

External Quality Assessment Scheme

Surveillance for multidrug resistant bacteria Round 1, 2023

5071: MRSA (Methicillin resistant *Staphylococcus aureus*)

5072: VRE (Vancomycin resistant Enterococci)

5073: Multidrug resistant gramnegative rods

Specimens

Please find enclosed 1-3 lyophilized samples (according to your order) S001, S002 and S003, and vials of rehydration fluid, each 0.5 mL.

Caution

The specimens simulate patient samples and should be handled with the same care as patient samples, i.e., as potential transmitters of serious diseases.

Examinations

S001 MRSA culture and/or direct detection from sample

S002 VRE culture and/or direct detection from sample

S003 Culture and/or direct detection from sample of multidrug resistant gramnegative rods

Storage and use

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

1. Let the samples and the rehydration fluids warm up to room temperature.
2. Cut the foil packet open at the end where you can feel the thicker part of the loop.
3. Remove the plastic sheath from the loop. Break the loop shaft off from handle directly into the tube containing rehydration fluid (blue cap).
4. Incubate the tube for 30 minutes in +35...37 °C incubator.
5. Check that the black film inside the loop (containing the lyophilized specimen) has dissolved completely.
6. Mix well the contents of the tube and proceed immediately with the examination similar to a patient specimen.

Result reporting

Please enter the results via LabScala (www.labscala.com). If you cannot find your test in the dropdown menu, please contact the EQA coordinator.

Report to the clinician (this section is scored):

For sample S001 (MRSA) the screening result is scored.

For sample S002 (VRE) the screening result, species identification and the reported resistance mechanism are scored. If your test selection does not include the identification of species and/or determination of resistance mechanism, then choose the option "Species identification not in test selection" and/or "Resistance mechanism determination not in test selection" (no loss of scores). When reporting a negative screening result the sections *Species identification* and *Resistance mechanism* will not open on the result form and the scoring is merely based on the screening result.

For sample S003 (multidrug resistant gramnegative rods) the screening result (including the resistance mechanism) and the species identification are scored. If your routine procedure does not include culture/species identification, then kindly choose "Species identification not in test selection" (no loss of scores). When reporting a negative screening result the sections *Species identification* and *Susceptibility tests* will not open on the result form.

2023-02-28

INSTRUCTIONS

Product no. 5071, 5072, 5073
LQ762023011-013/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
March 27, 2023.

The expected results of the round are published in LabScala in the View reports section by March 29, 2023.

Inquiries

EQA Coordinator

Yvonne Björkman

yvonne.bjorkman@labquality.fi

Labquality Oy

Kumpulantie 15

FI-00520 HELSINKI

Finland

Tel. + 358 9 8566 8200

Fax + 358 9 8566 8280

info@labquality.fi

www.labquality.com



Susceptibility testing:

Report which guideline is followed in your laboratory for susceptibility testing procedures. As the NORDIC AST breakpoint values are based on the corresponding values published in the EUCAST guideline, the laboratories following NORDIC AST should select EUCAST as their reference group.

For the disk diffusion method, report the inhibitory zone diameter (mm). The value should be between 5 and 55 mm for the result to be accepted in the result processing. For samples S001 and S002 also report the antimicrobial disk content (μg). For the MIC method, report the MIC value as mg/L. Note, that a rounded MIC result is to be reported in addition to the actual MIC result. Only the rounded values are included in the report. Guidance for correct rounding can be found below and is also available in LabScala (click the *i*-button in column "MIC result, rounded"). The rounded MIC value should always be selected from the list on the result form, also when it is the same as the actual obtained MIC result (see examples below guidance table). In the last column report the corresponding SIR interpretation (Sensitive/Intermediate/Resistant). The interpretation should be reported by taking into consideration possible resistance mechanisms of the microbe.

Guidance for the rounding of MIC values

E-test or other MIC test result (mg/L)	Rounded value (mg/L)
<0.002, <0.003, 0.002	0.002
<0.004, <0.006, 0.003, 0.004	0.004
<0.008, <0.012, 0.006, 0.008	0.008
<0.015, <0.016, <0.023, 0.012, 0.015, 0.016	0.016
<0.03, <0.032, <0.047, 0.023, 0.03, 0.032	0.032
<0.06, <0.064, <0.094, 0.047, 0.06, 0.064	0.064
<0.12, <0.125, <0.19, 0.094, 0.12, 0.125	0.125
<0.25, <0.38, 0.19, 0.25	0.25
<0.5, <0.75, 0.38, 0.5	0.5
<1, <1.5, >0.5, 0.75, 1	1
<2, <3, >1, >1.5, 1.5, 2	2
<4, <6, >2, >3, 3, 4	4
<12, <8, >4, >6, 6, 8	8
<16, <24, >12, >8, 12, 16	16
<32, <48, >16, >24, 24, 32	32
<64, <96, >32, >48, 48, 64	64
<128, <192, >64, >96, 128, 96	128
<256, <384, >128, >192, 192, 256	256
<512, <768, >256, >384, 384, 512	512
<1024, <1536, >512, >768, 1024, 768	1024
<2048, >1024, >1536, 1536, 2048	2048

Example 1: Obtained test result is 0.002 mg/L, rounded value is 0.002 mg/L

Example 2: Obtained test result is 0.003 mg/L, rounded value is 0.004 mg/L

Example 1: Obtained test result is >16 mg/L, rounded value is 32 mg/L

For combination antibiotics note the following:

When the used MIC method gives the result of trimethoprim-sulfamethoxazole (used in ratio 1:19) as a common value of both components and not merely as a value of the trimethoprim component (which is 1/20 of the total), you should divide the result with 20 and thereafter round the value according to the table above. Example: the MIC method gives the result >320 mg/L, which is divided by 20 and yields the result >16 mg/L. After the rounding (see table above) the result is reported as 32 mg/L.

When the result for a combination antibiotic (e.g. piperacillin-tazobactam) includes the value of both components, report the MIC value of the actual antibiotic component (in this case piperacillin) merely. Example: Obtained test result is >128/4 mg/L, the non-rounded MIC value is reported as >128 mg/L and the rounded MIC value is 256 mg/L.

We kindly ask the participants to report their growth media (name and manufacturer) in the comment section of the result form. We collect data for the future background registry and dropdown menu, where the laboratory may choose the appropriate option. Thank you for your co-operation!

Surveillance for multidrug resistant bacteria, round 1, 2023.

S001



S002



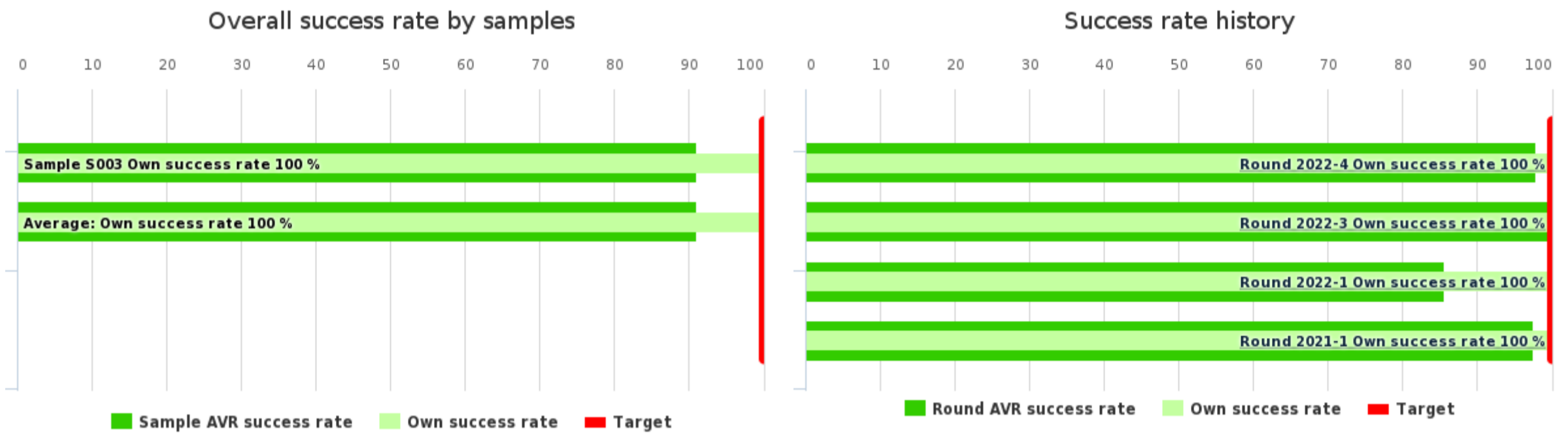
S003



Client report

	No of participants	No of responded participants	Response percentage
Surveillance for multidrug resistant bacteria, gramnegative rods, February, 1-2023	147	141	95.9 %

Summary

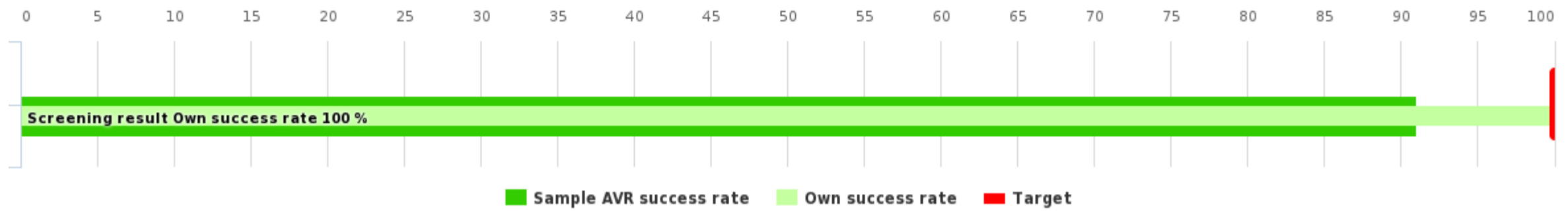


Summary	Own score	Max score	Own success rate	Difference	AVR success rate
Sample S003	8	8	100 %	9 %	91 %
Average:			100 %	9 %	91 %

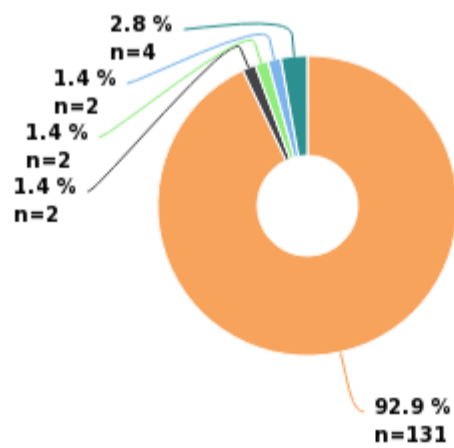
History	Test nr.	Own success rate	Difference	AVR success rate
Round 2022-4	1	100 %	2.1 %	97.9 %
Round 2022-3	1	100 %	0 %	100 %
Round 2022-1	1	100 %	14.4 %	85.6 %
Round 2021-1	1-1	100 %	2.5 %	97.5 %

Sample S003 | Klebsiella pneumoniae (CPE) and Acinetobacter baumannii (CRAB)

Sample S003 success rate

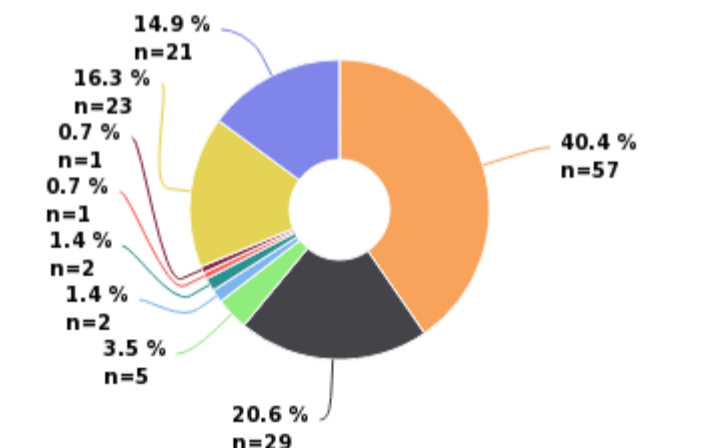


Sample S003 Klebsiella pneumoniae, CPE positive



- CPE positive | Klebsiella pneumoniae
- CPO positive | Klebsiella pneumoniae
- CPE positive | Species identification not in test selection
- Negative
- Negative, finding not in test selection

Sample S003 Acinetobacter baumannii, CRAB positive



- CRAB positive | Acinetobacter baumannii
- CRAB positive | Acinetobacter baumannii-complex
- CRAB positive | Acinetobacter baumannii/calcoaceticus
- CPO positive | Acinetobacter baumannii
- CPO positive | Acinetobacter baumannii-complex
- CPE positive | Acinetobacter baumannii
- CPE positive | Acinetobacter baumannii-complex
- Negative, finding not in test selection
- Negative

Sample S003 Other finding



- ESBL positive | Klebsiella pneumoniae
- pAmpC positive | Klebsiella pneumoniae

LABORATORY SPECIFIC SCORING TABLE

Finding group	Finding	Own score	Max score	Own success rate	Difference	AVR success rate
Klebsiella pneumoniae, CPE positive	CPE positive Klebsiella pneumoniae	4	4	100 %	1.5 %	98.5 %
Acinetobacter baumannii, CRAB positive	CRAB positive Acinetobacter baumannii	4	4	100 %	17.8 %	82.2 %
Total:		8	8	100 %	9 %	91 %

SCREENING RESULT

Finding group	Finding	Finding count	Confirmed	Suspected	Referred	Not referred	AVR success rate
Klebsiella pneumoniae, CPE positive		141					98.5 %
	⊙ CPE positive Klebsiella pneumoniae	131	⊙ 109	22	76	⊙ 55	
	CPO positive Klebsiella pneumoniae	2	2		1	1	
	CPE positive Species identification not in test selection	2	1	1	1	1	
	Negative	2			1	1	
	Negative, finding not in test selection	4					
Acinetobacter baumannii, CRAB positive		141					82.2 %
	⊙ CRAB positive Acinetobacter baumannii	57	⊙ 34	23	36	⊙ 21	
	CRAB positive Acinetobacter baumannii-complex	29	11	18	24	5	
	CRAB positive Acinetobacter baumannii/calcoaceticus	5	2	3	4	1	
	CPO positive Acinetobacter baumannii	2	1	1	1	1	
	CPO positive Acinetobacter baumannii-complex	2		2	2		
	CPE positive Acinetobacter baumannii	1		1	1		
	CPE positive Acinetobacter baumannii-complex	1		1	1		
	Negative, finding not in test selection	23					
	Negative	21					
Other finding		2					-
	ESBL positive Klebsiella pneumoniae	1	1			1	

	pAmpC positive Klebsiella pneumoniae	1	1			1	
Total:		284					91 %

SCORING SUMMARY

Finding group	Finding	Finding score	Max score
Klebsiella pneumoniae, CPE positive			4
	CPE positive Klebsiella pneumoniae	4	4
	CPO positive Klebsiella pneumoniae	4	4
	CPE positive Species identification not in test selection	4	4
	Negative	0	4
	Negative, finding not in test selection	-	-
Acinetobacter baumannii, CRAB positive			4
	CRAB positive Acinetobacter baumannii	4	4
	CRAB positive Acinetobacter baumannii-complex	4	4
	CRAB positive Acinetobacter baumannii/calcoaceticus	4	4
	CPO positive Acinetobacter baumannii	4	4
	CPO positive Acinetobacter baumannii-complex	4	4
	CPE positive Acinetobacter baumannii	4	4
	CPE positive Acinetobacter baumannii-complex	4	4
	Negative, finding not in test selection	-	-
	Negative	0	4
Other finding			-
	ESBL positive Klebsiella pneumoniae	-	-
	pAmpC positive Klebsiella pneumoniae	-	-
Total:			8

Sample S003 Plate culture

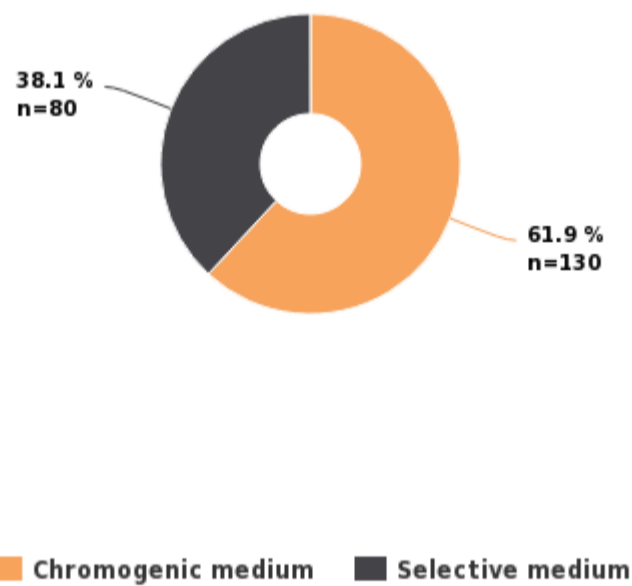


PLATE CULTURE

Method	Method count
Chromogenic medium	130
<input checked="" type="radio"/> Selective medium	80
Total:	210

MOLECULAR CONFIRMATION TEST (FROM CULTURE)

Finding group	Method	AcOXA+	IMP+	IMP-	IMP-1-	KPC+	KPC-	Negative	OXA-58+	Positive	Total:
Klebsiella pneumoniae, CPE positive											118
	Allplex Entero-DR Assay (Seegene)	-	-	-	-	<input checked="" type="radio"/> 1	-	-	-	-	1
	Amplidiag CarbaR+VRE (Mobidiag)	-	-	-	-	1	-	-	-	-	1

	Beta CARBA test (Bio-Rad)	-	-	-	-	-	-	-	-	1	1
	Eazyplex SuperBug AmpC (Amplex)	-	-	-	-	-	-	1	-	-	1
	Eazyplex SuperBug complete A (Amplex)	-	-	-	-	2	-	-	-	-	2
	Eazyplex SuperBug complete C (Amplex)	-	-	1	-	1	-	-	-	-	2
	Eazyplex SuperBug CRE (Amplex)	-	-	-	-	4	-	-	-	-	4
	NG-Test CARBA 5 (NG Biotech)	-	-	-	-	26	-	-	-	-	26
	Novodiag CarbaR+ (Mobidiag)	-	-	-	-	2	-	-	-	-	2
	Rapidec CARBA NP (bioMerieux)	-	-	-	-	-	-	-	-	1	1
	Resist-4 O.K.N.V. (Coris BioConcept)	-	-	-	-	1	-	-	-	-	1
	Resist-5 O.K.N.V.I. (Coris BioConcept)	-	-	1	-	10	-	-	-	-	11
	Resist-5 O.O.K.N.V. (Coris BioConcept)	-	-	-	-	2	-	-	-	-	2
	Xpert Carba-R (Cepheid)	-	-	6	1	54	-	2	-	-	63
Acinetobacter baumannii, CRAB positive											53
	Amplidiag CarbaR+VRE (Mobidiag)	1	-	-	-	-	-	-	-	-	1
	Beta CARBA test (Bio-Rad)	-	-	-	-	-	-	-	-	2	2
	Eazyplex SuperBug Acineto (Amplex)	-	-	-	-	-	-	-	4	-	4
	NG-Test CARBA 5 (NG Biotech)	-	2	1	-	-	1	8	-	-	12
	Novodiag CarbaR+ (Mobidiag)	-	-	-	-	-	-	-	1	-	1
	PCR (In-house)	-	-	-	-	-	-	1	3	1	5
	Resist-5 O.K.N.V.I. (Coris BioConcept)	-	-	-	-	-	-	3	-	-	3
	Resist-5 O.O.K.N.V. (Coris BioConcept)	-	-	-	-	-	-	1	-	-	1
	Xpert Carba-R (Cepheid)	-	-	4	-	2	3	15	-	-	24
	Total:	1	2	13	1	106	4	31	8	5	171

DIRECT DETECTION BY MOLECULAR METHOD (FROM SAMPLE)

Finding group	Method	IMP+	IMP-	IMP-1-	KPC+	KPC-	Negative	Total:
Klebsiella pneumoniae, CPE positive								33
	BD MAX Check-Points CPO (Becton Dickinson)	-	-	-	1	-	-	1
	LightMix Modular Carbapenemase Kit (TIB Molbiol)	-	-	-	1	-	-	1
	NG-Test CARBA 5 (NG Biotech)	-	-	-	6	-	-	6
	Resist-5 O.K.N.V.I. (Coris BioConcept)	-	-	-	1	-	-	1
	Xpert Carba-R (Cepheid)	-	1	2	20	-	1	24

Acinetobacter baumannii, CRAB positive								5
	NG-Test CARBA 5 (NG Biotech)	1	-	-	-	-	-	1
	Xpert Carba-R (Cepheid)	-	-	1	-	1	2	4
	Total:	1	1	3	29	1	3	38

Report Info

PARTICIPANTS

Altogether 147 laboratories from 19 countries participated in this EQA round.

REPORT INFO

On the front page you can see the sample specific success rate which have been calculated from the scores. The reported results and the scores are presented in separate tables. The results are presented in tables as counts and in the pie diagrams as percentages. 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 (●). The participant's own success is shown both as scores and as success rates (%) generated from the score values. In the participant specific report there is also a laboratory specific scoring table, 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 report to the clinician part is scored. The scoring consists of two parts; the final report of the screening including the resistance mechanism, that gives a maximum of 3 points and the species identification that gives a maximum of 1 point. There will be no loss of scores if species identification is not included in the test selection of the laboratory. Findings (e.g., ESBL) that are not included in the test selection of a laboratory and are reported expectedly as negative, will be left unscored. The results 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. 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.

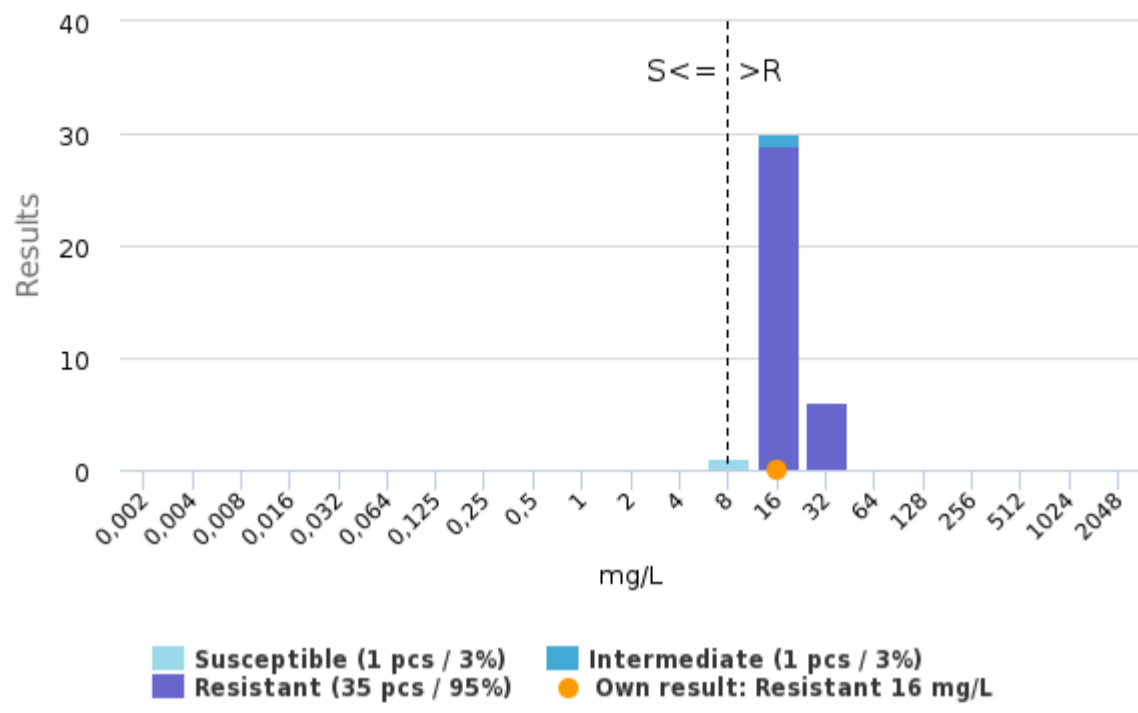
Sample S003

Klebsiella pneumoniae ATCC BAA-2343

Antimicrobial agent	Guideline	DISK							MIC					
		Own result (mm)	x (mm)	sd (mm)	S	I	R	n	Own result (mg/L)	Mo (mg/L)	S	I	R	n
Amikacin	CLSI	-	17	1	5 (83%)	1 (17%)	0 (0%)	6	-	16	7 (100%)	0 (0%)	0 (0%)	7
	CA-SFM	-	15	5	1 (9%)	2 (18%)	8 (73%)	11	-	32	1 (17%)	0 (0%)	5 (83%)	6
	EUCAST	-	14	2	1 (3%)	0 (0%)	34 (97%)	35	16	16	1 (3%)	1 (3%)	35 (95%)	37
	All				7 (13%)	3 (6%)	42 (81%)	52			9 (18%)	1 (2%)	40 (80%)	50
Ampicillin	CLSI	-	6	-	0 (0%)	0 (0%)	2 (100%)	2	-	32	0 (0%)	0 (0%)	2 (100%)	2
	CA-SFM	-	7	2	0 (0%)	0 (0%)	3 (100%)	3	-	32	0 (0%)	0 (0%)	4 (100%)	4
	EUCAST	-	6	0	0 (0%)	0 (0%)	21 (100%)	21	32	32	0 (0%)	0 (0%)	23 (100%)	23
	All				0 (0%)	0 (0%)	26 (100%)	26			0 (0%)	0 (0%)	29 (100%)	29
Cefotaxime	CLSI	-	9	3	0 (0%)	0 (0%)	5 (100%)	5	-	-	0 (0%)	0 (0%)	2 (100%)	2
	CA-SFM	-	6	1	0 (0%)	0 (0%)	12 (100%)	12	-	64	0 (0%)	0 (0%)	4 (100%)	4
	EUCAST	-	6	0	0 (0%)	0 (0%)	39 (100%)	39	64	64	0 (0%)	0 (0%)	31 (100%)	31
	All				0 (0%)	0 (0%)	56 (100%)	56			0 (0%)	0 (0%)	37 (100%)	37
Ceftazidime	CLSI	-	6	1	0 (0%)	0 (0%)	5 (100%)	5	-	64	0 (0%)	0 (0%)	5 (100%)	5
	CA-SFM	-	6	1	0 (0%)	0 (0%)	13 (100%)	13	-	64	0 (0%)	0 (0%)	6 (100%)	6
	EUCAST	-	6	2	0 (0%)	0 (0%)	49 (100%)	49	128	128	0 (0%)	0 (0%)	39 (100%)	39
	All				0 (0%)	0 (0%)	67 (100%)	67			0 (0%)	0 (0%)	50 (100%)	50
Ciprofloxacin	CLSI	-	6	1	0 (0%)	0 (0%)	6 (100%)	6	-	8	0 (0%)	0 (0%)	5 (100%)	5
	CA-SFM	-	6	0	0 (0%)	0 (0%)	10 (100%)	10	-	4	0 (0%)	0 (0%)	6 (100%)	6
	EUCAST	-	6	0	0 (0%)	0 (0%)	52 (100%)	52	8	4	0 (0%)	0 (0%)	38 (100%)	38
	All				0 (0%)	0 (0%)	68 (100%)	68			0 (0%)	0 (0%)	49 (100%)	49
Colistin	CLSI	-	-	-	-	-	-	-	-	0.25	0 (0%)	1 (100%)	0 (0%)	1
	CA-SFM	-	-	-	-	-	-	-	-	0.5	5 (100%)	0 (0%)	0 (0%)	5
	EUCAST	-	-	-	-	-	-	-	1	0.5	22 (100%)	0 (0%)	0 (0%)	22
	All				0	0	0	0			27 (96%)	1 (4%)	0 (0%)	28
Ertapenem	CLSI	-	8	3	0 (0%)	0 (0%)	3 (100%)	3	-	8	0 (0%)	0 (0%)	4 (100%)	4
	CA-SFM	-	10	3	0 (0%)	0 (0%)	16 (100%)	16	-	32	0 (0%)	0 (0%)	11 (100%)	11
	EUCAST	-	8	2	0 (0%)	0 (0%)	26 (100%)	26	2	16	0 (0%)	0 (0%)	38 (100%)	38
	All				0 (0%)	0 (0%)	45 (100%)	45			0 (0%)	0 (0%)	53 (100%)	53
Gentamycin	CLSI	-	24	2	6 (100%)	0 (0%)	0 (0%)	6	-	1	5 (100%)	0 (0%)	0 (0%)	5
	CA-SFM	-	21	2	10 (100%)	0 (0%)	0 (0%)	10	-	1	6 (100%)	0 (0%)	0 (0%)	6
	EUCAST	-	19	4	39 (89%)	0 (0%)	5 (11%)	44	1	1	36 (100%)	0 (0%)	0 (0%)	36
	All				55 (92%)	0 (0%)	5 (8%)	60			47 (100%)	0 (0%)	0 (0%)	47
Imipenem	CLSI	-	12	6	0 (0%)	1 (17%)	5 (83%)	6	-	32	0 (0%)	0 (0%)	3 (100%)	3
	CA-SFM	-	15	4	0 (0%)	0 (0%)	14 (100%)	14	-	32	0 (0%)	0 (0%)	11 (100%)	11
	EUCAST	-	11	4	0 (0%)	1 (4%)	24 (96%)	25	16	16	0 (0%)	1 (4%)	26 (96%)	27
	All				0 (0%)	2 (4%)	43 (96%)	45			0 (0%)	1 (2%)	40 (98%)	41
Meropenem	CLSI	-	12	4	0 (0%)	0 (0%)	6 (100%)	6	-	16	0 (0%)	0 (0%)	6 (100%)	6
	CA-SFM	-	12	3	0 (0%)	0 (0%)	8 (100%)	8	-	16	0 (0%)	0 (0%)	5 (100%)	5
	EUCAST	-	11	4	0 (0%)	6 (11%)	50 (89%)	56	16	16	1 (2%)	3 (5%)	59 (94%)	63
	All				0 (0%)	6 (9%)	64 (91%)	70			1 (1%)	3 (4%)	70 (95%)	74
Antimicrobial agent	Guideline	DISK							MIC					
		Own result (mm)	x (mm)	sd (mm)	S	I	R	n	Own result (mg/L)	Mo (mg/L)	S	I	R	n
Trimethoprim	EUCAST	-	6	-	0 (0%)	0 (0%)	2 (100%)	2	16	32	1 (14%)	0 (0%)	6 (86%)	7
	All				0 (0%)	0 (0%)	2 (100%)	2			1 (14%)	0 (0%)	6 (86%)	7

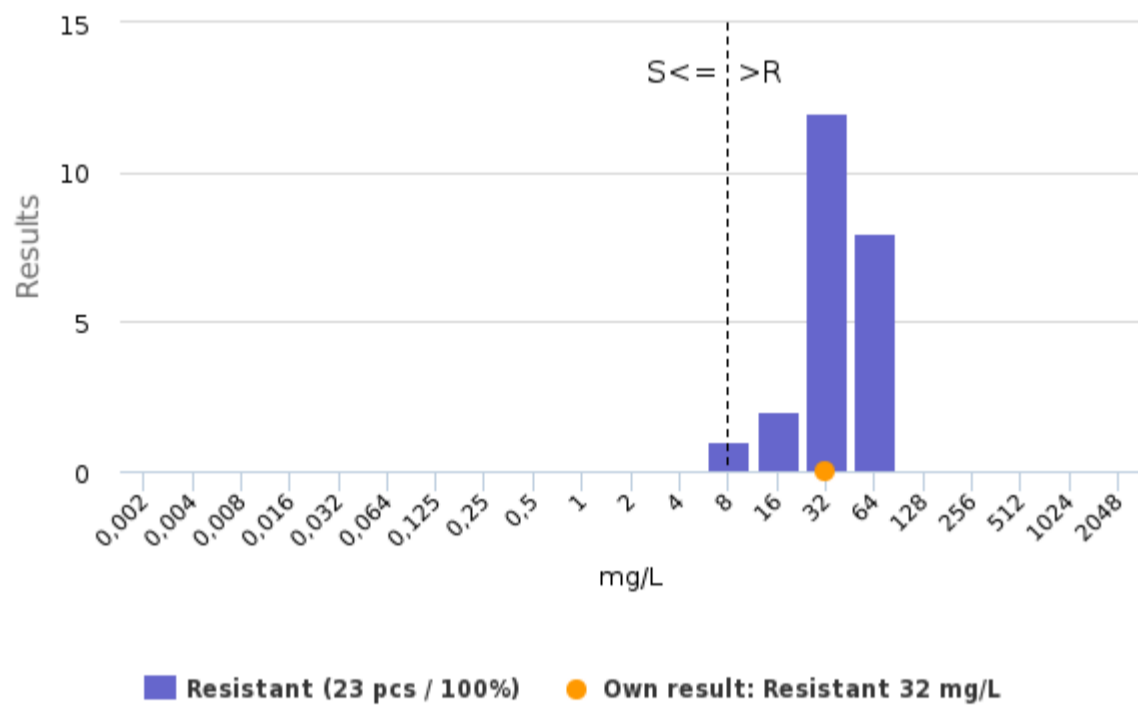
Sample S003 | EUCAST

Amikacin - MIC



	Mo	min	max	n
Amikacin	16	8	32	37

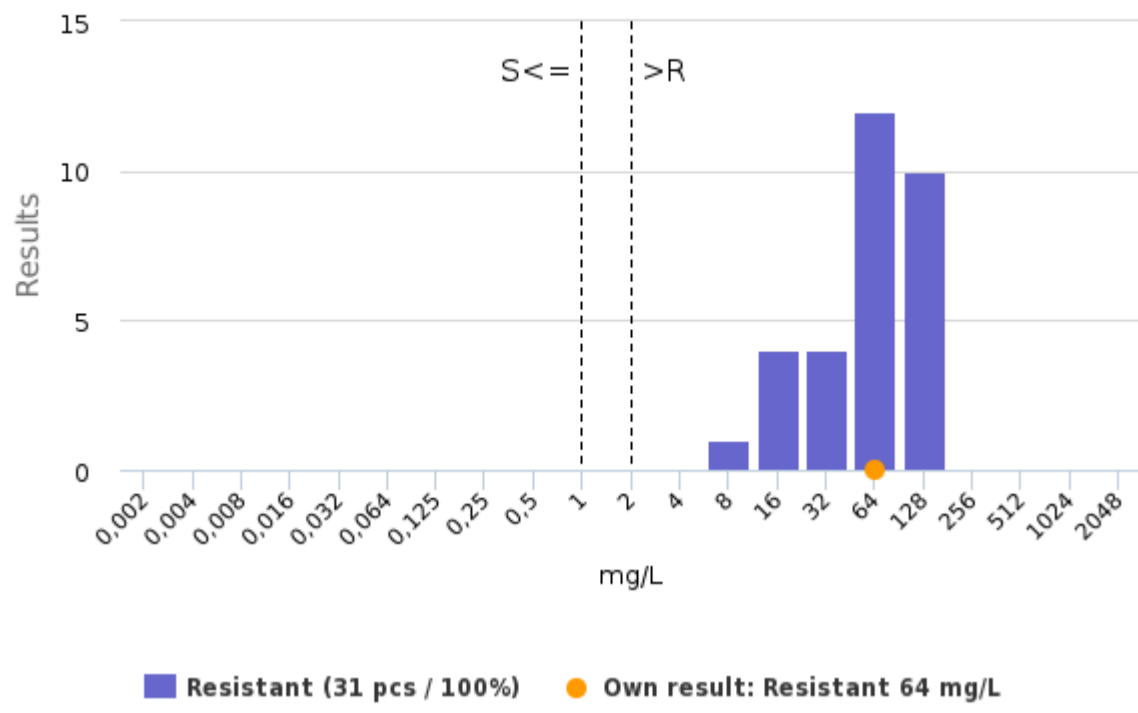
Ampicillin - MIC



	Mo	min	max	n
Ampicillin	32	8	64	23

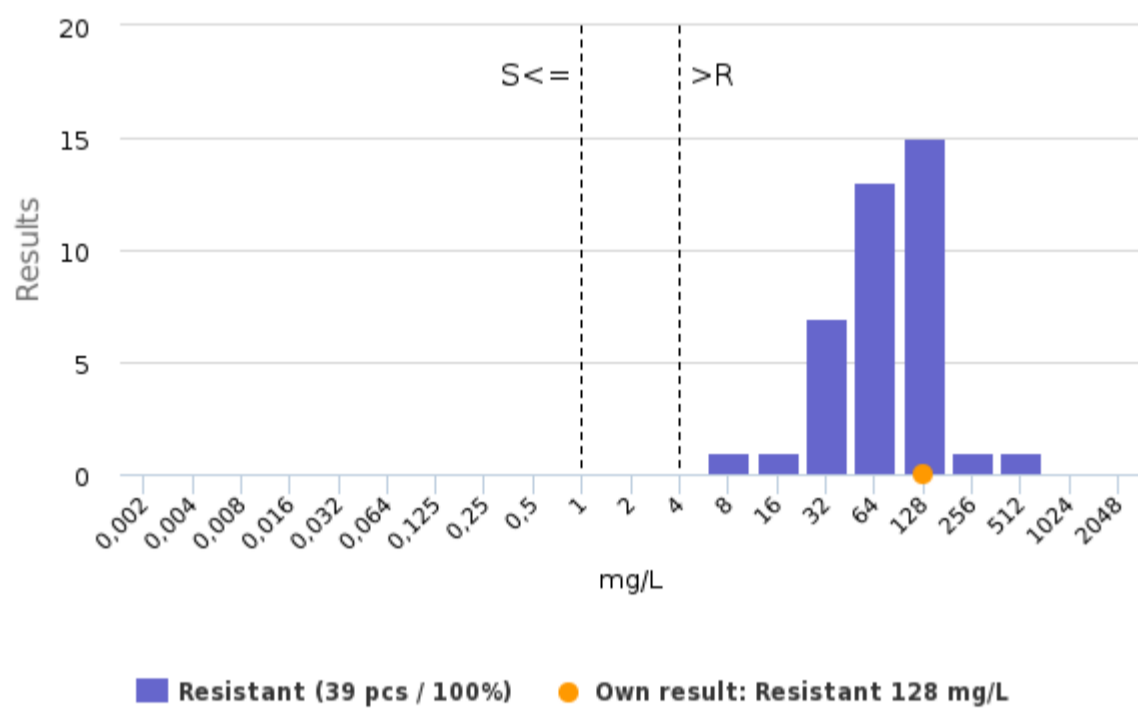
Antimicrobial susceptibility testing results, Klebsiella pneumoniae

Cefotaxime - MIC



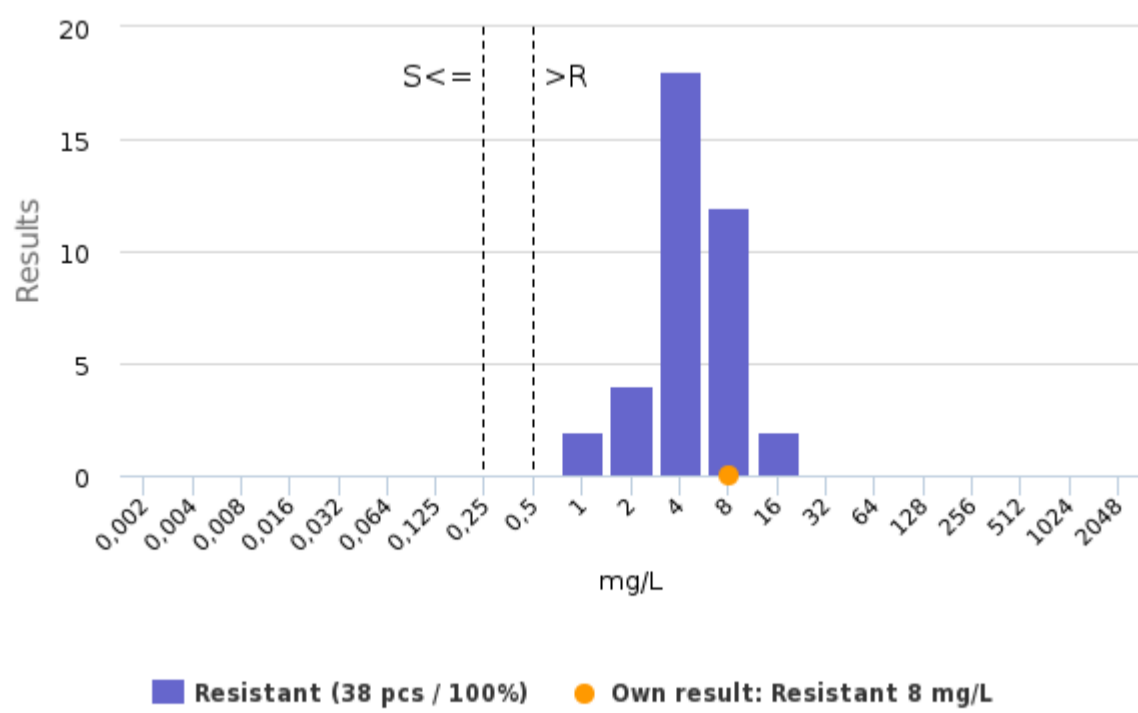
	Mo	min	max	n
Cefotaxime	64	8	128	31

Ceftazidime - MIC



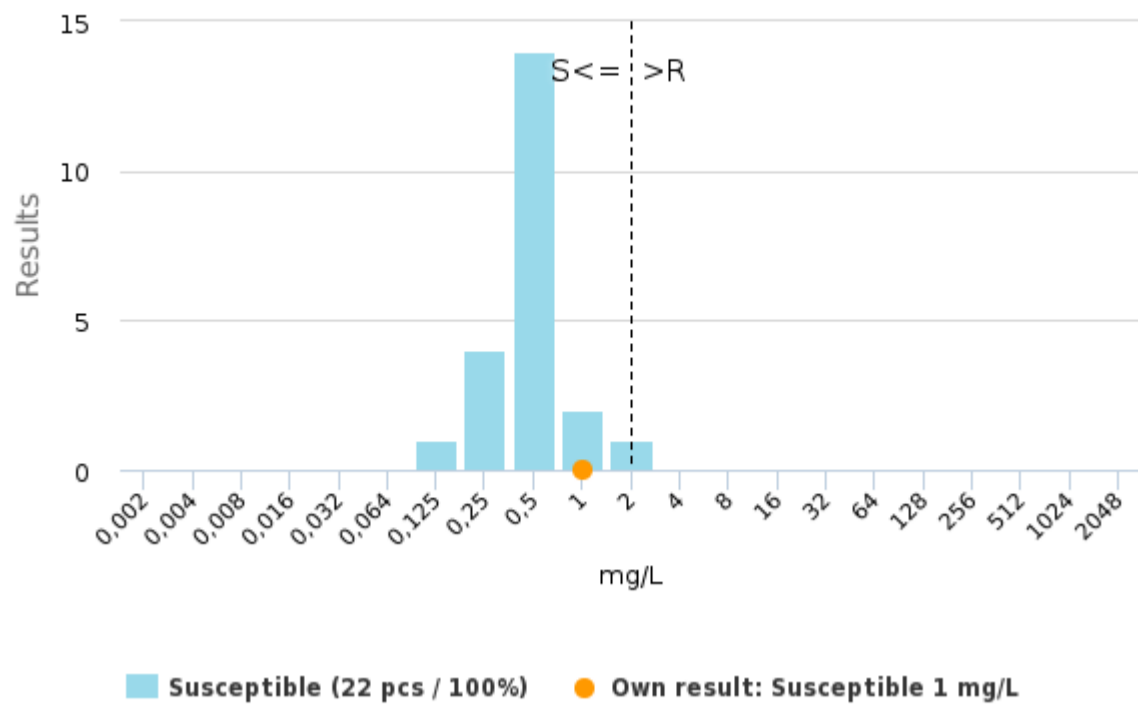
	Mo	min	max	n
Ceftazidime	128	8	512	39

Ciprofloxacin - MIC



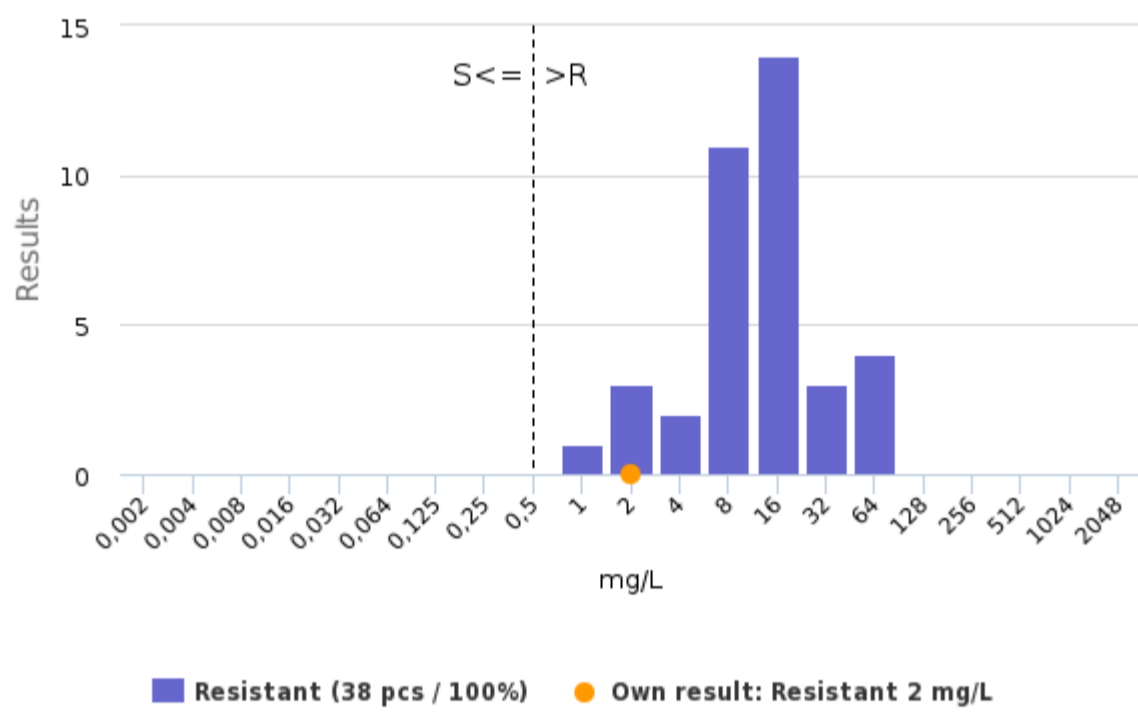
	Mo	min	max	n
Ciprofloxacin	4	1	16	38

Colistin - MIC



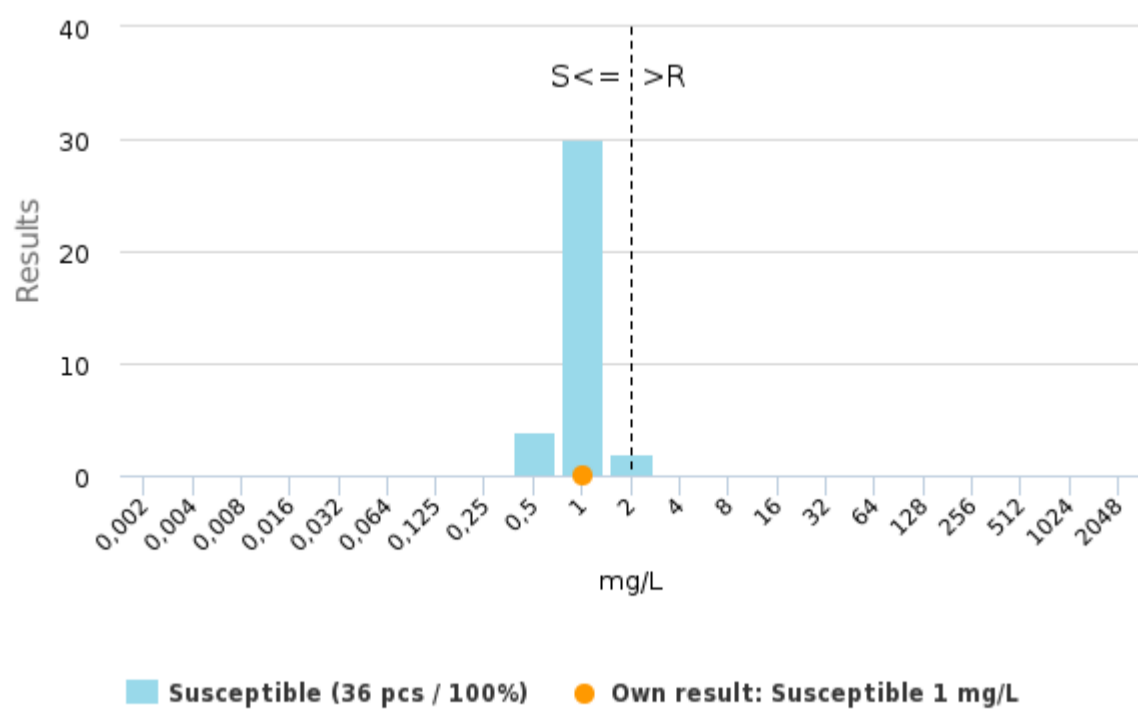
	Mo	min	max	n
Colistin	0.5	0.125	2	22

Ertapenem - MIC



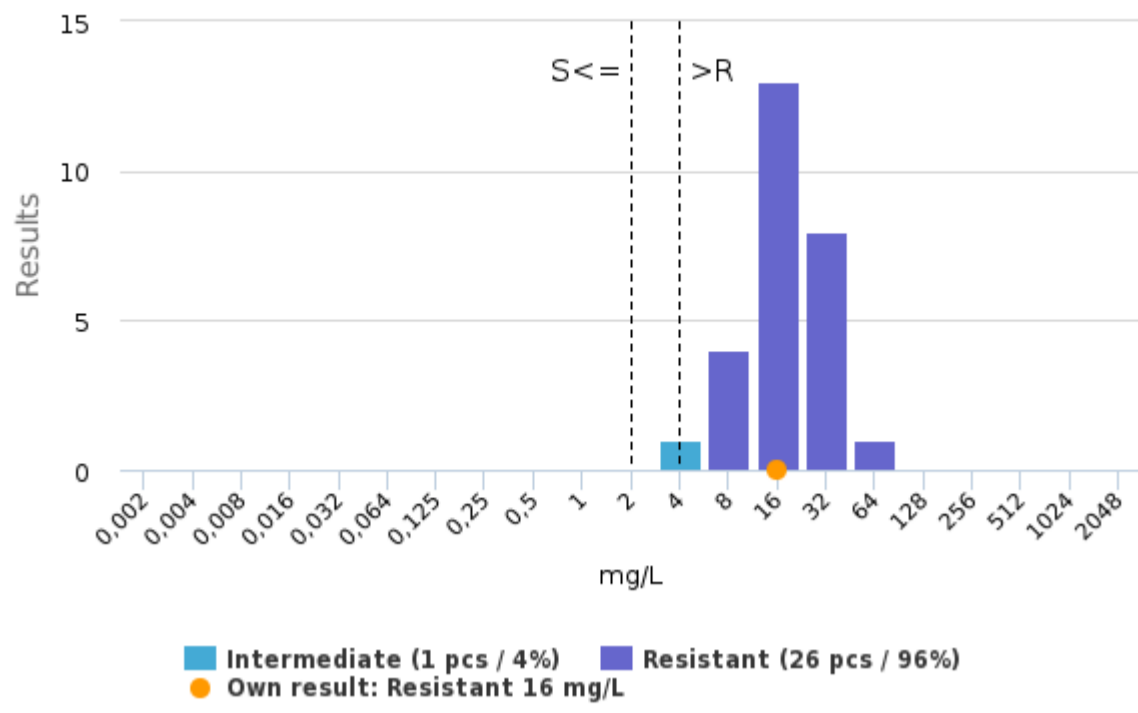
	Mo	min	max	n
Ertapenem	16	1	64	38

Gentamycin - MIC



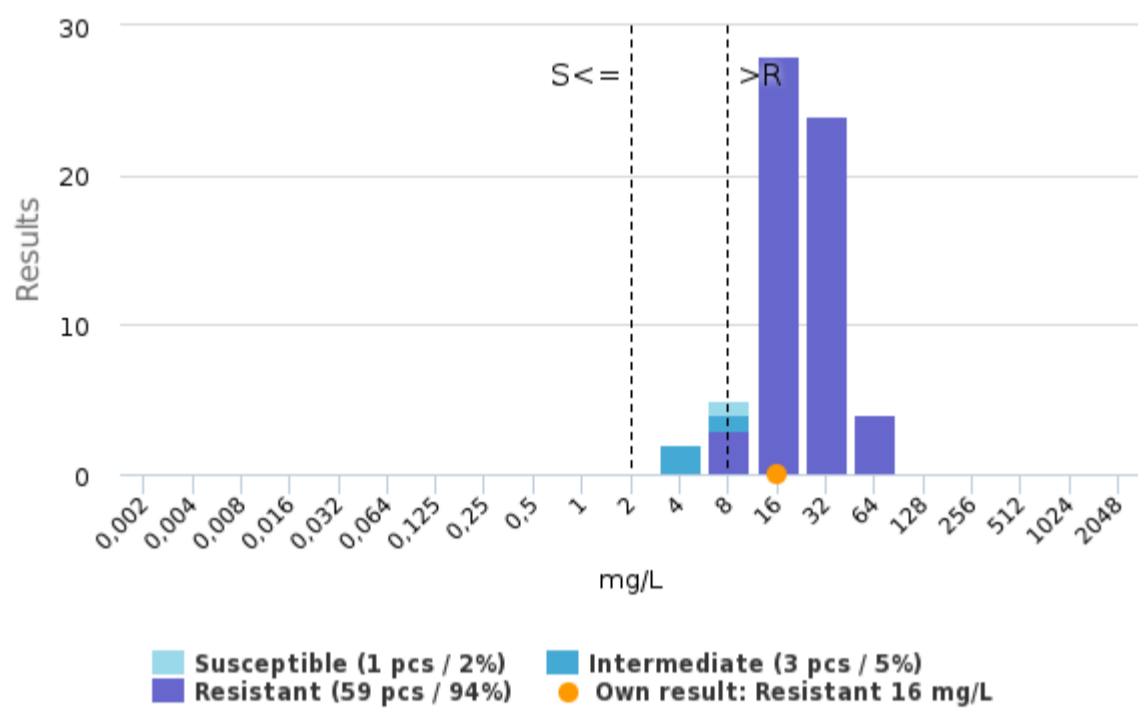
	Mo	min	max	n
Gentamycin	1	0.5	2	36

Imipenem - MIC



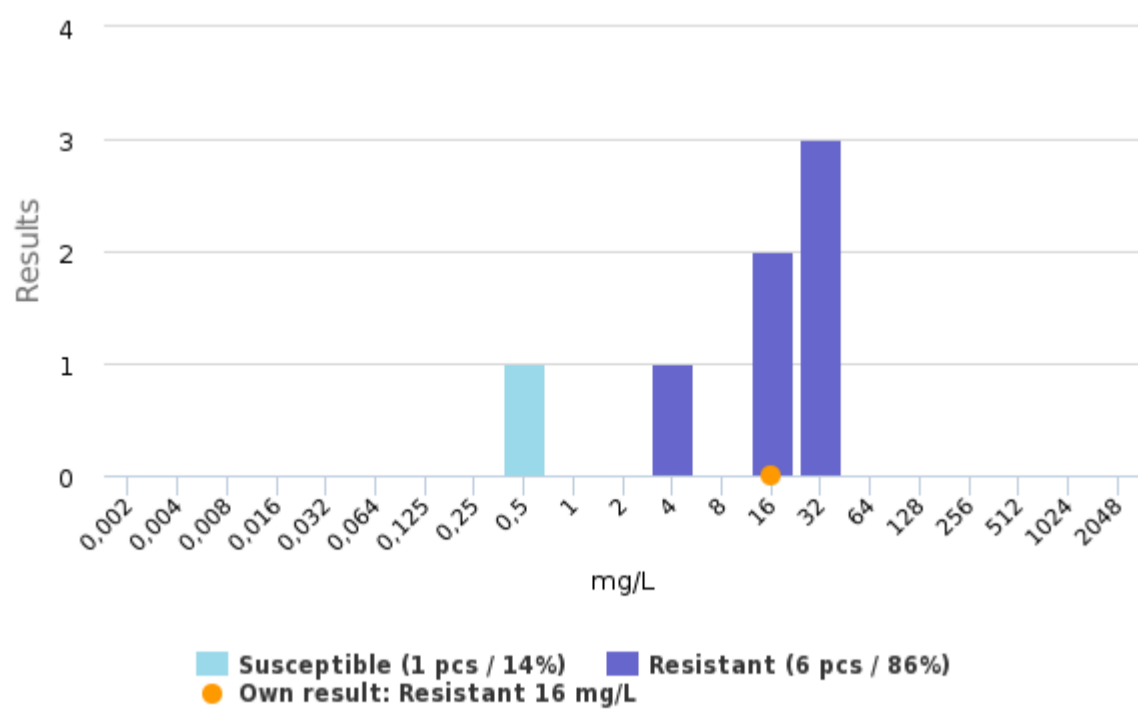
	Mo	min	max	n
Imipenem	16	4	64	27

Meropenem - MIC



	Mo	min	max	n
Meropenem	16	4	64	63

Trimethoprim - MIC



	Mo	min	max	n
Trimethoprim	32	0.5	32	7

Report info**Participants**

Altogether 147 laboratories from 19 countries participated in this EQA round.

