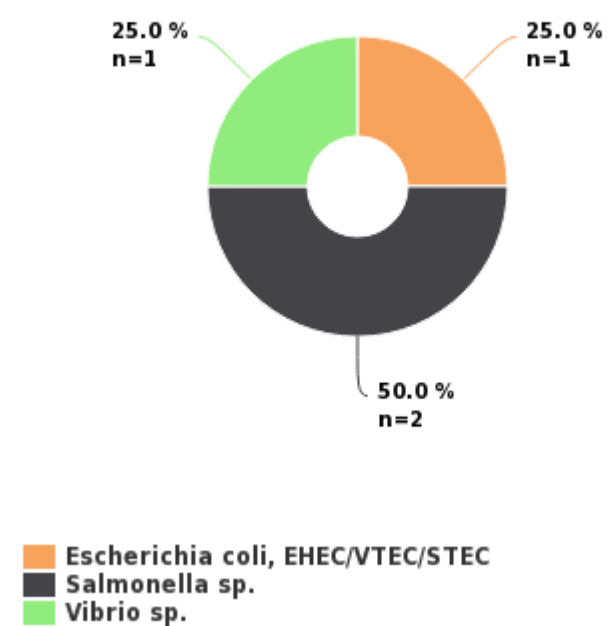


Sample S002 results	Responded	AVR success rate	Count
	Report to the clinician	92.3 %	118
	Identification tests: NAT	-	114

Sample S002 Plesiomonas shigelloides



Sample S002 Additional finding



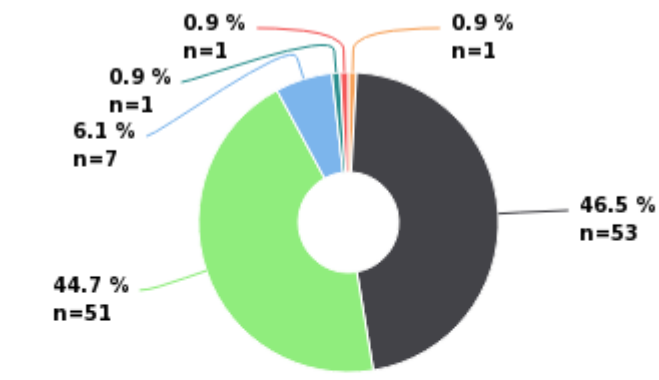
REPORT TO THE CLINICIAN

Finding group	Finding	Finding count	Referred	Not referred	AVR success rate
Plesiomonas shigelloides		114			93.8 %
	Plesiomonas shigelloides	56	12	44	
	Plesiomonas sp.	5	1	4	
	No pathogens (Plesiomonas is not included in test selection)	49	6	43	
	No pathogens (Plesiomonas is included in test selection)	4	1	3	
Additional finding		4			-
	Escherichia coli, EHEC/VTEC/STEC	1	1		
	Salmonella sp.	2	2		
	Vibrio sp.	1		1	
Total:		118			92.3 %

SCORING SUMMARY

Finding group	Finding	Finding score	Max score
Plesiomonas shigelloides			4
	Plesiomonas shigelloides	4	4
	Plesiomonas sp.	4	4
	No pathogens (Plesiomonas is not included in test selection)	-	-
	No pathogens (Plesiomonas is included in test selection)	0	4
Additional finding			-
	Escherichia coli, EHEC/VTEC/STEC	-1	-
	Salmonella sp.	-1	-
	Vibrio sp.	-1	-
Total:			4

