

## External Quality Assessment Schemes

### Surveillance culture for multidrug resistant bacteria, MRSA, 2, 2017

Please find enclosed the results of the round. There were 44 participating laboratories out of 11 countries. In all 98% (43/44) of the participants reported their results on time.

The round included one lyophilized specimen. The content of the specimen was as follows:

#### Specimen 001 (LQ762017021)

*Staphylococcus aureus* ATCC® 43300™ (MRSA, *mecA*)

*Enterococcus faecalis* ATCC® 29212™

*Proteus mirabilis* C010505

#### Results

The results of the agglutination and molecular confirmation tests and the final results of the screening are presented in summary tables. The grey areas indicate the laboratories' own results. The susceptibility test results by disk diffusion method are presented in numerical summaries and as histograms, in which the laboratories' own results are marked by capital letters corresponding to the SIR-interpretation. The letter points out the millimetre in question. Laboratory specific histograms are drawn for each antimicrobial agent if the laboratory's result is included in a group of at least three results. By "group" is indicated results which are obtained and interpreted according to the same standard (e.g. EUCAST, CLSI etc.). The oxacillin MIC-results are presented in table 1 and the cefoxitin results are summarized in table 2.

Please check, that the client code on the printouts showing your results is correct.

For participants ordering paper printouts: The laboratory-specific histograms, tables and the report letter of this round are also available on Labquality's homepage ([www.labquality.fi](http://www.labquality.fi)). Please choose Login to LabScala on the top right-hand corner and fill in your laboratory client code/personal user name and password. Then choose "View Reports" under "My reports".

#### Comments

The sample contained MRSA "type strain" in a relatively low concentration (about 1000 cfu/sample). All laboratories reported the sample as positive for MRSA. Samples with such low concentrations have previously been difficult for direct molecular testing. However, this time MRSA was detected also by direct PCR in all eleven laboratories reporting that kind of result.

As expected for a type strain generally used for development and control of various test methods, all agglutination and molecular tests used for confirmation performed well.

2017-08-30

#### FINAL REPORT

Product no. 5071

LQ762017021/US

Subcontracting: Sample pretesting

Items dispatched: 2017-06-27

Closing date: 2017-07-28

Expected results

released 2017-08-01

Final report: 2017-08-30

#### The report includes

- the expected results
- comments on the results by the scheme expert
- laboratory specific tables and histograms

#### Request for correction

Typing errors on laboratory's result forms are on laboratory's responsibility. Labquality accepts responsibility only for the result processing.

Requests for correction must be notified in writing within one month of receiving the results.

#### Next round

The next EQA round for Surveillance culture for multidrug resistant bacteria, MRSA (3, 2017) will be carried out in September 2017.

#### Authorized by

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**Table 1.**

The **oxacillin** MIC-results reported by the participating laboratories.

Antimicrobial agent	MIC-value (mg/L)	SIR-interpretation	Results (in all) by method					n
			Test strip	Microscan (Beckman Coulter)	Phoenix (Becton Dickinson)	Vitek 2 (bioMérieux)	Other method/not reported	
Oxacillin	>2	R		1	2	2	1	6
	≥4	R				7		7
	6	R				1		1
	24	R	1					1
	32	R	1					1
	48	R	1					1
	64	R					1	1
	256	R	4					4
	>256	R	3				1	4

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**Table 2.**

The methods and interpretations reported by the participants for cefoxitin susceptibility testing.

Antimicrobial agent	Method	Reported results (n)	SIR-interpretation (n)
			R
Cefoxitin	Disk diffusion	28	28
	MIC-method:	BD Phoenix (Becton Dickinson)	1
		Microscan (Beckman Coulter)	1
		Vitek 2 (bioMérieux)	10
		Other method/not reported	1

## Scoring

### In general

Scoring is implemented for the specimen/finding when 60% or more of the laboratories participating in the scheme report a correct/expected result. The maximum score is 2 points for round 2, 2017.

### Scoring summary

MRSA-screening result:

Positive..... 2p.

Suspect positive, sent to reference laboratory 2p.

Negative..... 0p.

Results not returned before closing-date..... 0p.

Kaisu Rantakokko-Jalava, MD, Ph.D., TUCH Microbiology and Genetics, Turku, Finland has commented on the results of this EQA round.

## End of report

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