Report info

The susceptibility testing results are presented for positive screening samples only. The results are shown in laboratory specific summary tables and histograms. 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 meant results which are obtained and interpreted according to the same standard (EUCAST, CLSI or CA-SFM). Laboratory's own results are indicated with a black radio button in the table and an orange dot in the histograms. Average (x) is used as a reference value for disk results and mode (Mo) is used for MIC results. According to the experts' assessment some antimicrobials may be excluded from the final summary tables, e.g., antimicrobial agents to which the microbe is intrinsically resistant or to which only one result has been reported.

If you have not reported antimicrobial susceptibility testing results, or, your results have been excluded, you will get a note: "You have not reported antimicrobial susceptibility results, 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.

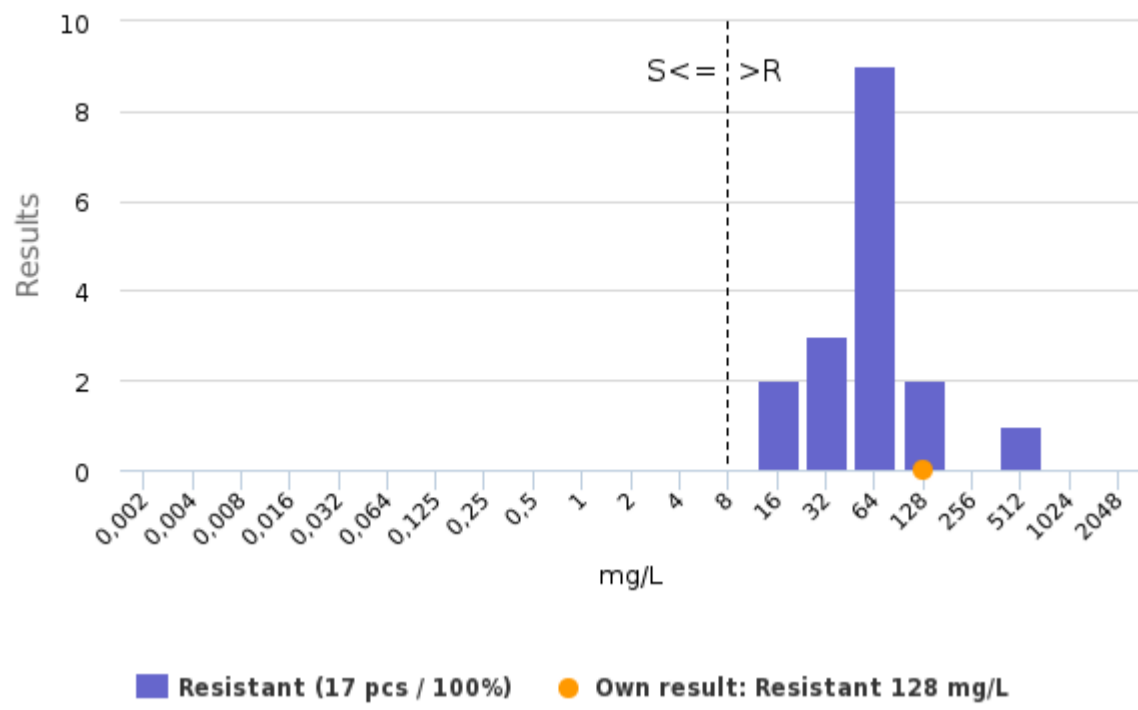
Finding 2|Sample S003

Acinetobacter baumannii KSKS 2822

Antimicrobial agent	Guideline	DISK							MIC					
		Own result (mm)	x (mm)	sd (mm)	S	I	R	n	Own result (mg/L)	Mo (mg/L)	S	I	R	n
Amikacin	CLSI	-	6	1	0 (0%)	0 (0%)	4 (100%)	4	-	64	0 (0%)	0 (0%)	3 (100%)	3
	CA-SFM	-	7	2	0 (0%)	0 (0%)	9 (100%)	9	-	-	-	-	-	-
	EUCAST	-	6	2	0 (0%)	0 (0%)	23 (100%)	23	128	64	0 (0%)	0 (0%)	17 (100%)	17
	All				0 (0%)	0 (0%)	36 (100%)	36			0 (0%)	0 (0%)	20 (100%)	20
Ciprofloxacin	CLSI	-	6	1	0 (0%)	0 (0%)	4 (100%)	4	-	-	0 (0%)	0 (0%)	2 (100%)	2
	CA-SFM	-	6	0	0 (0%)	0 (0%)	10 (100%)	10	-	4	0 (0%)	0 (0%)	4 (100%)	4
	EUCAST	-	6	0	0 (0%)	0 (0%)	39 (100%)	39	8	4	0 (0%)	0 (0%)	28 (100%)	28
	All				0 (0%)	0 (0%)	53 (100%)	53			0 (0%)	0 (0%)	34 (100%)	34
Colistin	CLSI	-	-	-	-	-	-	-	-	0.5	0 (0%)	1 (100%)	0 (0%)	1
	CA-SFM	-	-	-	-	-	-	-	-	-	6 (100%)	0 (0%)	0 (0%)	6
	EUCAST	-	-	-	-	-	-	-	1	1	20 (100%)	0 (0%)	0 (0%)	20
	All				0	0	0	0			26 (96%)	1 (4%)	0 (0%)	27
Gentamycin	CLSI	-	13	2	1 (25%)	0 (0%)	3 (75%)	4	-	16	0 (0%)	0 (0%)	3 (100%)	3
	CA-SFM	-	10	2	0 (0%)	0 (0%)	7 (100%)	7	-	8	0 (0%)	0 (0%)	3 (100%)	3
	EUCAST	-	11	2	0 (0%)	0 (0%)	28 (100%)	28	16	8	5 (20%)	0 (0%)	20 (80%)	25
	All				1 (3%)	0 (0%)	38 (97%)	39			5 (16%)	0 (0%)	26 (84%)	31
Imipenem	CLSI	-	11	4	0 (0%)	0 (0%)	4 (100%)	4	-	8	0 (0%)	0 (0%)	2 (100%)	2
	CA-SFM	-	12	3	0 (0%)	0 (0%)	12 (100%)	12	-	8	0 (0%)	0 (0%)	7 (100%)	7
	EUCAST	-	11	2	0 (0%)	0 (0%)	26 (100%)	26	16	16	0 (0%)	1 (3%)	29 (97%)	30
	All				0 (0%)	0 (0%)	42 (100%)	42			0 (0%)	1 (3%)	38 (97%)	39
Meropenem	CLSI	-	12	5	0 (0%)	0 (0%)	4 (100%)	4	-	16	0 (0%)	0 (0%)	4 (100%)	4
	CA-SFM	-	13	2	0 (0%)	2 (22%)	7 (78%)	9	-	-	0 (0%)	1 (17%)	5 (83%)	6
	EUCAST	-	12	3	0 (0%)	8 (19%)	35 (81%)	43	16	16	0 (0%)	12 (29%)	30 (71%)	42
	All				0 (0%)	10 (18%)	46 (82%)	56			0 (0%)	13 (25%)	39 (75%)	52
Tobramycin	CLSI	-	7	-	0 (0%)	0 (0%)	2 (100%)	2	-	32	0 (0%)	0 (0%)	1 (100%)	1
	CA-SFM	-	8	2	0 (0%)	0 (0%)	9 (100%)	9	-	8	0 (0%)	0 (0%)	2 (100%)	2
	EUCAST	8	8	2	0 (0%)	0 (0%)	26 (100%)	26	-	8	0 (0%)	0 (0%)	23 (100%)	23
	All				0 (0%)	0 (0%)	37 (100%)	37			0 (0%)	0 (0%)	26 (100%)	26
Trimethoprim-sulfamethoxazole	CLSI	-	6	1	0 (0%)	0 (0%)	3 (100%)	3	-	64	0 (0%)	0 (0%)	1 (100%)	1
	CA-SFM	-	6	0	0 (0%)	0 (0%)	8 (100%)	8	-	16	1 (33%)	0 (0%)	2 (67%)	3
	EUCAST	6	6	0	0 (0%)	0 (0%)	40 (100%)	40	-	16	0 (0%)	0 (0%)	25 (100%)	25
	All				0 (0%)	0 (0%)	51 (100%)	51			1 (3%)	0 (0%)	28 (97%)	29

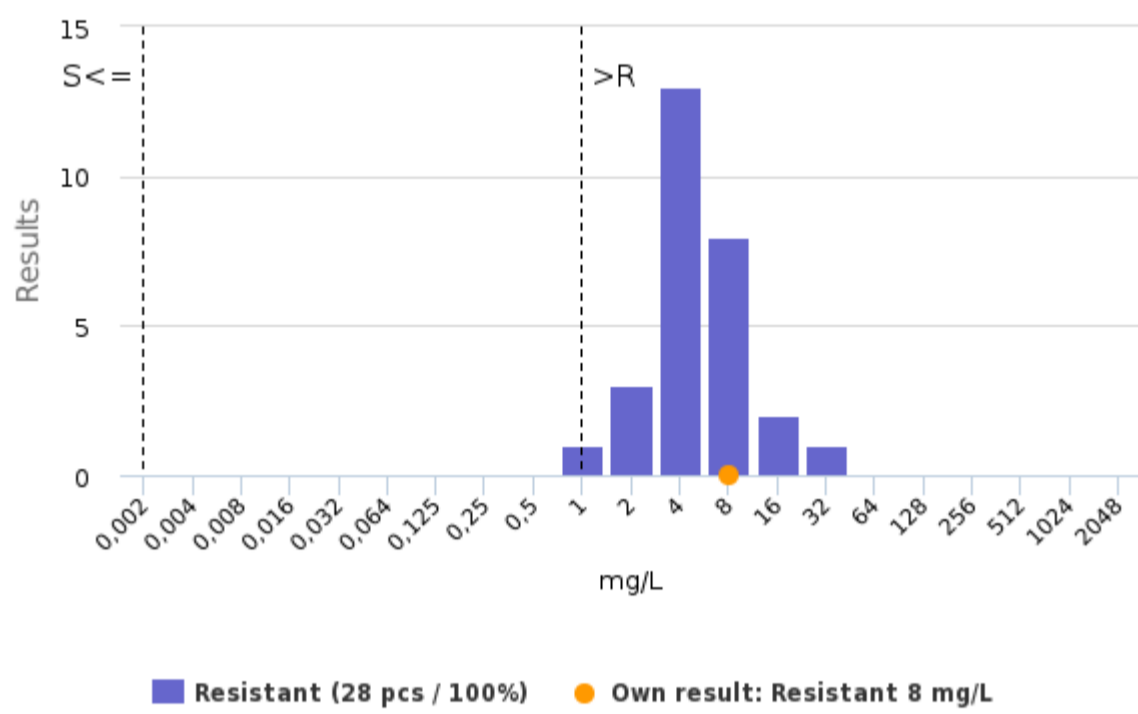
Finding 2|Sample S003 | EUCAST

Amikacin - MIC



	Mo	min	max	n
Amikacin	64	16	512	17

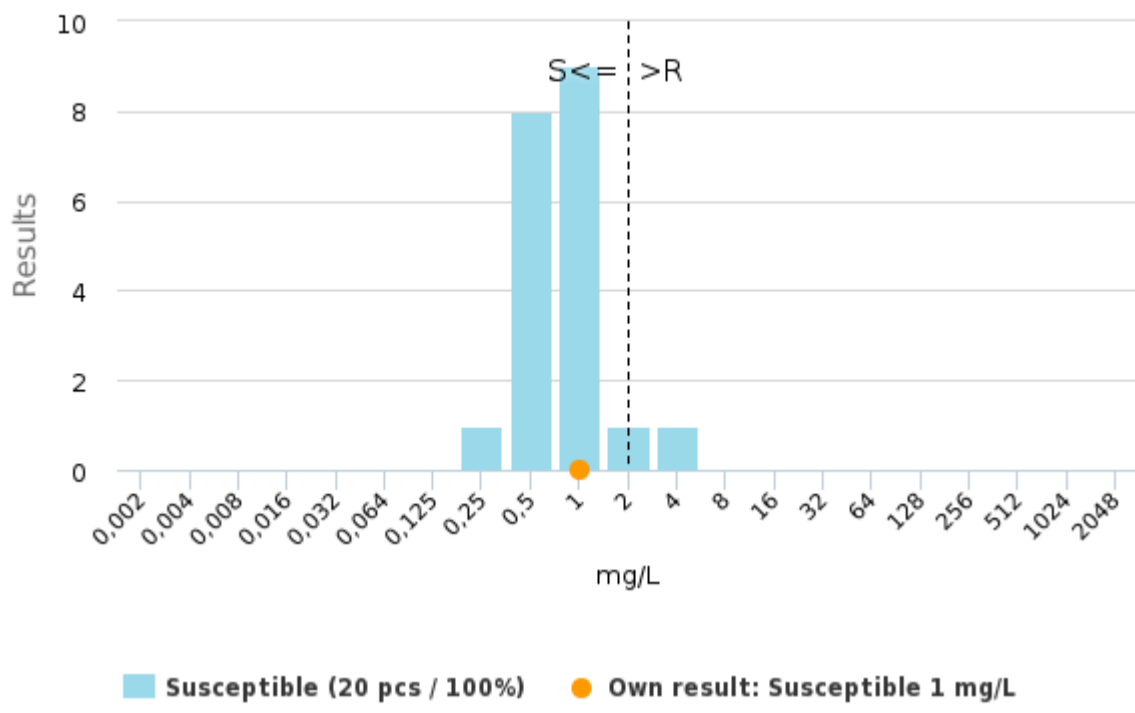
Ciprofloxacin - MIC



	Mo	min	max	n
Ciprofloxacin	4	1	32	28

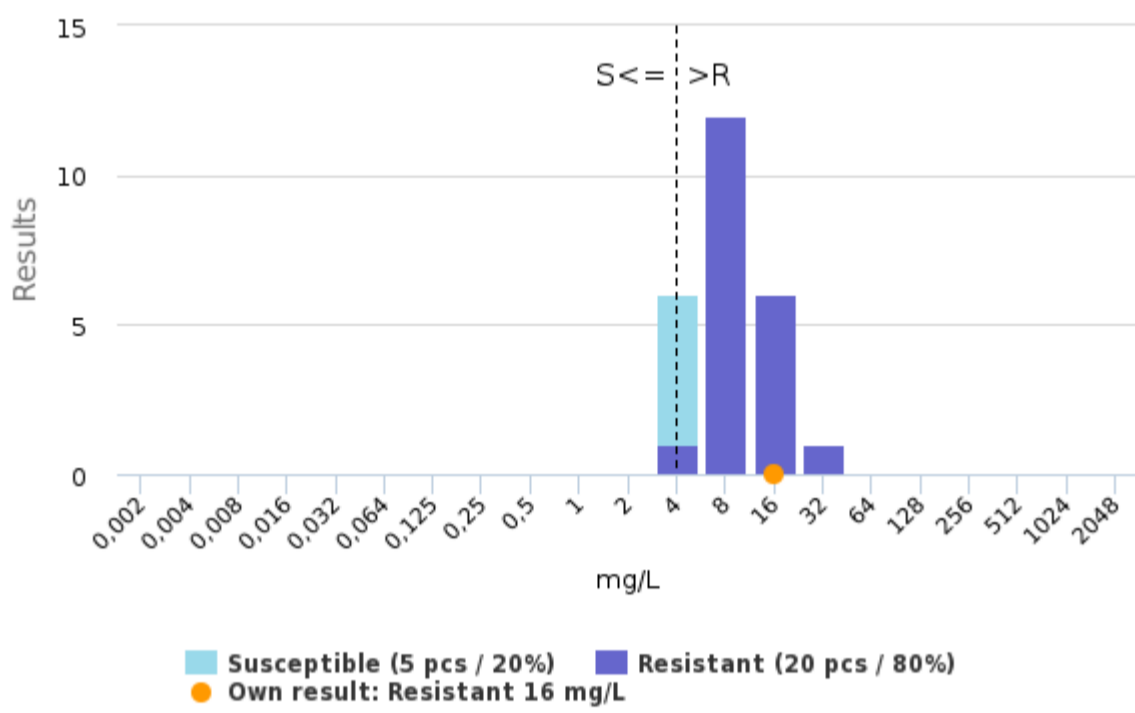
Antimicrobial susceptibility testing results, Acinetobacter baumannii

Colistin - MIC



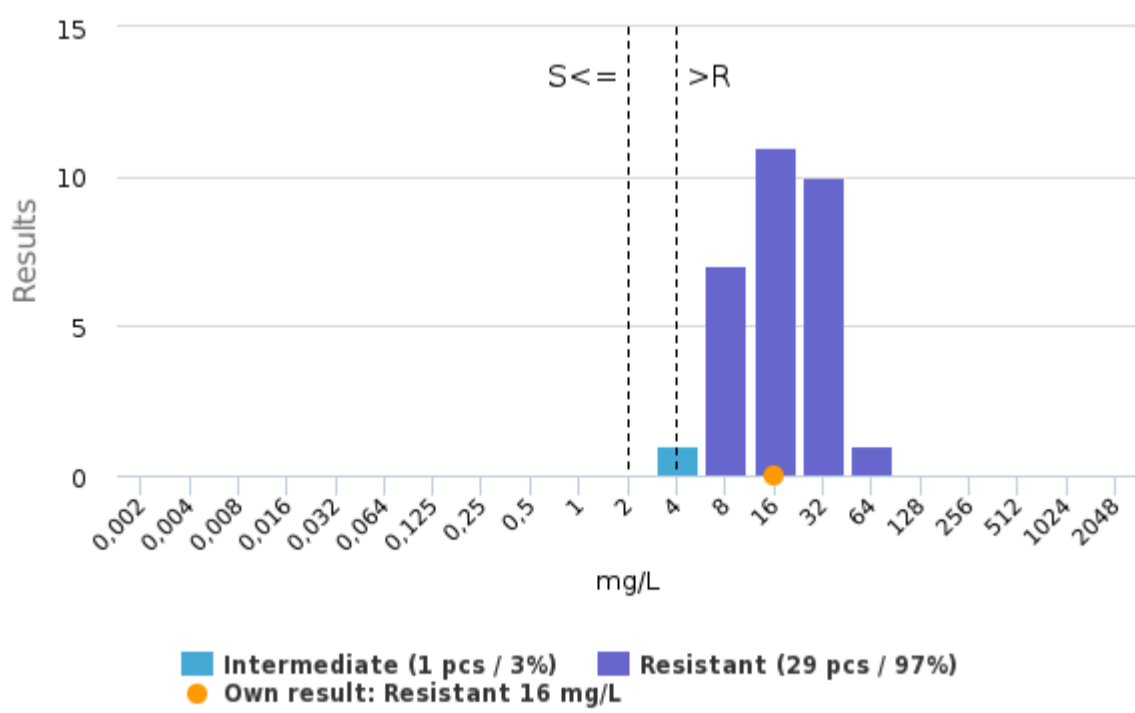
	Mo	min	max	n
Colistin	1	0.25	4	20

Gentamycin - MIC



	Mo	min	max	n
Gentamycin	8	4	32	25

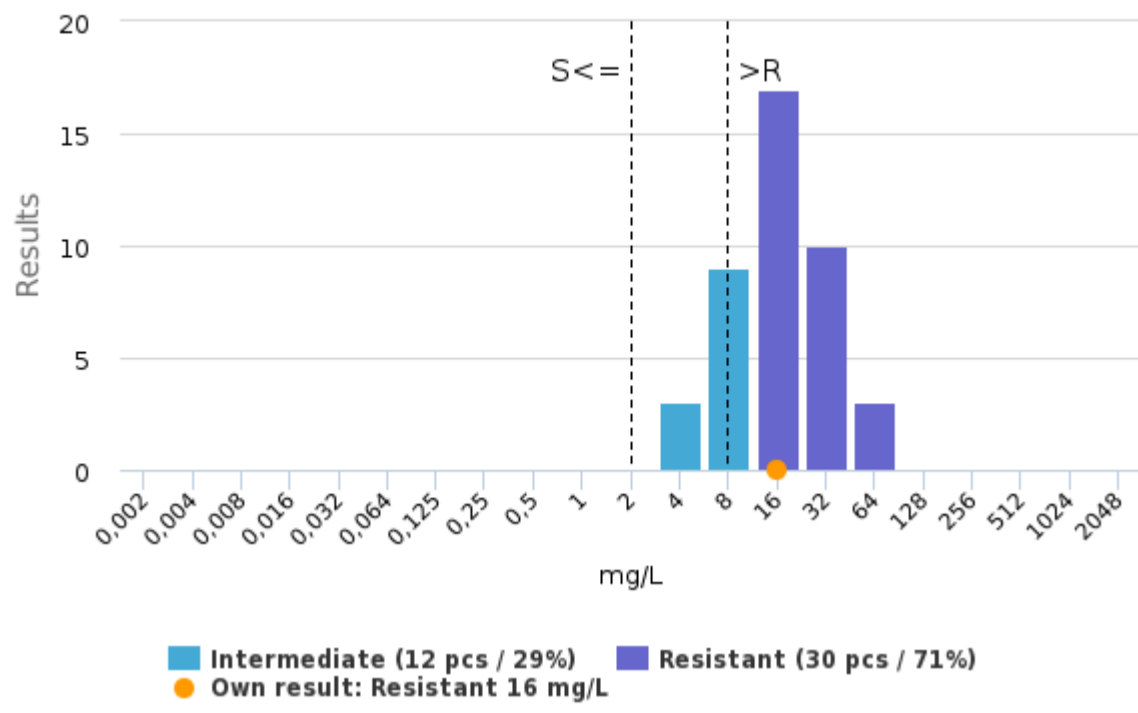
Imipenem - MIC



	Mo	min	max	n
Imipenem	16	4	64	30

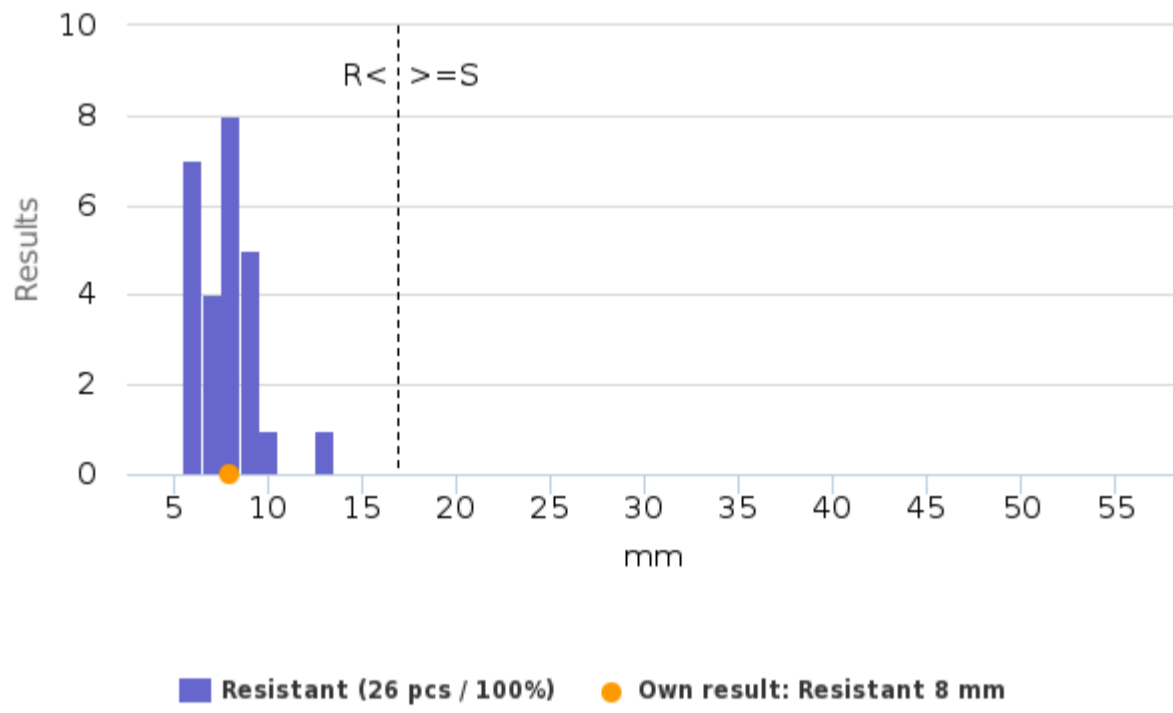
Antimicrobial susceptibility testing results, Acinetobacter baumannii

Meropenem - MIC



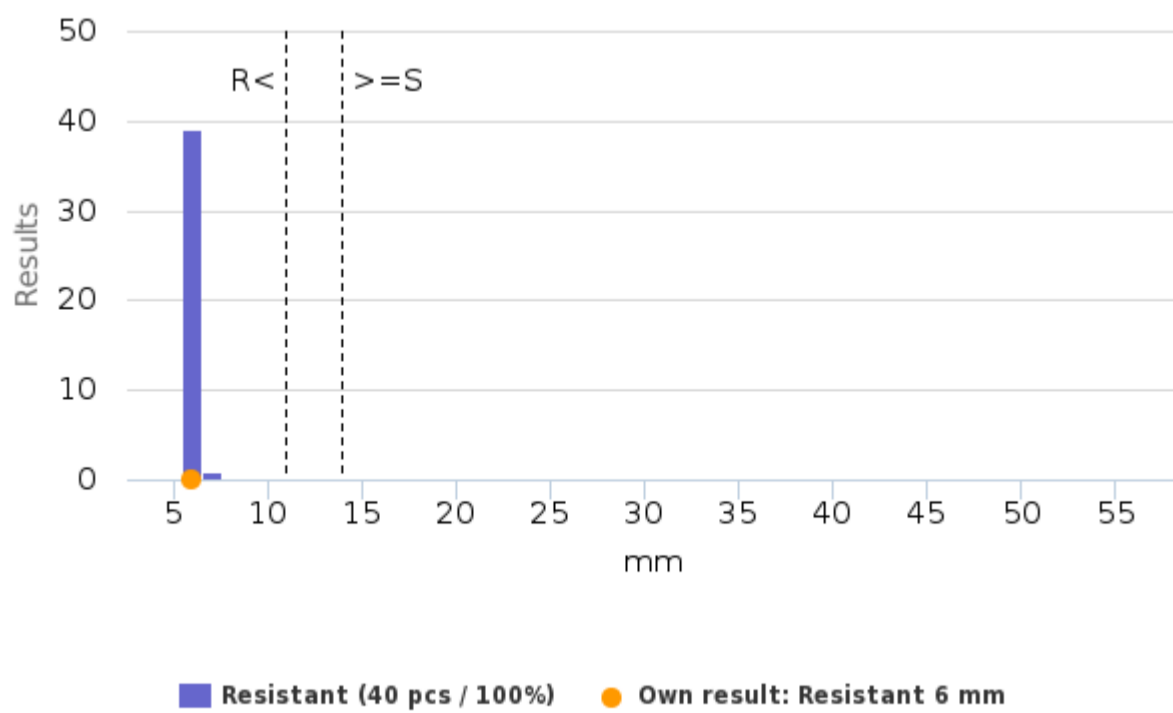
	Mo	min	max	n
Meropenem	16	4	64	42

Tobramycin - DISK



	x	sd	min	max	n
Tobramycin	8 mm	2	6	13	26

Trimethoprim-sulfamethoxazole - DISK



	x	sd	min	max	n
Trimethoprim-sulfamethoxazole	6 mm	-	6	7	40

Report info**Participants**

Altogether 147 laboratories from 19 countries participated in this EQA round.

Report info

The susceptibility testing results are presented for positive screening samples only. The results are shown in laboratory specific summary tables and histograms. 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 meant results which are obtained and interpreted according to the same standard (EUCAST, CLSI or CA-SFM). Laboratory's own results are indicated with a black radio button in the table and an orange dot in the histograms. Average (x) is used as a reference value for disk results and mode (Mo) is used for MIC results. According to the experts' assessment some antimicrobials may be excluded from the final summary tables, e.g., antimicrobial agents to which the microbe is intrinsically resistant or to which only one result has been reported.

If you have not reported antimicrobial susceptibility testing results, or, your results have been excluded, you will get a note: "You have not reported antimicrobial susceptibility results, 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.

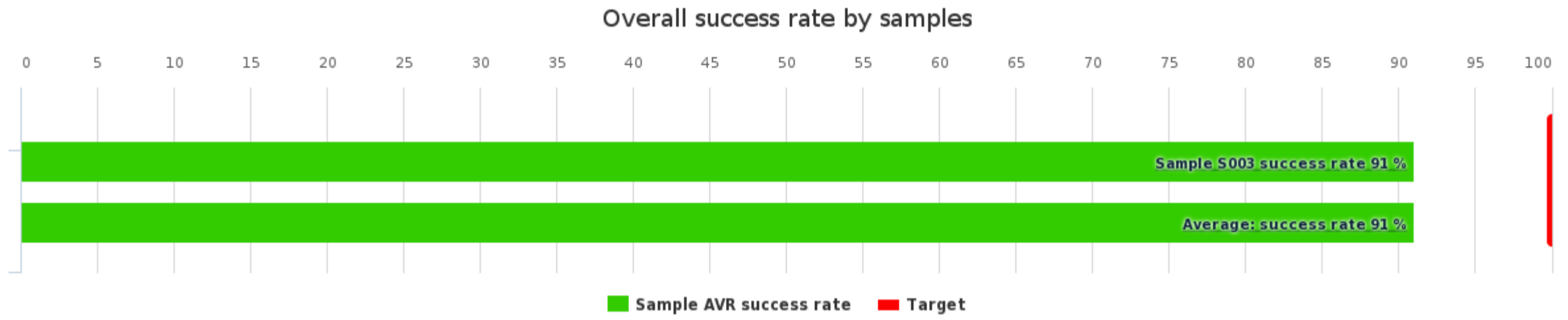
LABQUALITY Surveillance for multidrug resistant bacteria, gramnegative rods, February, 1-2023

Report to the clinician and identification test results

GLOBAL REPORT

	No of participants	No of responded participants	Response percentage
Surveillance for multidrug resistant bacteria, gramnegative rods, February, 1-2023	147	141	95.9 %

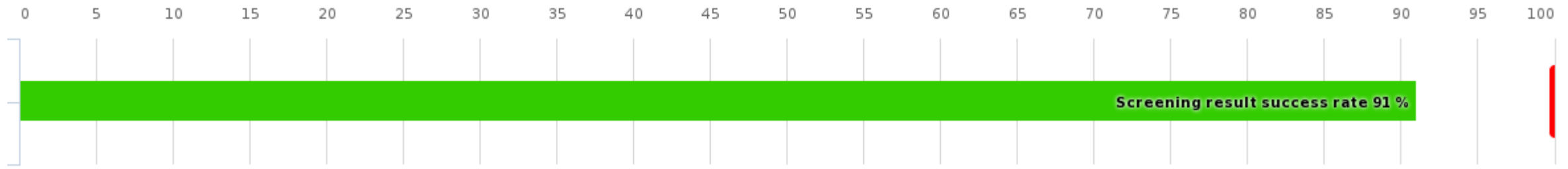
Summary



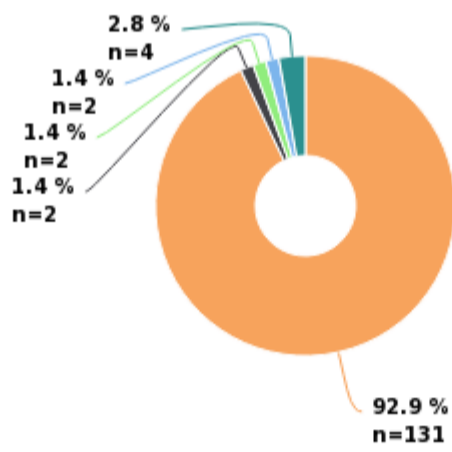
Summary	AVR success rate
Sample S003	91 %
Average:	91 %

Sample S003 | Klebsiella pneumoniae (CPE) and Acinetobacter baumannii (CRAB)

Sample S003 success rate

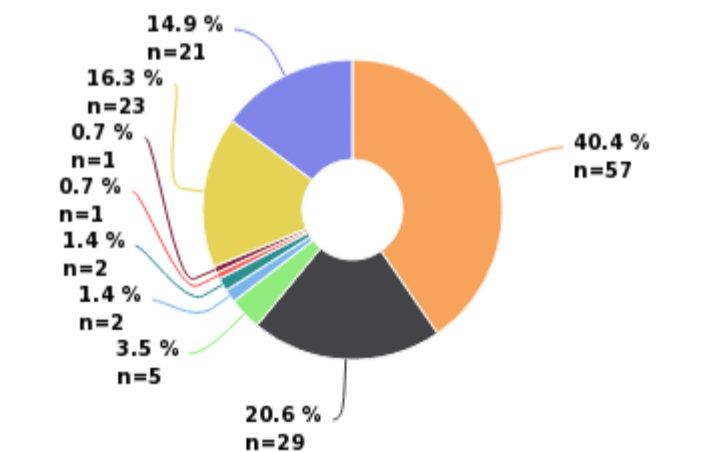


Sample S003 Klebsiella pneumoniae, CPE positive



- Orange: CPE positive | Klebsiella pneumoniae
- Dark Grey: CPO positive | Klebsiella pneumoniae
- Light Green: CPE positive | Species identification not in test selection
- Blue: Negative
- Dark Blue: Negative, finding not in test selection

Sample S003 Acinetobacter baumannii, CRAB positive



- Orange: CRAB positive | Acinetobacter baumannii
- Dark Grey: CRAB positive | Acinetobacter baumannii-complex
- Light Green: CRAB positive | Acinetobacter baumannii/calcoaceticus
- Blue: CPO positive | Acinetobacter baumannii
- Dark Blue: CPO positive | Acinetobacter baumannii-complex
- Red: CPE positive | Acinetobacter baumannii
- Dark Red: CPE positive | Acinetobacter baumannii-complex
- Yellow: Negative, finding not in test selection
- Blue: Negative

Sample S003 Other finding



- Orange: ESBL positive | Klebsiella pneumoniae
- Dark Grey: pAmpC positive | Klebsiella pneumoniae

SCREENING RESULT

Finding group	Finding	Finding count	Confirmed	Suspected	Referred	Not referred	AVR success rate
Klebsiella pneumoniae, CPE positive		141					98.5 %
	CPE positive Klebsiella pneumoniae	131	109	22	76	55	
	CPO positive Klebsiella pneumoniae	2	2		1	1	
	CPE positive Species identification not in test selection	2	1	1	1	1	
	Negative	2			1	1	
	Negative, finding not in test selection	4					
Acinetobacter baumannii, CRAB positive		141					82.2 %
	CRAB positive Acinetobacter baumannii	57	34	23	36	21	
	CRAB positive Acinetobacter baumannii-complex	29	11	18	24	5	
	CRAB positive Acinetobacter baumannii/calcoaceticus	5	2	3	4	1	
	CPO positive Acinetobacter baumannii	2	1	1	1	1	
	CPO positive Acinetobacter baumannii-complex	2		2	2		
	CPE positive Acinetobacter baumannii	1		1	1		
	CPE positive Acinetobacter baumannii-complex	1		1	1		
	Negative, finding not in test selection	23					
	Negative	21					
Other finding		2					-
	ESBL positive Klebsiella pneumoniae	1	1			1	
	pAmpC positive Klebsiella pneumoniae	1	1			1	
Total:		284					91 %

SCORING SUMMARY

Finding group	Finding	Finding score	Max score
Klebsiella pneumoniae, CPE positive			4
	CPE positive Klebsiella pneumoniae	4	4

LABQUALITY Surveillance for multidrug resistant bacteria, gramnegative rods, February, 1-2023

Report to the clinician and identification test results

	CPO positive Klebsiella pneumoniae	4	4
	CPE positive Species identification not in test selection	4	4
	Negative	0	4
	Negative, finding not in test selection	-	-
Acinetobacter baumannii, CRAB positive			4
	CRAB positive Acinetobacter baumannii	4	4
	CRAB positive Acinetobacter baumannii-complex	4	4
	CRAB positive Acinetobacter baumannii/calcoaceticus	4	4
	CPO positive Acinetobacter baumannii	4	4
	CPO positive Acinetobacter baumannii-complex	4	4
	CPE positive Acinetobacter baumannii	4	4
	CPE positive Acinetobacter baumannii-complex	4	4
	Negative, finding not in test selection	-	-
	Negative	0	4
Other finding			-
	ESBL positive Klebsiella pneumoniae	-	-
	pAmpC positive Klebsiella pneumoniae	-	-
Total:			8

Sample S003 Plate culture

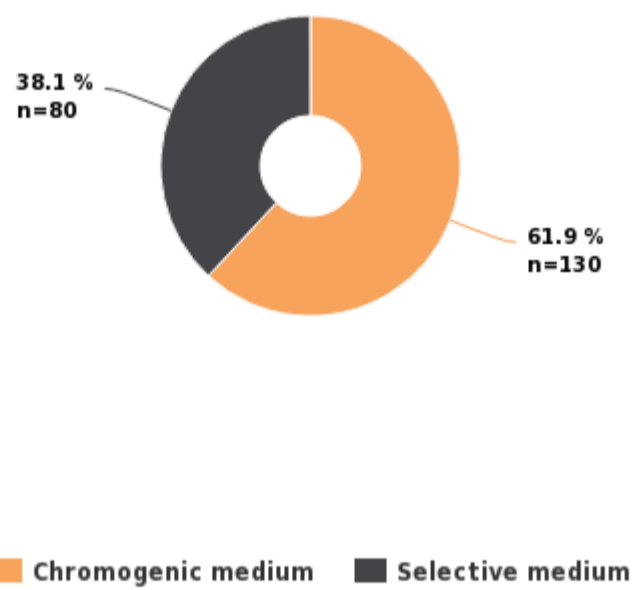


PLATE CULTURE

Method	Method count
Chromogenic medium	130
Selective medium	80
Total:	210

MOLECULAR CONFIRMATION TEST (FROM CULTURE)

Finding group	Method	AcOXA+	IMP+	IMP-	IMP-1-	KPC+	KPC-	Negative	OXA-58+	Positive	Total:
Klebsiella pneumoniae, CPE positive											118
	Allplex Entero-DR Assay (Seegene)	-	-	-	-	1	-	-	-	-	1
	Amplidiag CarbaR+VRE (Mobidiag)	-	-	-	-	1	-	-	-	-	1
	Beta CARBA test (Bio-Rad)	-	-	-	-	-	-	-	-	1	1
	Eazyplex SuperBug AmpC (Amplex)	-	-	-	-	-	-	1	-	-	1
	Eazyplex SuperBug complete A (Amplex)	-	-	-	-	2	-	-	-	-	2

LABQUALITY Surveillance for multidrug resistant bacteria, gramnegative rods, February, 1-2023

Report to the clinician and identification test results

	Eazyplex SuperBug complete C (Amplex)	-	-	1	-	1	-	-	-	-	2
	Eazyplex SuperBug CRE (Amplex)	-	-	-	-	4	-	-	-	-	4
	NG-Test CARBA 5 (NG Biotech)	-	-	-	-	26	-	-	-	-	26
	Novodiag CarbaR+ (Mobidiag)	-	-	-	-	2	-	-	-	-	2
	Rapidec CARBA NP (bioMerieux)	-	-	-	-	-	-	-	-	1	1
	Resist-4 O.K.N.V. (Coris BioConcept)	-	-	-	-	1	-	-	-	-	1
	Resist-5 O.K.N.V.I. (Coris BioConcept)	-	-	1	-	10	-	-	-	-	11
	Resist-5 O.O.K.N.V. (Coris BioConcept)	-	-	-	-	2	-	-	-	-	2
	Xpert Carba-R (Cepheid)	-	-	6	1	54	-	2	-	-	63
Acinetobacter baumannii, CRAB positive											53
	Amplidiag CarbaR+VRE (Mobidiag)	1	-	-	-	-	-	-	-	-	1
	Beta CARBA test (Bio-Rad)	-	-	-	-	-	-	-	-	2	2
	Eazyplex SuperBug Acineto (Amplex)	-	-	-	-	-	-	-	4	-	4
	NG-Test CARBA 5 (NG Biotech)	-	2	1	-	-	1	8	-	-	12
	Novodiag CarbaR+ (Mobidiag)	-	-	-	-	-	-	-	1	-	1
	PCR (In-house)	-	-	-	-	-	-	1	3	1	5
	Resist-5 O.K.N.V.I. (Coris BioConcept)	-	-	-	-	-	-	3	-	-	3
	Resist-5 O.O.K.N.V. (Coris BioConcept)	-	-	-	-	-	-	1	-	-	1
	Xpert Carba-R (Cepheid)	-	-	4	-	2	3	15	-	-	24
	Total:	1	2	13	1	106	4	31	8	5	171

DIRECT DETECTION BY MOLECULAR METHOD (FROM SAMPLE)

Finding group	Method	IMP+	IMP-	IMP-1-	KPC+	KPC-	Negative	Total:
Klebsiella pneumoniae, CPE positive								33
	BD MAX Check-Points CPO (Becton Dickinson)	-	-	-	1	-	-	1
	LightMix Modular Carbapenemase Kit (TIB Molbiol)	-	-	-	1	-	-	1
	NG-Test CARBA 5 (NG Biotech)	-	-	-	6	-	-	6
	Resist-5 O.K.N.V.I. (Coris BioConcept)	-	-	-	1	-	-	1
	Xpert Carba-R (Cepheid)	-	1	2	20	-	1	24
Acinetobacter baumannii, CRAB positive								5
	NG-Test CARBA 5 (NG Biotech)	1	-	-	-	-	-	1
	Xpert Carba-R (Cepheid)	-	-	1	-	1	2	4
	Total:	1	1	3	29	1	3	38

LABQUALITY Surveillance for multidrug resistant bacteria, gramnegative rods, February, 1-2023

Report to the clinician and identification test results

Report Info

PARTICIPANTS

Altogether 147 laboratories from 19 countries participated in this EQA round.

REPORT INFO

On the front page you can see the sample specific success rate which have been calculated from the scores. The reported results and the scores are presented in separate tables. The results are presented in tables as counts and in the pie diagrams as percentages. 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 (●). The participant's own success is shown both as scores and as success rates (%) generated from the score values. In the participant specific report there is also a laboratory specific scoring table, 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 report to the clinician part is scored. The scoring consists of two parts; the final report of the screening including the resistance mechanism, that gives a maximum of 3 points and the species identification that gives a maximum of 1 point. There will be no loss of scores if species identification is not included in the test selection of the laboratory. Findings (e.g., ESBL) that are not included in the test selection of a laboratory and are reported expectedly as negative, will be left unscored. The results 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. 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.