Sample S002 Identification tests: NAT



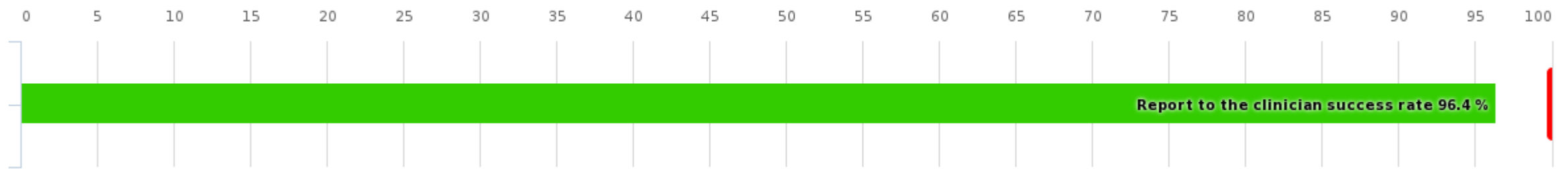
- Escherichia coli, EHEC/VTEC/STEC
- No pathogens
- Plesiomonas shigelloides
- Plesiomonas sp.
- Salmonella sp.
- Vibrio sp.

IDENTIFICATION TESTS: NAT

Finding group	Method	Result	Result count
Plesiomonas shigelloides	Anatolia Bosphore Gastroenteritis Panel Kit v2	No pathogens	2
	BD MAX Enteric Bacterial Panel	No pathogens	7
		Plesiomonas shigelloides	14
		Plesiomonas sp.	7
	bioMerieux FilmArray GI Panel	No pathogens	1
		Plesiomonas shigelloides	28
	Hologic/Mobidiag Amplidiag Bacterial GE	No pathogens	3
	In house	No pathogens	3
	PathoFinder GastroFinder 2SMART	No pathogens	1
	Qiagen STAT-Dx DiagCORE Gastrointestinal Panel V2	Plesiomonas shigelloides	9
	Roche LightMix Modular Gastro Bacteria Multiplex	No pathogens	1
	Seegene Allplex GI-Bacteria(I) Assay	No pathogens	28
	Seegene Allplex GI-Bacteria(II) Assay	No pathogens	6
	Seegene Allplex GI-EB Screening	No pathogens	1
Additional finding	bioMerieux FilmArray GI Panel	Salmonella sp.	1
		Vibrio sp.	1
	EntericBio Gastro Panel 2	Escherichia coli, EHEC/VTEC/STEC	1
Total:			114

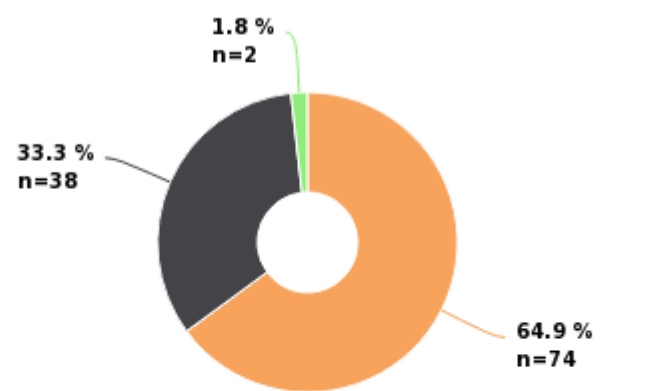
Sample S003 | Escherichia coli ETEC

Sample S003 success rate



Sample S003 results	Responded	AVR success rate	Count
	Report to the clinician	96.4 %	117
	Identification tests: NAT	-	119

Sample S003 Escherichia coli ETEC



- Escherichia coli, ETEC
- No pathogens (ETEC is not included in test selection)
- No pathogens (ETEC is included in test selection)

Sample S003 Additional finding



- Plesiomonas shigelloides
- Salmonella sp.

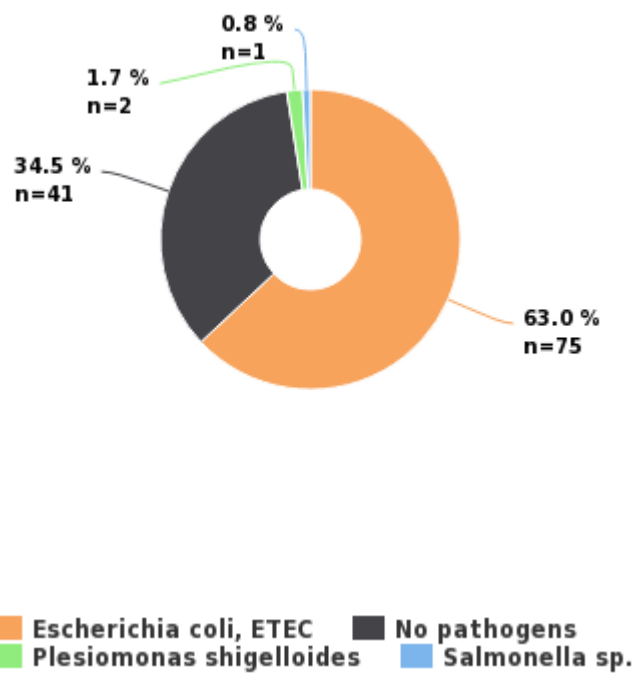
REPORT TO THE CLINICIAN

Finding group	Finding	Finding count	Referred	Not referred	AVR success rate
Escherichia coli ETEC	Escherichia coli, ETEC	114			97.4 %
	Escherichia coli, ETEC	74	17	57	
	No pathogens (ETEC is not included in test selection)	38	3	35	
	No pathogens (ETEC is included in test selection)	2		2	
Additional finding		3			-
	Plesiomonas shigelloides	2		2	
	Salmonella sp.	1	1		
Total:		117			96.4 %

SCORING SUMMARY

Finding group	Finding	Finding score	Max score
Escherichia coli ETEC			4
	Escherichia coli, ETEC	4	4
	No pathogens (ETEC is not included in test selection)	-	-
	No pathogens (ETEC is included in test selection)	0	4
Additional finding			-
	Plesiomonas shigelloides	-1	-
	Salmonella sp.	-1	-
Total:			4

Sample S003 Identification tests: NAT



IDENTIFICATION TESTS: NAT

Finding group	Method	Result	Result count
Escherichia coli ETEC	Anatolia Bosphore Gastroenteritis Panel Kit v2	No pathogens	2
	BD MAX Enteric Bacterial Panel	Escherichia coli, ETEC	21
		No pathogens	7
	bioMerieux FilmArray GI Panel	Escherichia coli, ETEC	29
		No pathogens	1
	EntericBio Gastro Panel 2	No pathogens	1
	Hologic/Mobidiag Amplidiag Bacterial GE	Escherichia coli, ETEC	3
	In house	Escherichia coli, ETEC	2
		No pathogens	1
	PathoFinder GastroFinder 2SMART	Escherichia coli, ETEC	1
	Qiagen STAT-Dx DiagCORE Gastrointestinal Panel V2	Escherichia coli, ETEC	9
	Roche LightMix Modular Gastro Bacteria Multiplex	No pathogens	1
	Seegene Allplex GI-Bacteria(I) Assay	Escherichia coli, ETEC	1
		No pathogens	27
	Seegene Allplex GI-Bacteria(II) Assay	Escherichia coli, ETEC	9
Seegene Allplex GI-EB Screening	No pathogens	1	
Additional finding	bioMerieux FilmArray GI Panel	Plesiomonas shigelloides	2
	Seegene Allplex GI-Bacteria(I) Assay	Salmonella sp.	1
Total:			119

Report Info

PARTICIPANTS

Altogether 124 laboratories from 19 countries participated in this EQA round.

REPORT INFO

On the front page you can see summaries of overall success rate and sample specific success rates which have been calculated from the scores. The reported results and the scores are presented in the same report but in separate tables.

In general, the expected results are marked with green color. Accepted results may also be indicated with yellow color. Laboratory's own results are indicated with a black radio button . In the participant specific report there is also a laboratory specific scoring table for each sample, where you can find your own result and the scores given.

If you have not reported results you will get a note: "You have not responded in time, only global report is available."

For information on report interpretation and performance evaluation, please see the "EQAS Interpretation guidelines" in LabScala User instructions. In case you have any questions regarding the reports, please contact the EQA Coordinator.

SCORING

The results in the "Report to the clinician" part can be scored when at least 60% of the participants have reported the correct/expected result and when there are at least three reported results. The report includes a sample specific scoring summary. Laboratory's scores have been converted to percentage (own success rate, % from maximum scores) with a target at 100%. Own success rate is compared with the success rate of all results.