LABQUALITY Surveillance for multidrug resistant bacteria, gramnegative rods, February, 1-2023

Antimicrobial susceptibility testing results, Klebsiella pneumoniae

Sample S003

Klebsiella pneumoniae ATCC BAA-2343

Antimicrobial agent	Guideline	DISK						MIC				
		x (mm)	sd (mm)	S	I	R	n	Mo (mg/L)	S	I	R	n
Amikacin	CA-SFM	15	5	1 (9%)	2 (18%)	8 (73%)	11	32	1 (17%)	0 (0%)	5 (83%)	6
	CLSI	17	1	5 (83%)	1 (17%)	0 (0%)	6	16	7 (100%)	0 (0%)	0 (0%)	7
	EUCAST	14	2	1 (3%)	0 (0%)	34 (97%)	35	16	1 (3%)	1 (3%)	35 (95%)	37
	All			7 (13%)	3 (6%)	42 (81%)	52		9 (18%)	1 (2%)	40 (80%)	50
Amoxicillin	CA-SFM	6	0	0 (0%)	0 (0%)	6 (100%)	6	-	-	-	-	-
	EUCAST	6	0	0 (0%)	0 (0%)	4 (100%)	4	32	0 (0%)	0 (0%)	3 (100%)	3
	All			0 (0%)	0 (0%)	10 (100%)	10		0 (0%)	0 (0%)	3 (100%)	3
Amoxicillin-clavulanate	CA-SFM	6	1	0 (0%)	0 (0%)	12 (100%)	12	32	0 (0%)	0 (0%)	4 (100%)	4
	CLSI	6	1	0 (0%)	0 (0%)	6 (100%)	6	32	0 (0%)	0 (0%)	5 (100%)	5
	EUCAST	6	0	0 (0%)	0 (0%)	41 (100%)	41	32	0 (0%)	0 (0%)	33 (100%)	33
	All			0 (0%)	0 (0%)	59 (100%)	59		0 (0%)	0 (0%)	42 (100%)	42
Ampicillin	CA-SFM	7	2	0 (0%)	0 (0%)	3 (100%)	3	32	0 (0%)	0 (0%)	4 (100%)	4
	CLSI	6	-	0 (0%)	0 (0%)	2 (100%)	2	32	0 (0%)	0 (0%)	2 (100%)	2
	EUCAST	6	0	0 (0%)	0 (0%)	21 (100%)	21	32	0 (0%)	0 (0%)	23 (100%)	23
	All			0 (0%)	0 (0%)	26 (100%)	26		0 (0%)	0 (0%)	29 (100%)	29
Ampicillin-sulbactam	EUCAST	7	-	0 (0%)	0 (0%)	1 (100%)	1	-	-	-	-	-
	All			0 (0%)	0 (0%)	1 (100%)	1		0	0	0	0
Aztreonam	CA-SFM	6	1	0 (0%)	0 (0%)	12 (100%)	12	64	0 (0%)	0 (0%)	3 (100%)	3
	CLSI	6	-	0 (0%)	0 (0%)	2 (100%)	2	128	0 (0%)	0 (0%)	1 (100%)	1
	EUCAST	6	0	0 (0%)	0 (0%)	19 (100%)	19	64	0 (0%)	0 (0%)	25 (100%)	25
	All			0 (0%)	0 (0%)	33 (100%)	33		0 (0%)	0 (0%)	29 (100%)	29
Cefadroxil	EUCAST	6	0	0 (0%)	0 (0%)	4 (100%)	4	-	-	-	-	-
	All			0 (0%)	0 (0%)	4 (100%)	4		0	0	0	0
Cefazolin	CLSI	6	-	0 (0%)	0 (0%)	1 (100%)	1	-	-	-	-	-
	All			0 (0%)	0 (0%)	1 (100%)	1		0	0	0	0
Cefepime	CA-SFM	10	3	0 (0%)	0 (0%)	12 (100%)	12	32	0 (0%)	0 (0%)	4 (100%)	4
	CLSI	-	-	-	-	-	-	64	0 (0%)	0 (0%)	1 (100%)	1
	EUCAST	11	4	0 (0%)	0 (0%)	7 (100%)	7	32	0 (0%)	0 (0%)	26 (100%)	26
	All			0 (0%)	0 (0%)	19 (100%)	19		0 (0%)	0 (0%)	31 (100%)	31
Cefiderocol	CA-SFM	-	-	-	-	-	-	0.25	2 (100%)	0 (0%)	0 (0%)	2
	CLSI	29	-	1 (100%)	0 (0%)	0 (0%)	1	-	-	-	-	-
	EUCAST	26	1	6 (100%)	0 (0%)	0 (0%)	6	0.125	1 (100%)	0 (0%)	0 (0%)	1
	All			7 (100%)	0 (0%)	0 (0%)	7		3 (100%)	0 (0%)	0 (0%)	3
Antimicrobial agent	Guideline	DISK						MIC				
		x (mm)	sd (mm)	S	I	R	n	Mo (mg/L)	S	I	R	n
Cefixime	CA-SFM	10	-	0 (0%)	0 (0%)	1 (100%)	1	-	-	-	-	-
	EUCAST	6	-	0 (0%)	0 (0%)	1 (100%)	1	-	0 (0%)	0 (0%)	3 (100%)	3
	All			0 (0%)	0 (0%)	2 (100%)	2		0 (0%)	0 (0%)	3 (100%)	3
Cefotaxime	CA-SFM	6	1	0 (0%)	0 (0%)	12 (100%)	12	64	0 (0%)	0 (0%)	4 (100%)	4
	CLSI	9	3	0 (0%)	0 (0%)	5 (100%)	5	-	0 (0%)	0 (0%)	2 (100%)	2
	EUCAST	6	0	0 (0%)	0 (0%)	39 (100%)	39	64	0 (0%)	0 (0%)	31 (100%)	31
	All			0 (0%)	0 (0%)	56 (100%)	56		0 (0%)	0 (0%)	37 (100%)	37
Cefoxitin	CA-SFM	7	2	0 (0%)	0 (0%)	8 (100%)	8	64	0 (0%)	0 (0%)	1 (100%)	1
	CLSI	6	-	0 (0%)	0 (0%)	1 (100%)	1	-	-	-	-	-
	EUCAST	10	3	0 (0%)	0 (0%)	6 (100%)	6	64	0 (0%)	0 (0%)	11 (100%)	11
	All			0 (0%)	0 (0%)	15 (100%)	15		0 (0%)	0 (0%)	12 (100%)	12
Cefoxitin (screen)	EUCAST	7	1	0 (0%)	0 (0%)	3 (100%)	3	-	-	-	-	-
	All			0 (0%)	0 (0%)	3 (100%)	3		0	0	0	0
Cefpodoxime	CA-SFM	6	-	0 (0%)	0 (0%)	1 (100%)	1	-	-	-	-	-
	CLSI	6	-	0 (0%)	0 (0%)	1 (100%)	1	-	-	-	-	-
	EUCAST	6	0	0 (0%)	0 (0%)	7 (100%)	7	-	-	-	-	-
	All			0 (0%)	0 (0%)	9 (100%)	9		0	0	0	0
Ceftazidime	CA-SFM	6	1	0 (0%)	0 (0%)	13 (100%)	13	64	0 (0%)	0 (0%)	6 (100%)	6
	CLSI	6	1	0 (0%)	0 (0%)	5 (100%)	5	64	0 (0%)	0 (0%)	5 (100%)	5
	EUCAST	6	2	0 (0%)	0 (0%)	49 (100%)	49	128	0 (0%)	0 (0%)	39 (100%)	39
	All			0 (0%)	0 (0%)	67 (100%)	67		0 (0%)	0 (0%)	50 (100%)	50
Ceftazidime-	CA-SFM	11	-	1 (50%)	0 (0%)	1 (50%)	2	-	5 (83%)	0 (0%)	1 (17%)	6

LABQUALITY Surveillance for multidrug resistant bacteria, gramnegative rods, February, 1-2023

Antimicrobial susceptibility testing results, Klebsiella pneumoniae

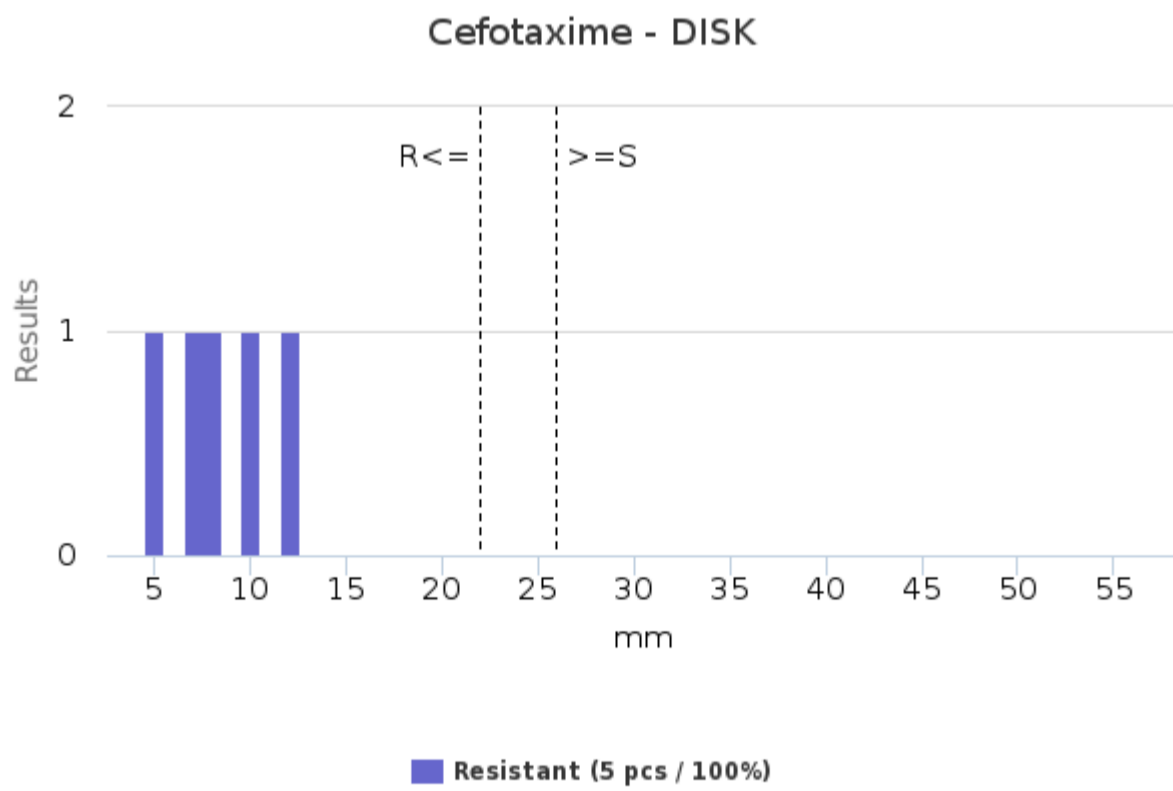
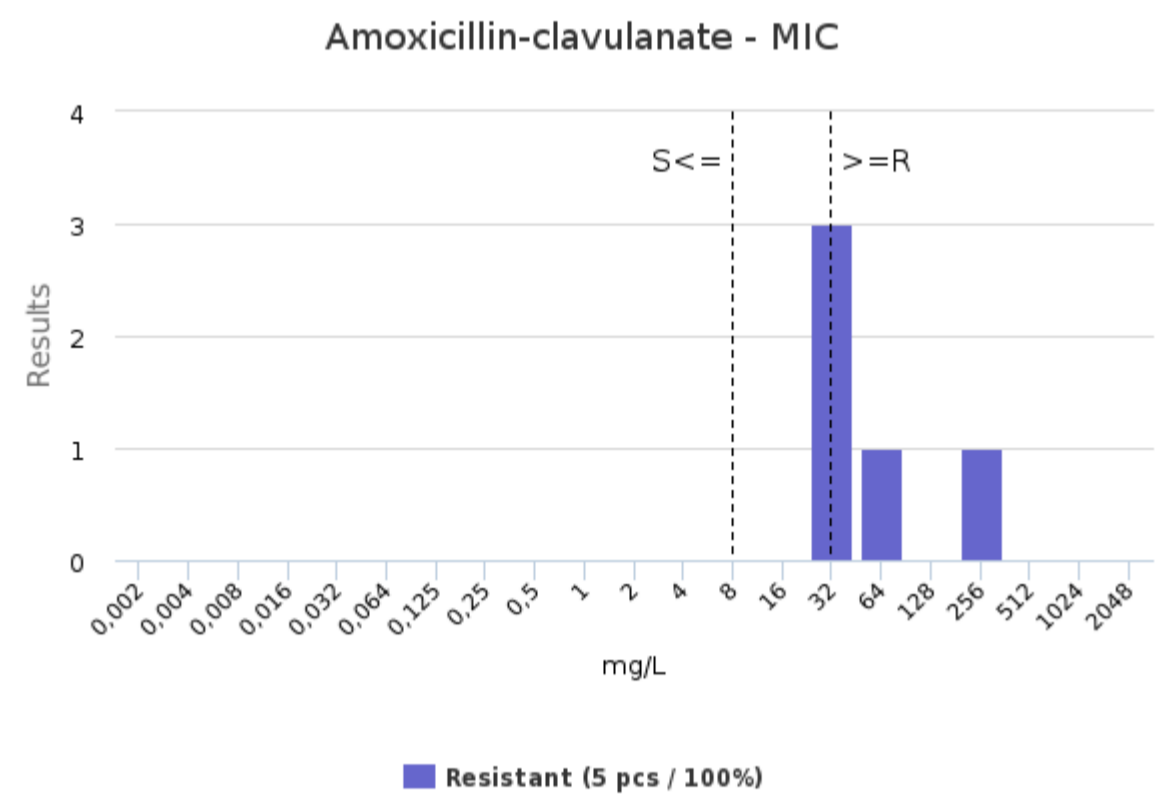
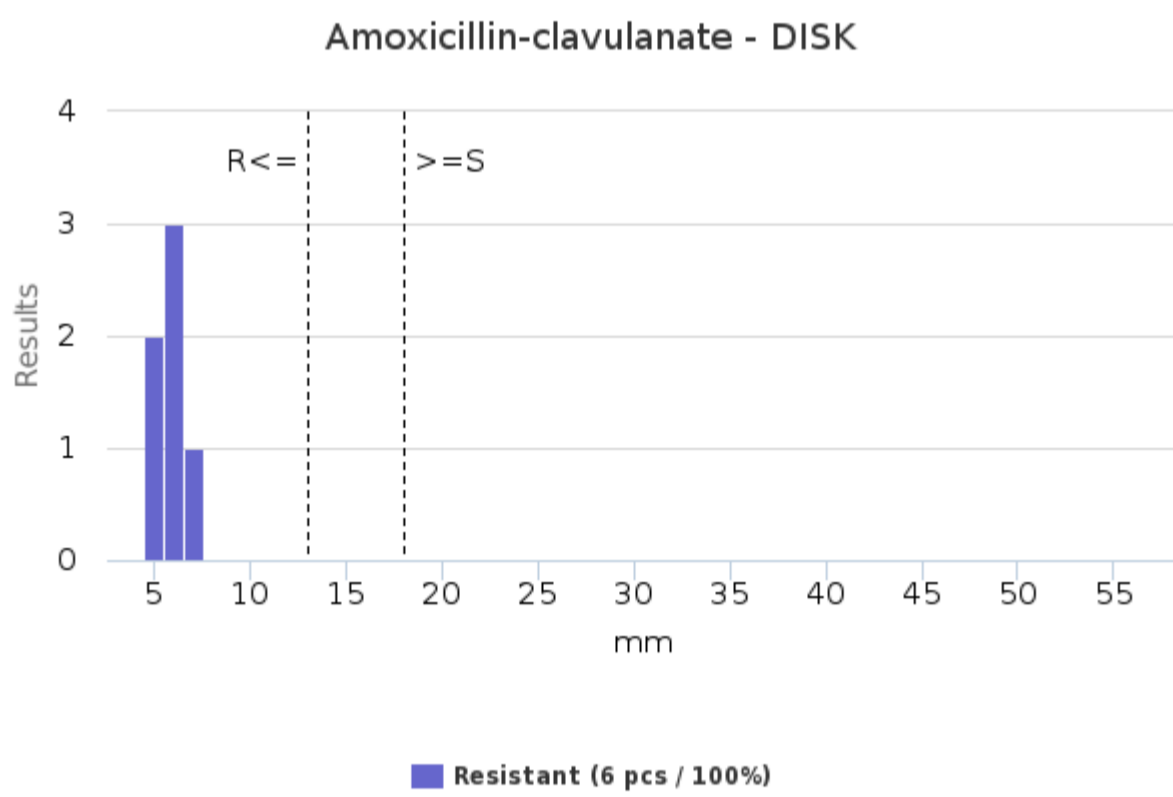
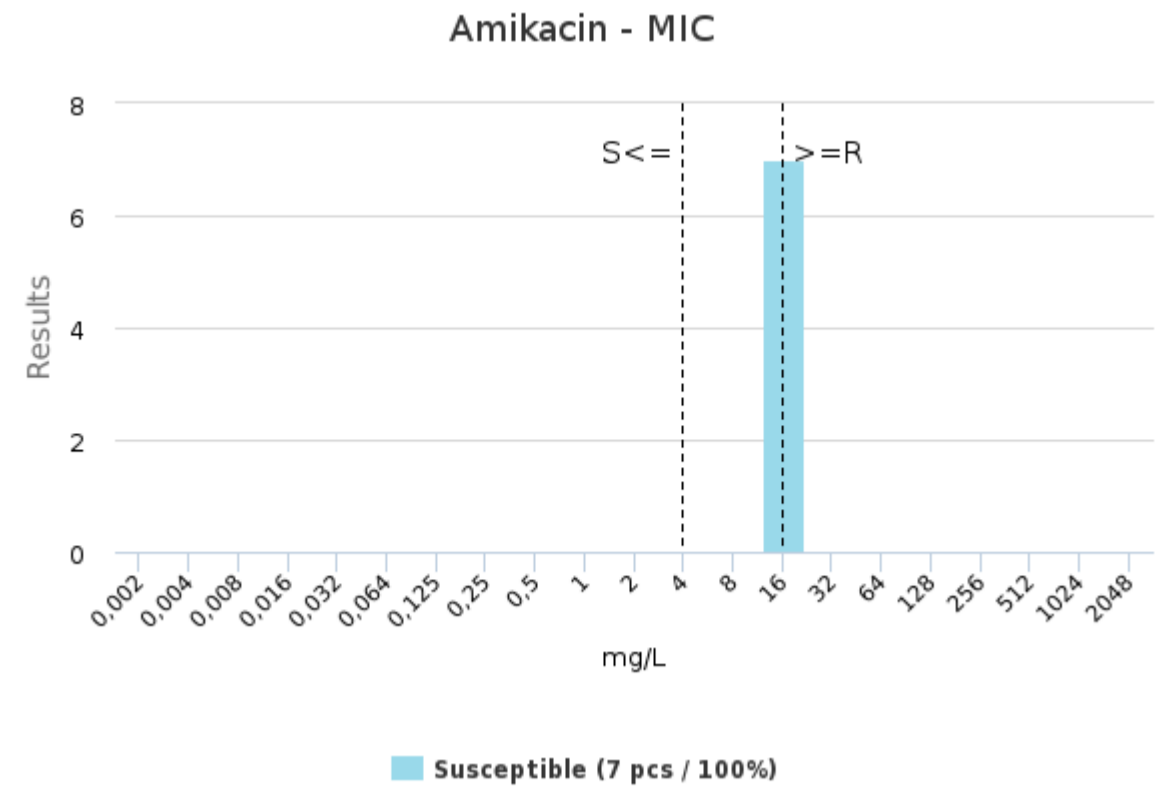
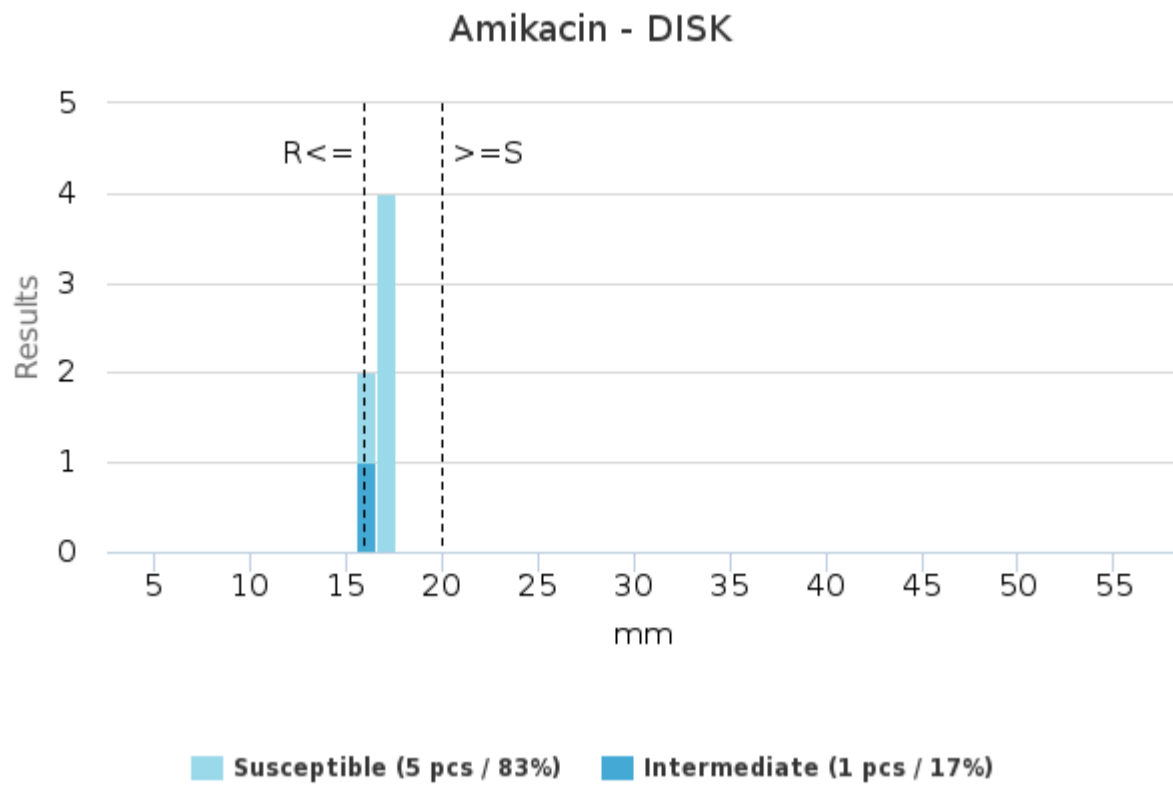
avibactam	CLSI	24	-	1 (100%)	0 (0%)	0 (0%)	1	-	-	-	-	-	
	EUCAST	18	2	6 (100%)	0 (0%)	0 (0%)	6	2	22 (100%)	0 (0%)	0 (0%)	22	
	All			8 (89%)	0 (0%)	1 (11%)	9		27 (96%)	0 (0%)	1 (4%)	28	
Ceftolozane-tazobactam	CA-SFM	6	-	0 (0%)	0 (0%)	1 (100%)	1	16	1 (17%)	0 (0%)	5 (83%)	6	
	CLSI	6	-	0 (0%)	0 (0%)	1 (100%)	1	-	-	-	-	-	
	EUCAST	6	0	0 (0%)	0 (0%)	4 (100%)	4	64	0 (0%)	0 (0%)	13 (100%)	13	
	All			0 (0%)	0 (0%)	6 (100%)	6		1 (5%)	0 (0%)	18 (95%)	19	
Ceftriaxone	CA-SFM	6	-	0 (0%)	0 (0%)	1 (100%)	1	64	0 (0%)	0 (0%)	1 (100%)	1	
	CLSI	8	3	0 (0%)	0 (0%)	6 (100%)	6	-	0 (0%)	0 (0%)	5 (100%)	5	
	EUCAST	7	2	0 (0%)	0 (0%)	15 (100%)	15	-	0 (0%)	0 (0%)	11 (100%)	11	
	All			0 (0%)	0 (0%)	22 (100%)	22		0 (0%)	0 (0%)	17 (100%)	17	
Cefuroxime (iv/parenteral)	CA-SFM	6	-	0 (0%)	0 (0%)	1 (100%)	1	-	-	-	-	-	
	CLSI	6	-	0 (0%)	0 (0%)	2 (100%)	2	-	-	-	-	-	
	EUCAST	6	0	0 (0%)	0 (0%)	16 (100%)	16	64	0 (0%)	0 (0%)	15 (100%)	15	
	All			0 (0%)	0 (0%)	19 (100%)	19		0 (0%)	0 (0%)	15 (100%)	15	
			DISK						MIC				
Antimicrobial agent	Guideline	x (mm)	sd (mm)	S	I	R	n	Mo (mg/L)	S	I	R	n	
Cefuroxime (oral)	CLSI	6	1	0 (0%)	0 (0%)	3 (100%)	3	128	0 (0%)	0 (0%)	3 (100%)	3	
	EUCAST	6	1	0 (0%)	0 (0%)	11 (100%)	11	128	0 (0%)	0 (0%)	13 (100%)	13	
	All			0 (0%)	0 (0%)	14 (100%)	14		0 (0%)	0 (0%)	16 (100%)	16	
Cephalexin	CA-SFM	6	-	0 (0%)	0 (0%)	1 (100%)	1	-	-	-	-	-	
	EUCAST	6	-	0 (0%)	0 (0%)	2 (100%)	2	128	0 (0%)	0 (0%)	4 (100%)	4	
	All			0 (0%)	0 (0%)	3 (100%)	3		0 (0%)	0 (0%)	4 (100%)	4	
Cephalothin	CLSI	-	-	-	-	-	-	64	0 (0%)	0 (0%)	1 (100%)	1	
	All			0	0	0	0		0 (0%)	0 (0%)	1 (100%)	1	
Chloramphenicol	CLSI	6	-	0 (0%)	0 (0%)	1 (100%)	1	64	0 (0%)	0 (0%)	2 (100%)	2	
	EUCAST	6	0	0 (0%)	0 (0%)	3 (100%)	3	128	0 (0%)	0 (0%)	1 (100%)	1	
	All			0 (0%)	0 (0%)	4 (100%)	4		0 (0%)	0 (0%)	3 (100%)	3	
Ciprofloxacin	CA-SFM	6	0	0 (0%)	0 (0%)	10 (100%)	10	4	0 (0%)	0 (0%)	6 (100%)	6	
	CLSI	6	1	0 (0%)	0 (0%)	6 (100%)	6	8	0 (0%)	0 (0%)	5 (100%)	5	
	EUCAST	6	0	0 (0%)	0 (0%)	52 (100%)	52	4	0 (0%)	0 (0%)	38 (100%)	38	
	All			0 (0%)	0 (0%)	68 (100%)	68		0 (0%)	0 (0%)	49 (100%)	49	
Colistin	CA-SFM	-	-	-	-	-	-	0.5	5 (100%)	0 (0%)	0 (0%)	5	
	CLSI	-	-	-	-	-	-	0.25	0 (0%)	1 (100%)	0 (0%)	1	
	EUCAST	-	-	-	-	-	-	0.5	22 (100%)	0 (0%)	0 (0%)	22	
	All			0	0	0	0		27 (96%)	1 (4%)	0 (0%)	28	
Doxycycline	CLSI	15	-	1 (100%)	0 (0%)	0 (0%)	1	-	-	-	-	-	
	All			1 (100%)	0 (0%)	0 (0%)	1		0	0	0	0	
Eravacycline	EUCAST	-	-	-	-	-	-	0.25	1 (100%)	0 (0%)	0 (0%)	1	
	All			0	0	0	0		1 (100%)	0 (0%)	0 (0%)	1	
Ertapenem	CA-SFM	10	3	0 (0%)	0 (0%)	16 (100%)	16	32	0 (0%)	0 (0%)	11 (100%)	11	
	CLSI	8	3	0 (0%)	0 (0%)	3 (100%)	3	8	0 (0%)	0 (0%)	4 (100%)	4	
	EUCAST	8	2	0 (0%)	0 (0%)	26 (100%)	26	16	0 (0%)	0 (0%)	38 (100%)	38	
	All			0 (0%)	0 (0%)	45 (100%)	45		0 (0%)	0 (0%)	53 (100%)	53	
Fosfomycin	CA-SFM	20	3	2 (67%)	0 (0%)	1 (33%)	3	-	-	-	-	-	
	EUCAST	20	-	1 (100%)	0 (0%)	0 (0%)	1	32	7 (47%)	0 (0%)	8 (53%)	15	
	All			3 (75%)	0 (0%)	1 (25%)	4		7 (47%)	0 (0%)	8 (53%)	15	
			DISK						MIC				
Antimicrobial agent	Guideline	x (mm)	sd (mm)	S	I	R	n	Mo (mg/L)	S	I	R	n	
Gentamycin	CA-SFM	21	2	10 (100%)	0 (0%)	0 (0%)	10	1	6 (100%)	0 (0%)	0 (0%)	6	
	CLSI	24	2	6 (100%)	0 (0%)	0 (0%)	6	1	5 (100%)	0 (0%)	0 (0%)	5	
	EUCAST	19	4	39 (89%)	0 (0%)	5 (11%)	44	1	36 (100%)	0 (0%)	0 (0%)	36	
	All			55 (92%)	0 (0%)	5 (8%)	60		47 (100%)	0 (0%)	0 (0%)	47	
Imipenem	CA-SFM	15	4	0 (0%)	0 (0%)	14 (100%)	14	32	0 (0%)	0 (0%)	11 (100%)	11	
	CLSI	12	6	0 (0%)	1 (17%)	5 (83%)	6	32	0 (0%)	0 (0%)	3 (100%)	3	
	EUCAST	11	4	0 (0%)	1 (4%)	24 (96%)	25	16	0 (0%)	1 (4%)	26 (96%)	27	
	All			0 (0%)	2 (4%)	43 (96%)	45		0 (0%)	1 (2%)	40 (98%)	41	
Imipenem-relebactam	CA-SFM	-	-	-	-	-	-	1	3 (100%)	0 (0%)	0 (0%)	3	
	EUCAST	-	-	-	-	-	-	1	4 (100%)	0 (0%)	0 (0%)	4	
	All			0	0	0	0		7 (100%)	0 (0%)	0 (0%)	7	
Levofloxacin	CA-SFM	7	-	0 (0%)	0 (0%)	1 (100%)	1	2	0 (0%)	0 (0%)	1 (100%)	1	
	EUCAST	7	2	0 (0%)	0 (0%)	4 (100%)	4	-	0 (0%)	0 (0%)	6 (100%)	6	
	All			0 (0%)	0 (0%)	5 (100%)	5		0 (0%)	0 (0%)	7 (100%)	7	

LABQUALITY Surveillance for multidrug resistant bacteria, gramnegative rods, February, 1-2023

Antimicrobial susceptibility testing results, Klebsiella pneumoniae

Antimicrobial agent	Guideline	DISK						MIC							
		x (mm)	sd (mm)	S	I	R	n	Mo (mg/L)	S	I	R	n			
Mecillinam	EUCAST	6	-	0 (0%)	0 (0%)	1 (100%)	1	-	-	-	-	-			
	All			0 (0%)	0 (0%)	1 (100%)	1		0	0	0	0			
Meropenem	CA-SFM	12	3	0 (0%)	0 (0%)	8 (100%)	8	16	0 (0%)	0 (0%)	5 (100%)	5			
	CLSI	12	4	0 (0%)	0 (0%)	6 (100%)	6	16	0 (0%)	0 (0%)	6 (100%)	6			
	EUCAST	11	4	0 (0%)	6 (11%)	50 (89%)	56	16	1 (2%)	3 (5%)	59 (94%)	63			
	All			0 (0%)	6 (9%)	64 (91%)	70		1 (1%)	3 (4%)	70 (95%)	74			
Meropenem-vaborbactam	CA-SFM	-	-	-	-	-	-	0.064	3 (100%)	0 (0%)	0 (0%)	3			
	EUCAST	-	-	-	-	-	-	0.064	8 (100%)	0 (0%)	0 (0%)	8			
	All			0	0	0	0		11 (100%)	0 (0%)	0 (0%)	11			
Moxifloxacin	EUCAST	-	-	-	-	-	-	16	0 (0%)	0 (0%)	1 (100%)	1			
	All			0	0	0	0		0 (0%)	0 (0%)	1 (100%)	1			
Nalidixic acid	CA-SFM	6	0	0 (0%)	0 (0%)	3 (100%)	3	-	-	-	-	-			
	All			0 (0%)	0 (0%)	3 (100%)	3		0	0	0	0			
Netilmicin	CA-SFM	6	-	0 (0%)	0 (0%)	1 (100%)	1	-	-	-	-	-			
	All			0 (0%)	0 (0%)	1 (100%)	1		0	0	0	0			
				DISK						MIC					
Antimicrobial agent	Guideline	x (mm)	sd (mm)	S	I	R	n	Mo (mg/L)	S	I	R	n			
Nitrofurantoin	CA-SFM	-	-	-	-	-	-	256	0 (0%)	0 (0%)	1 (100%)	1			
	CLSI	12	-	0 (0%)	0 (0%)	1 (100%)	1	-	-	-	-	-			
	EUCAST	6	-	0 (0%)	0 (0%)	1 (100%)	1	256	0 (0%)	0 (0%)	4 (100%)	4			
	All			0 (0%)	0 (0%)	2 (100%)	2		0 (0%)	0 (0%)	5 (100%)	5			
Norfloxacin	EUCAST	6	-	0 (0%)	0 (0%)	1 (100%)	1	2	0 (0%)	0 (0%)	1 (100%)	1			
	All			0 (0%)	0 (0%)	1 (100%)	1		0 (0%)	0 (0%)	1 (100%)	1			
Ofloxacin	CA-SFM	7	1	0 (0%)	0 (0%)	5 (100%)	5	8	0 (0%)	0 (0%)	1 (100%)	1			
	CLSI	6	-	0 (0%)	0 (0%)	1 (100%)	1	-	-	-	-	-			
	EUCAST	-	-	-	-	-	-	8	0 (0%)	0 (0%)	1 (100%)	1			
	All			0 (0%)	0 (0%)	6 (100%)	6		0 (0%)	0 (0%)	2 (100%)	2			
Piperacillin	CA-SFM	6	0	0 (0%)	0 (0%)	5 (100%)	5	-	0 (0%)	0 (0%)	2 (100%)	2			
	EUCAST	-	-	-	-	-	-	-	0 (0%)	0 (0%)	3 (100%)	3			
	All			0 (0%)	0 (0%)	5 (100%)	5		0 (0%)	0 (0%)	5 (100%)	5			
Piperacillin-tazobactam	CA-SFM	6	0	0 (0%)	0 (0%)	12 (100%)	12	128	0 (0%)	0 (0%)	5 (100%)	5			
	CLSI	6	1	0 (0%)	0 (0%)	4 (100%)	4	-	0 (0%)	0 (0%)	2 (100%)	2			
	EUCAST	6	0	0 (0%)	0 (0%)	53 (100%)	53	256	0 (0%)	0 (0%)	40 (100%)	40			
	All			0 (0%)	0 (0%)	69 (100%)	69		0 (0%)	0 (0%)	47 (100%)	47			
Temocillin	CA-SFM	8	2	0 (0%)	0 (0%)	11 (100%)	11	32	0 (0%)	0 (0%)	3 (100%)	3			
	EUCAST	6	0	0 (0%)	0 (0%)	5 (100%)	5	32	0 (0%)	1 (20%)	4 (80%)	5			
	All			0 (0%)	0 (0%)	16 (100%)	16		0 (0%)	1 (13%)	7 (88%)	8			
Ticarcillin	CA-SFM	6	1	0 (0%)	0 (0%)	9 (100%)	9	128	0 (0%)	0 (0%)	3 (100%)	3			
	EUCAST	6	-	0 (0%)	0 (0%)	1 (100%)	1	128	0 (0%)	0 (0%)	1 (100%)	1			
	All			0 (0%)	0 (0%)	10 (100%)	10		0 (0%)	0 (0%)	4 (100%)	4			
Tigecycline	CA-SFM	-	-	-	-	-	-	0.5	3 (100%)	0 (0%)	0 (0%)	3			
	CLSI	-	-	-	-	-	-	-	2 (100%)	0 (0%)	0 (0%)	2			
	EUCAST	24	-	2 (100%)	0 (0%)	0 (0%)	2	1	8 (89%)	0 (0%)	1 (11%)	9			
	All			2 (100%)	0 (0%)	0 (0%)	2		13 (93%)	0 (0%)	1 (7%)	14			
Tikarcillin-clavulanic acid	CA-SFM	7	1	0 (0%)	0 (0%)	3 (100%)	3	128	0 (0%)	0 (0%)	1 (100%)	1			
	All			0 (0%)	0 (0%)	3 (100%)	3		0 (0%)	0 (0%)	1 (100%)	1			
Tobramycin	CA-SFM	12	7	1 (17%)	0 (0%)	5 (83%)	6	-	1 (20%)	0 (0%)	4 (80%)	5			
	CLSI	10	-	0 (0%)	0 (0%)	1 (100%)	1	-	0 (0%)	1 (50%)	1 (50%)	2			
	EUCAST	10	2	0 (0%)	0 (0%)	25 (100%)	25	16	0 (0%)	0 (0%)	27 (100%)	27			
	All			1 (3%)	0 (0%)	31 (97%)	32		1 (3%)	1 (3%)	32 (94%)	34			
				DISK						MIC					
Antimicrobial agent	Guideline	x (mm)	sd (mm)	S	I	R	n	Mo (mg/L)	S	I	R	n			
Trimethoprim	EUCAST	6	-	0 (0%)	0 (0%)	2 (100%)	2	32	1 (14%)	0 (0%)	6 (86%)	7			
	All			0 (0%)	0 (0%)	2 (100%)	2		1 (14%)	0 (0%)	6 (86%)	7			
Trimethoprim-sulfamethoxazole	CA-SFM	14	12	4 (36%)	0 (0%)	7 (64%)	11	16	3 (60%)	0 (0%)	2 (40%)	5			
	CLSI	18	14	2 (50%)	0 (0%)	2 (50%)	4	-	2 (100%)	0 (0%)	0 (0%)	2			
	EUCAST	10	9	10 (20%)	0 (0%)	39 (80%)	49	64	15 (50%)	1 (3%)	14 (47%)	30			
	All			16 (25%)	0 (0%)	48 (75%)	64		20 (54%)	1 (3%)	16 (43%)	37			

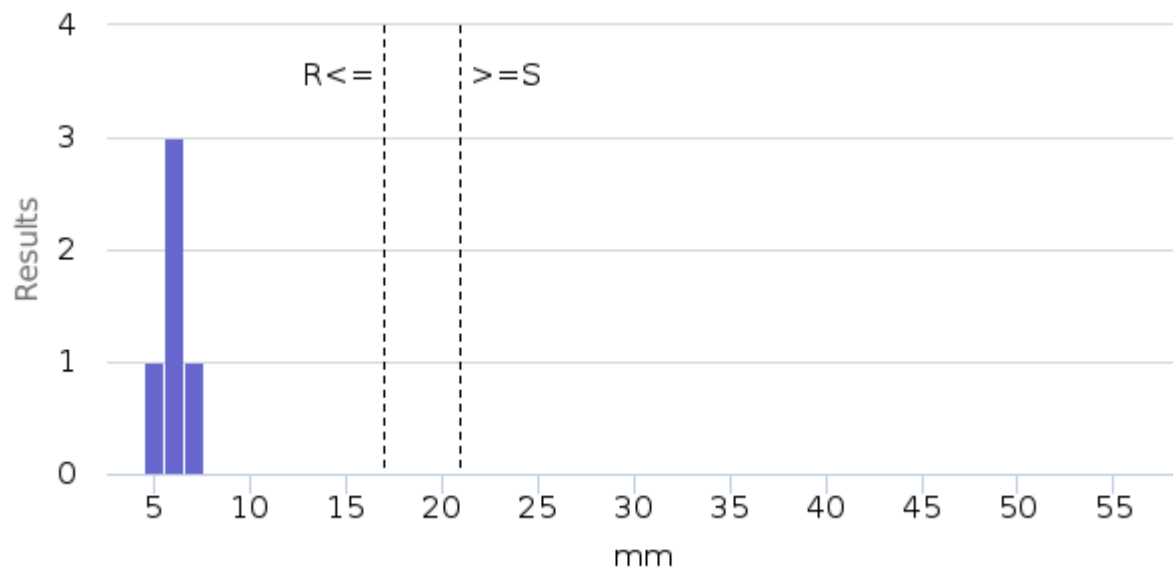
Sample S003 | CLSI



LABQUALITY Surveillance for multidrug resistant bacteria, gramnegative rods, February, 1-2023

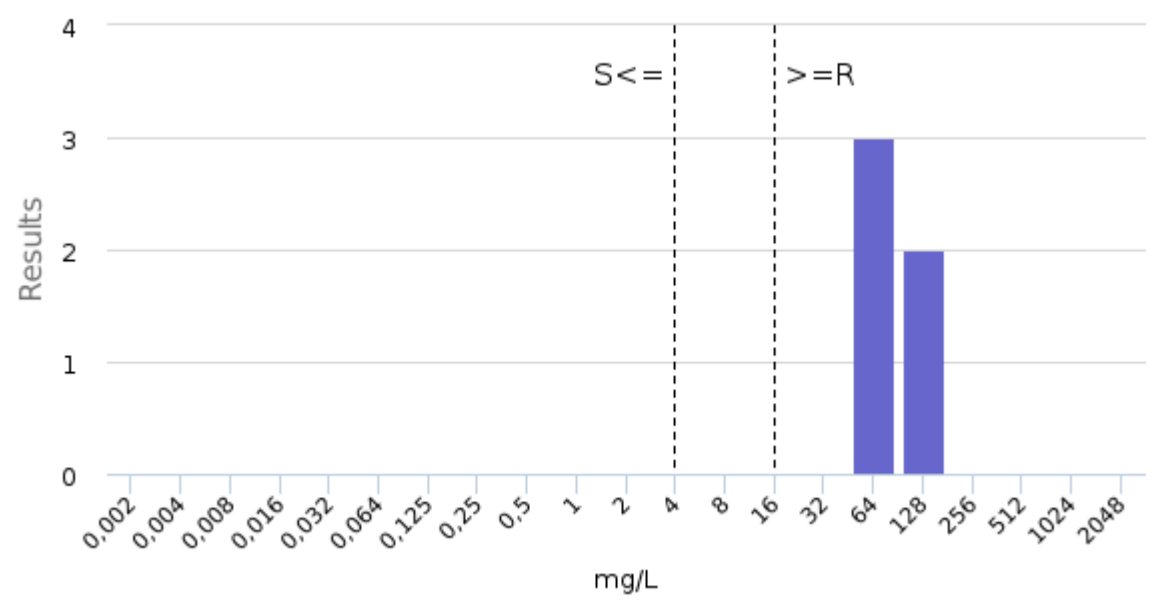
Antimicrobial susceptibility testing results, *Klebsiella pneumoniae*

Ceftazidime - DISK



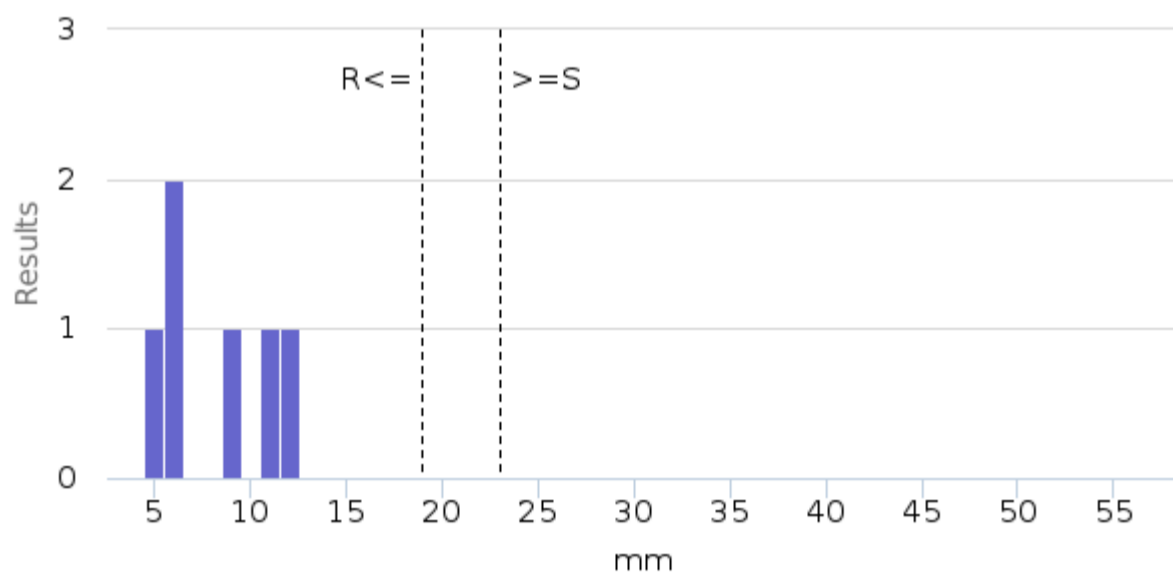
Resistant (5 pcs / 100%)

Ceftazidime - MIC



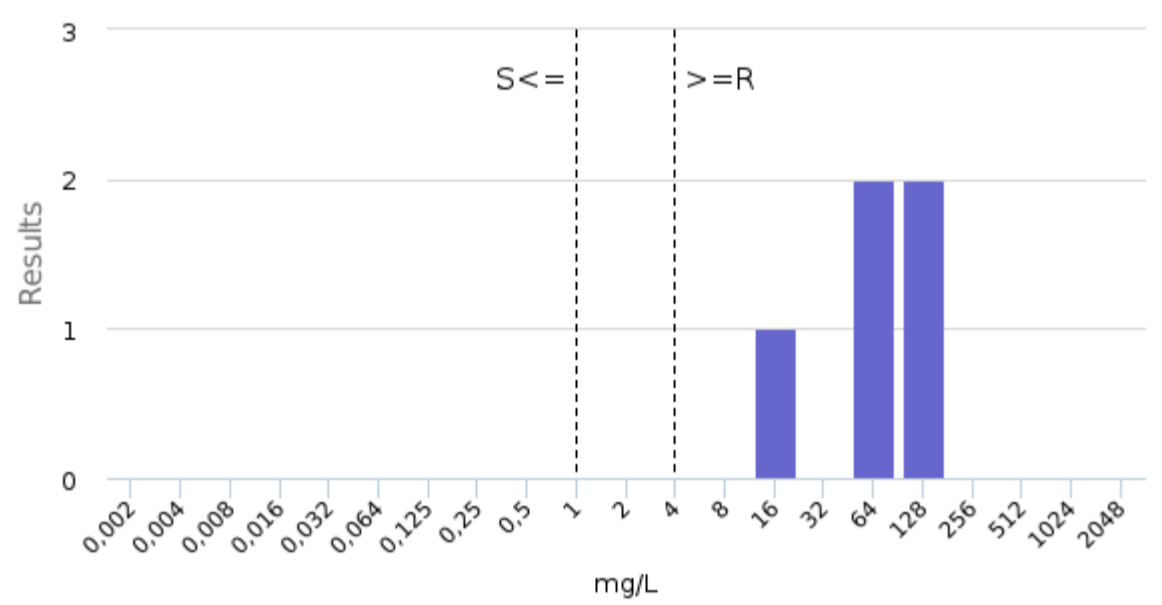
Resistant (5 pcs / 100%)

Ceftriaxone - DISK



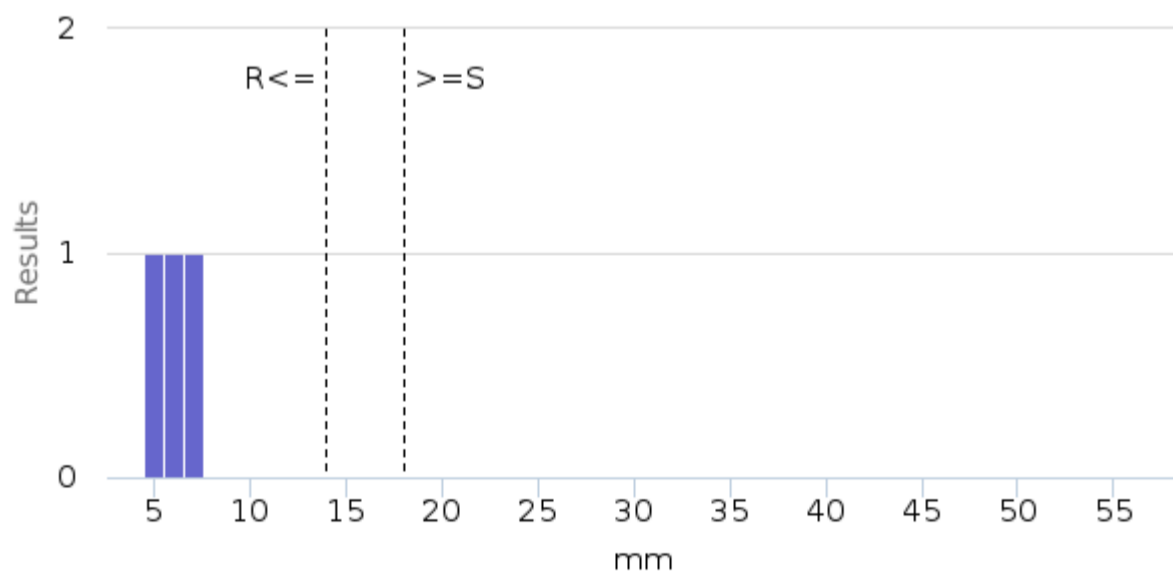
Resistant (6 pcs / 100%)

Ceftriaxone - MIC



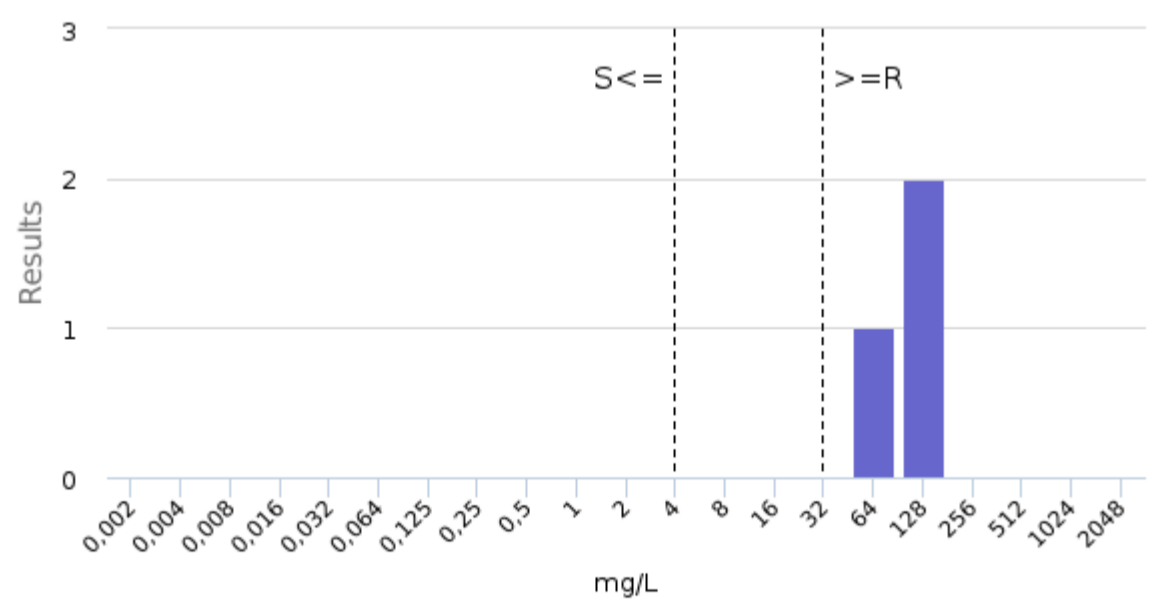
Resistant (5 pcs / 100%)

Cefuroxime (oral) - DISK



Resistant (3 pcs / 100%)

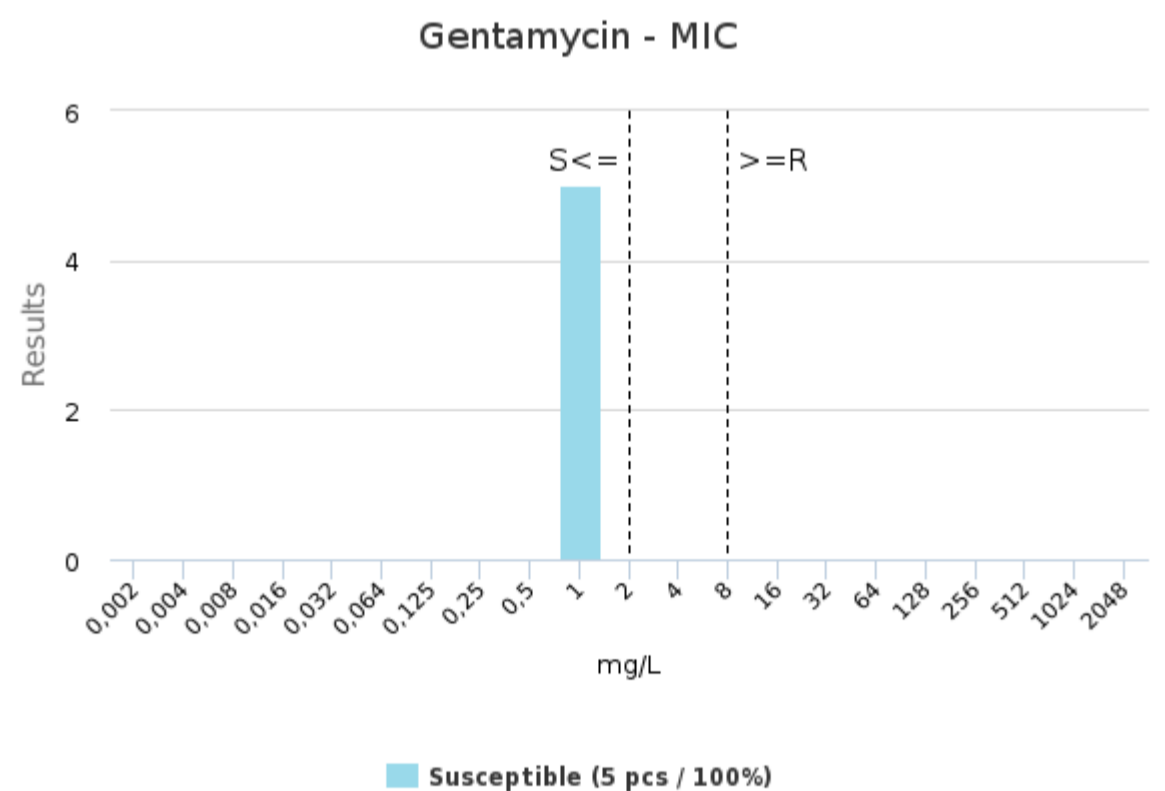
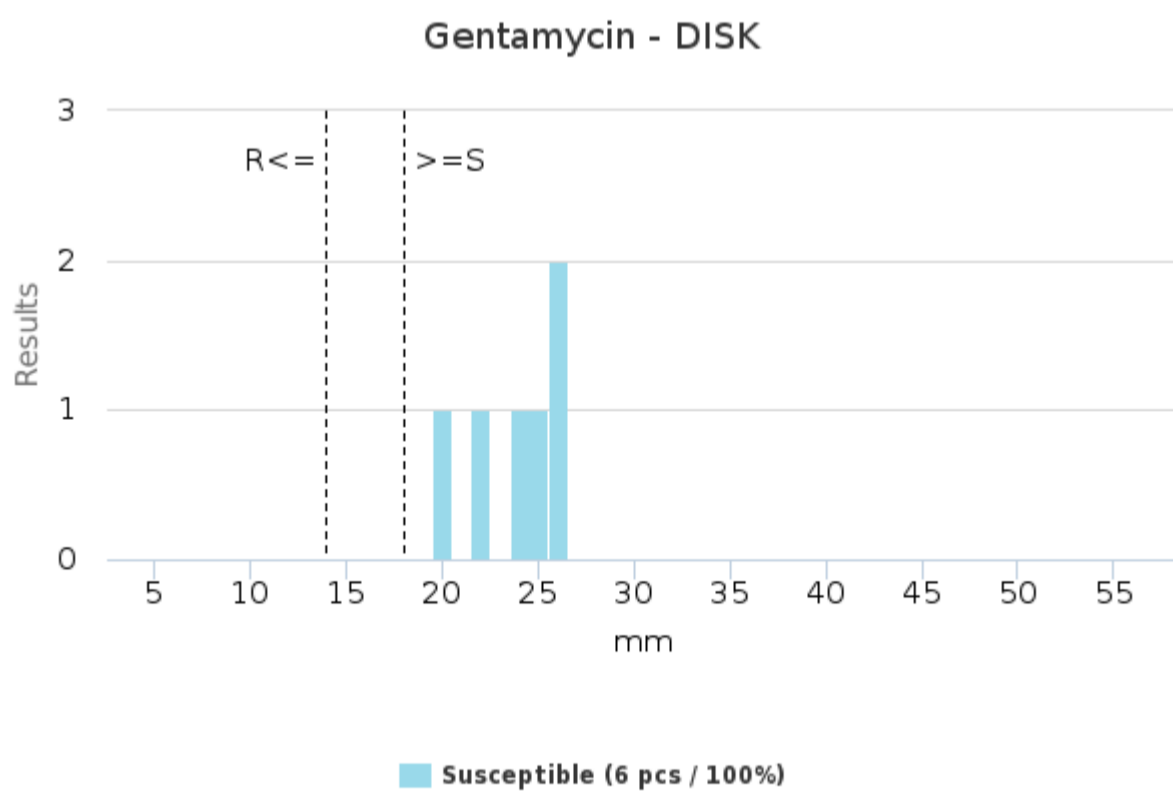
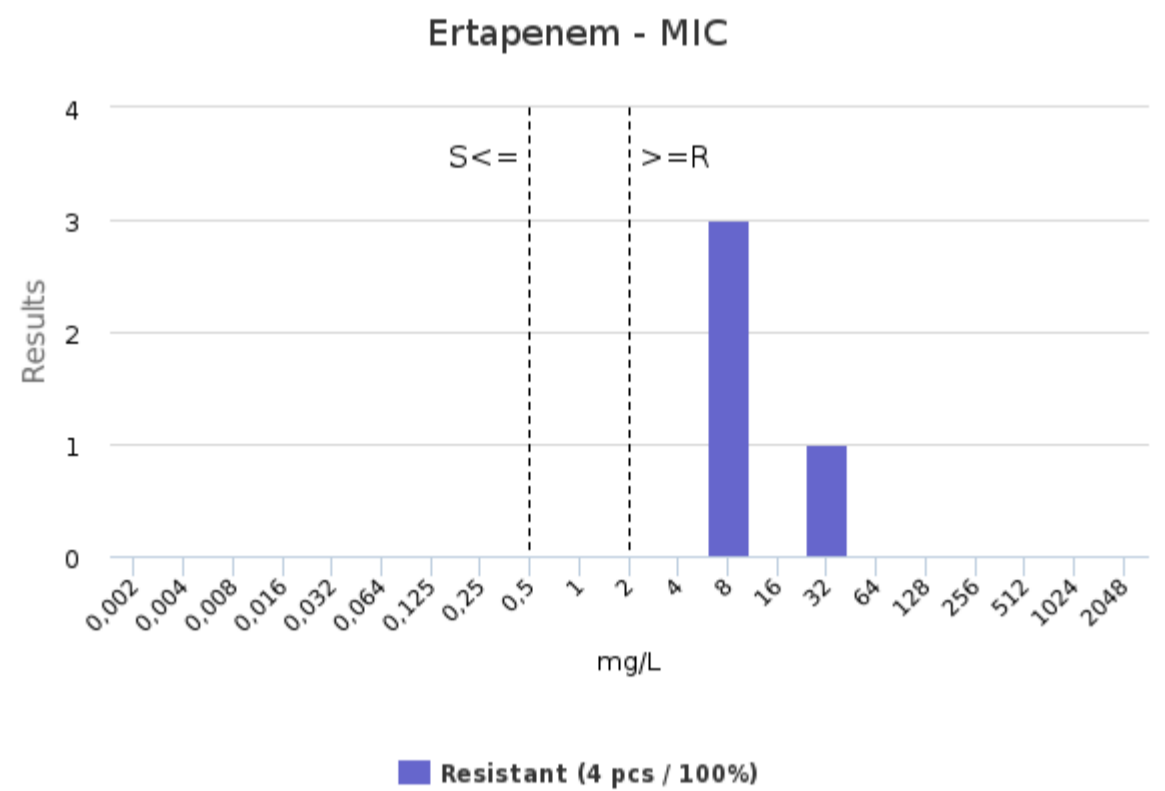
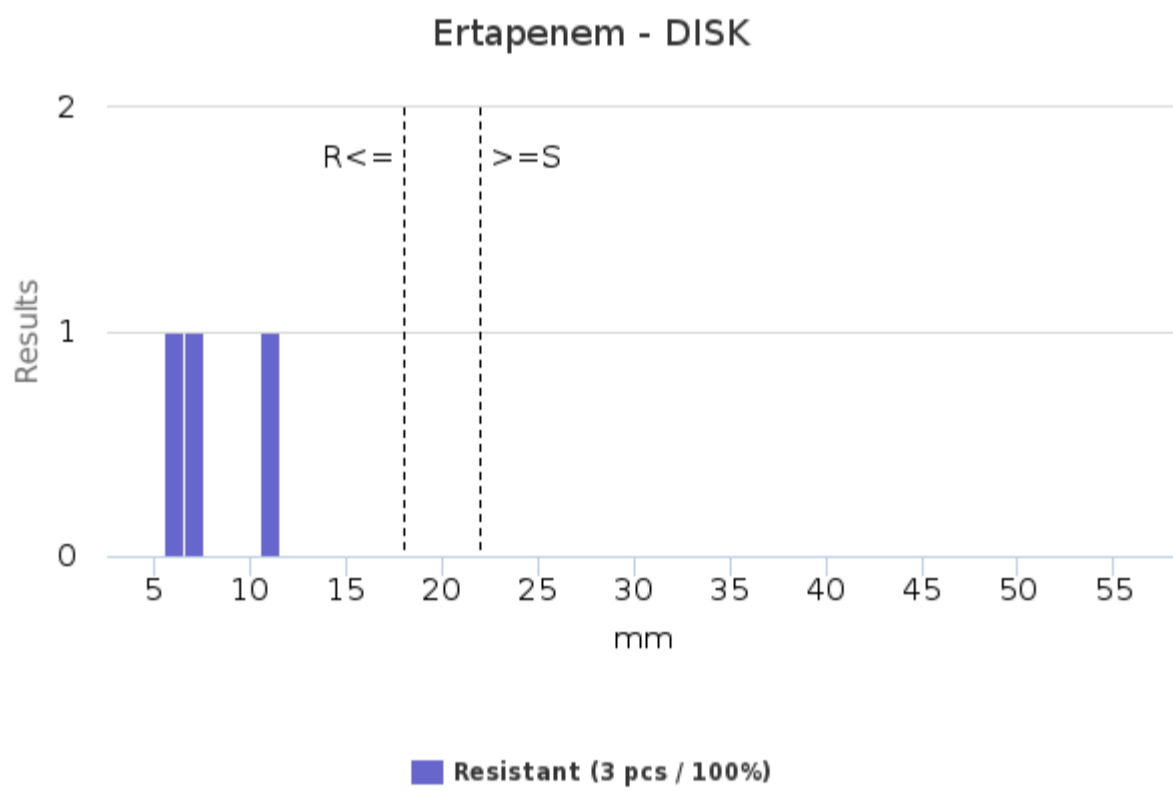
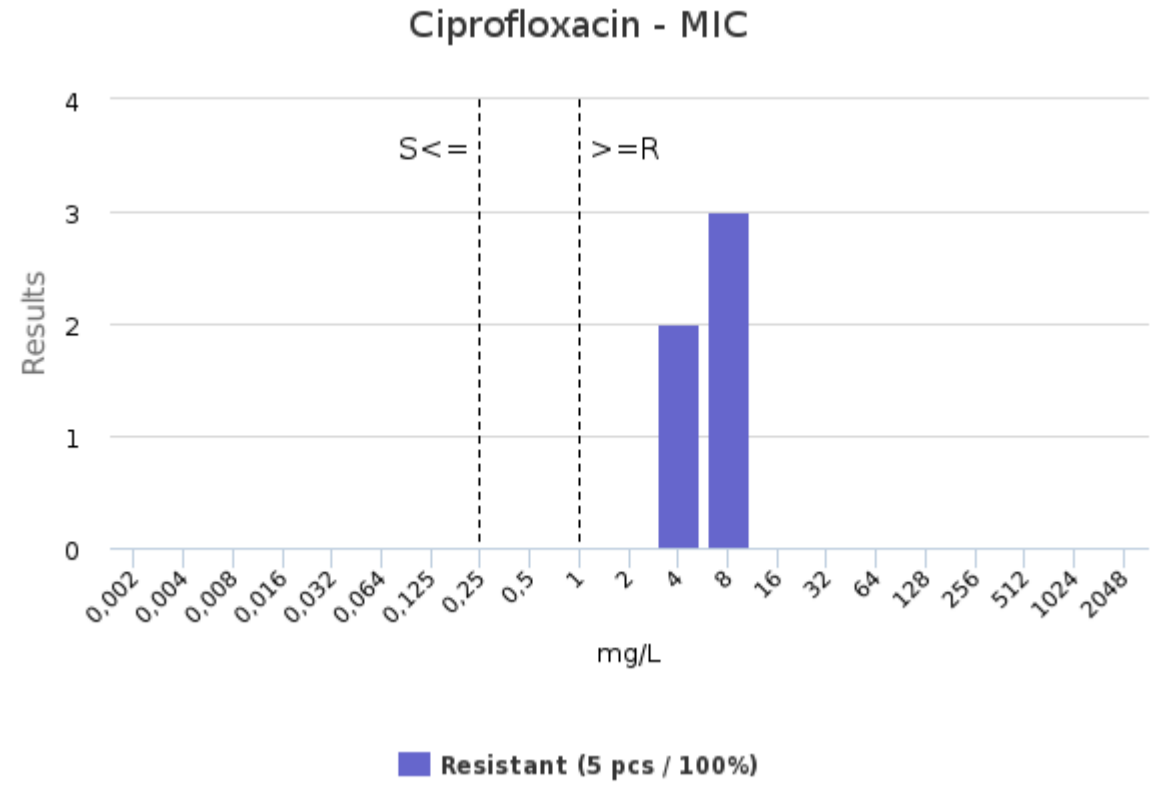
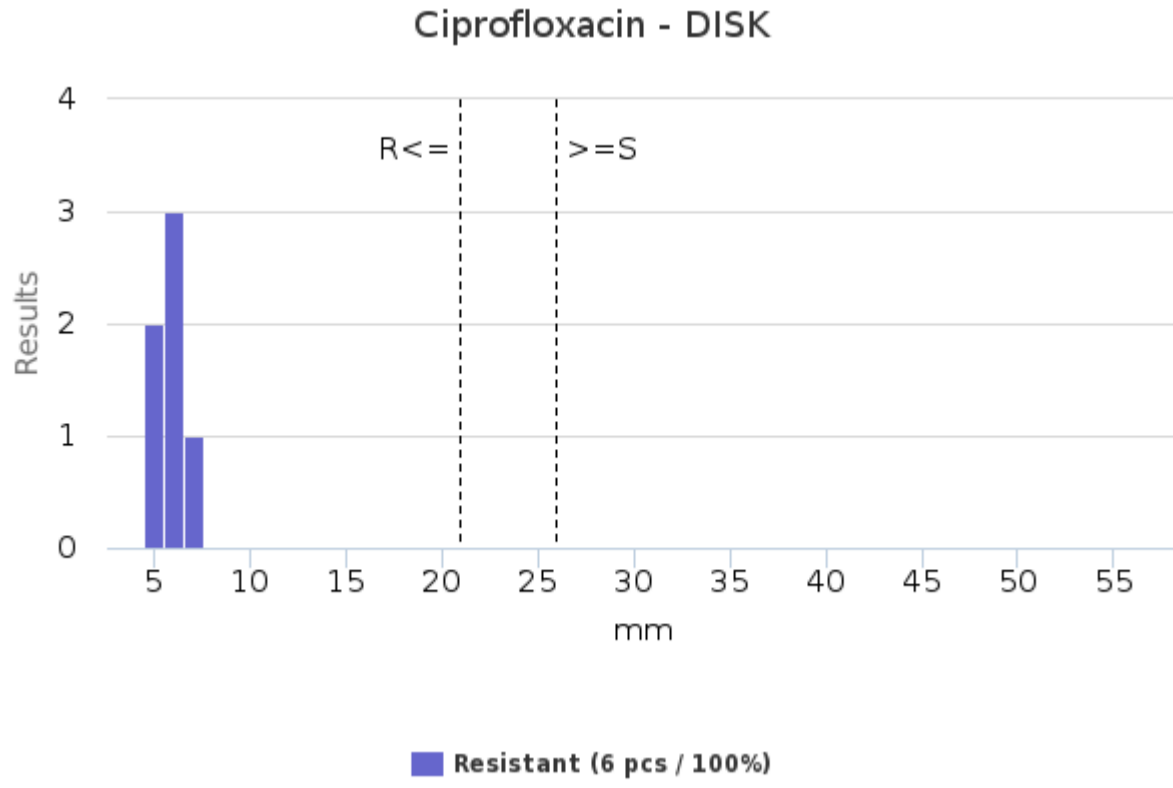
Cefuroxime (oral) - MIC



Resistant (3 pcs / 100%)

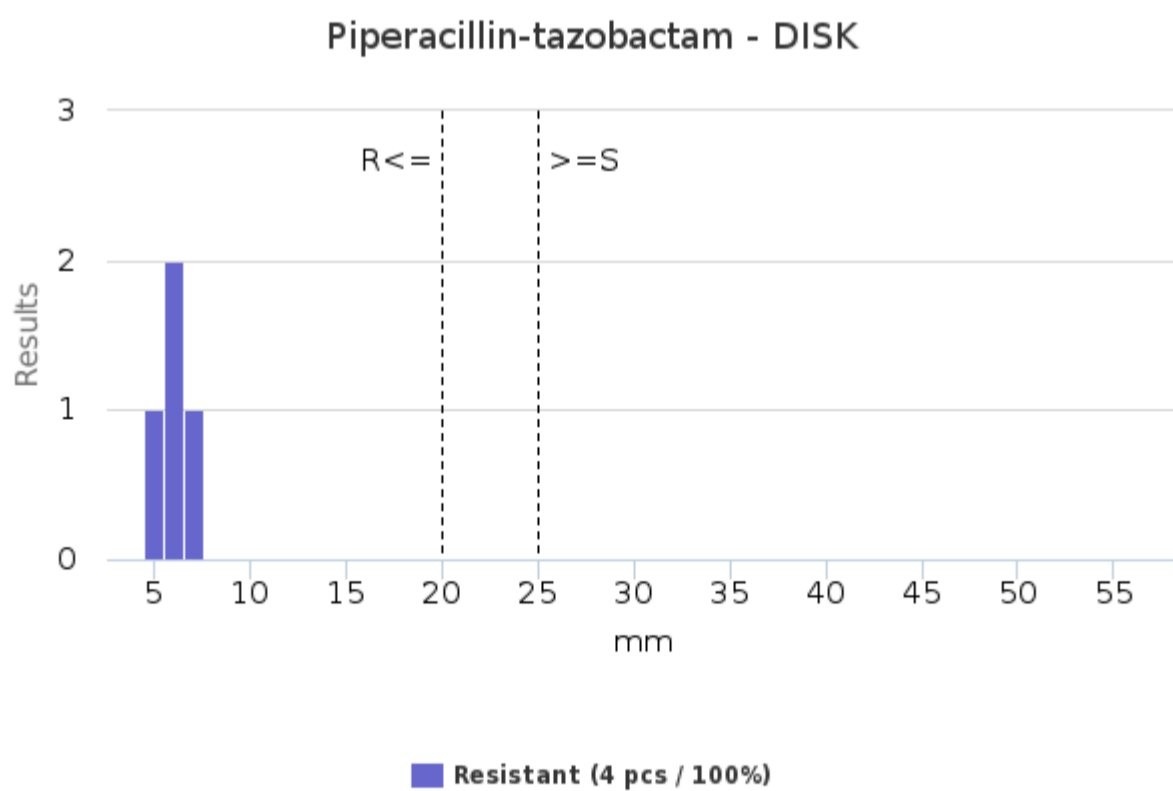
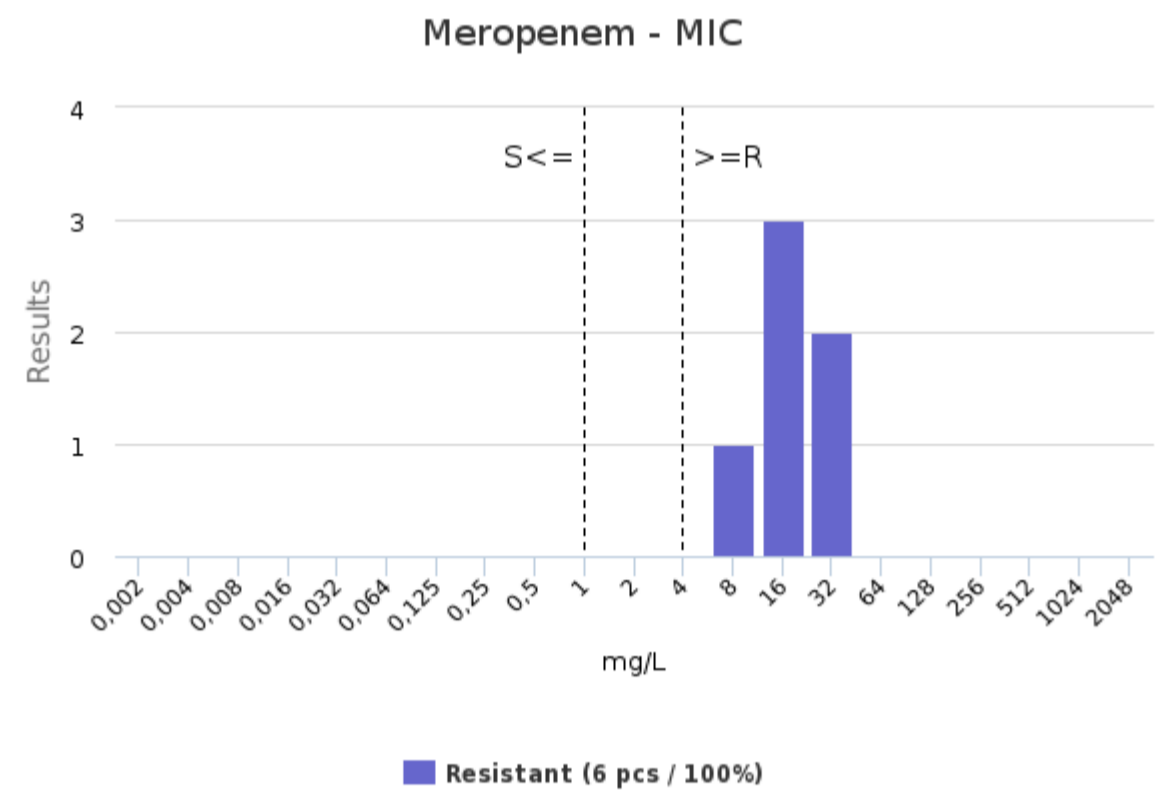
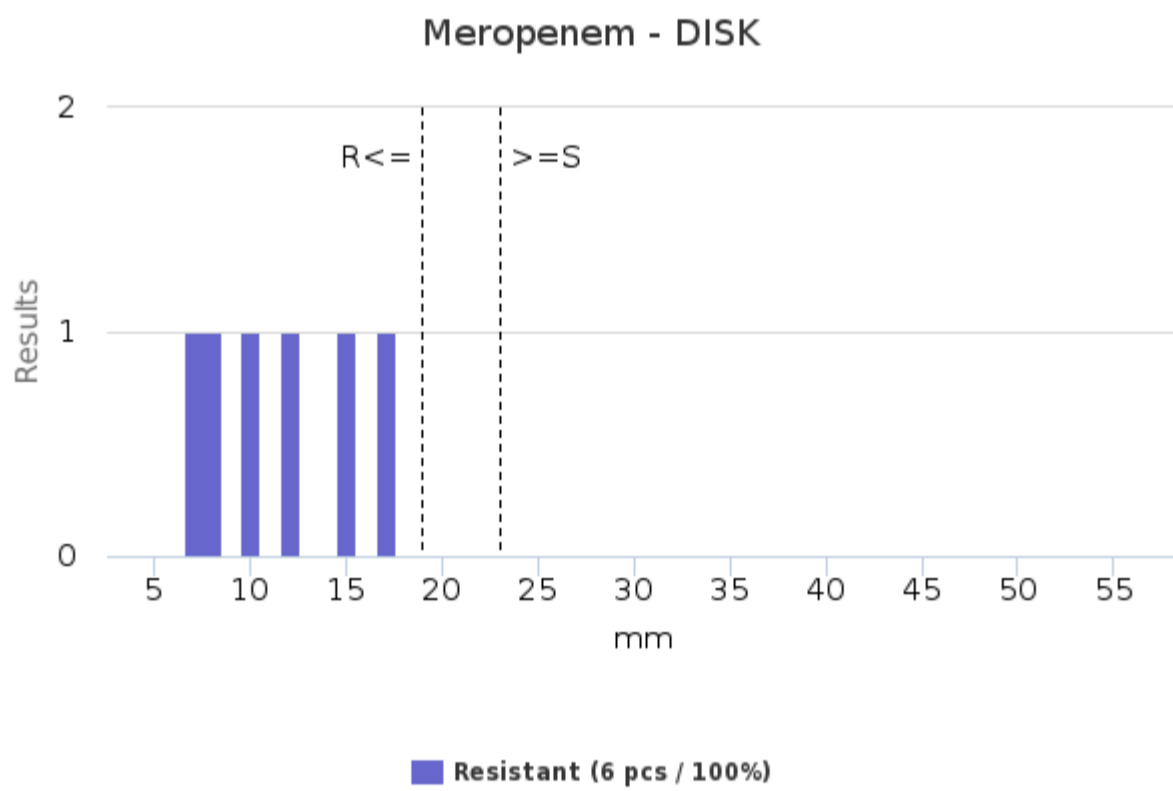
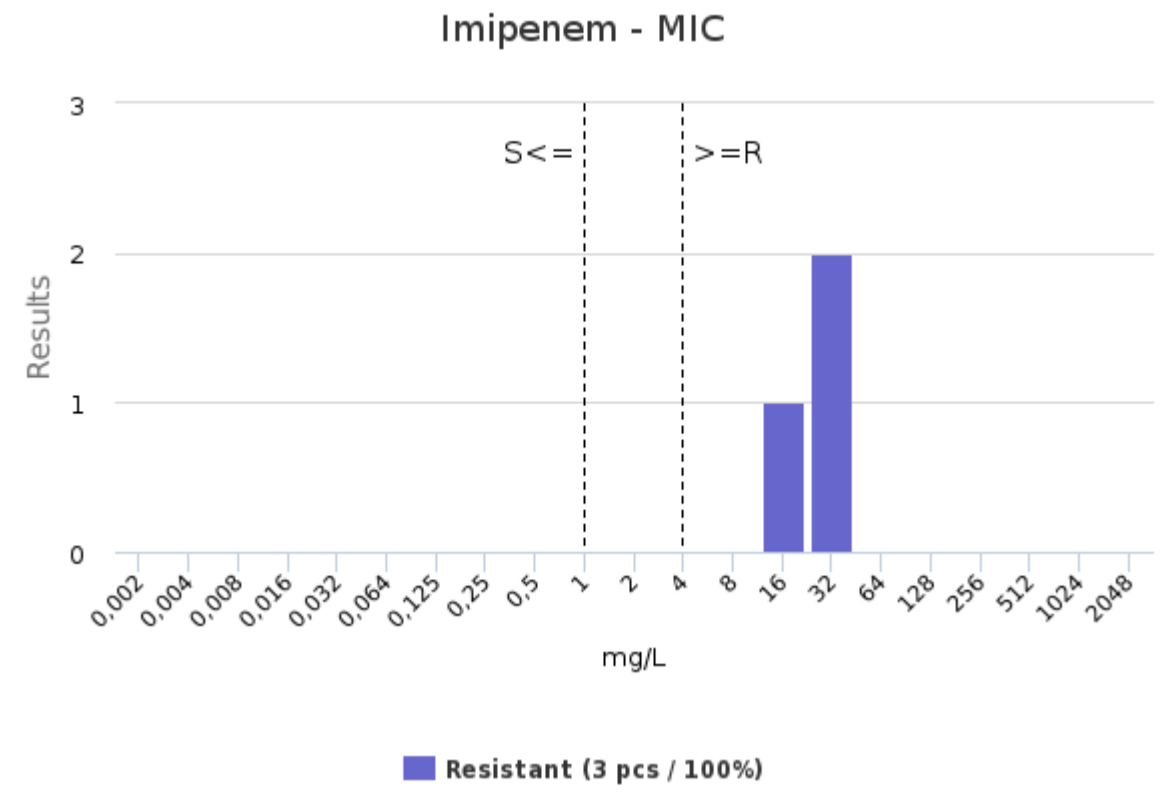
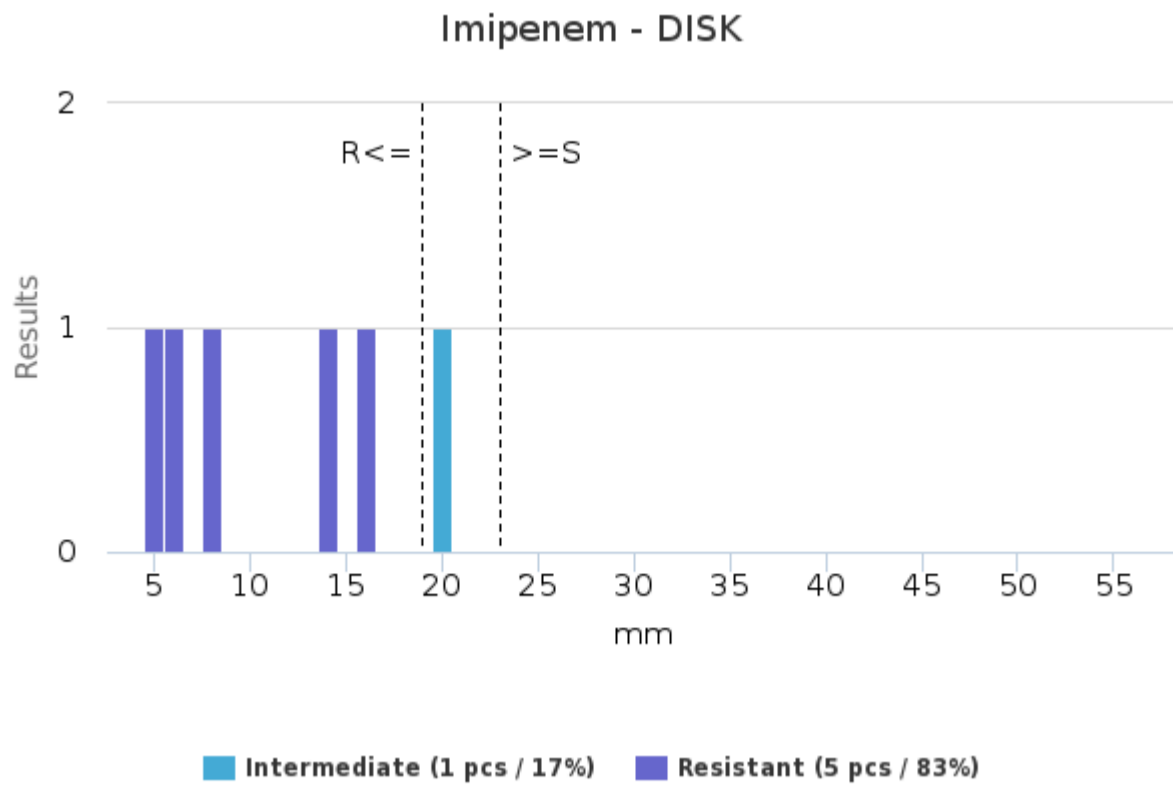
LABQUALITY Surveillance for multidrug resistant bacteria, gramnegative rods, February, 1-2023

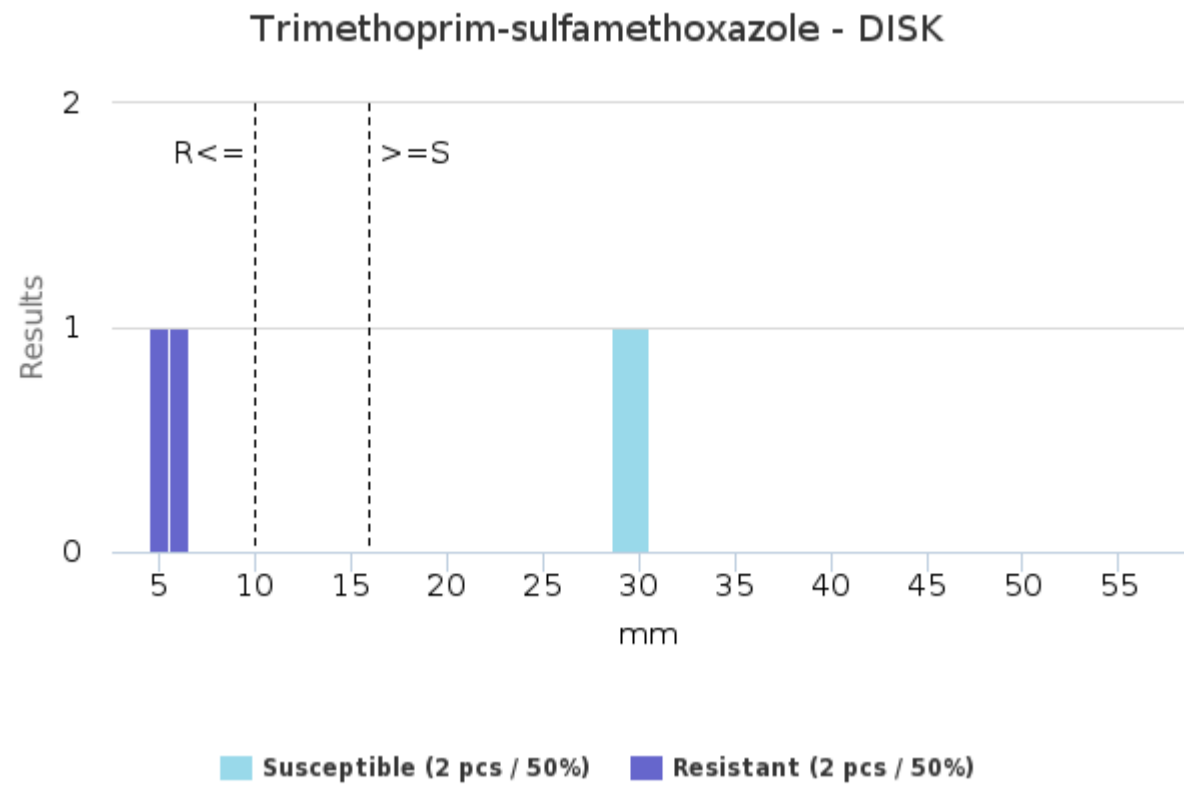
Antimicrobial susceptibility testing results, *Klebsiella pneumoniae*



LABQUALITY Surveillance for multidrug resistant bacteria, gramnegative rods, February, 1-2023

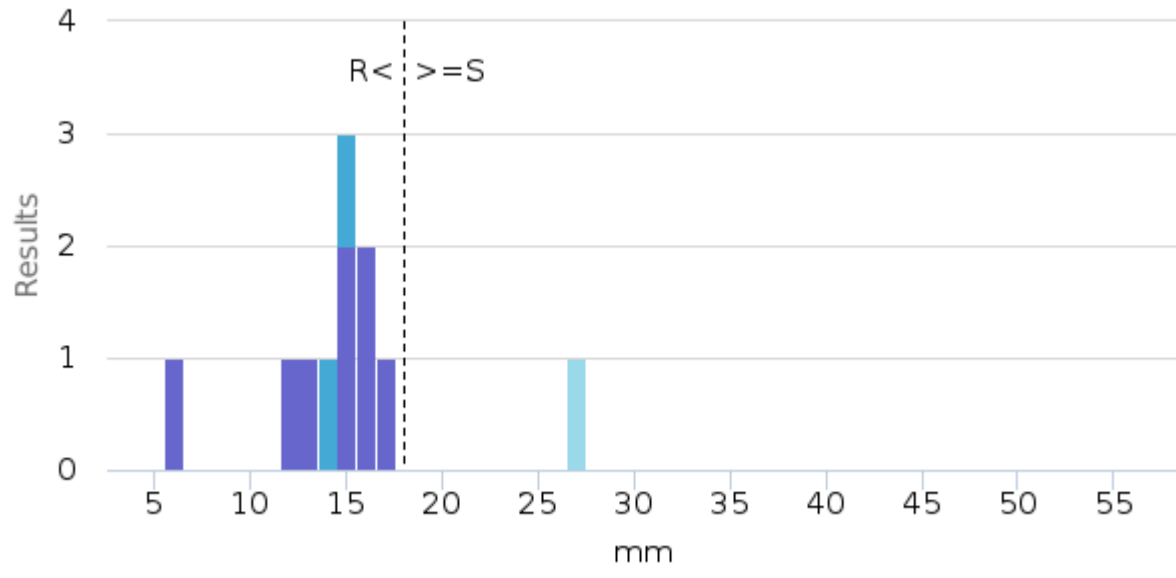
Antimicrobial susceptibility testing results, *Klebsiella pneumoniae*





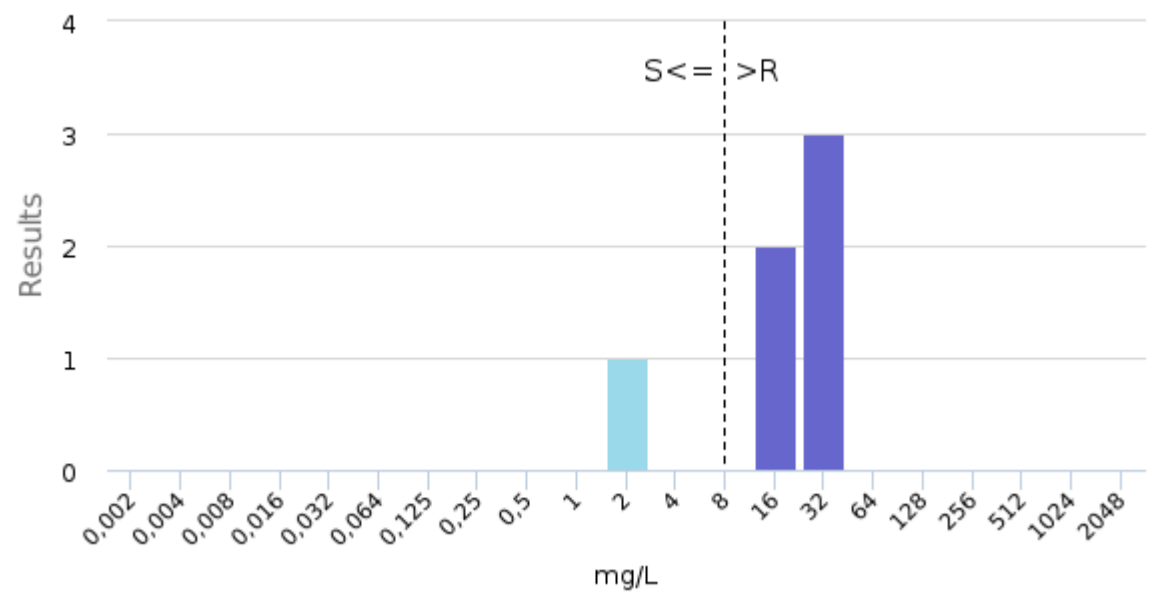
Sample S003 | CA-SFM

Amikacin - DISK



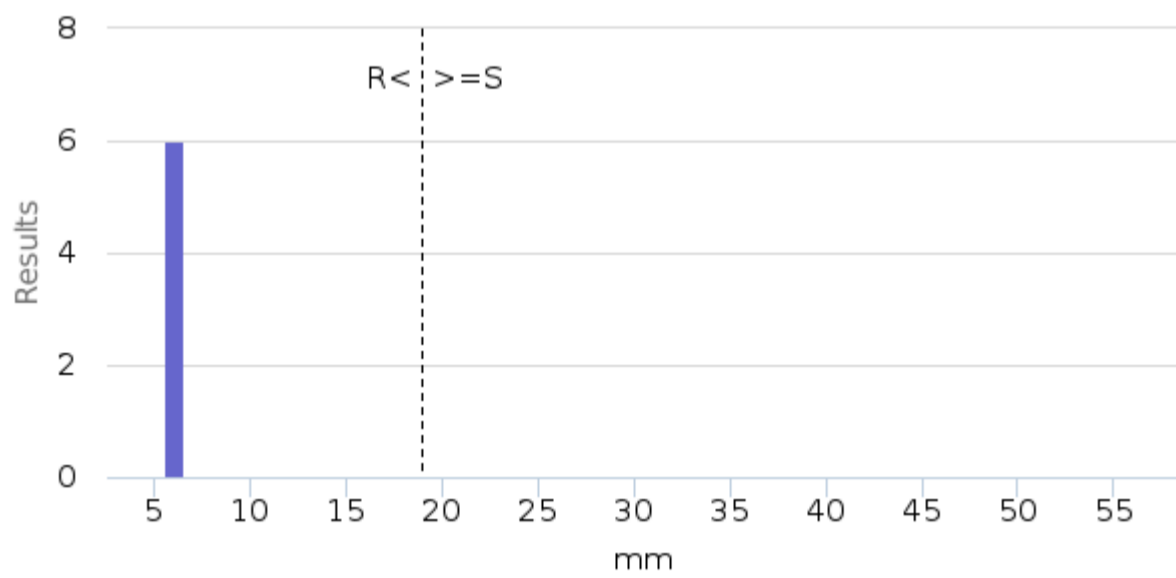
■ Susceptible (1 pcs / 9%) ■ Intermediate (2 pcs / 18%)
 ■ Resistant (8 pcs / 73%)

Amikacin - MIC



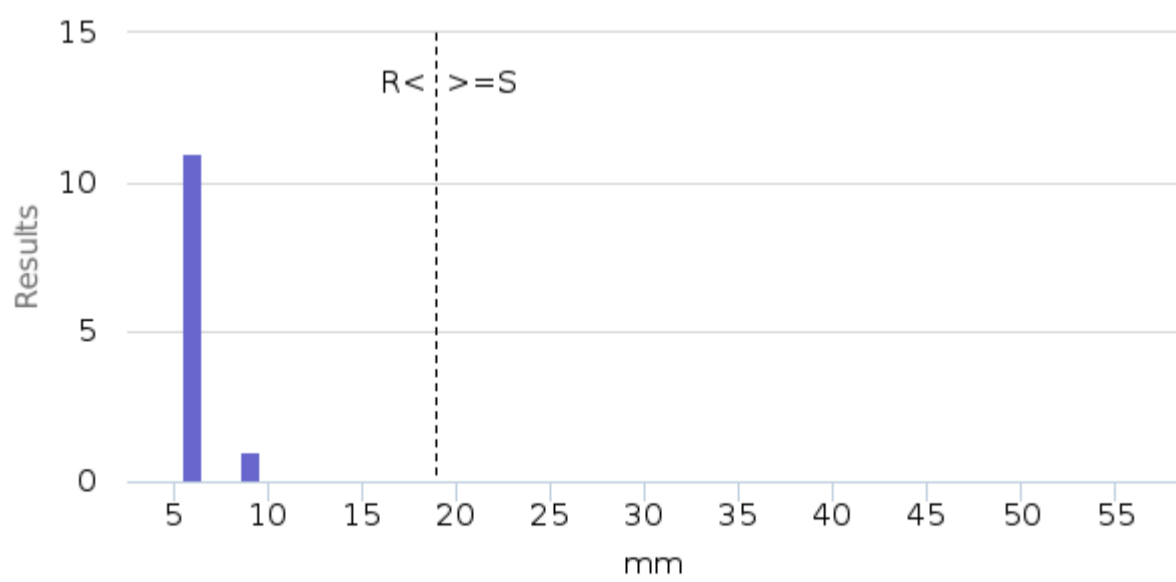
■ Susceptible (1 pcs / 17%) ■ Resistant (5 pcs / 83%)

Amoxicillin - DISK



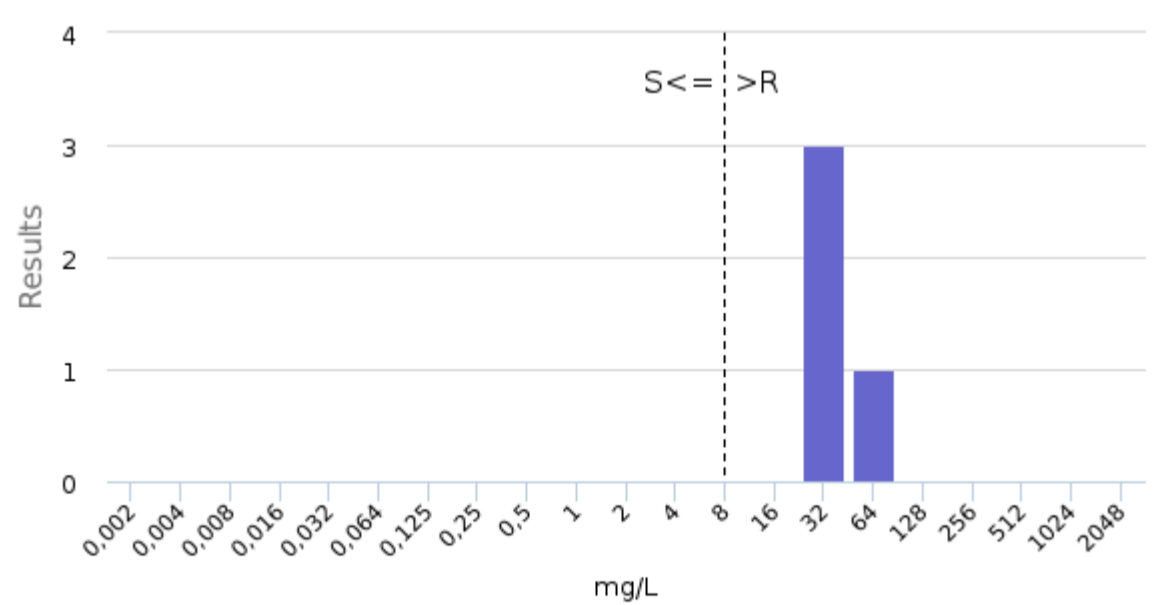
■ Resistant (6 pcs / 100%)

Amoxicillin-clavulanate - DISK



■ Resistant (12 pcs / 100%)