The following general rules are applied:

4 points is reached by reporting the expected correct result

1-3 points is given to results that are partly correct/insufficient regarding the expected finding

0 points is given for an incorrect/false result

-1 points is given to false additional pathogenic findings

Not in test selection results are excluded from scoring

External Quality Assessment Scheme

Faecal bacterial pathogens multiplex, nucleic acid detection Round 1, 2023

Specimens

The round included two lyophilized samples and one liquid sample. The sample lots were tested in an accredited Finnish reference laboratory and the results were consistent with the certificates provided by the sample manufacturer. Based on the quality controls conducted by the sample material manufacturer, pre-testing and the results obtained in the round, the sample lots are to be considered as homogeneous, stable and suitable for external quality assessment. The materials were sent without temperature control packaging.

The use of samples only for external quality assessment. The consent of Labquality must be requested for the use of the microbial strains contained in the samples for other purposes.

The content of the samples was as follows:

Sample S001 (LQ762423011)
Salmonella Enteritidis GL0092
Klebsiella pneumoniae GL0097

Sample S002 (LQ762423012)
Plesiomonas shigelloides GL0344
Enterococcus faecalis GL0038

Sample S003 (LQ762423013)
Escherichia coli ETEC (ST+, LT+)

Report info

Please see the description of the data analysis on the last page of the laboratory-specific reports and global reports. It is important to read the Final report first, because it contains important information of the samples and results in each round.

Comments – Expert

Sample S001 contained *Salmonella* Enteritidis as a pathogen and *Klebsiella pneumoniae* as a normal inhabitant of intestinal microbiota. The expected result was *Salmonella* Enteritidis, group D *Salmonella*. *Salmonella* sp. or *Salmonella enterica* ssp. *enterica*. Of the 124 laboratories participating in this Faecal bacterial pathogens multiplex EQA round, 111 reported results. Three participants reported results for multiple sample sets. Of the participants whose test selection includes *Salmonella*, 97% (108/111) reported the expected result. One laboratory reported *Salmonella* Typhi causing typhoid fever from this sample and this was not approved as expected result due to wrong serotype identification. In addition, seven laboratories reported unexpected additional *Plesiomonas shigelloides* findings and one additional ETEC finding from this sample, which refers to mixed and contaminated samples.

Sample S002 contained *Plesiomonas shigelloides* as a pathogen and *Enterococcus faecalis* as a normal inhabitant of intestinal microbiota. The expected result was *Plesiomonas shigelloides* which belongs to the test selection in 59% (65/111) of the participants. Of the laboratories whose test selection includes *Plesiomonas*, 94% (61/65) reported the expected result.

2023-05-23

FINAL REPORT

Product no. 5191

Subcontracting: Sample pretesting

Samples sent	2023-03-28
Round closed	2023-04-21
Expected results	2023-04-26
Final report	2023-05-23

Request for correction

Typing errors in laboratory's result forms are on laboratory's responsibility. Labquality accepts responsibility only for result processing. Requests must be notified by writing within three weeks from the date of this letter.

Authorized by

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In addition, four laboratories reported unexpected additional finding from the sample: two laboratories reported *Salmonella* which refers to cross-contamination, one laboratory reported an unexpected *Escherichia coli* ETEC/VTEC/STEC and one laboratory reported an unexpected *Vibrio* sp result.

Sample S003 contained enterotoxigenic *Escherichia coli* (ETEC) as a pathogen. ETEC belongs to test selection in 68% (76/111) of the laboratories participating in this round. The expected result was ETEC and 97% (74/76) of the laboratories whose test selection includes ETEC reported the expected result. In addition, three laboratories reported unexpected findings: one reported *Salmonella* and two laboratories *Plesiomonas shigelloides*, which refers to cross-contamination.

To conclude, sample cross-contamination is a significant risk in nucleic acid amplification-based assays. In addition, mixing samples during the analyses or reporting phases increases the number of false results.

Exceptions in scoring

No exceptions.

End of report

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