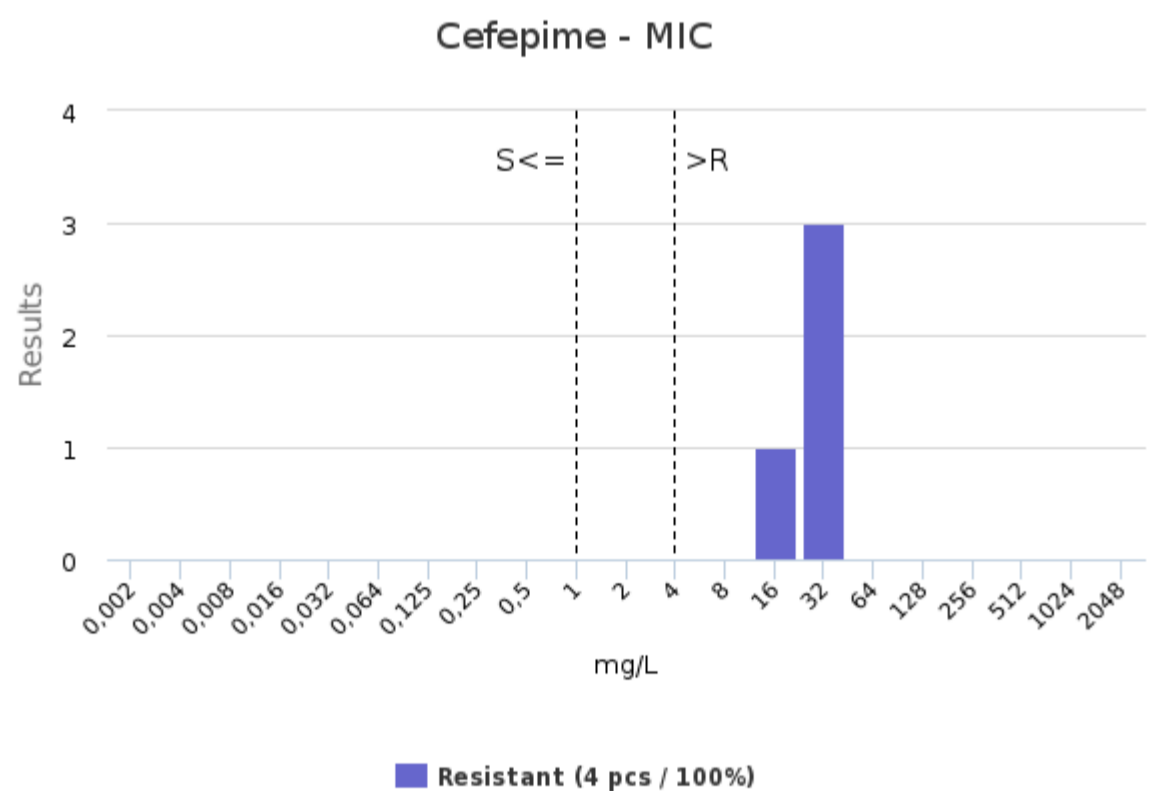
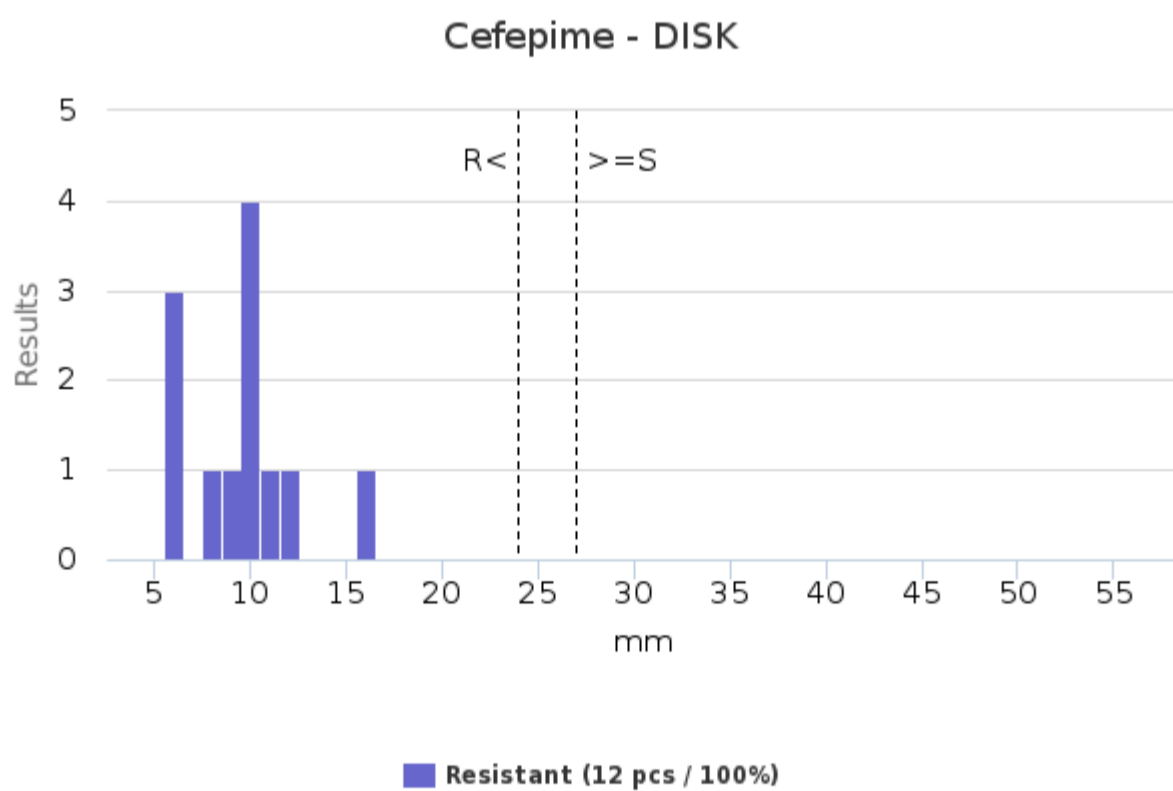
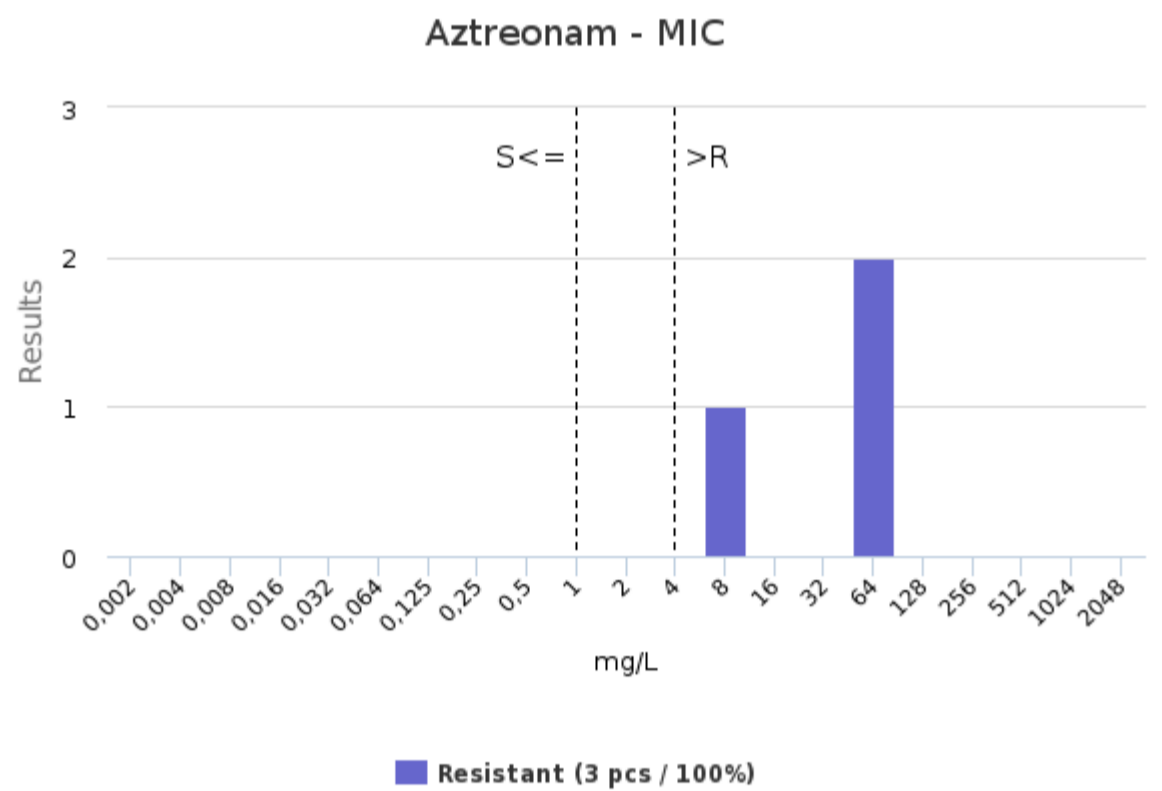
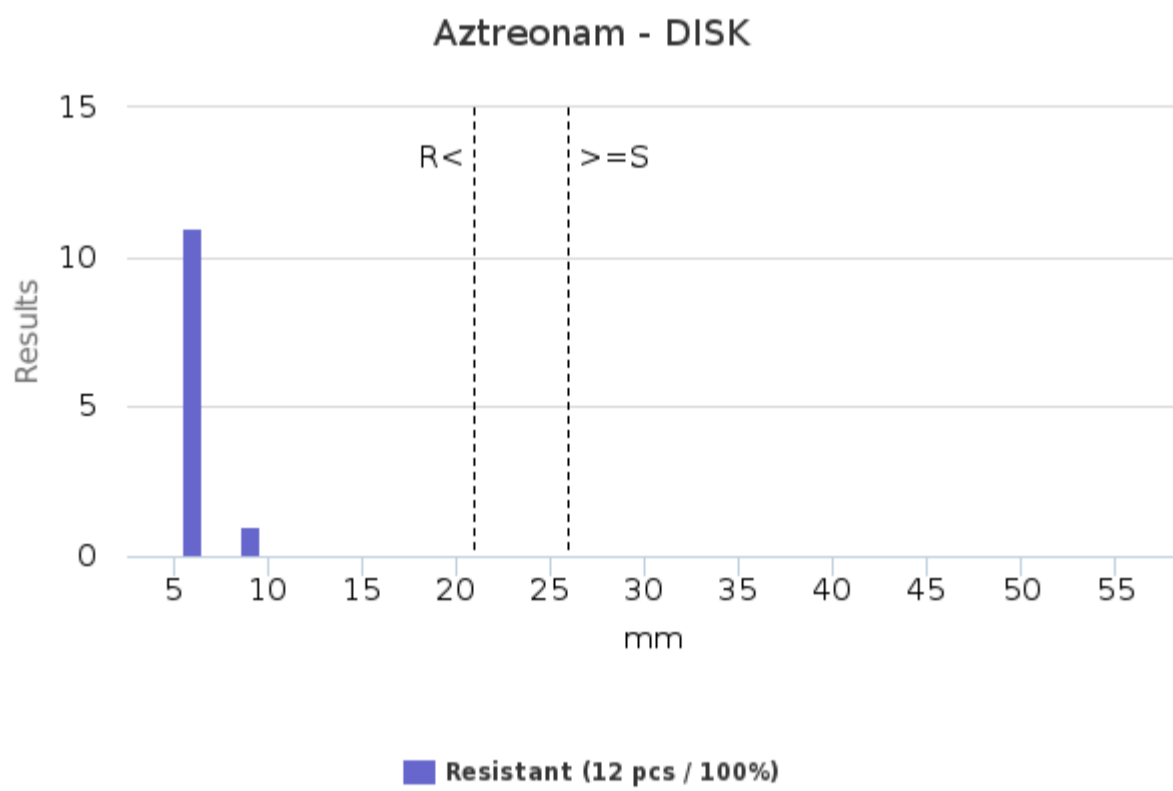
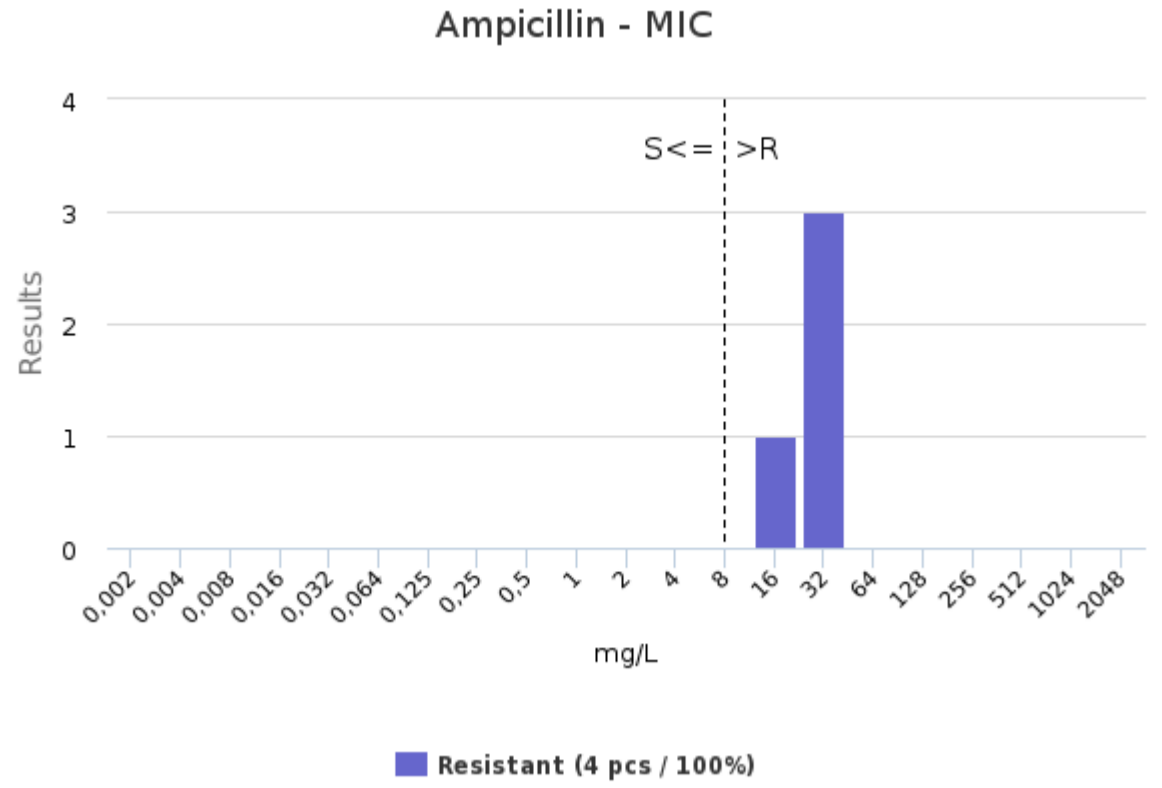
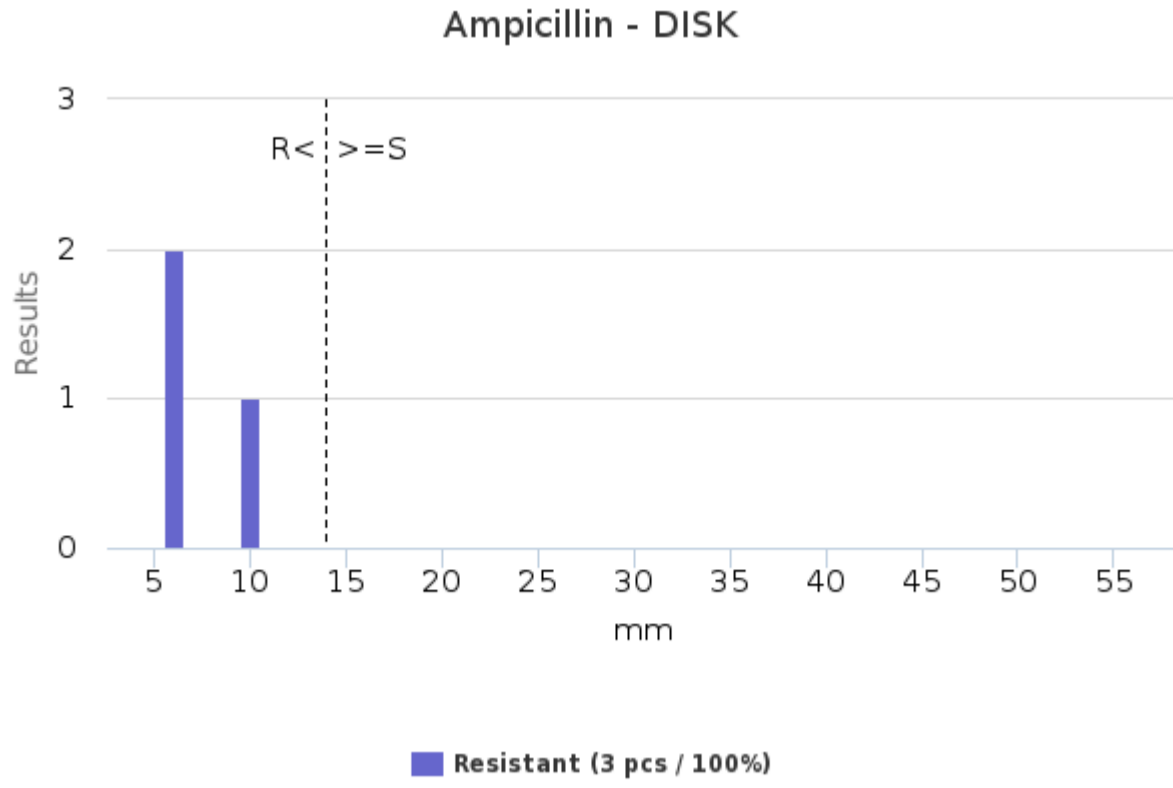
Amoxicillin-clavulanate - MIC



■ Resistant (4 pcs / 100%)

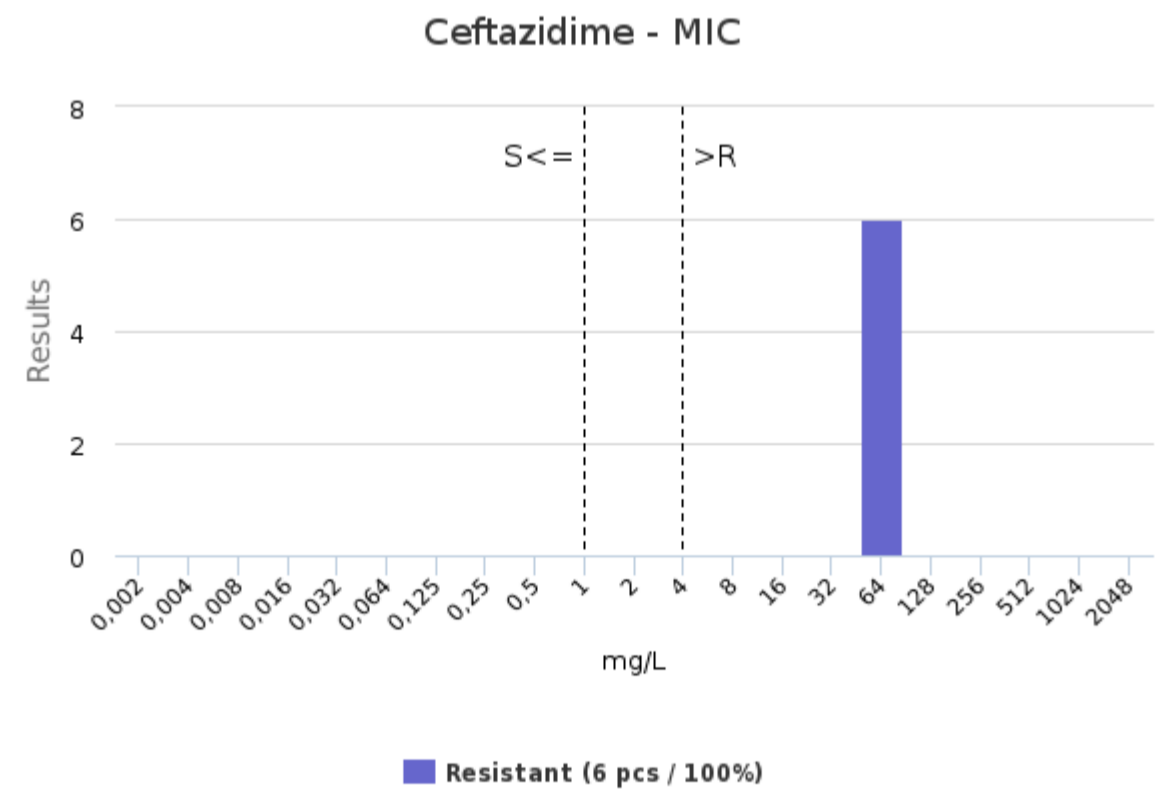
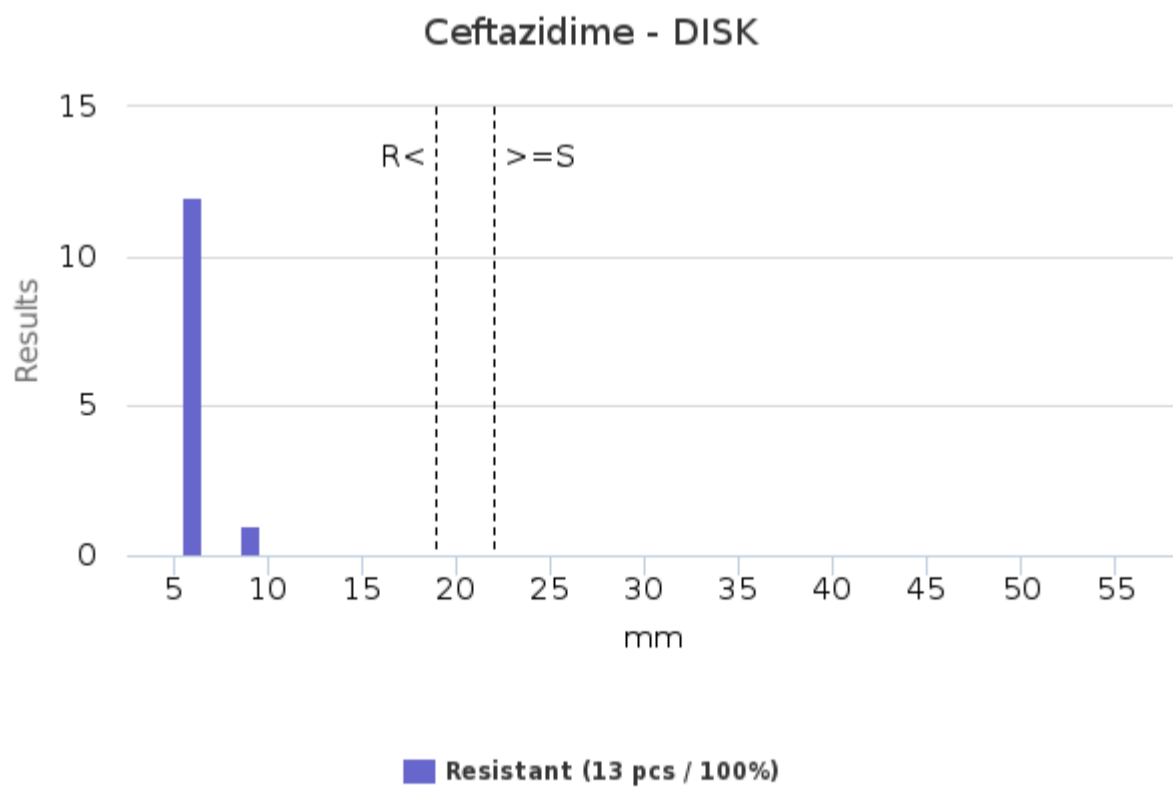
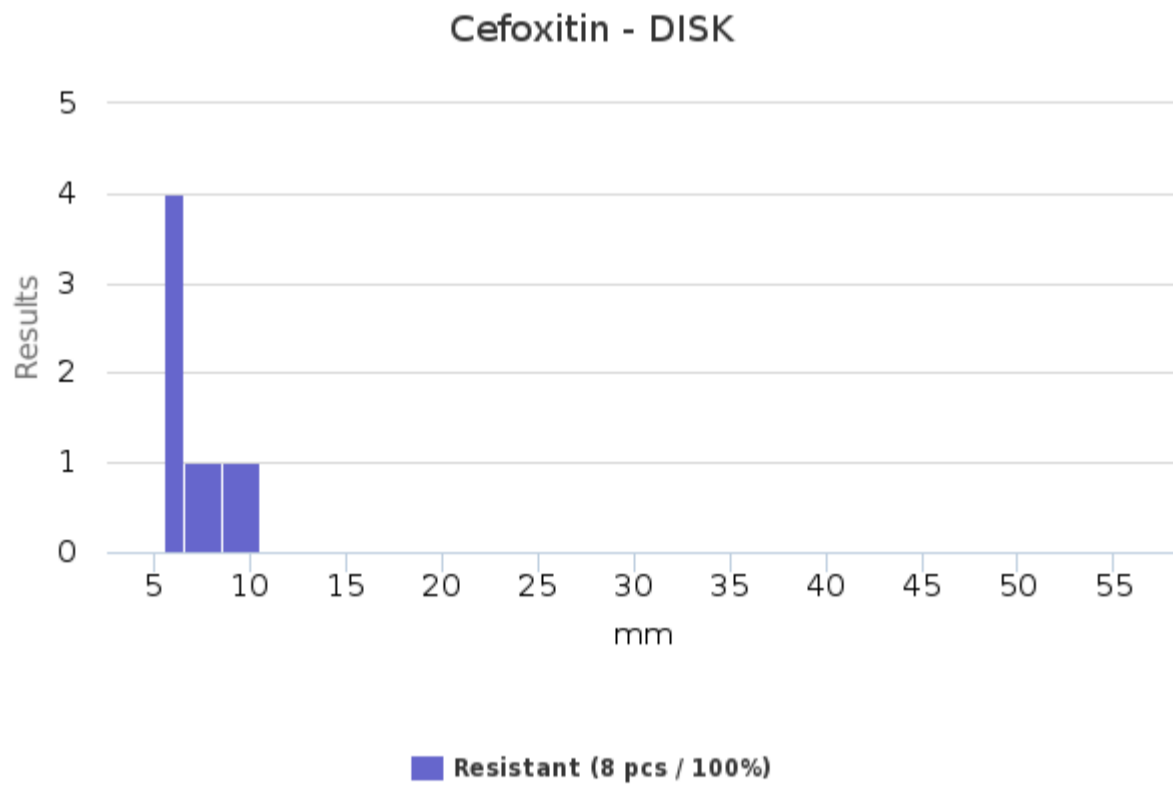
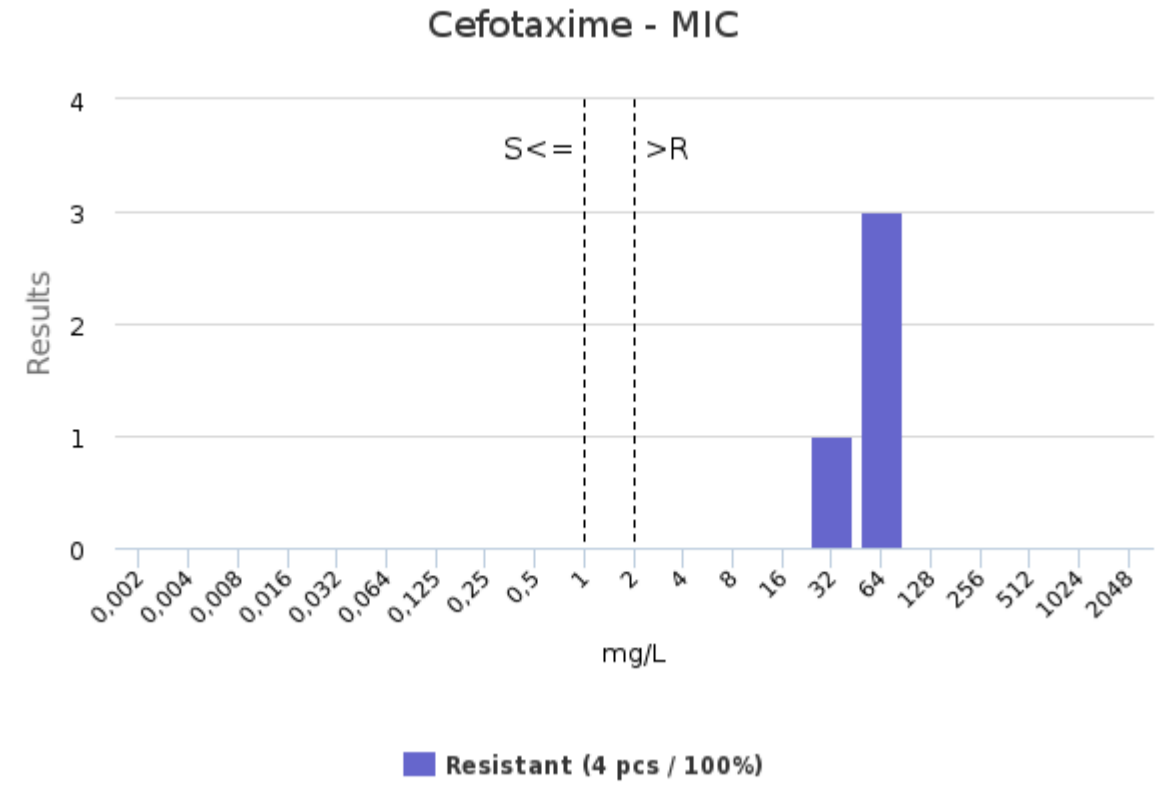
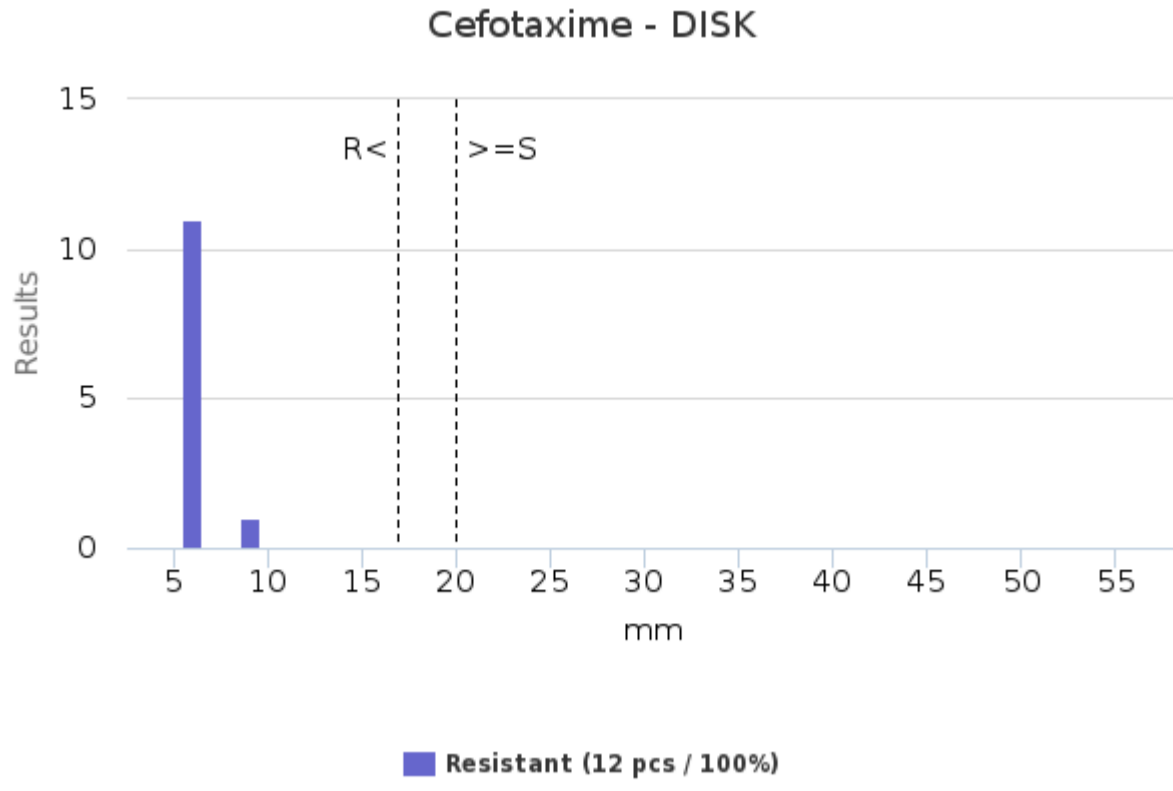
LABQUALITY Surveillance for multidrug resistant bacteria, gramnegative rods, February, 1-2023

Antimicrobial susceptibility testing results, *Klebsiella pneumoniae*



LABQUALITY Surveillance for multidrug resistant bacteria, gramnegative rods, February, 1-2023

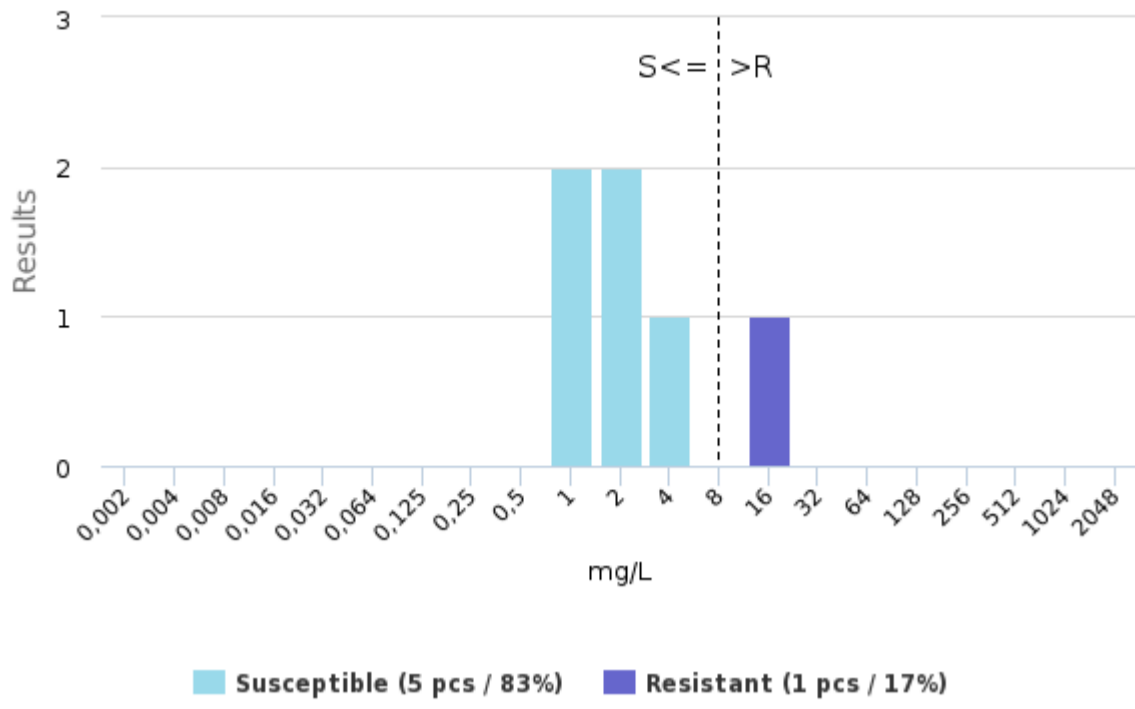
Antimicrobial susceptibility testing results, *Klebsiella pneumoniae*



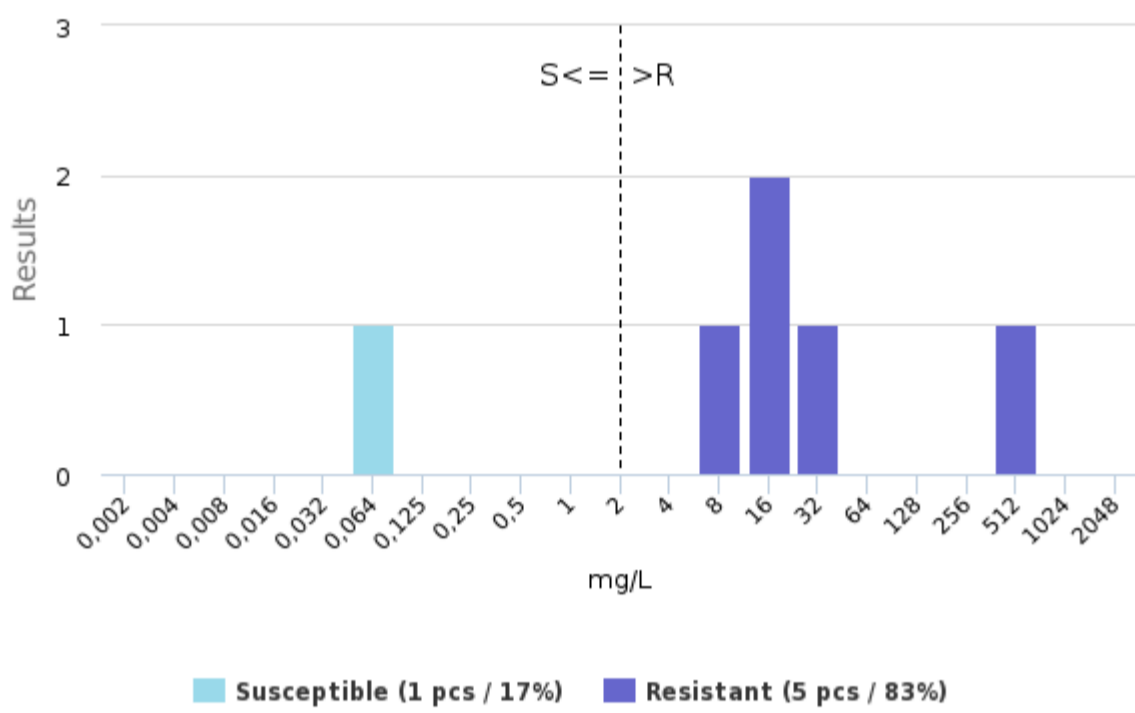
LABQUALITY Surveillance for multidrug resistant bacteria, gramnegative rods, February, 1-2023

Antimicrobial susceptibility testing results, *Klebsiella pneumoniae*

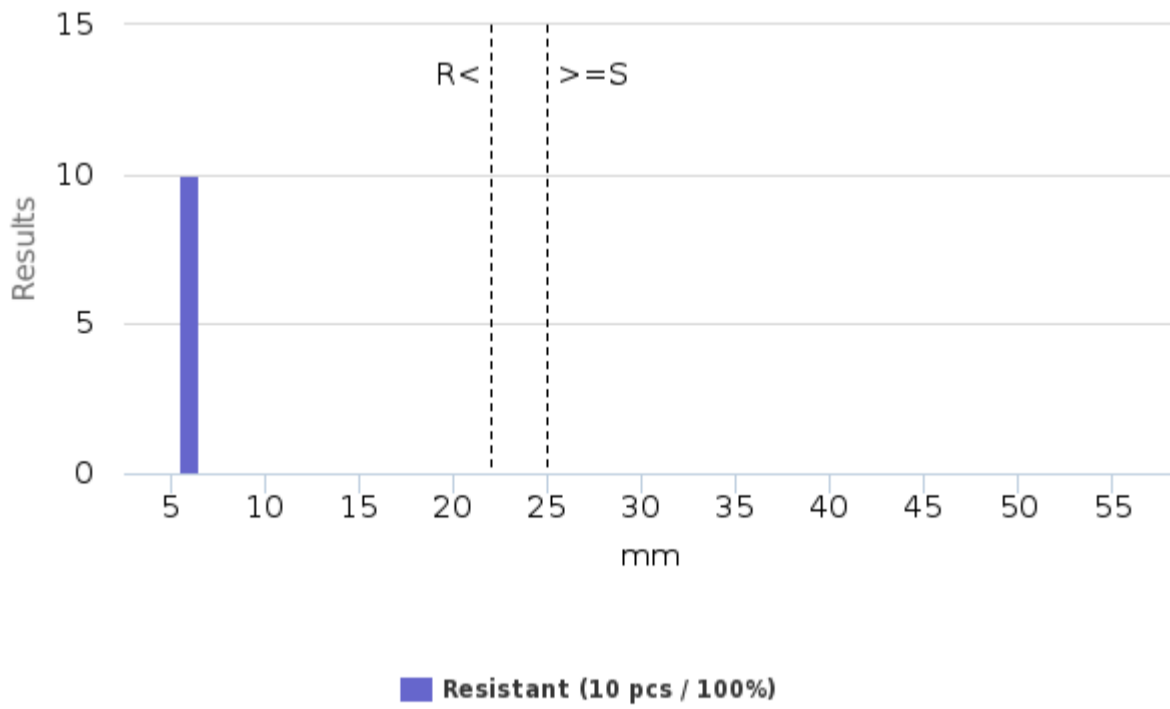
Ceftazidime-avibactam - MIC



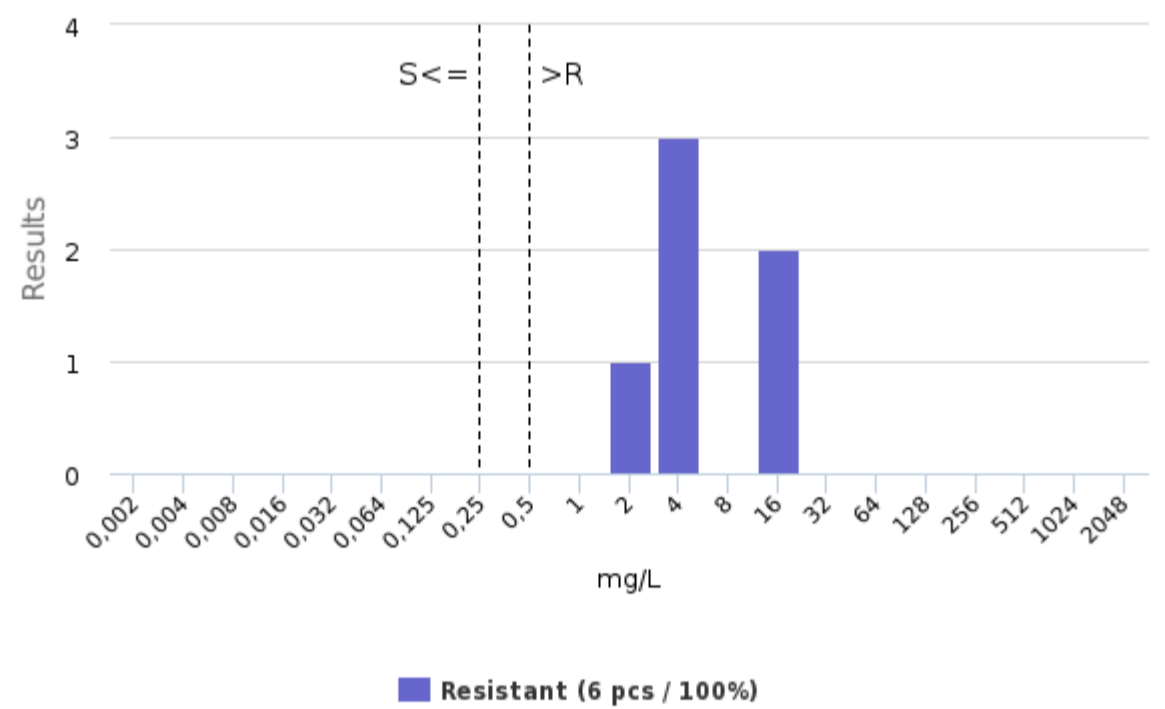
Ceftolozane-tazobactam - MIC



Ciprofloxacin - DISK

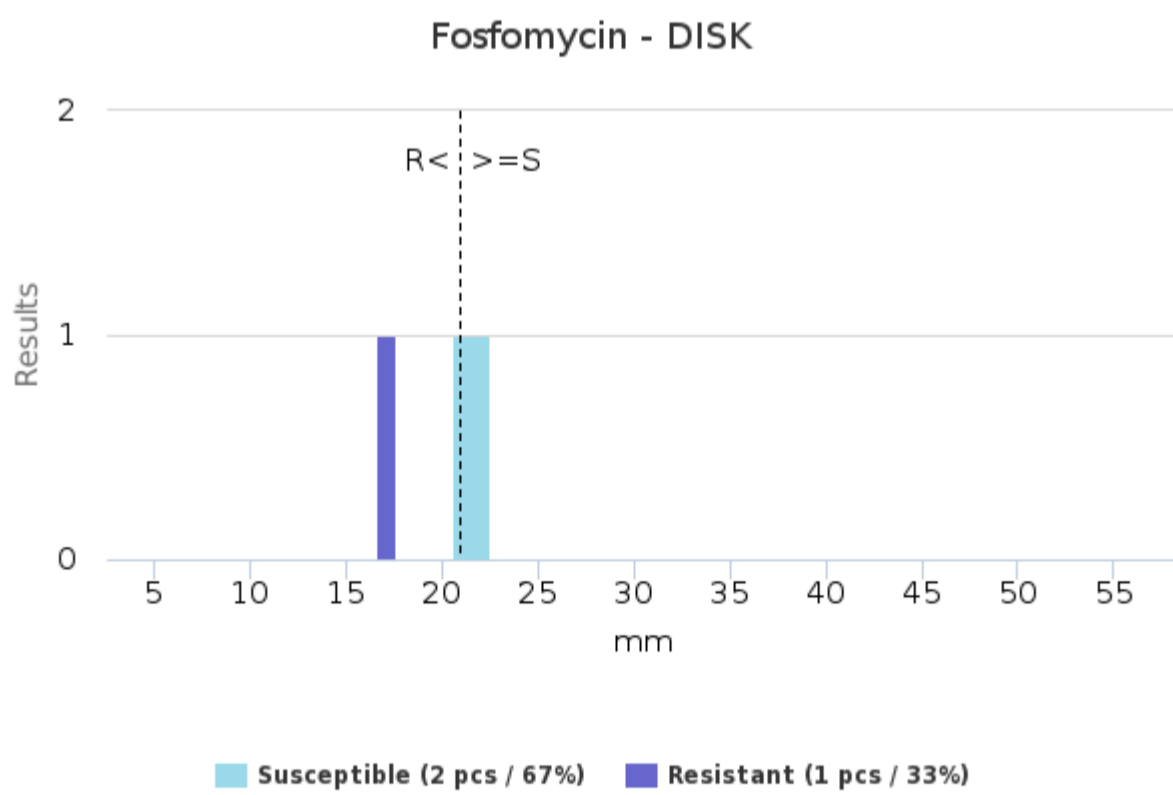
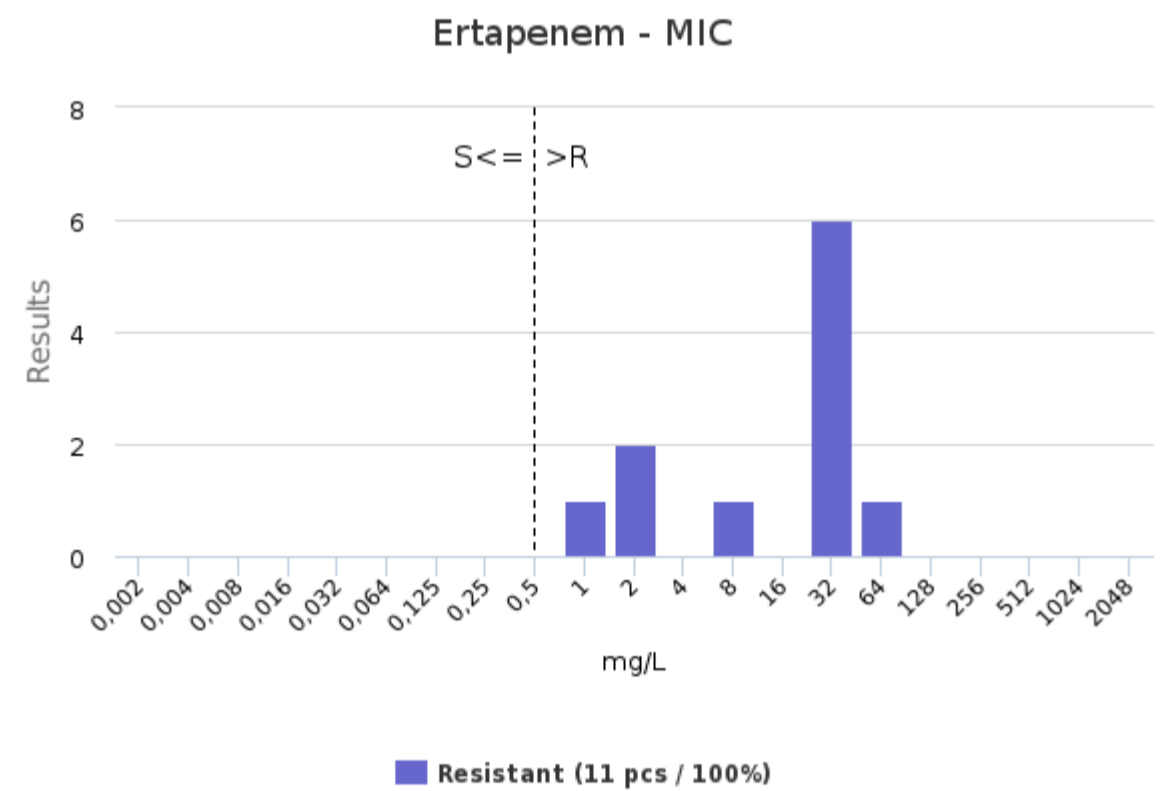
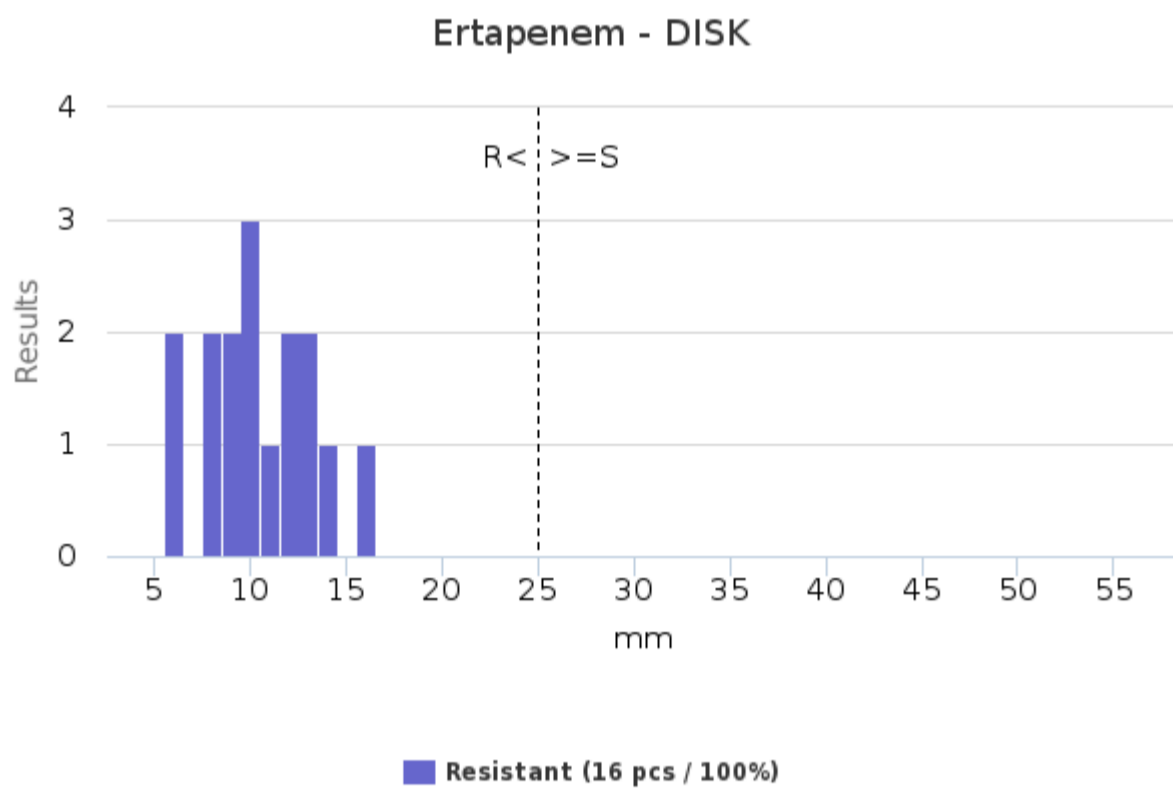
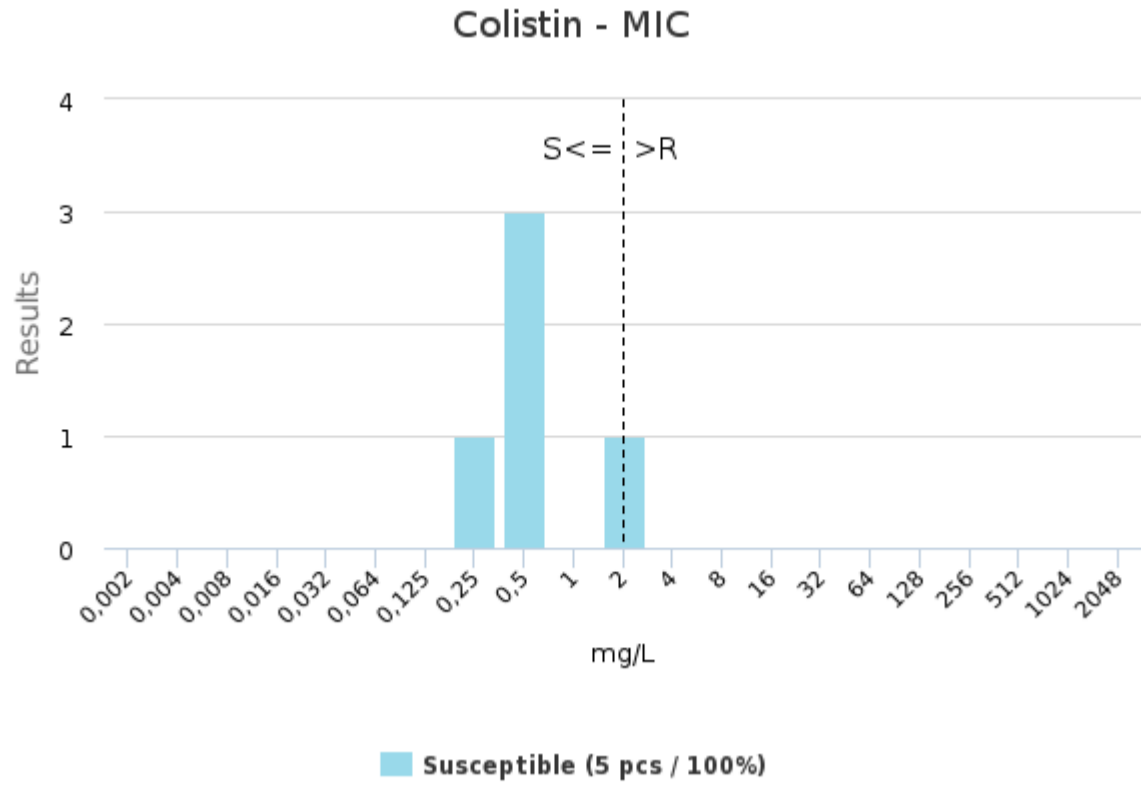


Ciprofloxacin - MIC



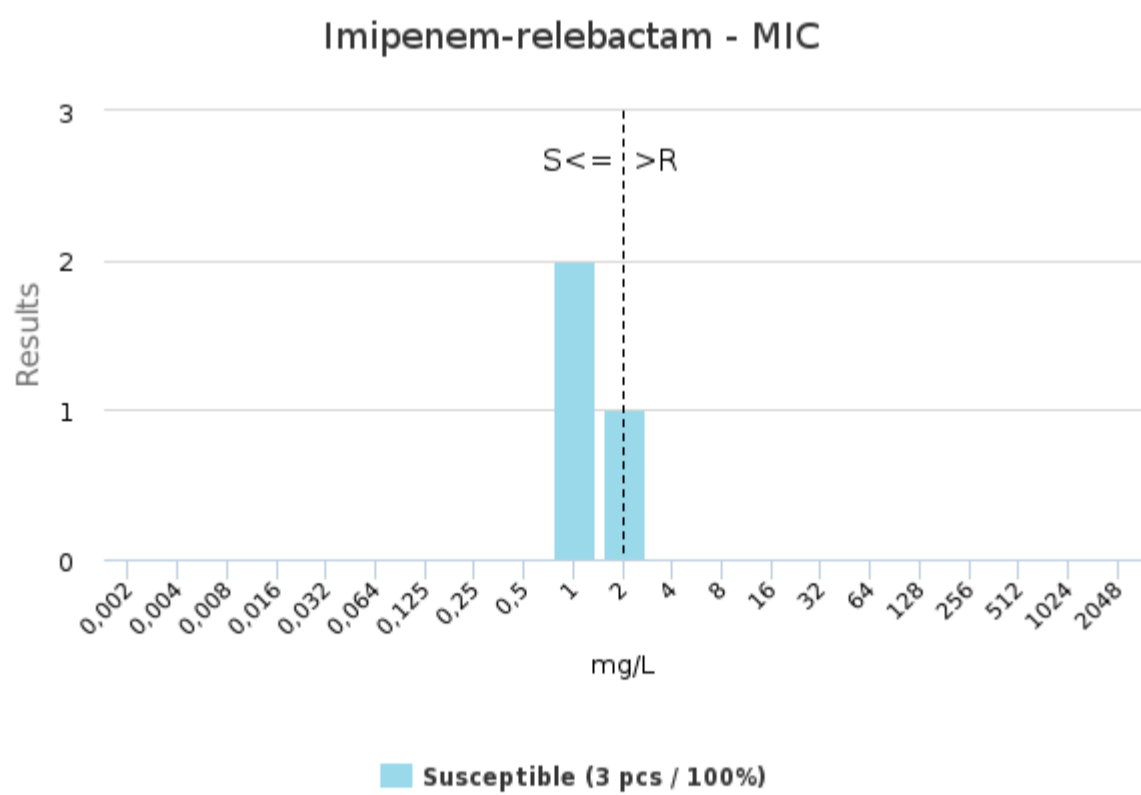
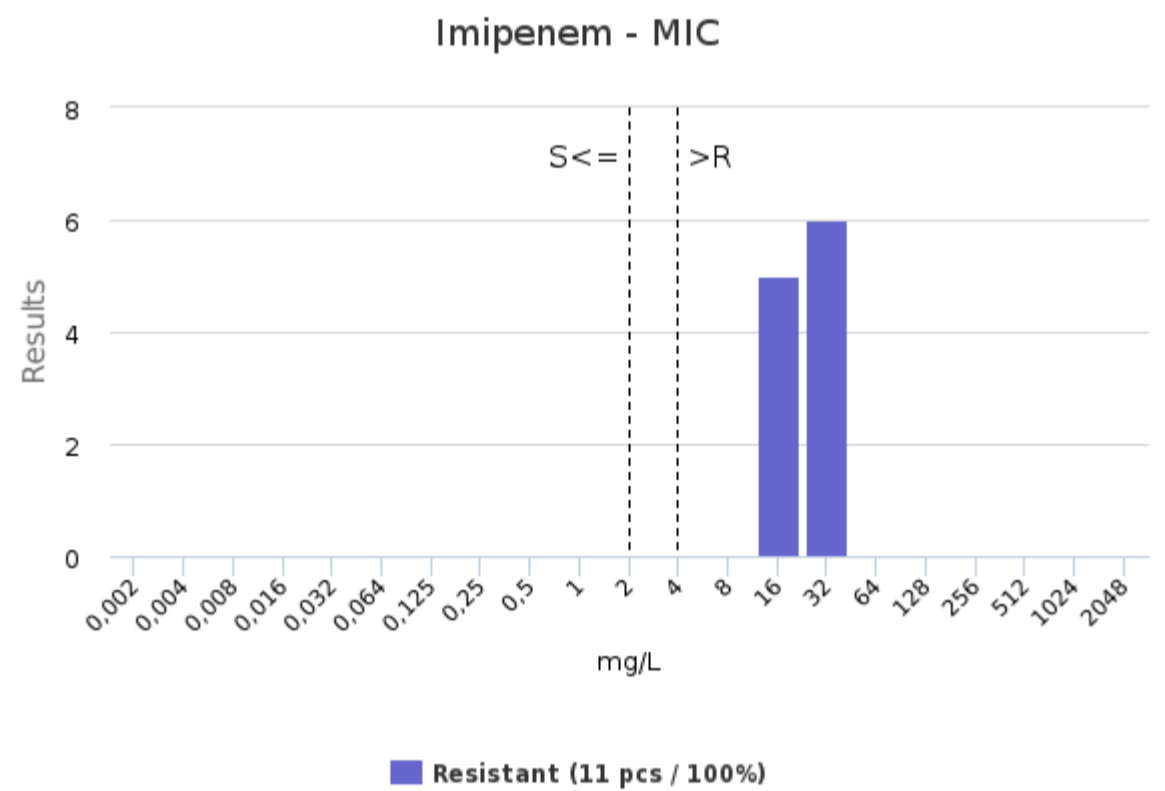
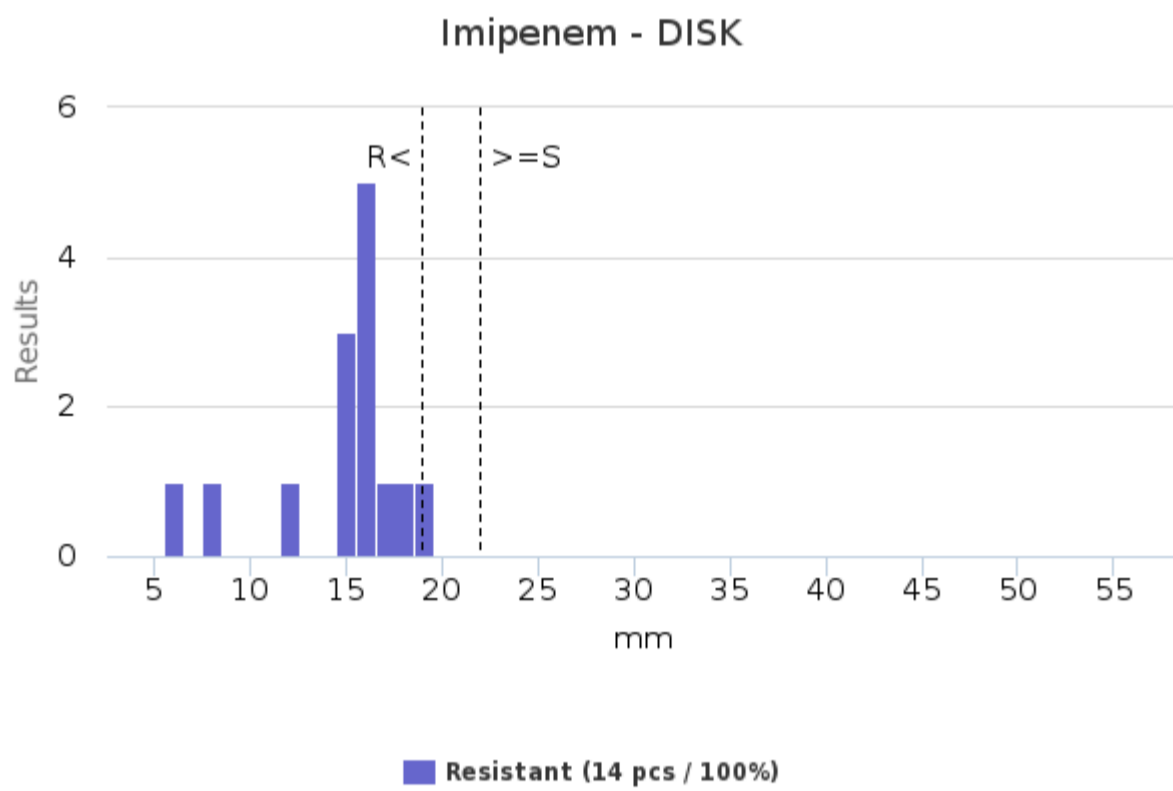
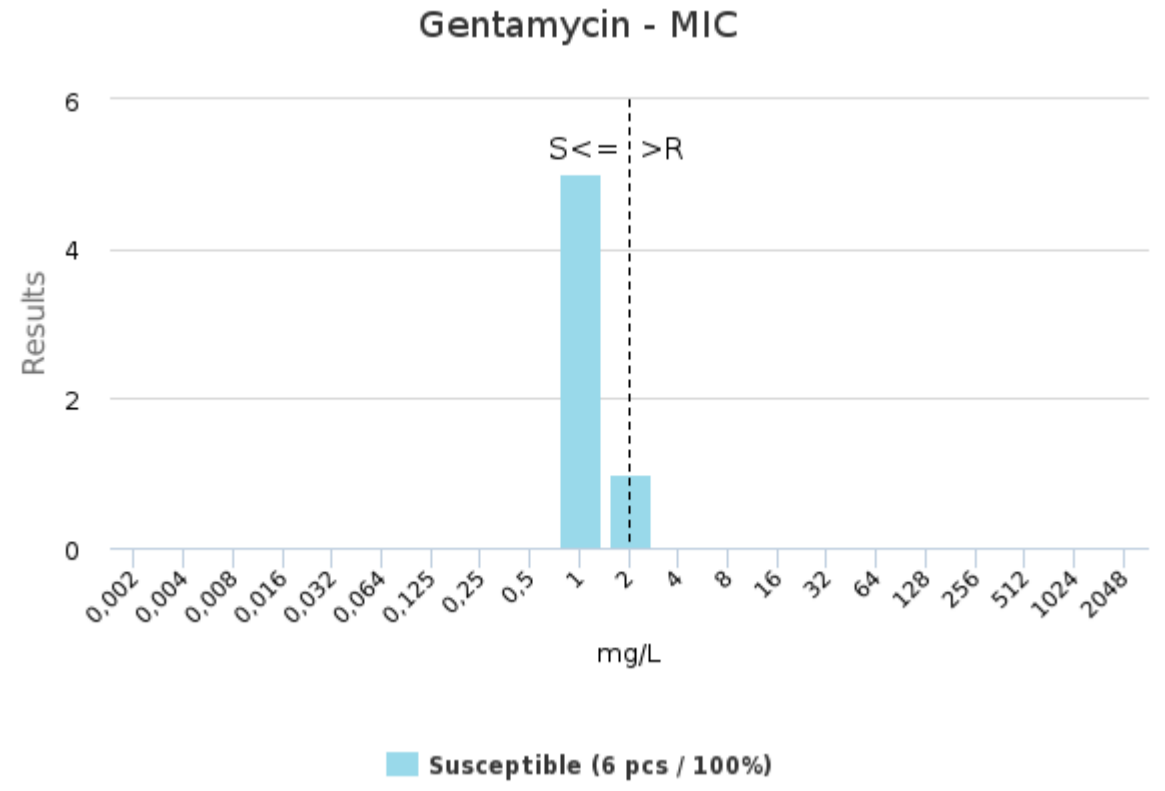
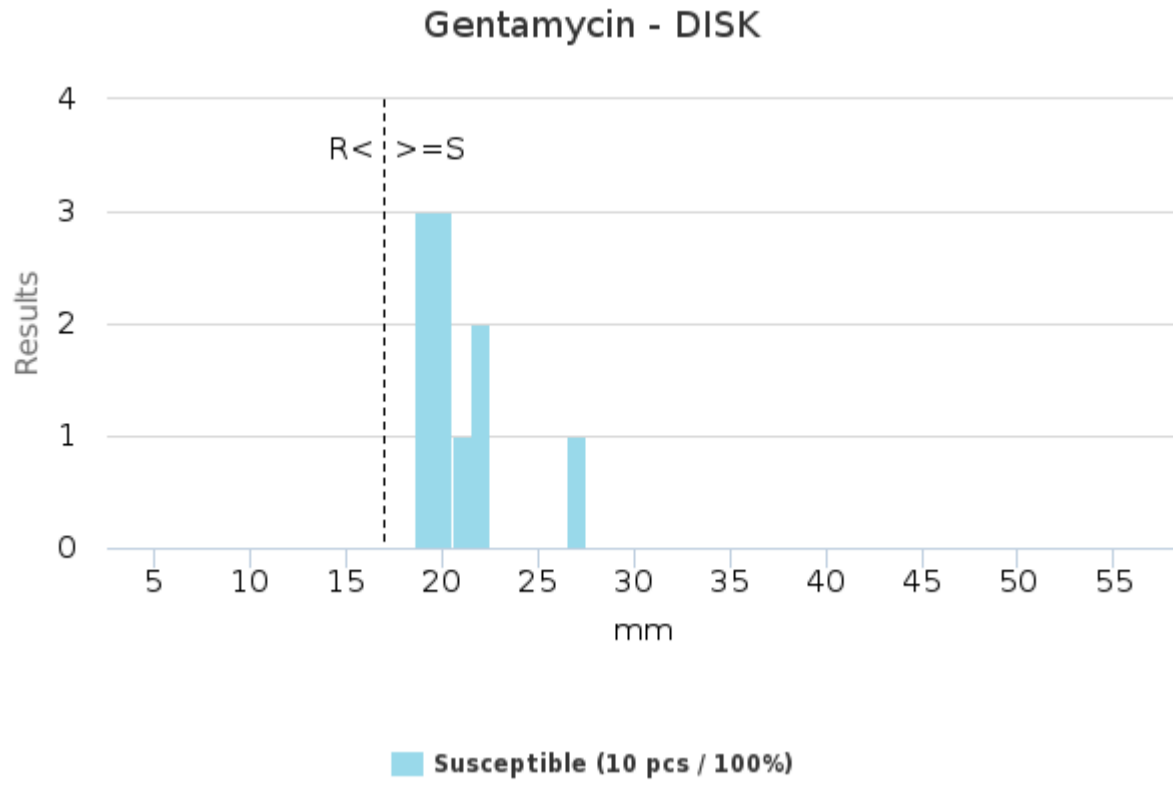
LABQUALITY Surveillance for multidrug resistant bacteria, gramnegative rods, February, 1-2023

Antimicrobial susceptibility testing results, Klebsiella pneumoniae



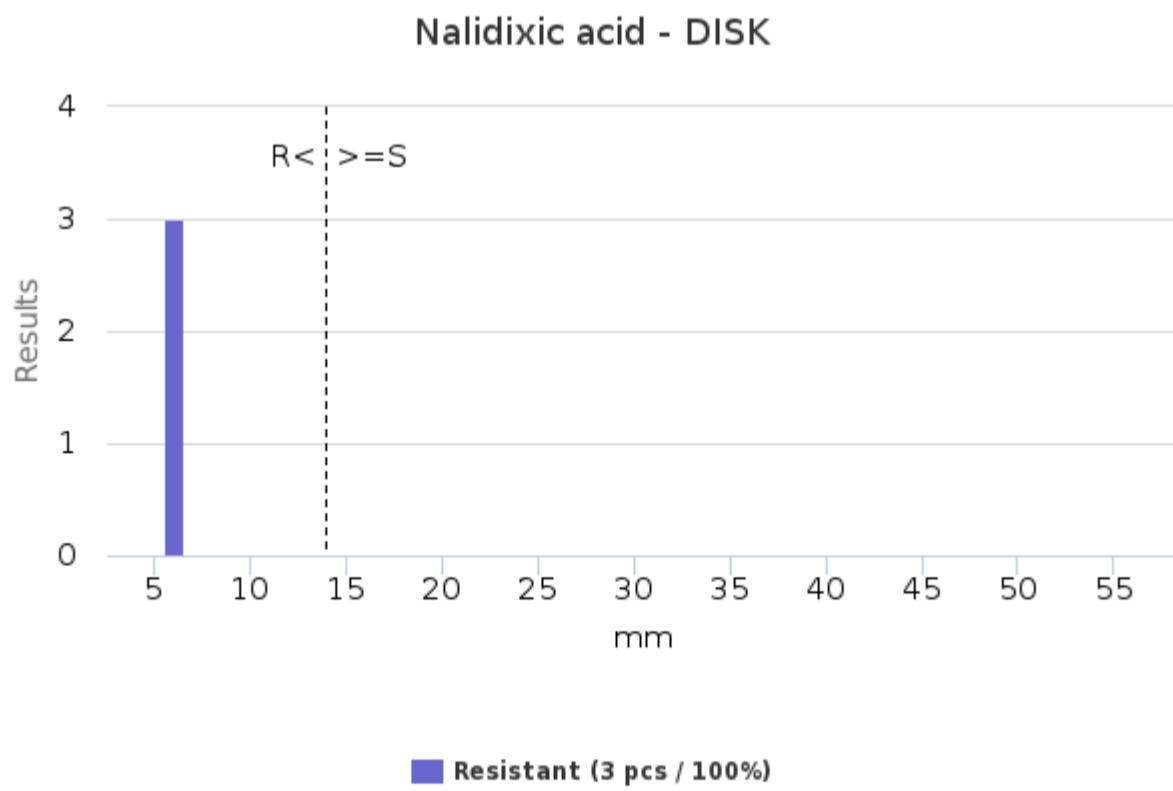
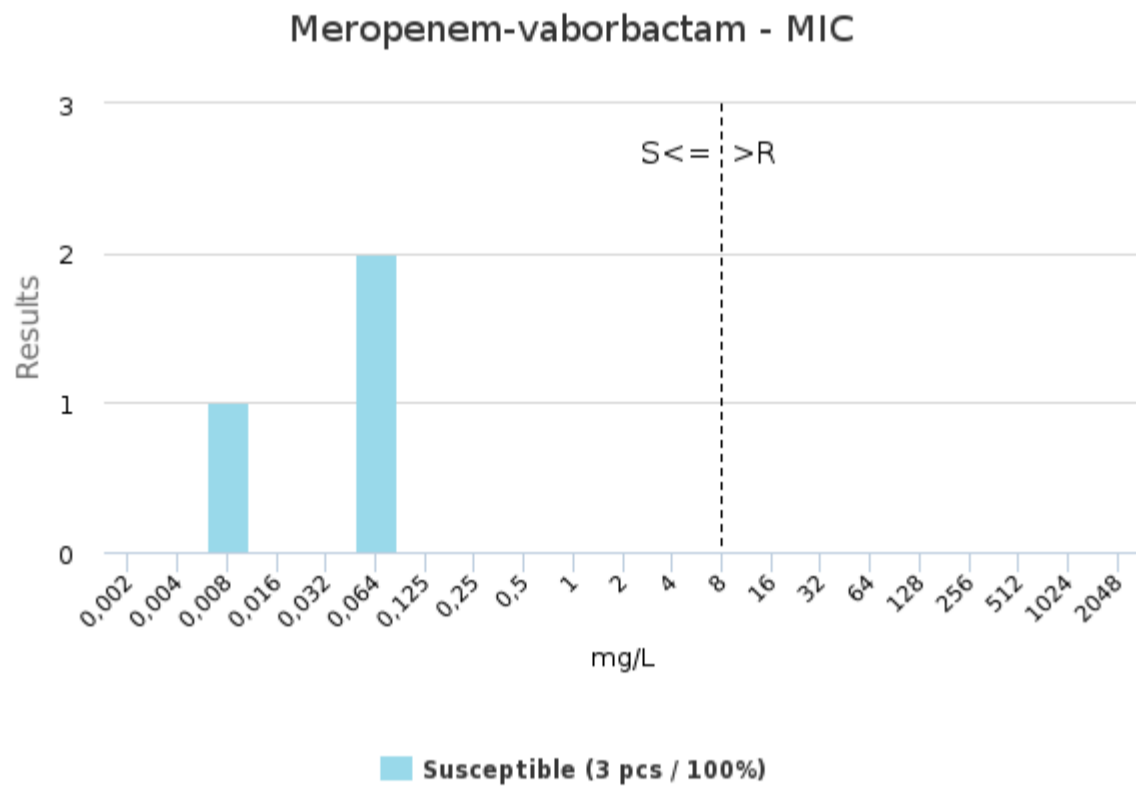
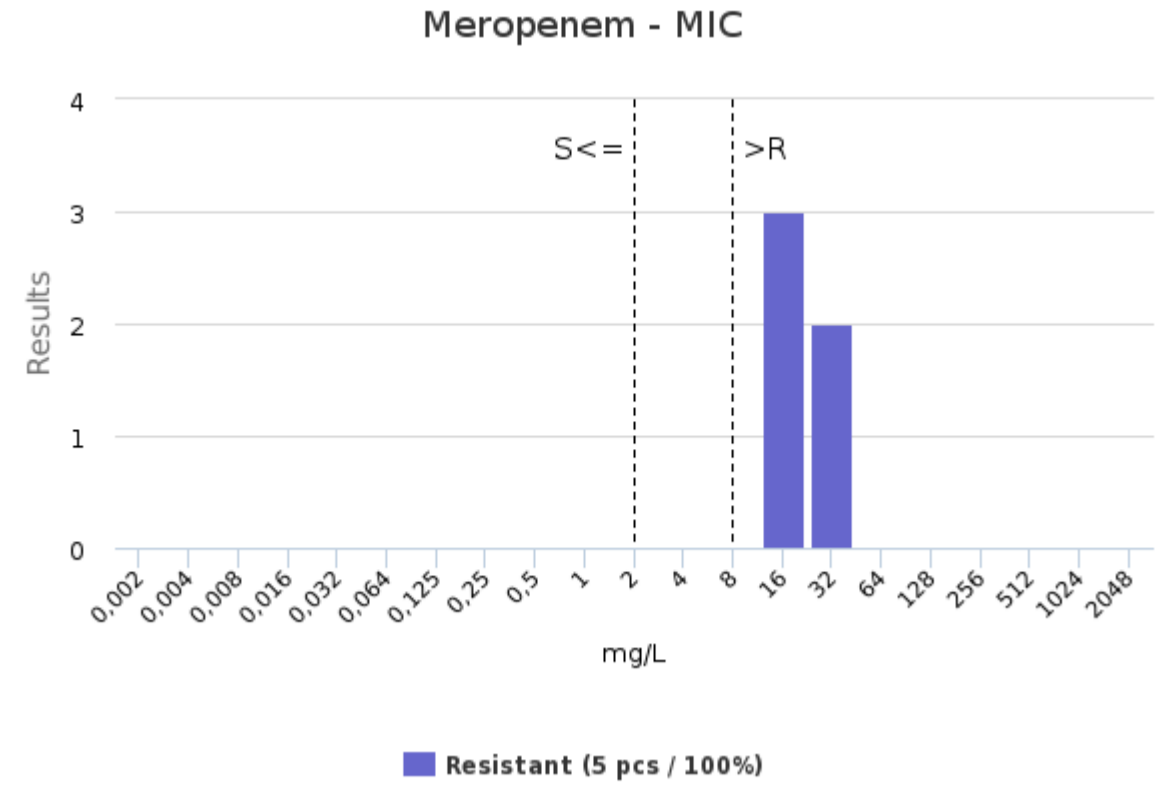
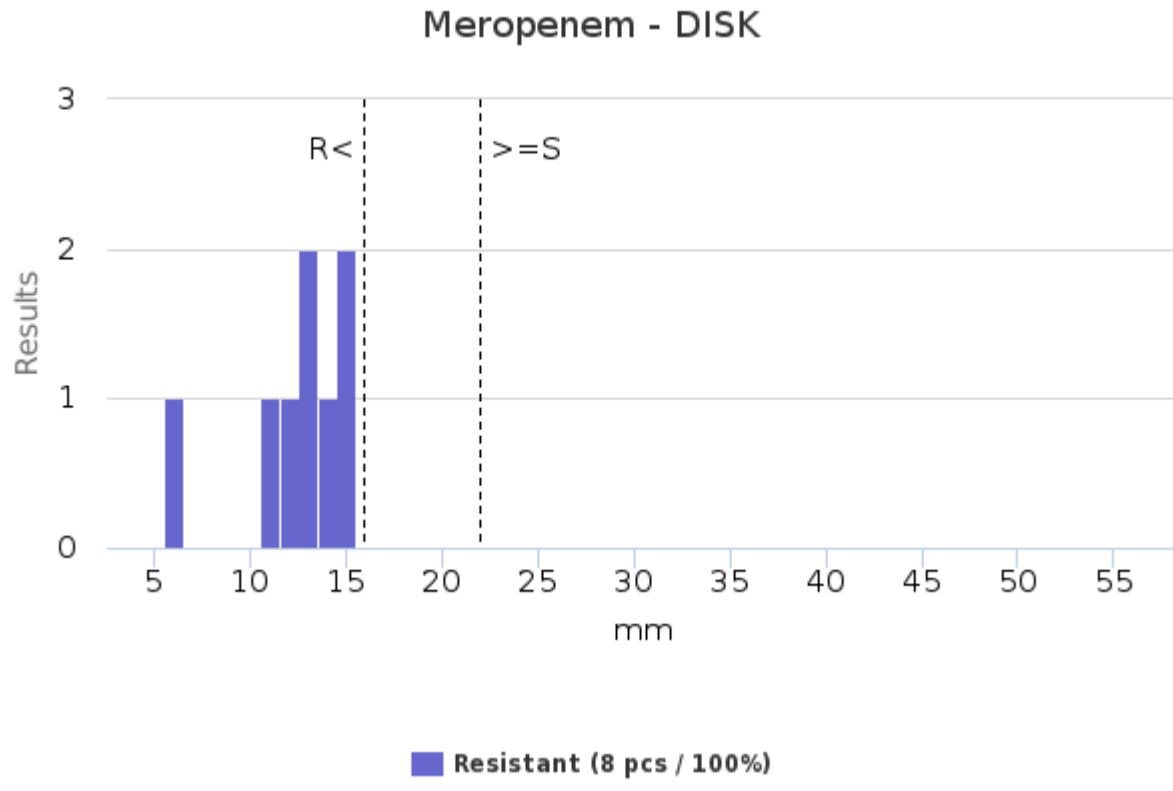
LABQUALITY Surveillance for multidrug resistant bacteria, gramnegative rods, February, 1-2023

Antimicrobial susceptibility testing results, Klebsiella pneumoniae



LABQUALITY Surveillance for multidrug resistant bacteria, gramnegative rods, February, 1-2023

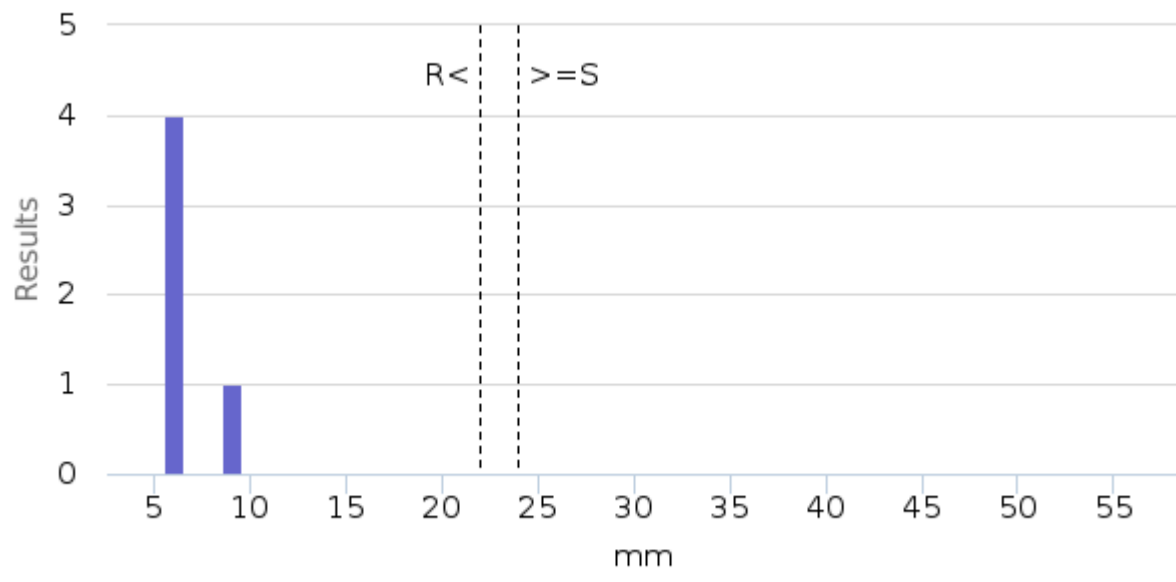
Antimicrobial susceptibility testing results, *Klebsiella pneumoniae*



LABQUALITY Surveillance for multidrug resistant bacteria, gramnegative rods, February, 1-2023

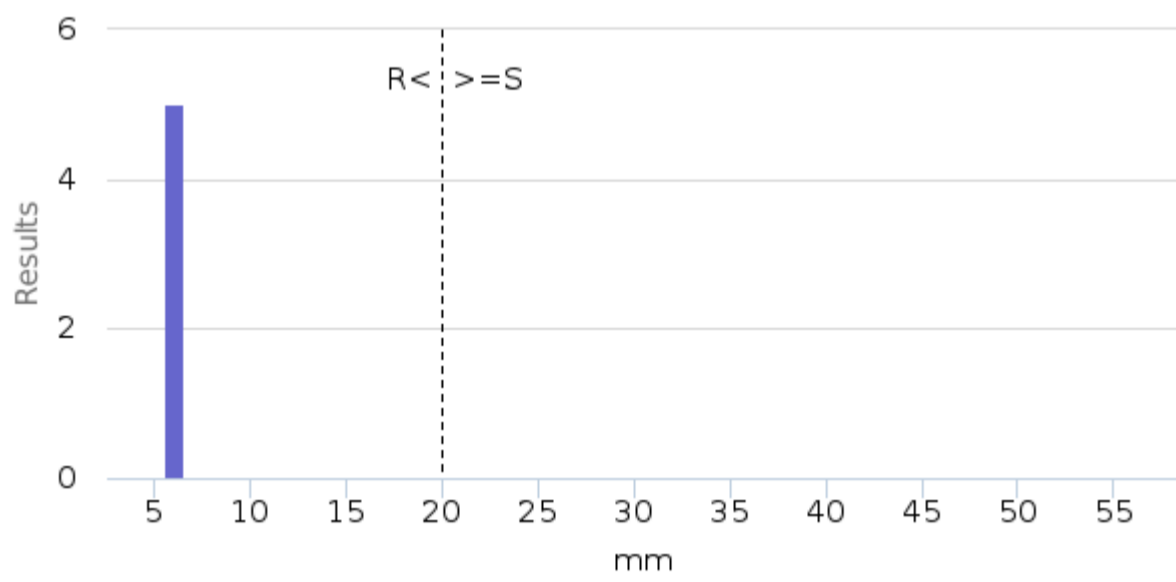
Antimicrobial susceptibility testing results, *Klebsiella pneumoniae*

Ofloxacin - DISK



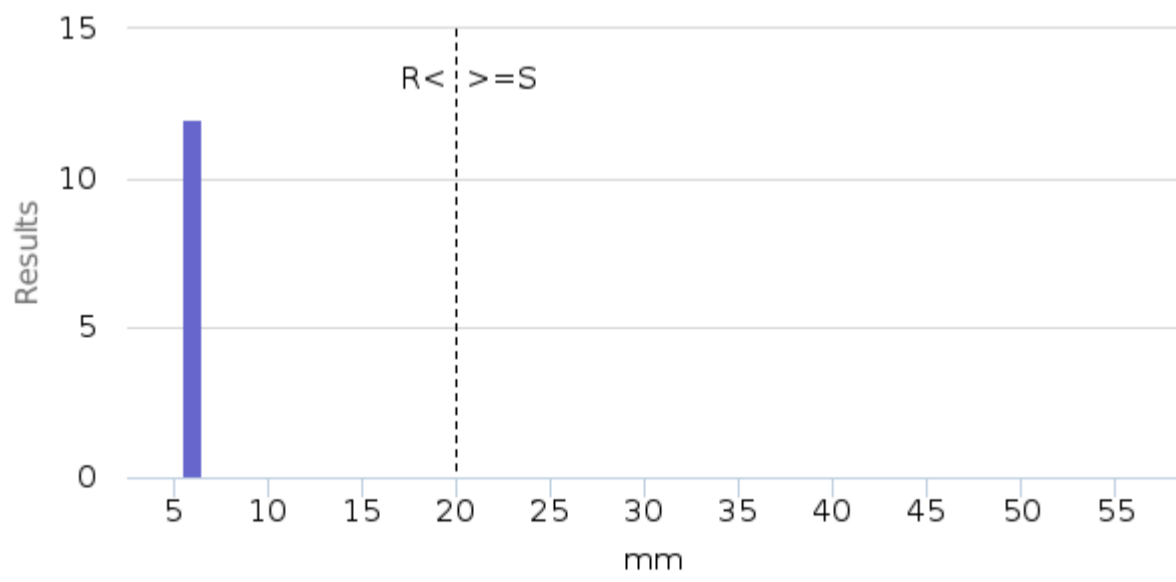
Resistant (5 pcs / 100%)

Piperacillin - DISK



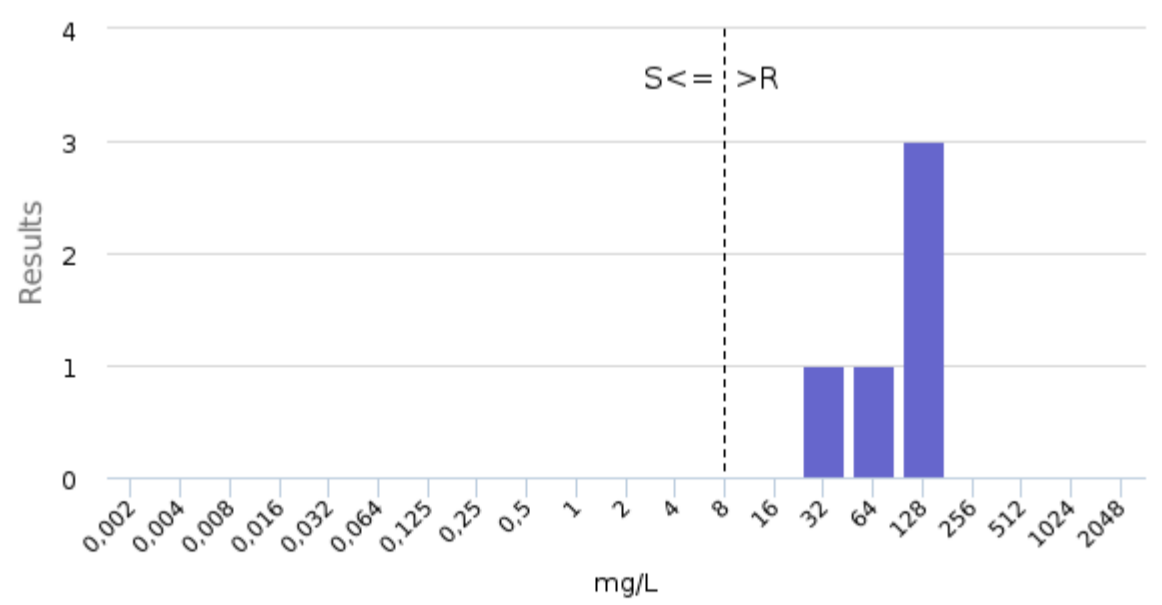
Resistant (5 pcs / 100%)

Piperacillin-tazobactam - DISK



Resistant (12 pcs / 100%)

Piperacillin-tazobactam - MIC

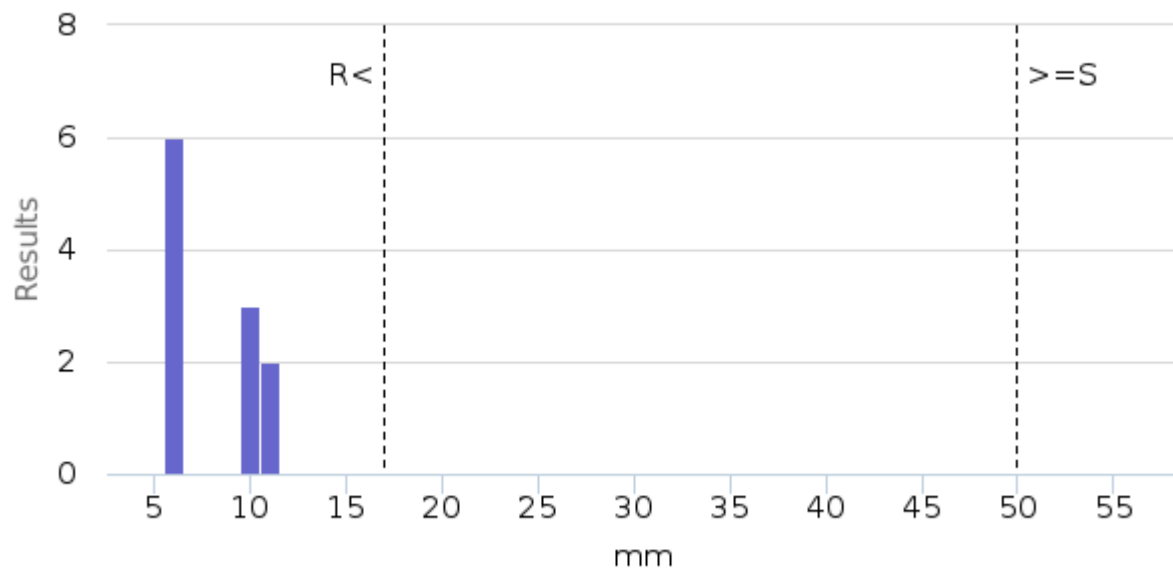


Resistant (5 pcs / 100%)

LABQUALITY Surveillance for multidrug resistant bacteria, gramnegative rods, February, 1-2023

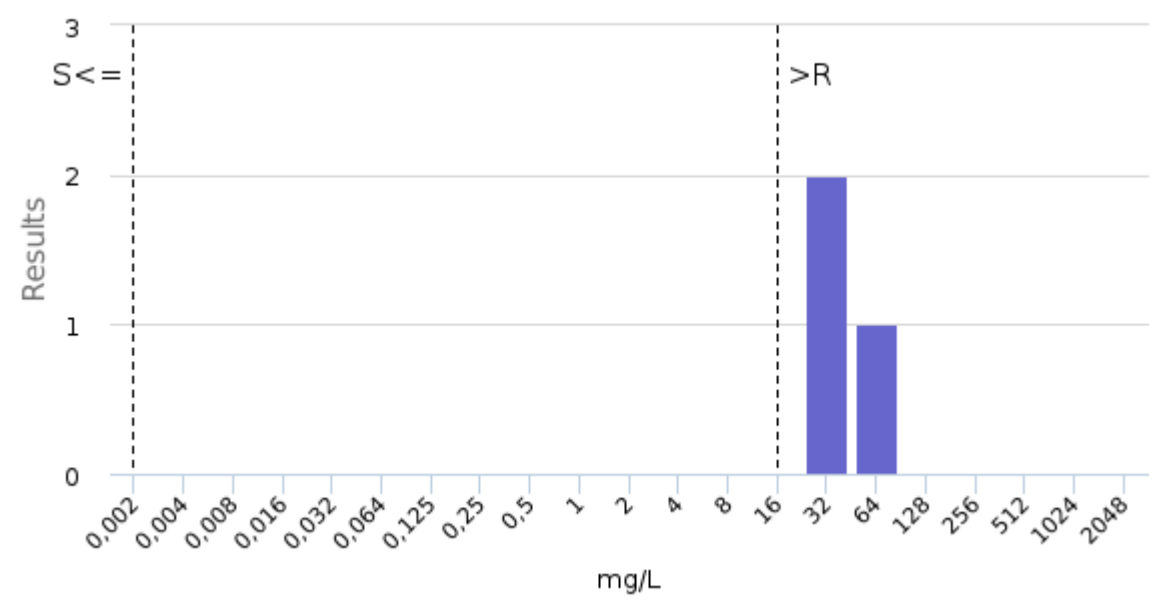
Antimicrobial susceptibility testing results, *Klebsiella pneumoniae*

Temocillin - DISK



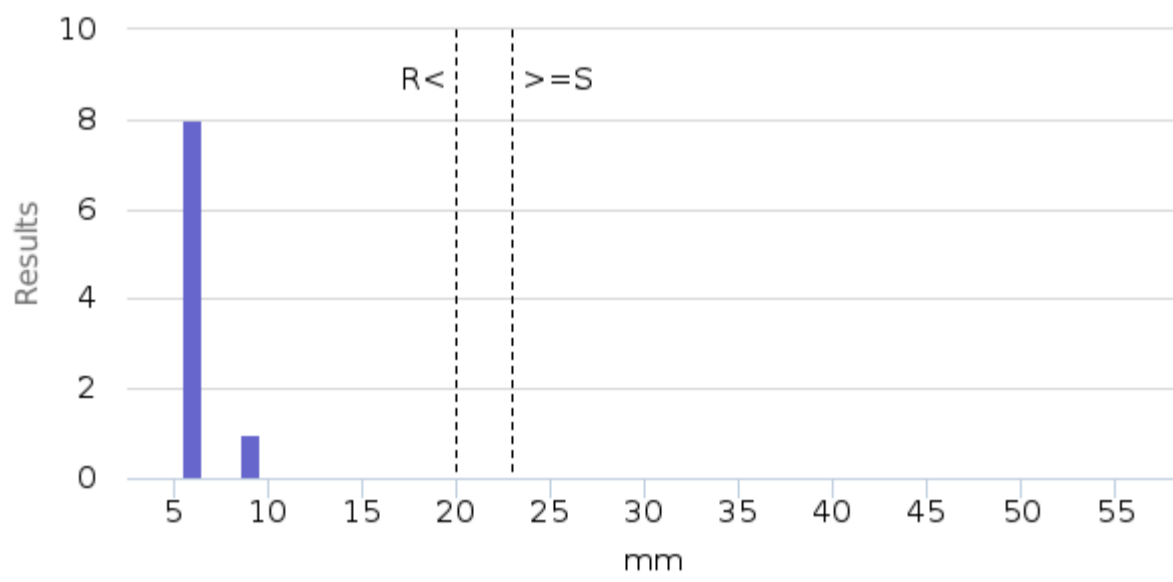
Resistant (11 pcs / 100%)

Temocillin - MIC



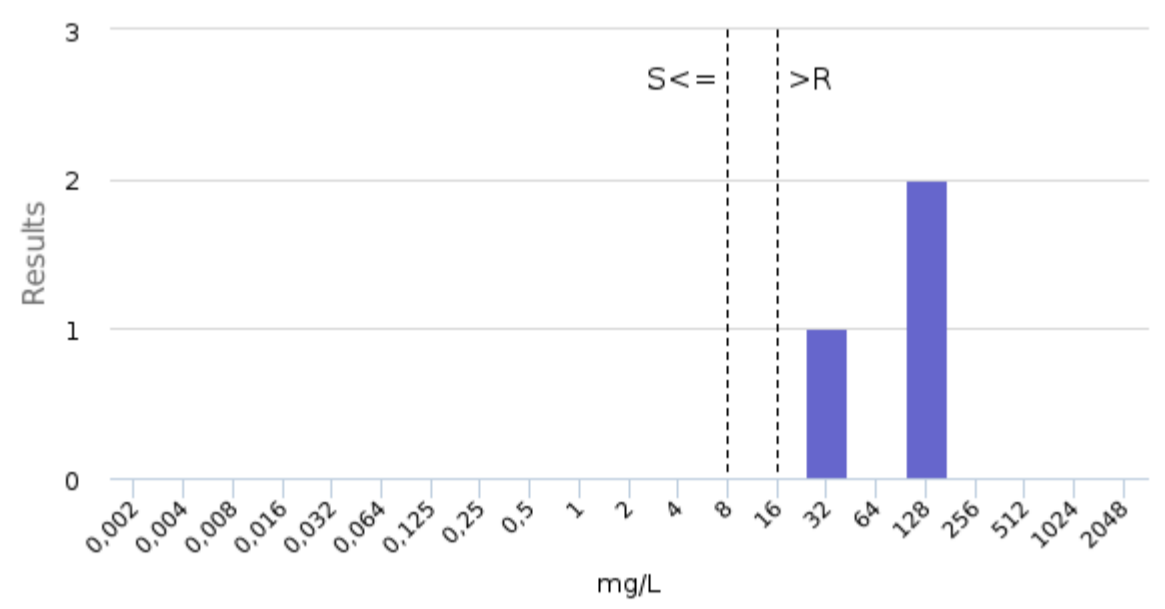
Resistant (3 pcs / 100%)

Ticarcillin - DISK



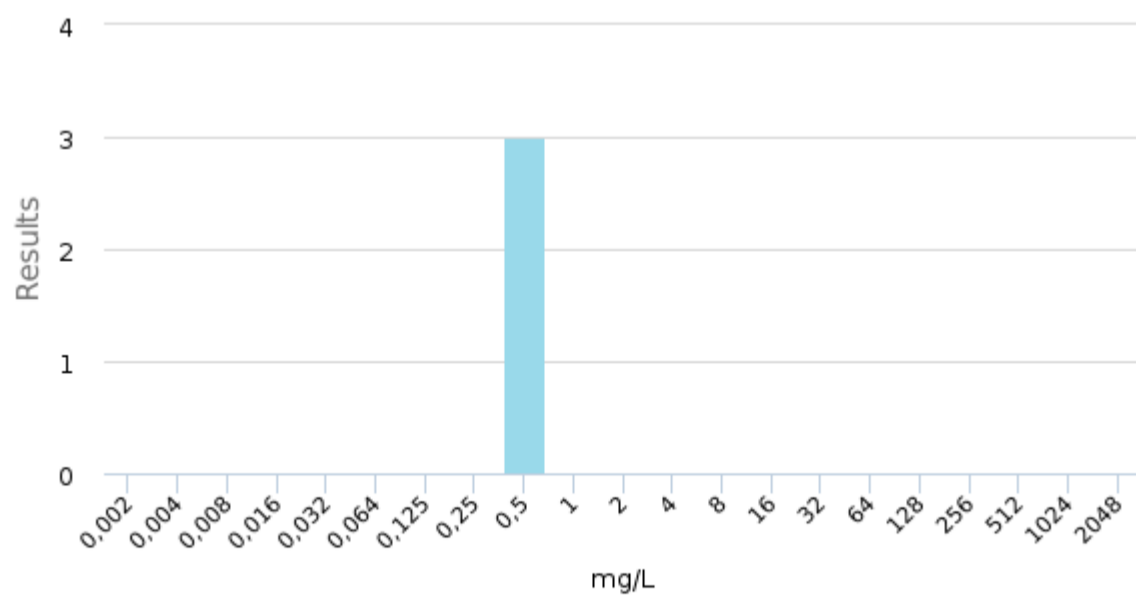
Resistant (9 pcs / 100%)

Ticarcillin - MIC



Resistant (3 pcs / 100%)

Tigecycline - MIC

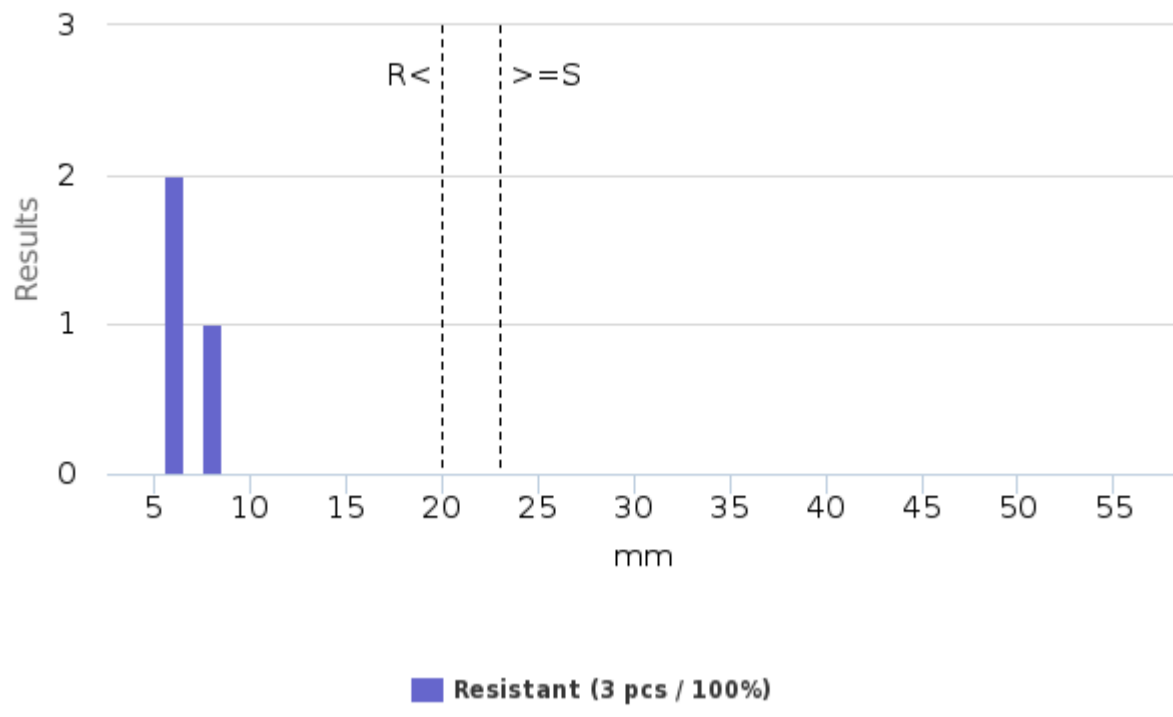


Susceptible (3 pcs / 100%)

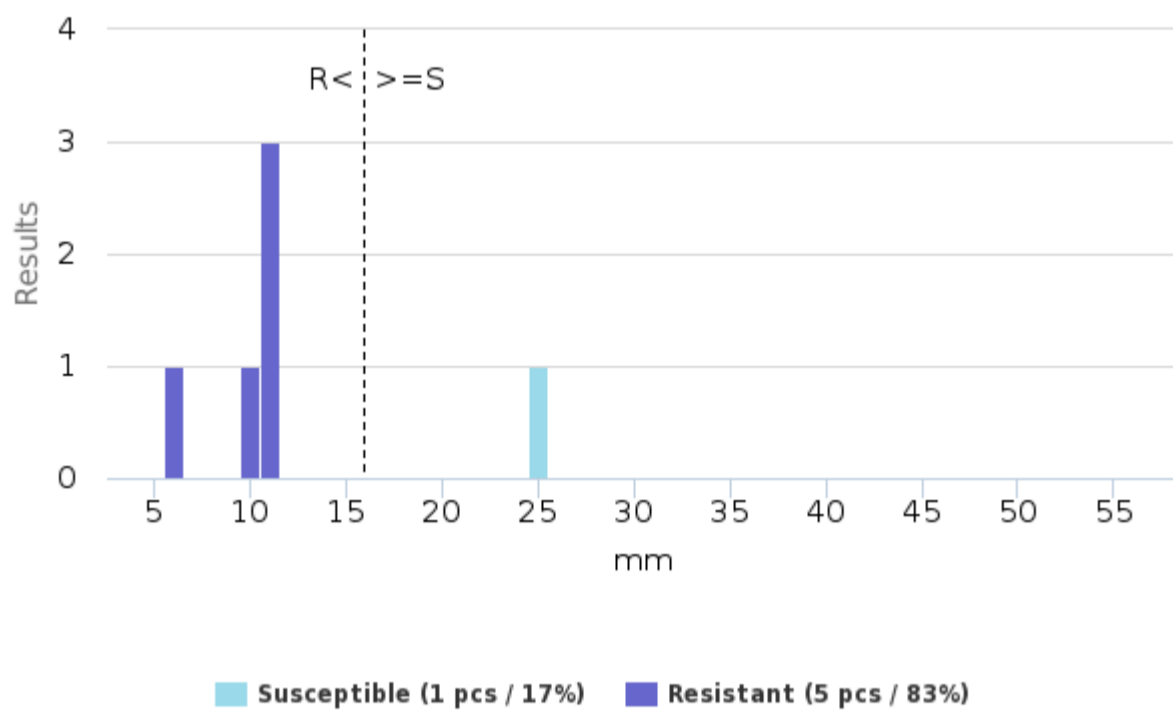
LABQUALITY Surveillance for multidrug resistant bacteria, gramnegative rods, February, 1-2023

Antimicrobial susceptibility testing results, *Klebsiella pneumoniae*

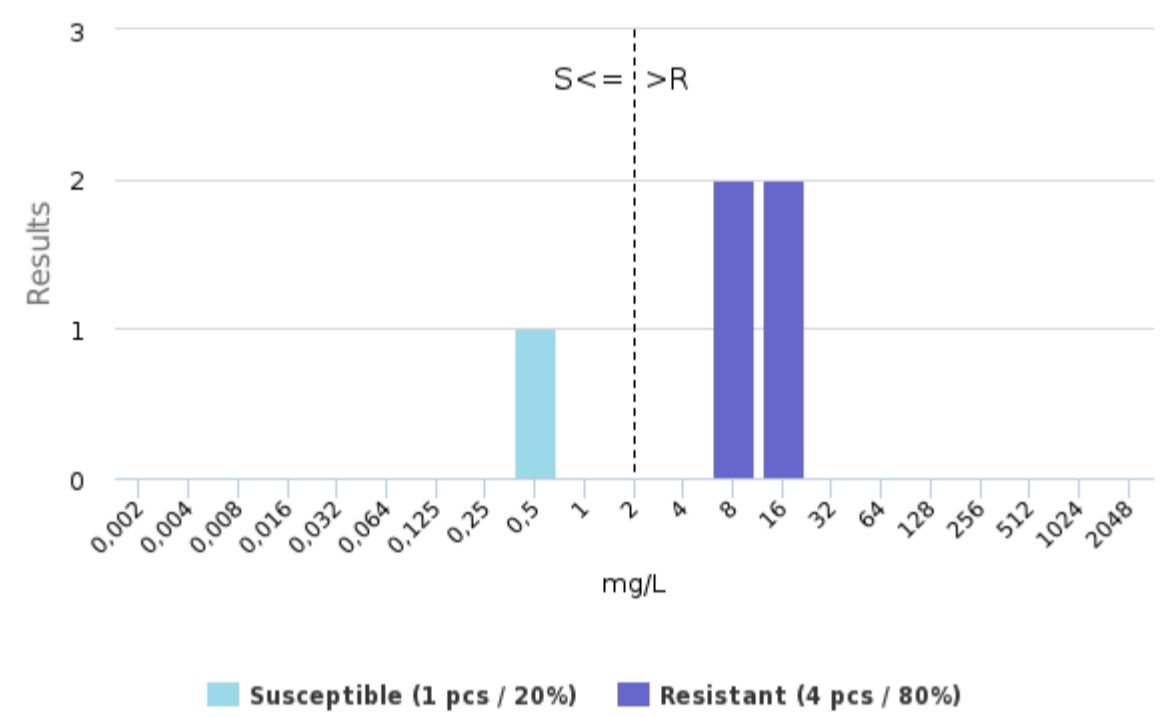
Tikarcillin-clavulanic acid - DISK



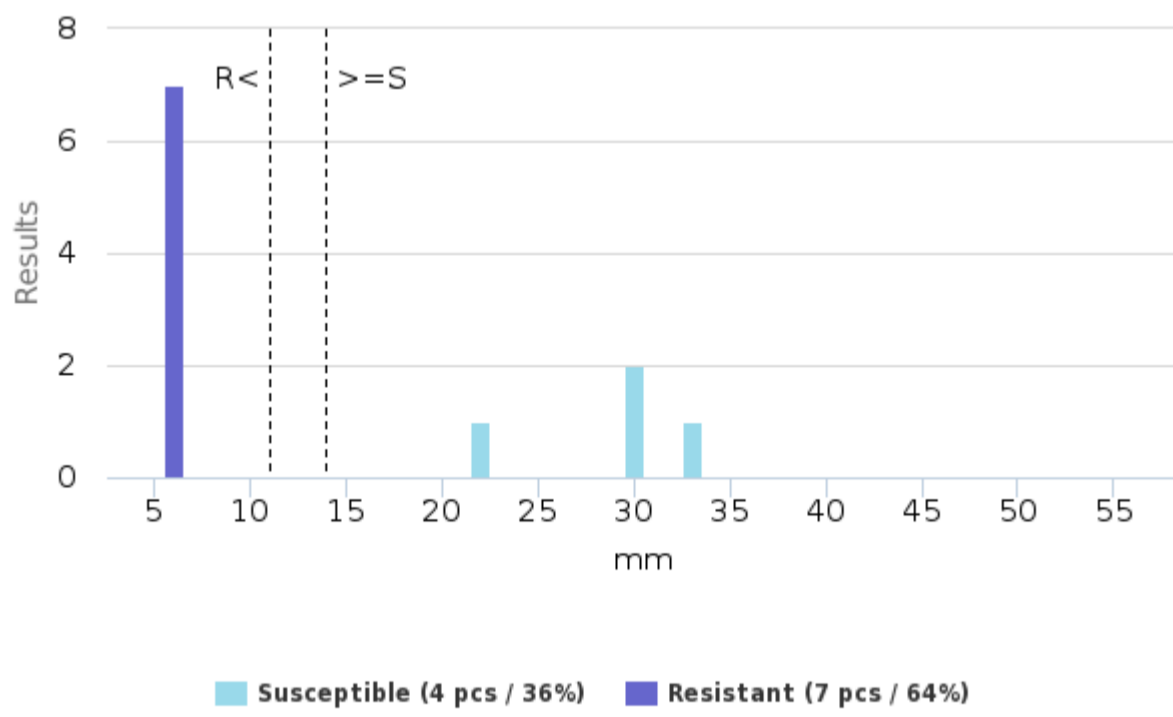
Tobramycin - DISK



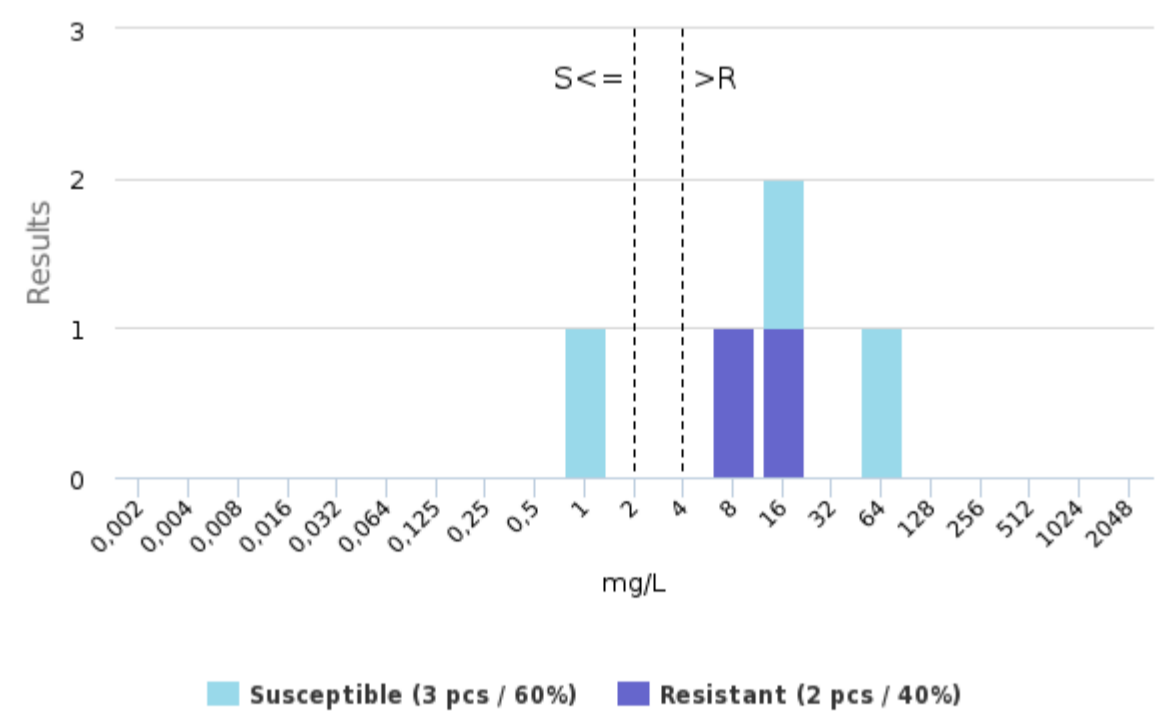
Tobramycin - MIC



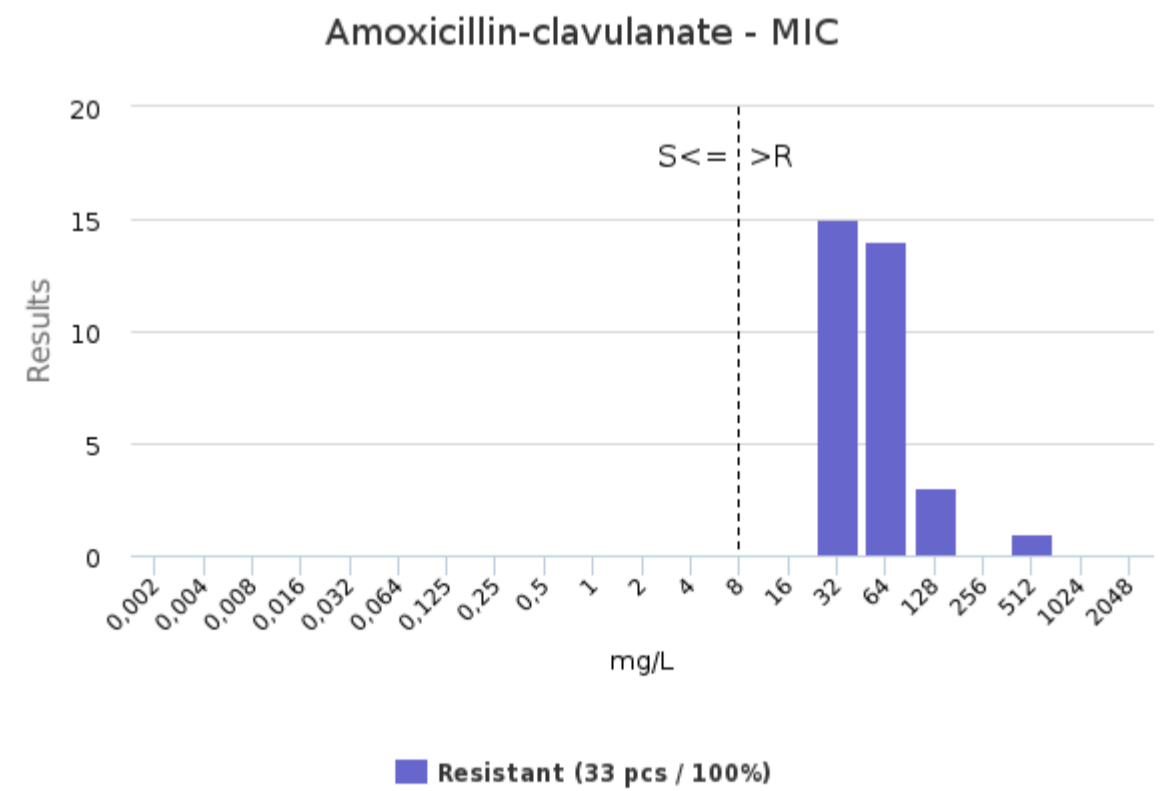
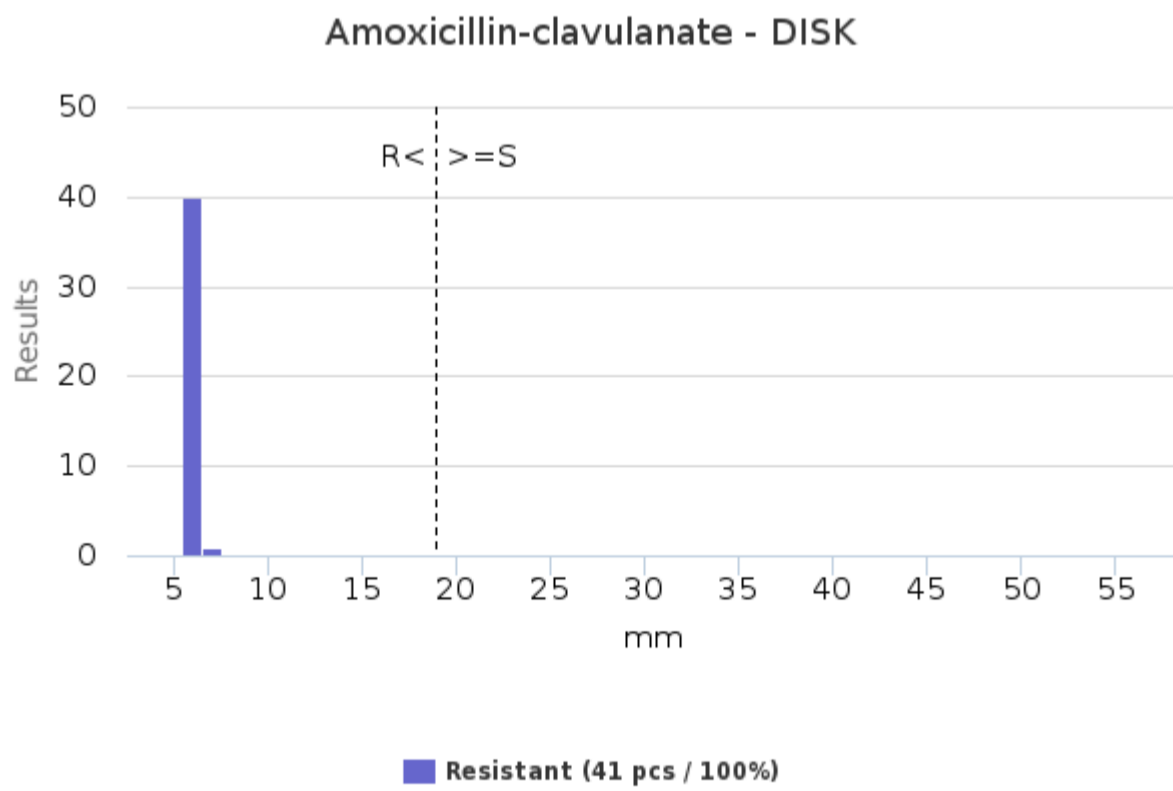
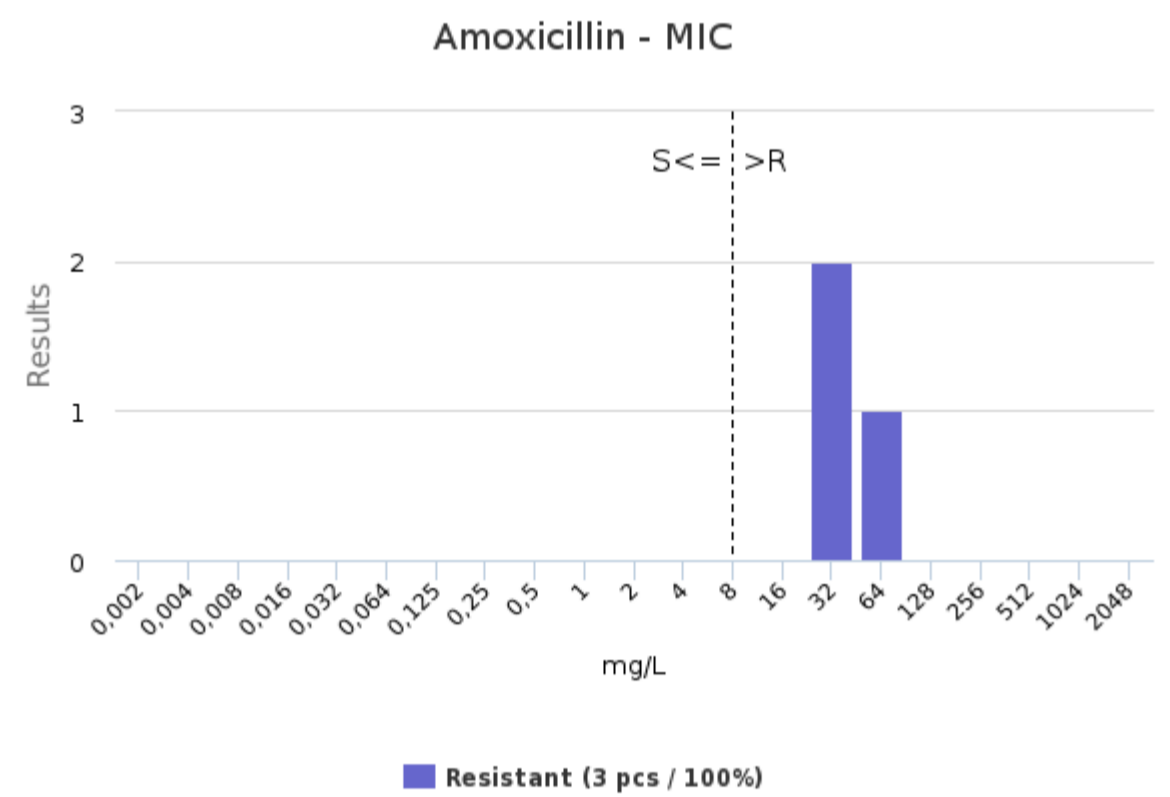
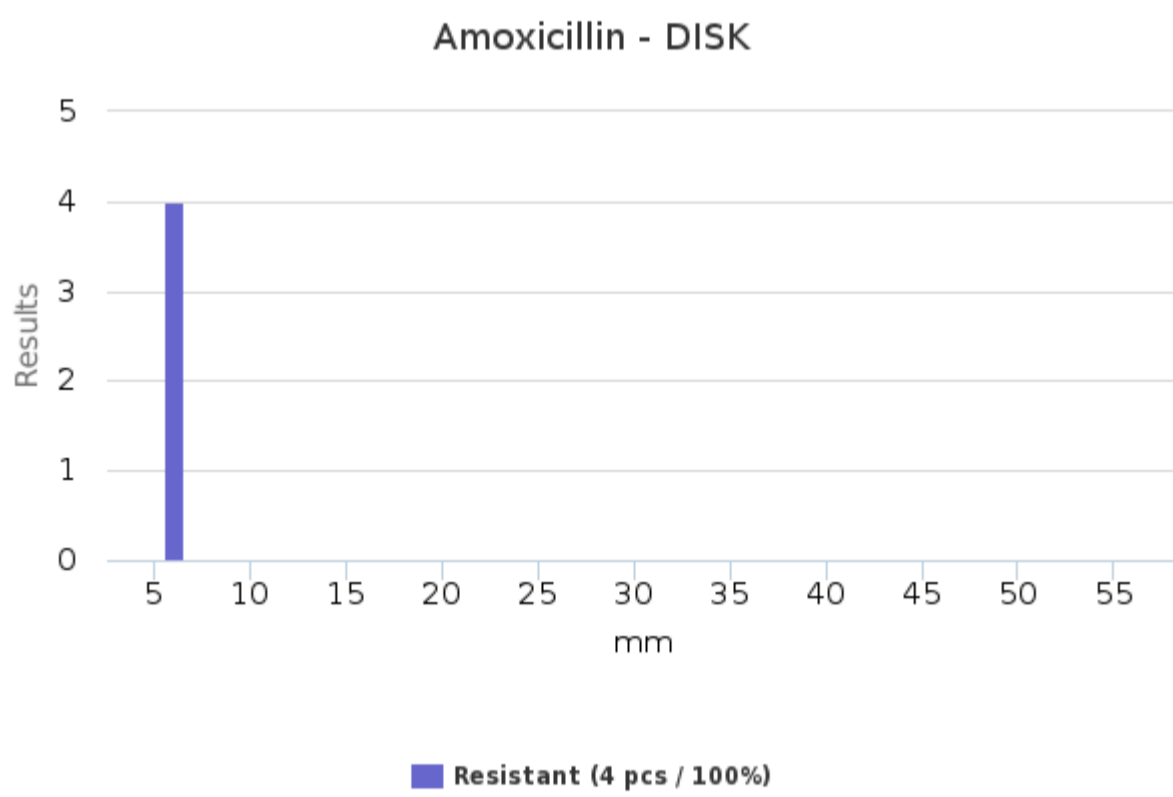
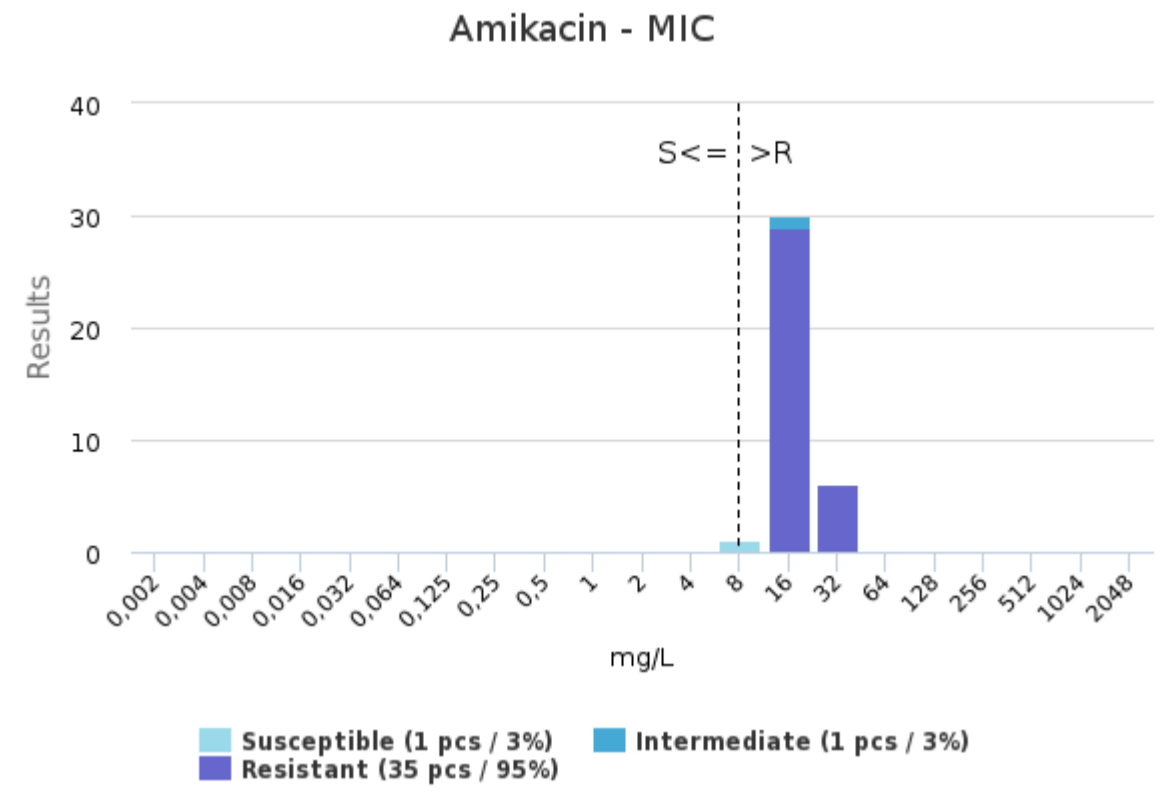
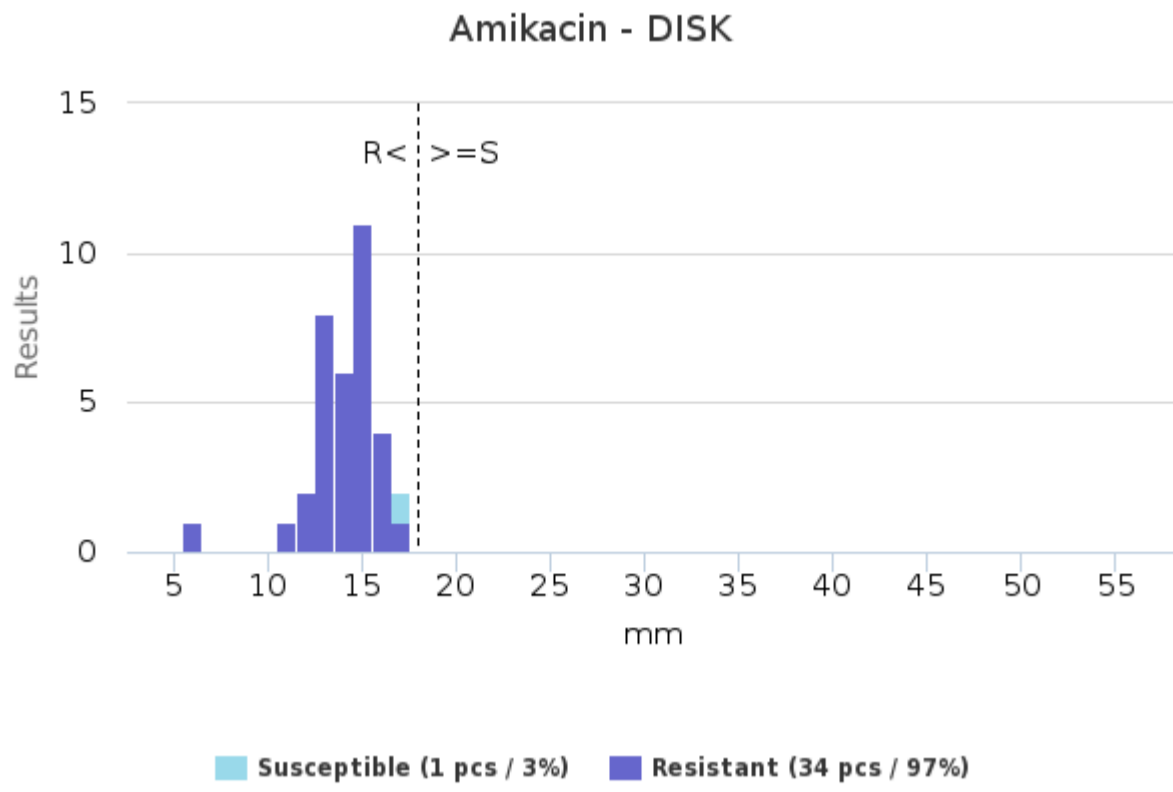
Trimethoprim-sulfamethoxazole - DISK



Trimethoprim-sulfamethoxazole - MIC

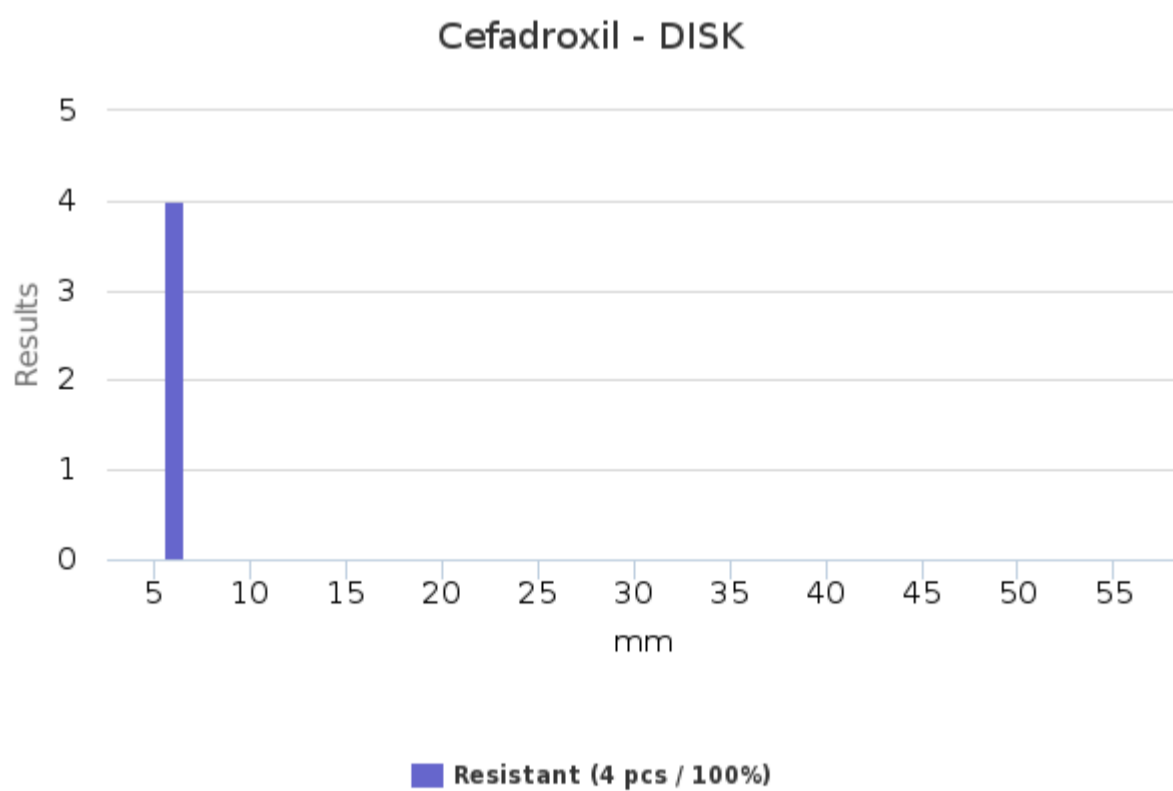
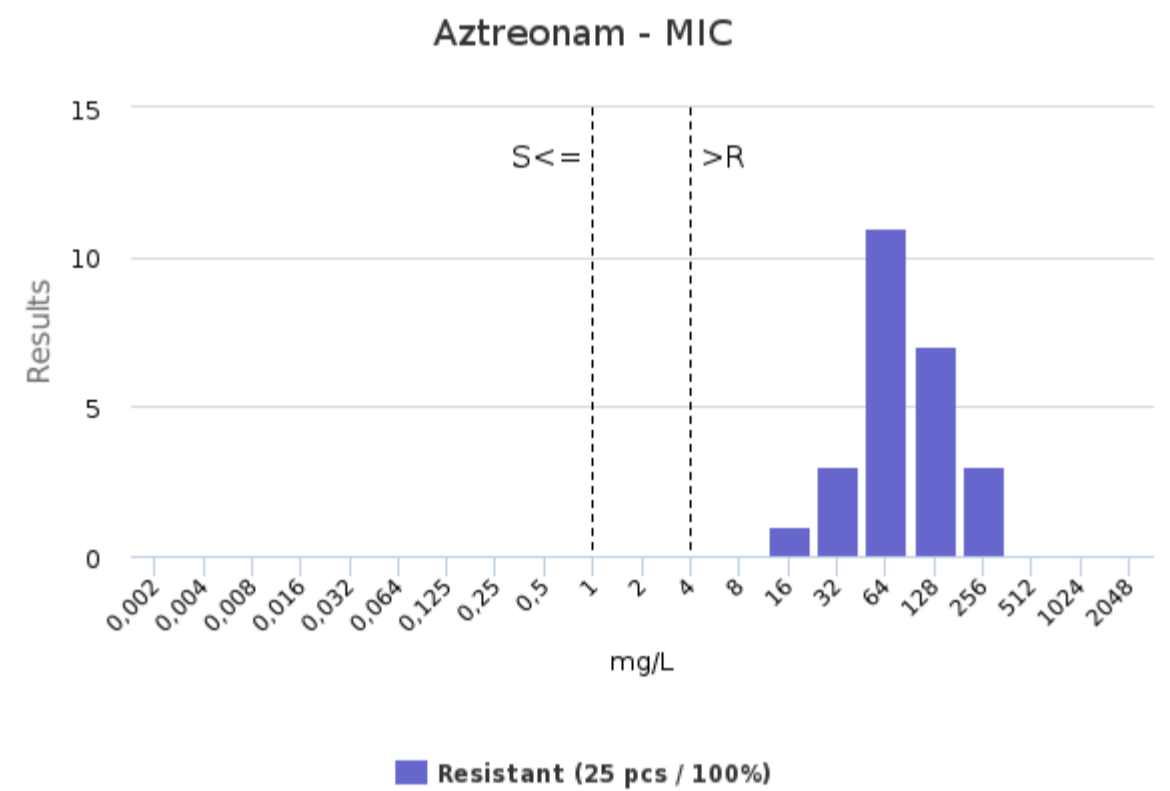
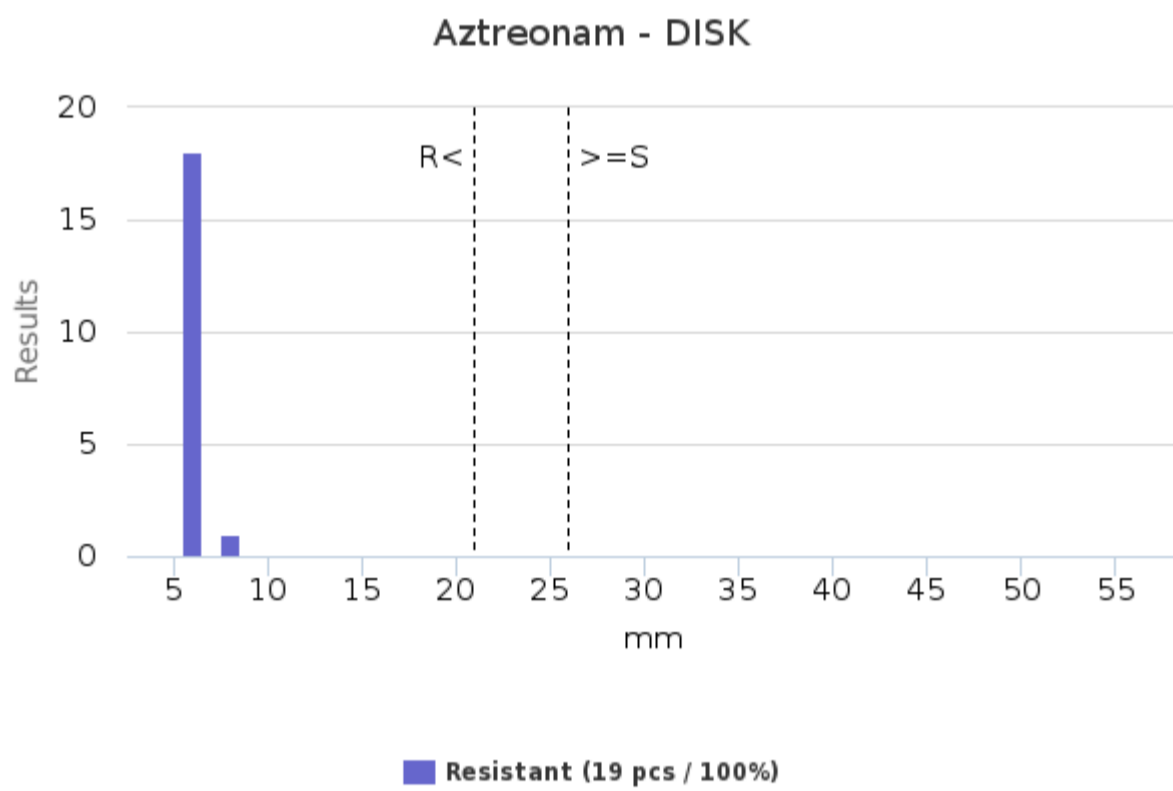
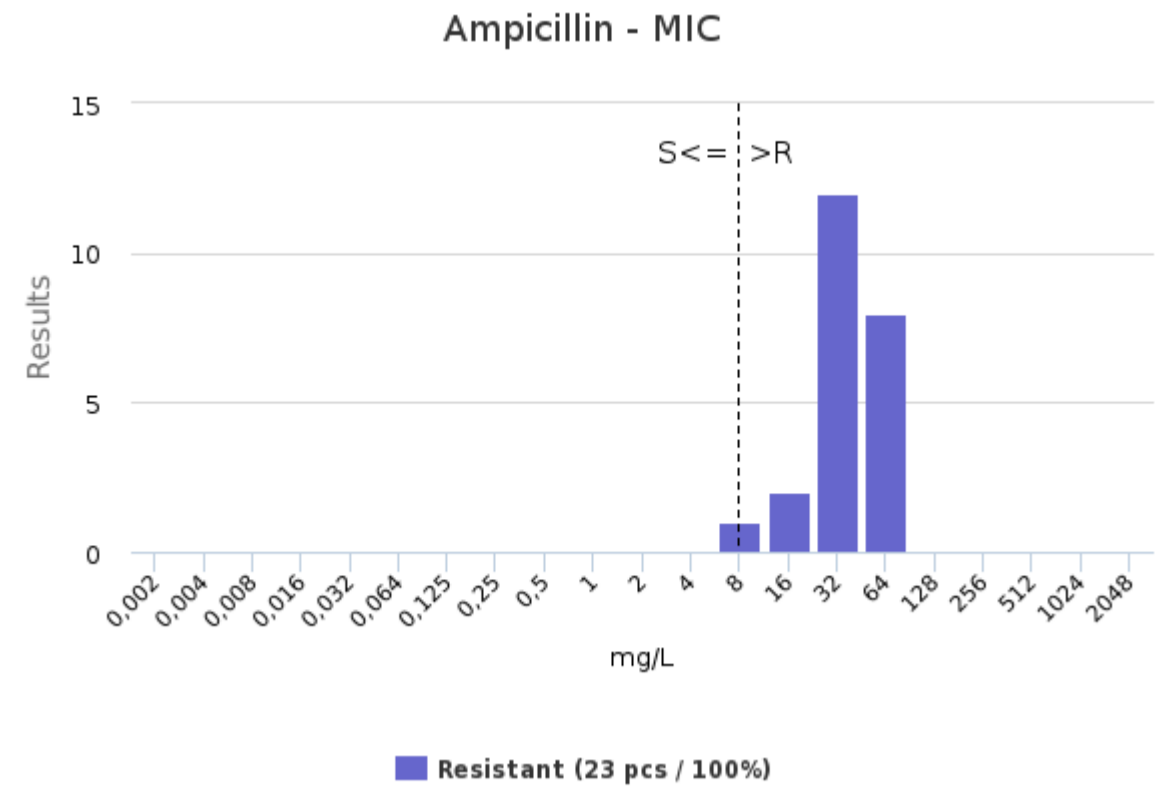
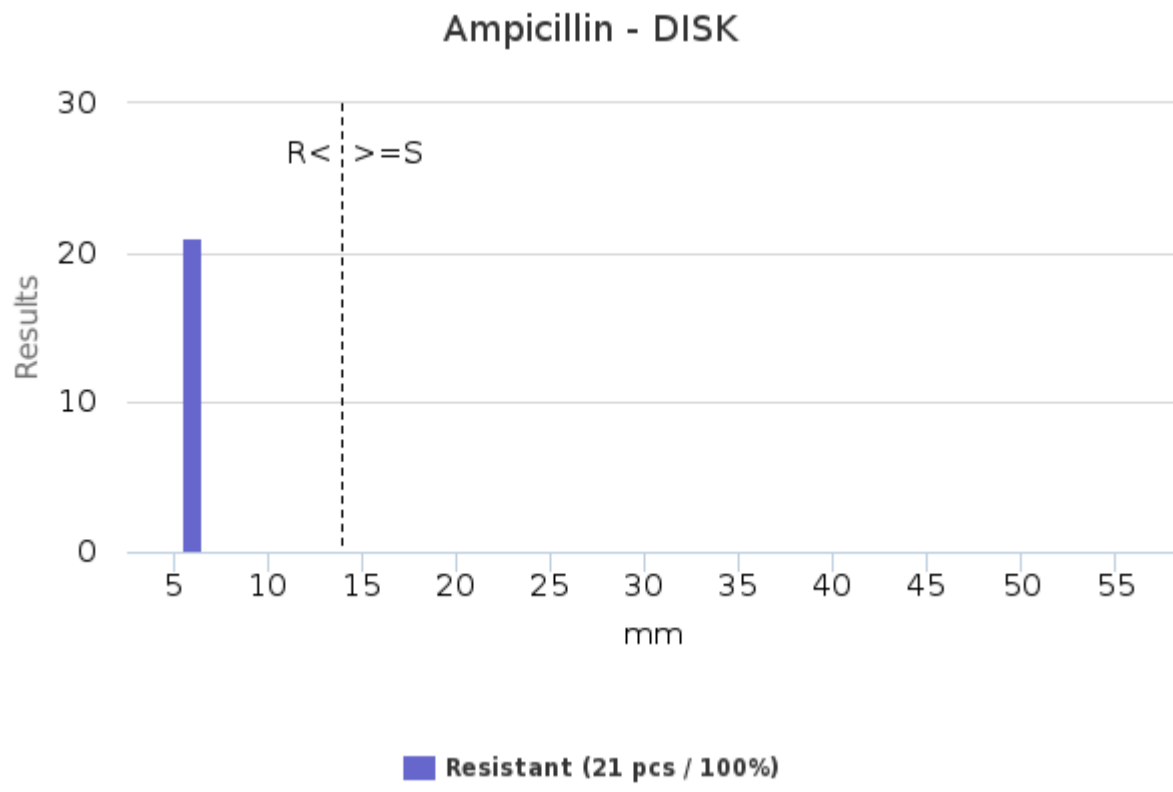


Sample S003 | EUCAST



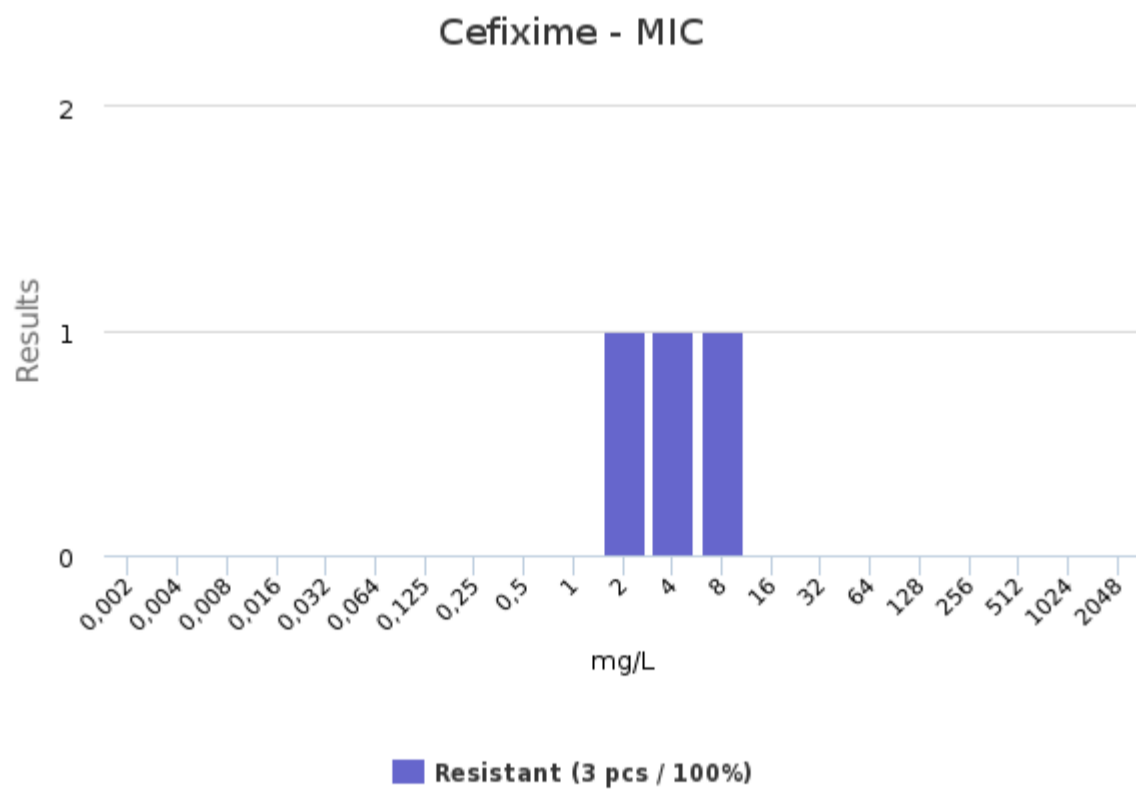
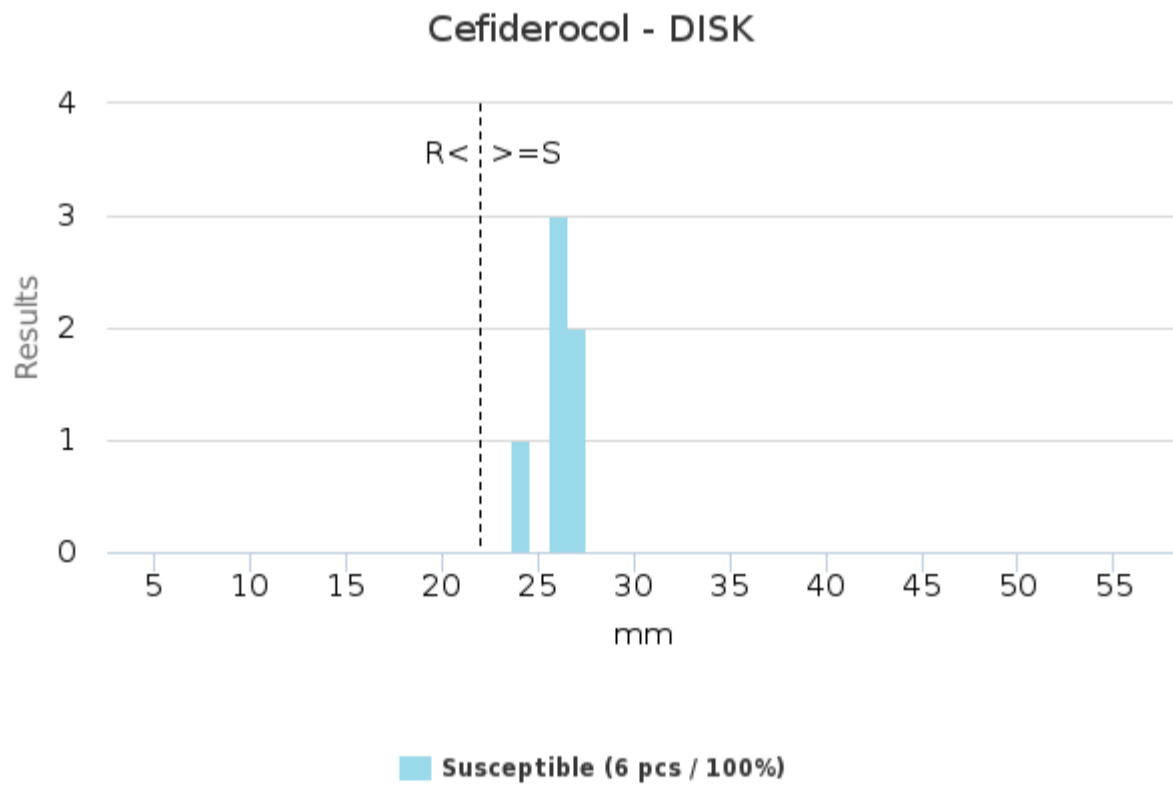
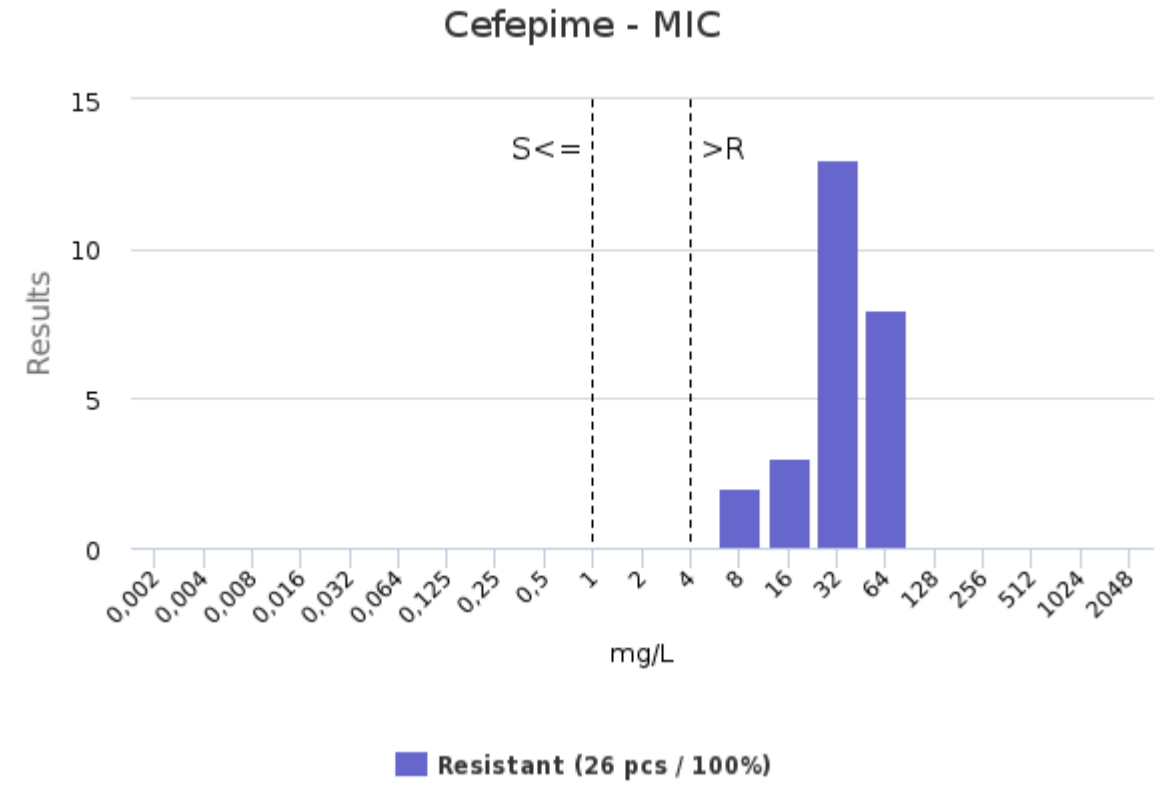
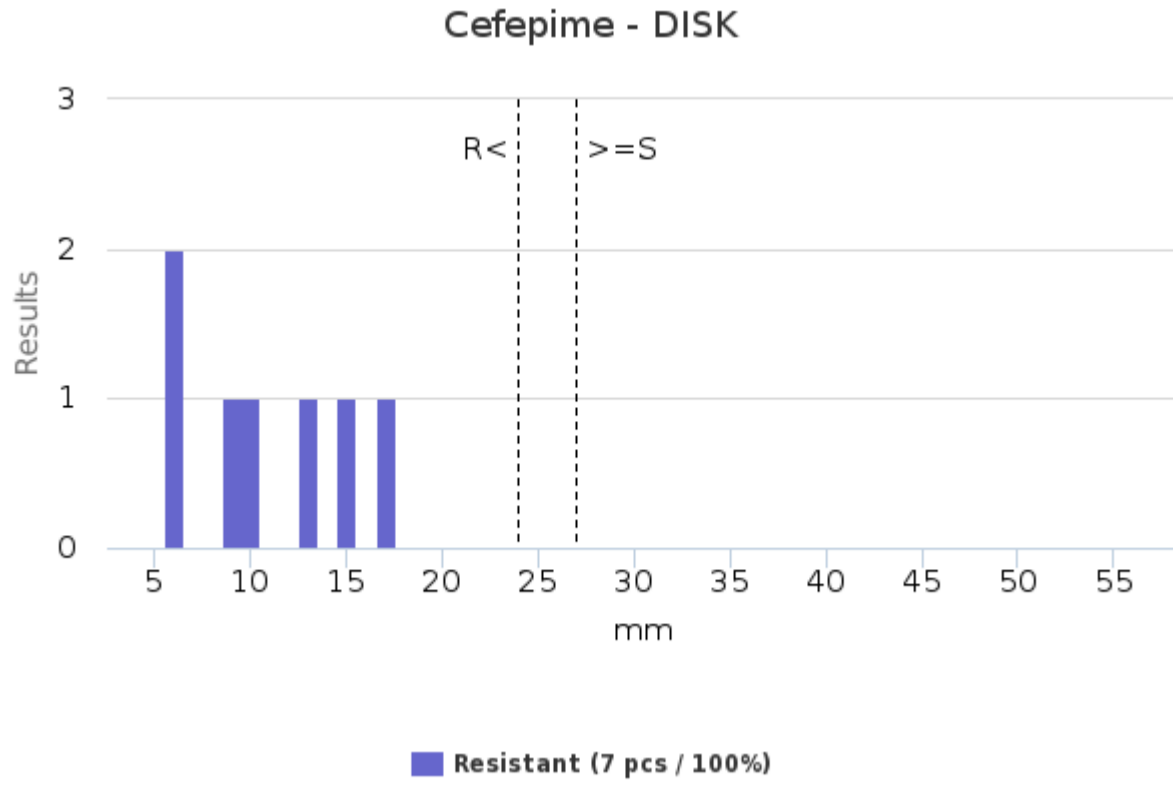
LABQUALITY Surveillance for multidrug resistant bacteria, gramnegative rods, February, 1-2023

Antimicrobial susceptibility testing results, Klebsiella pneumoniae



LABQUALITY Surveillance for multidrug resistant bacteria, gramnegative rods, February, 1-2023

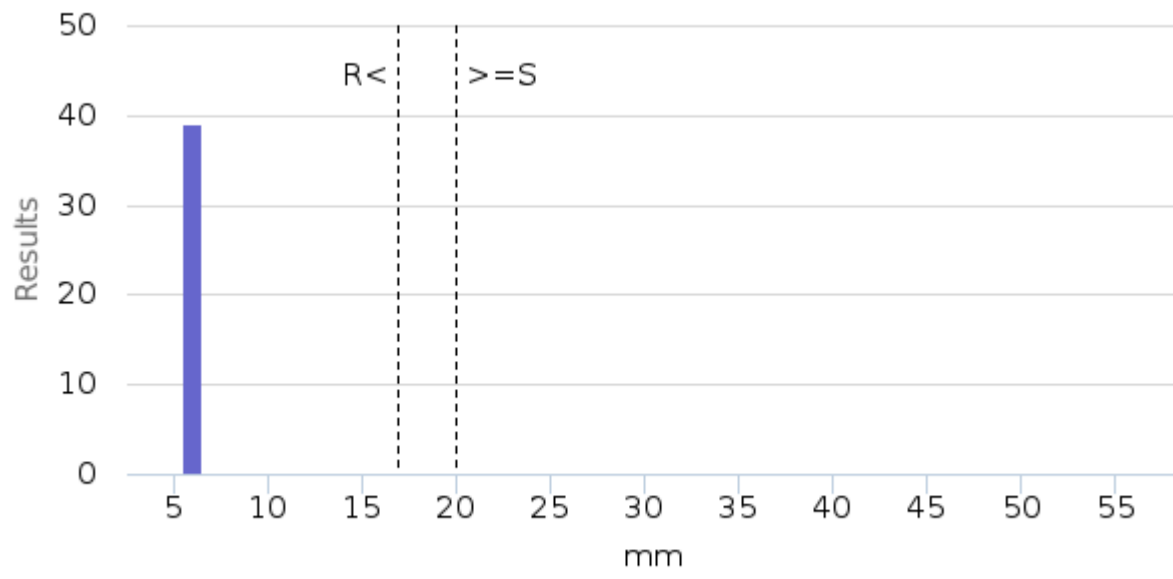
Antimicrobial susceptibility testing results, *Klebsiella pneumoniae*



LABQUALITY Surveillance for multidrug resistant bacteria, gramnegative rods, February, 1-2023

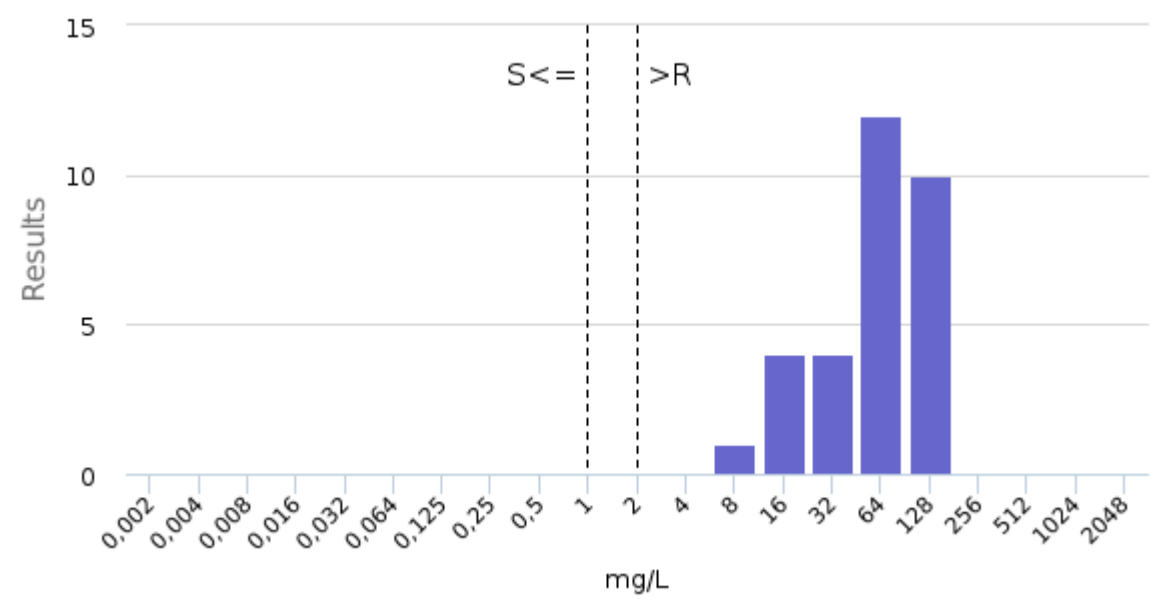
Antimicrobial susceptibility testing results, Klebsiella pneumoniae

Cefotaxime - DISK



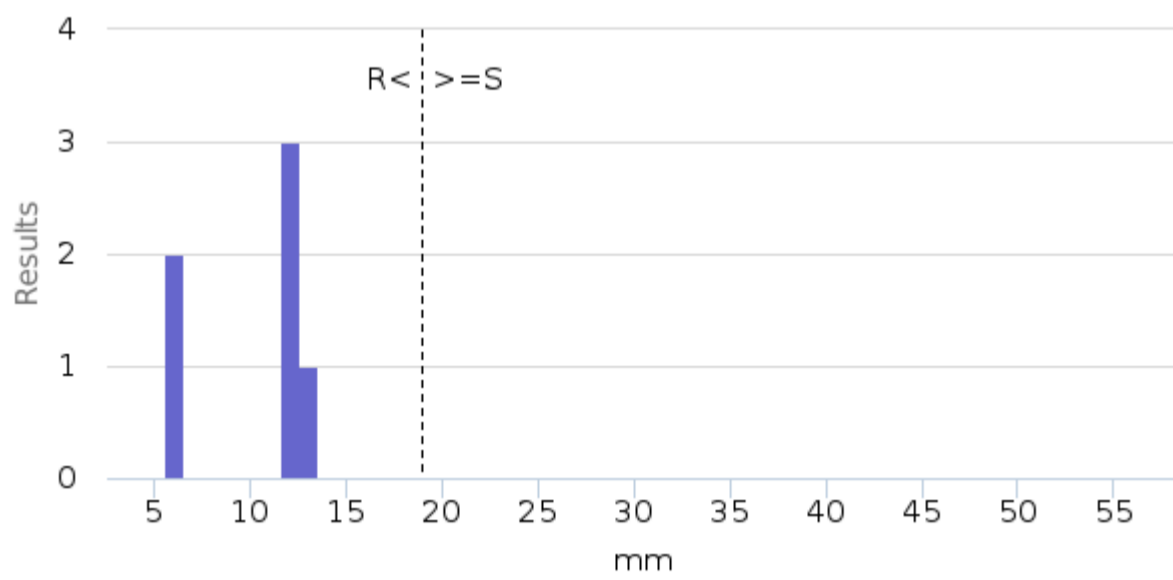
Resistant (39 pcs / 100%)

Cefotaxime - MIC



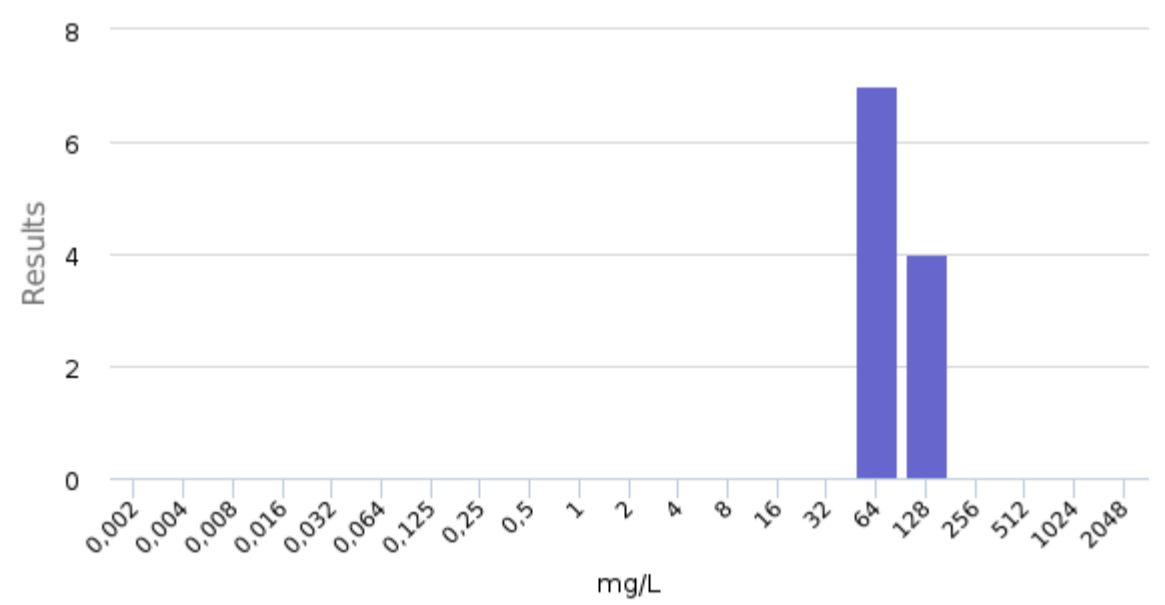
Resistant (31 pcs / 100%)

Cefoxitin - DISK



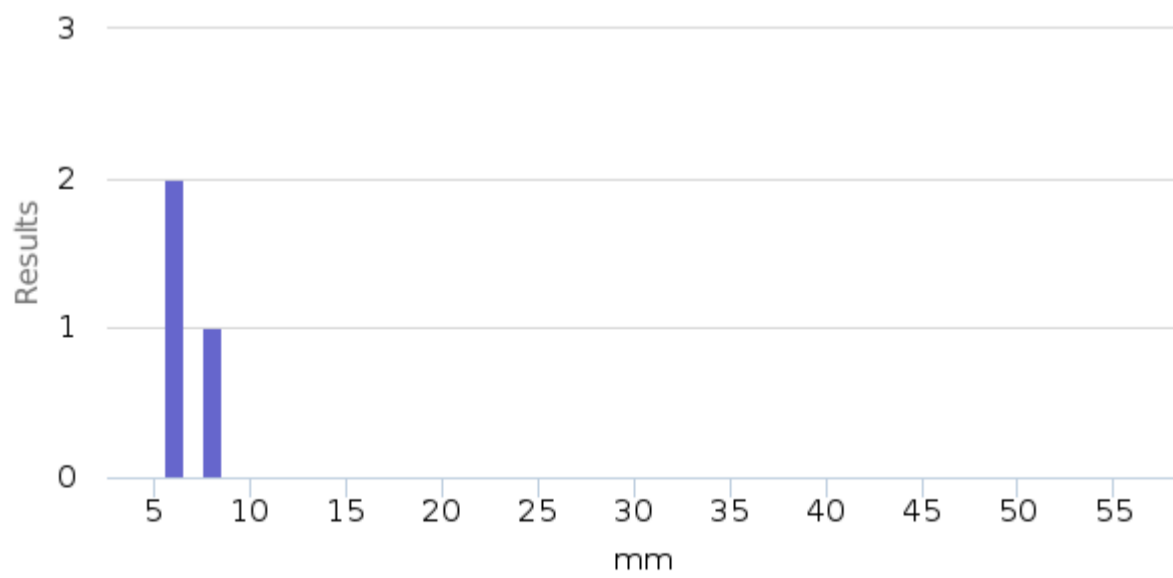
Resistant (6 pcs / 100%)

Cefoxitin - MIC



Resistant (11 pcs / 100%)

Cefoxitin (screen) - DISK

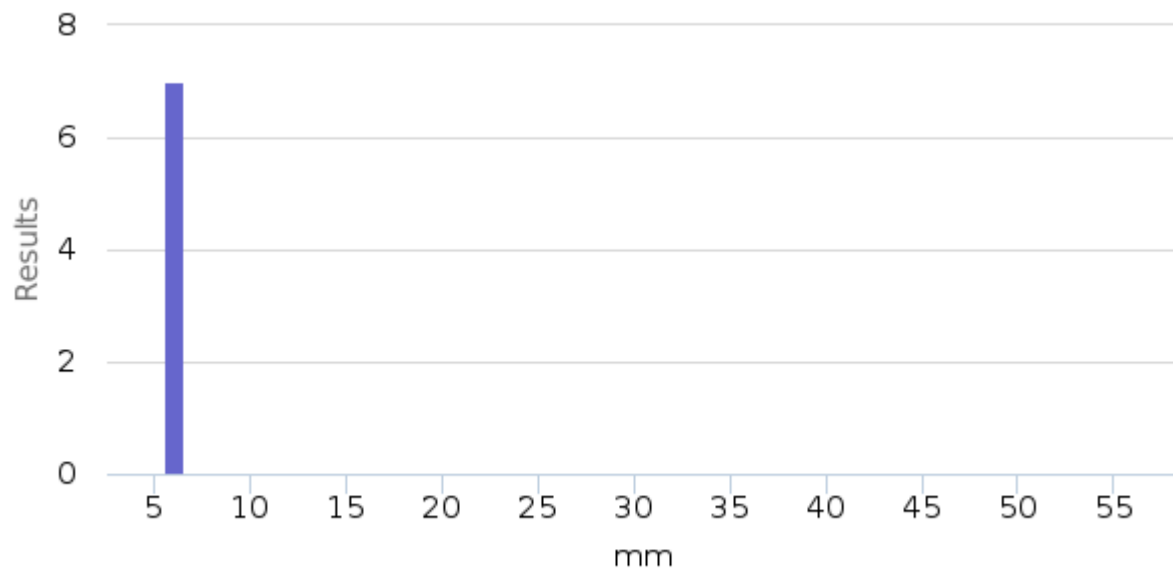


Resistant (3 pcs / 100%)

LABQUALITY Surveillance for multidrug resistant bacteria, gramnegative rods, February, 1-2023

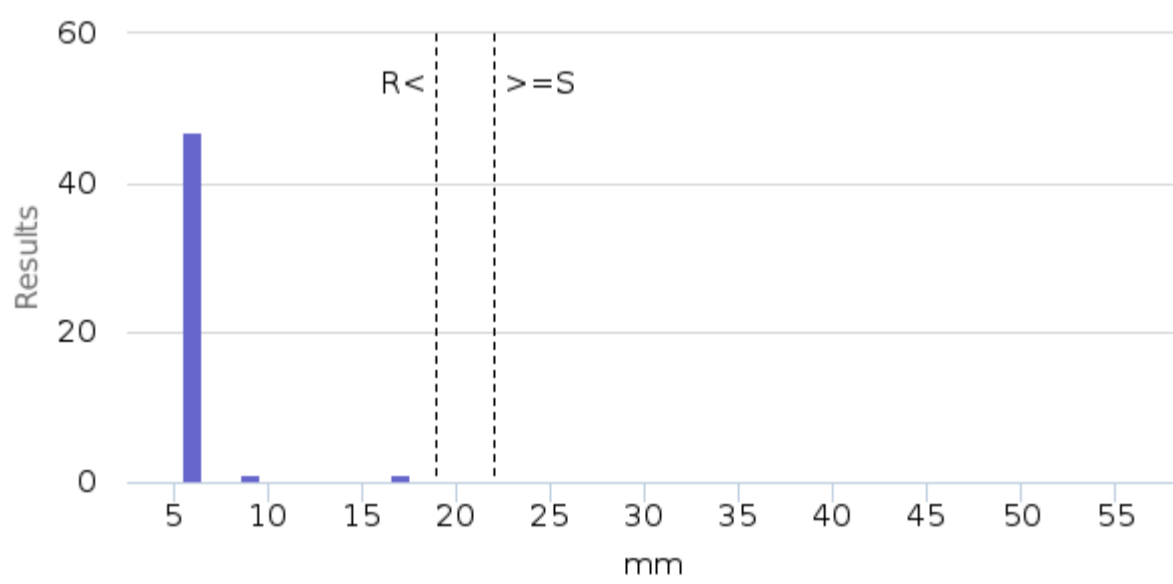
Antimicrobial susceptibility testing results, *Klebsiella pneumoniae*

Cefpodoxime - DISK



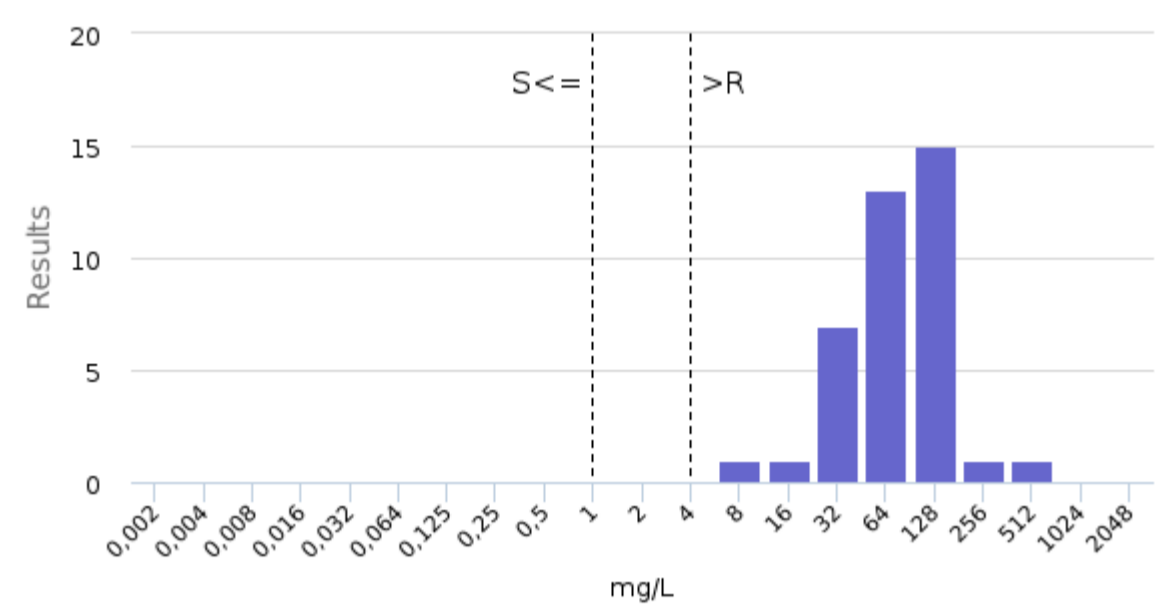
Resistant (7 pcs / 100%)

Ceftazidime - DISK



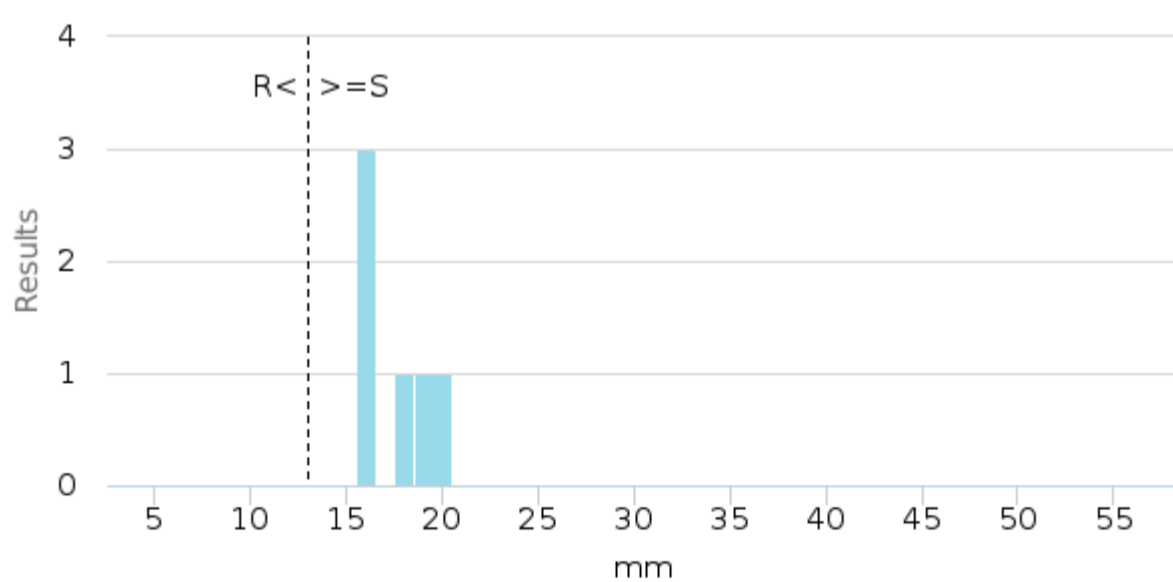
Resistant (49 pcs / 100%)

Ceftazidime - MIC



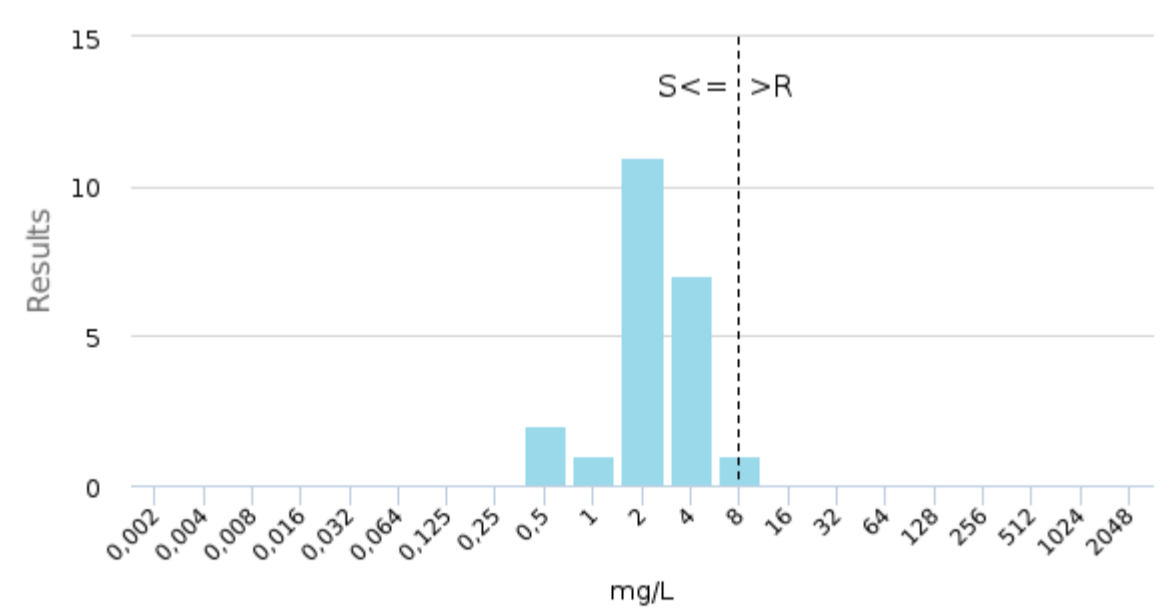
Resistant (39 pcs / 100%)

Ceftazidime-avibactam - DISK



Susceptible (6 pcs / 100%)

Ceftazidime-avibactam - MIC

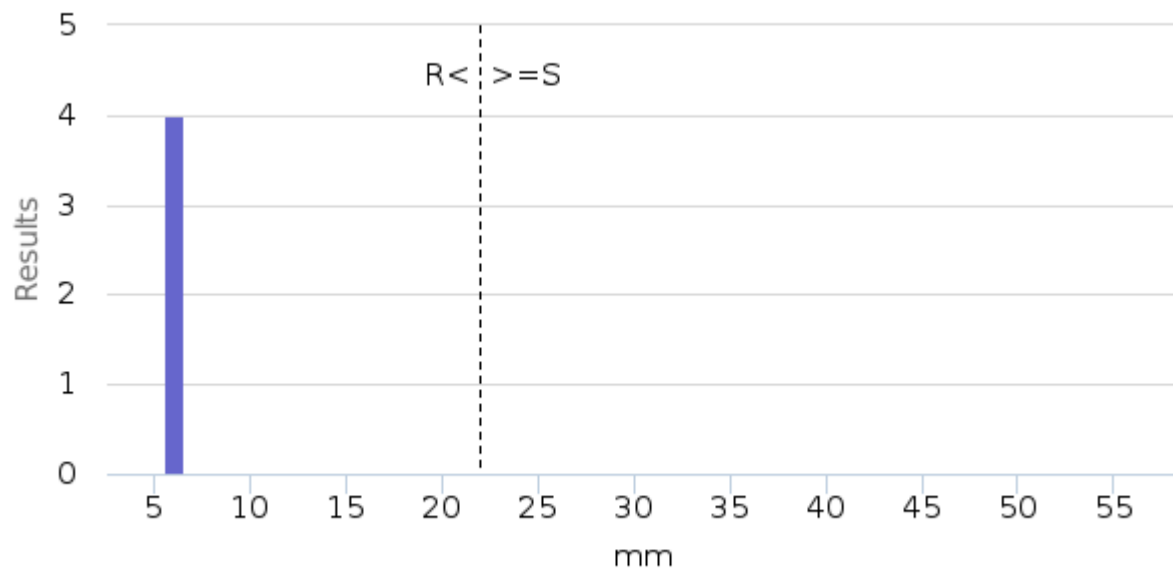


Susceptible (22 pcs / 100%)

LABQUALITY Surveillance for multidrug resistant bacteria, gramnegative rods, February, 1-2023

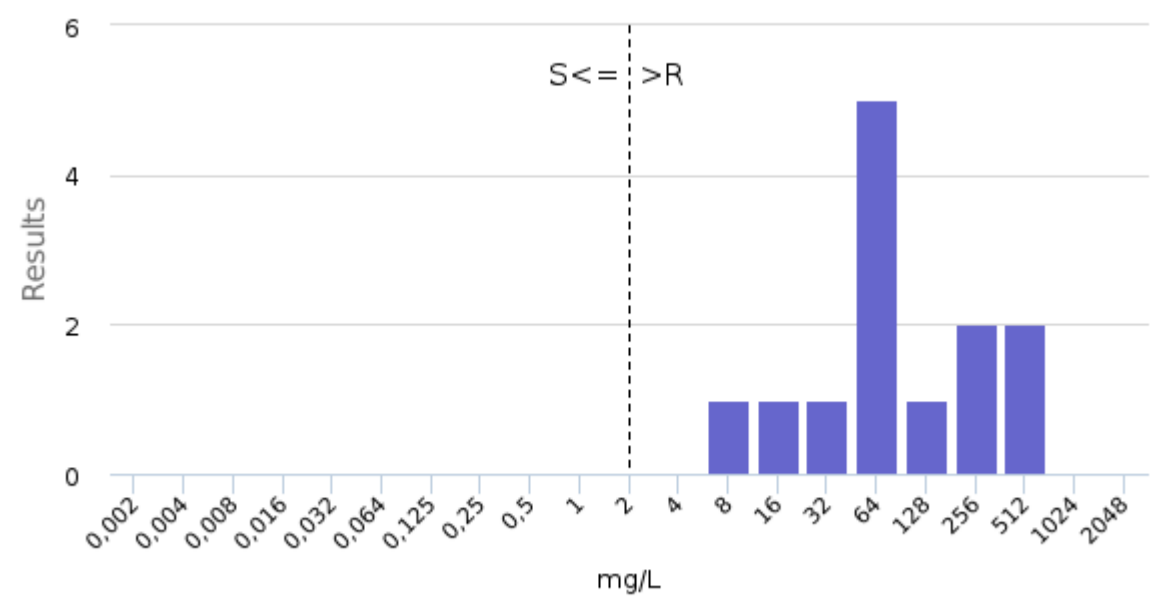
Antimicrobial susceptibility testing results, *Klebsiella pneumoniae*

Ceftolozane-tazobactam - DISK



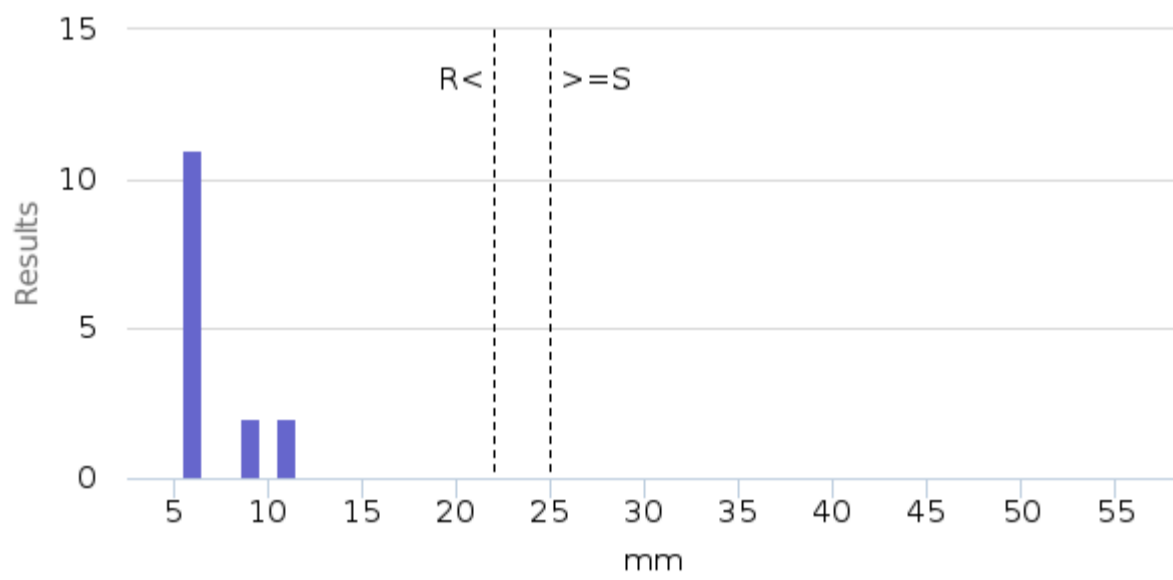
Resistant (4 pcs / 100%)

Ceftolozane-tazobactam - MIC



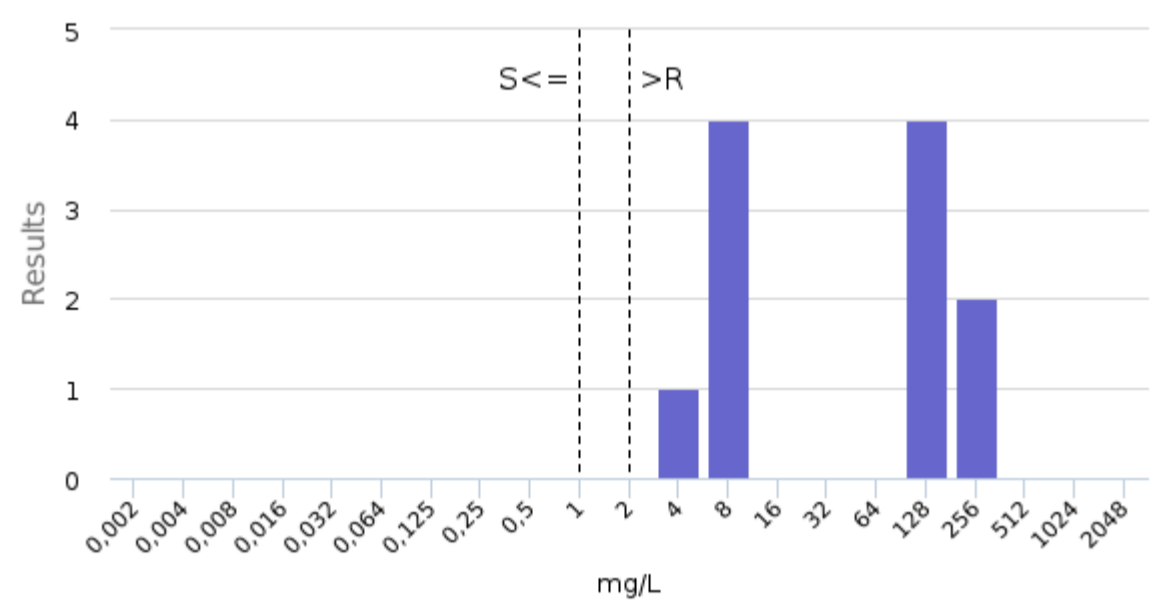
Resistant (13 pcs / 100%)

Ceftriaxone - DISK



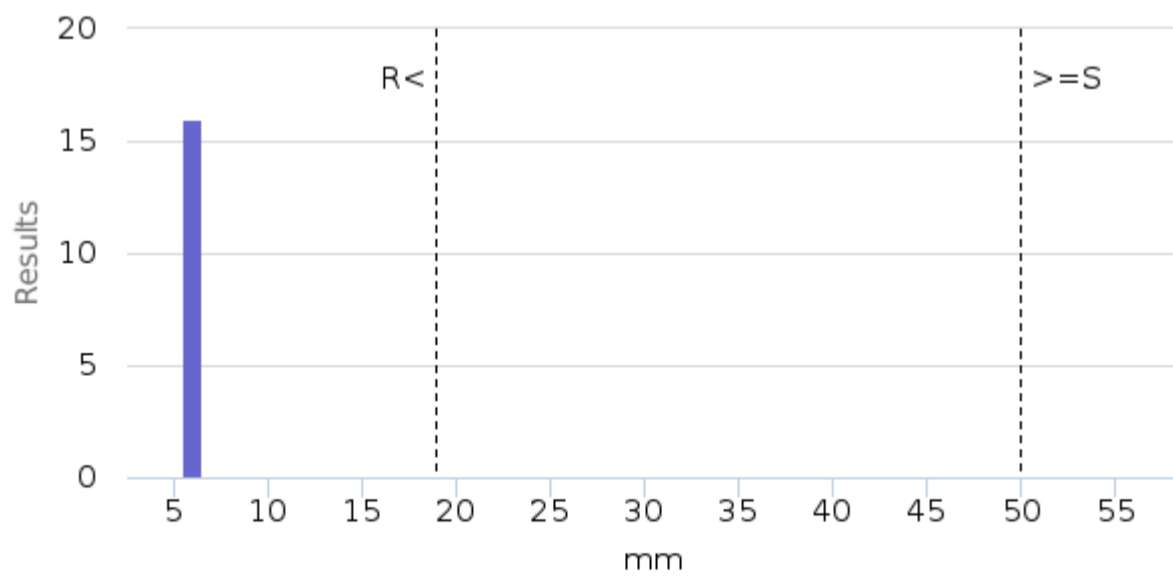
Resistant (15 pcs / 100%)

Ceftriaxone - MIC



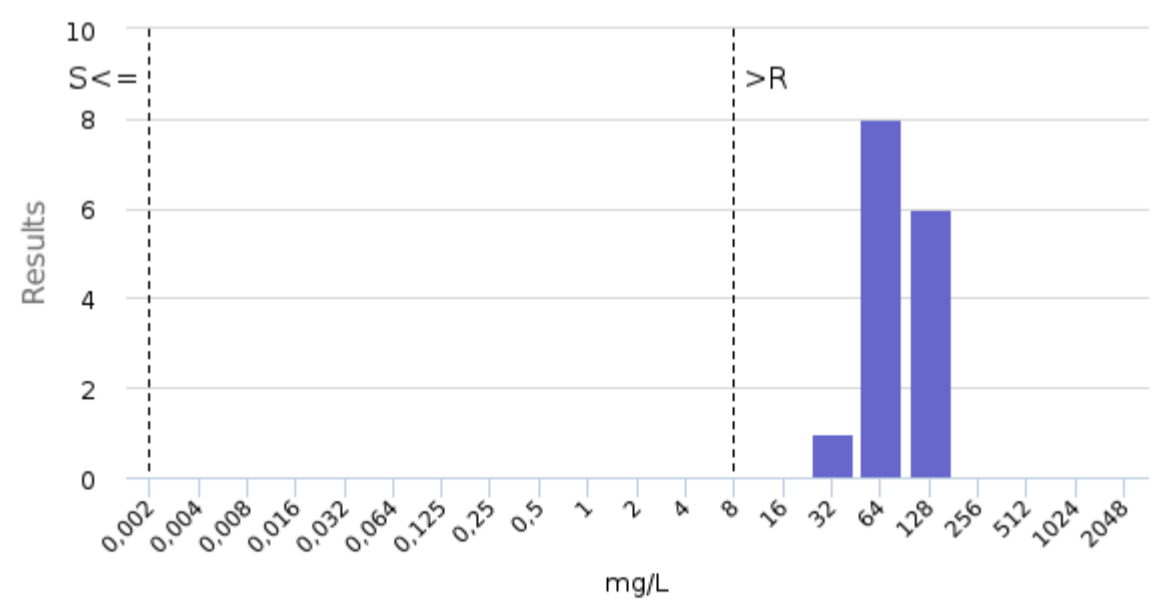
Resistant (11 pcs / 100%)

Cefuroxime (iv/parenteral) - DISK



Resistant (16 pcs / 100%)

Cefuroxime (iv/parenteral) - MIC

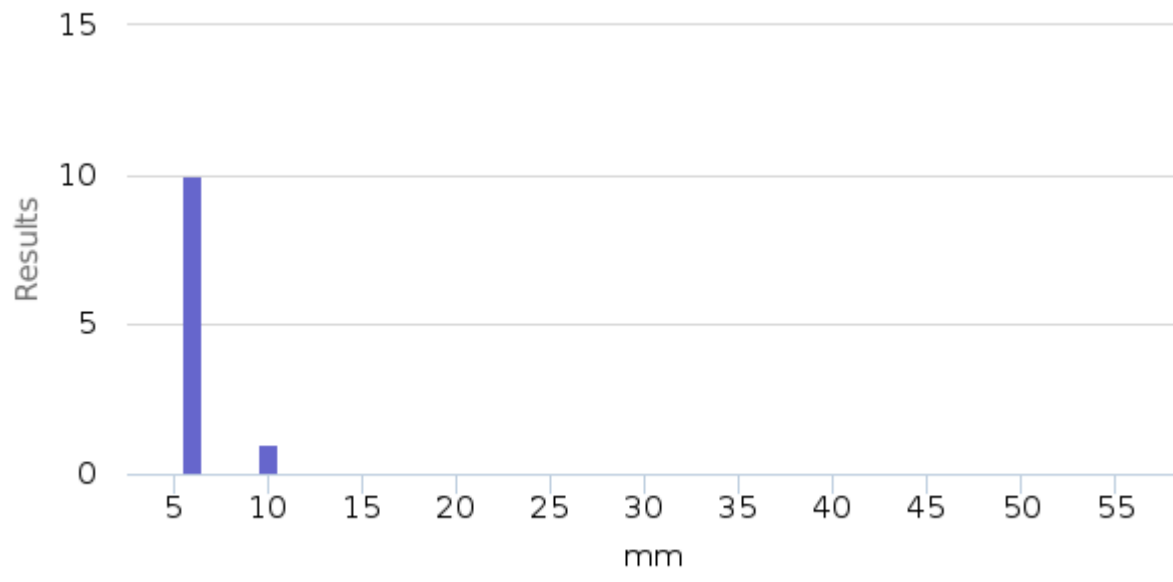


Resistant (15 pcs / 100%)

LABQUALITY Surveillance for multidrug resistant bacteria, gramnegative rods, February, 1-2023

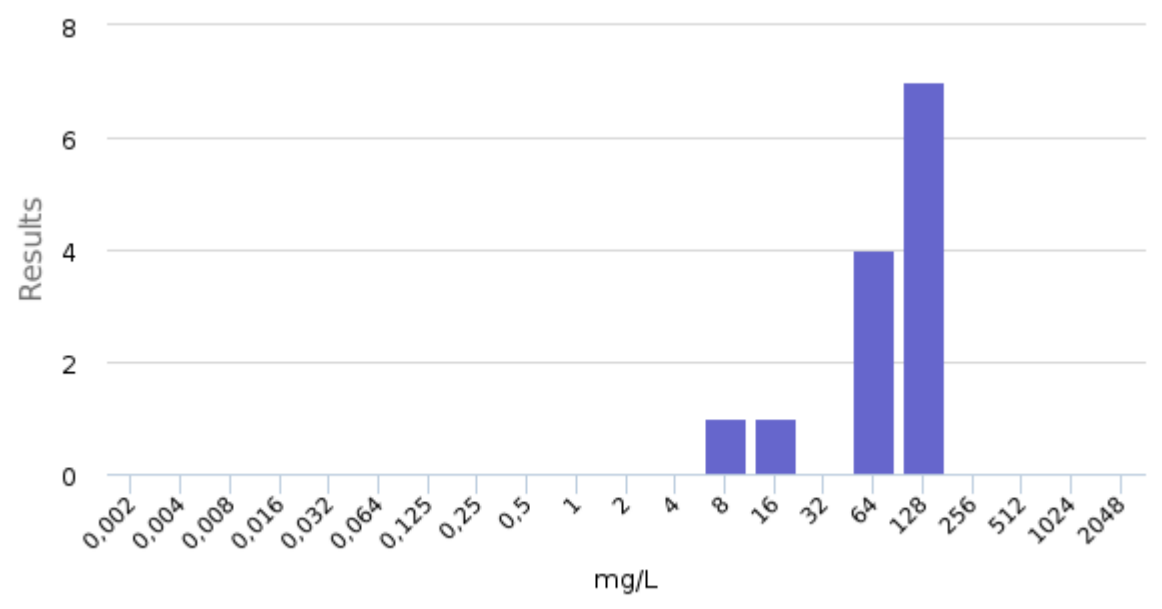
Antimicrobial susceptibility testing results, *Klebsiella pneumoniae*

Cefuroxime (oral) - DISK



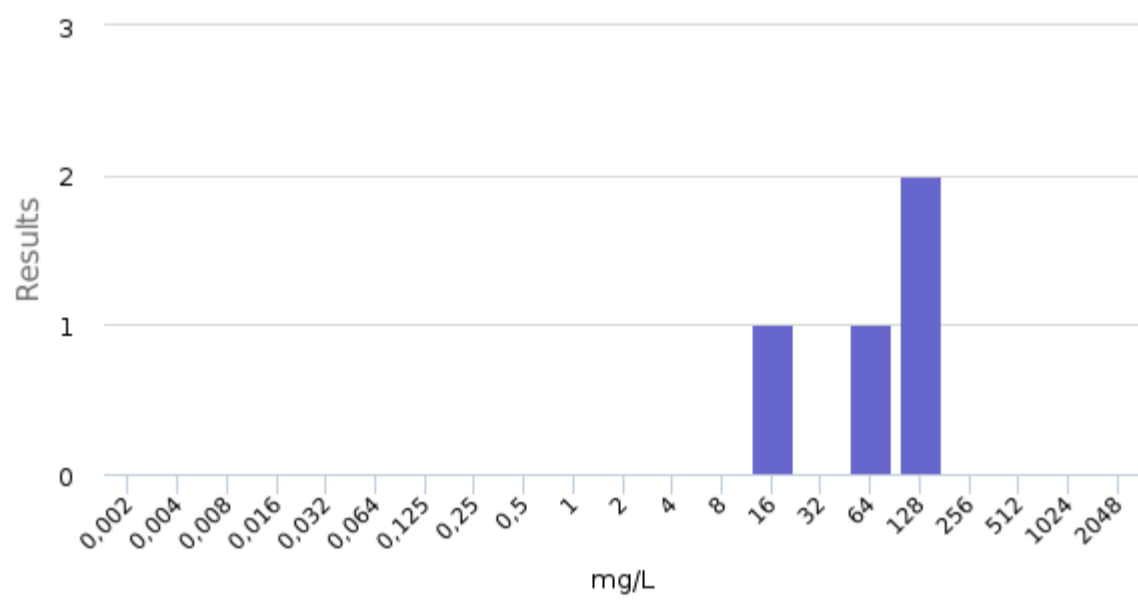
Resistant (11 pcs / 100%)

Cefuroxime (oral) - MIC



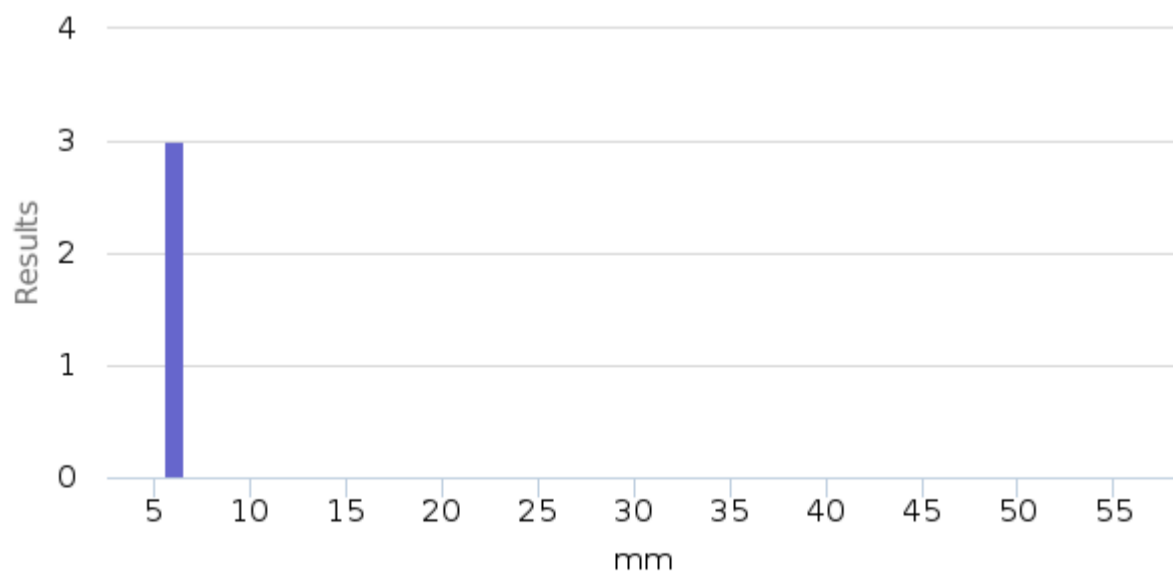
Resistant (13 pcs / 100%)

Cephalexin - MIC



Resistant (4 pcs / 100%)

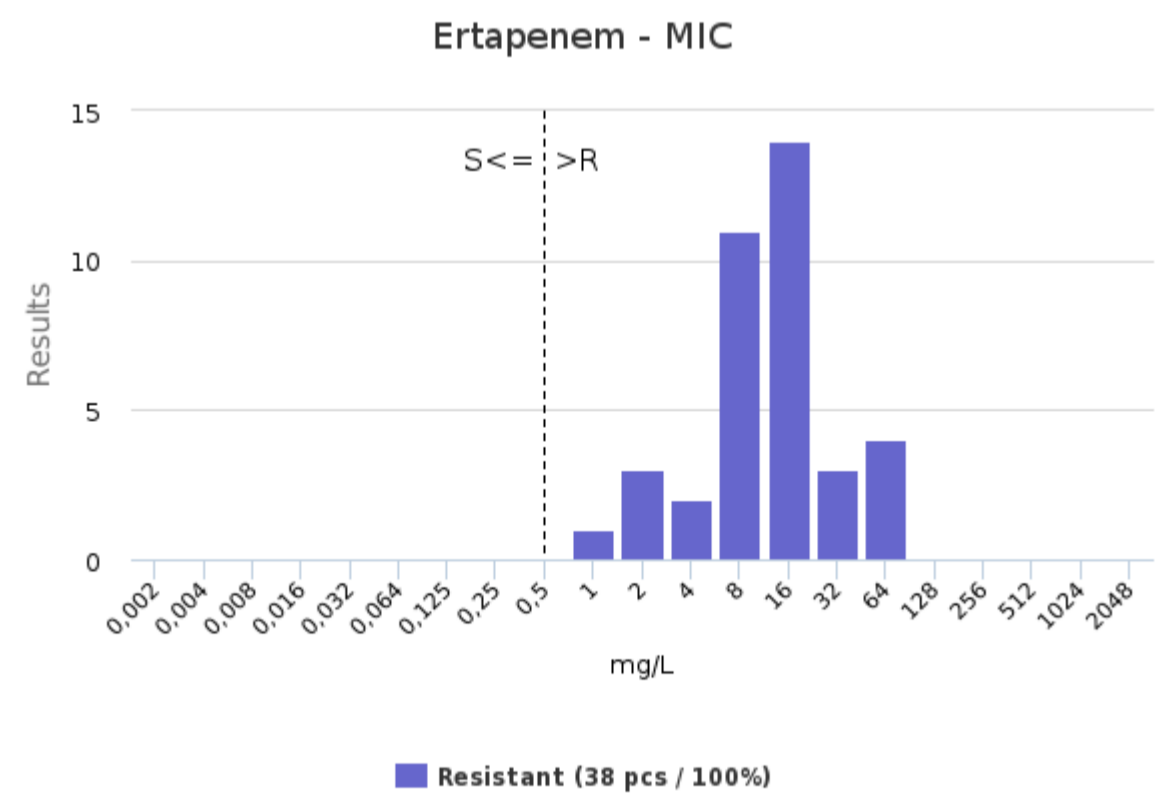
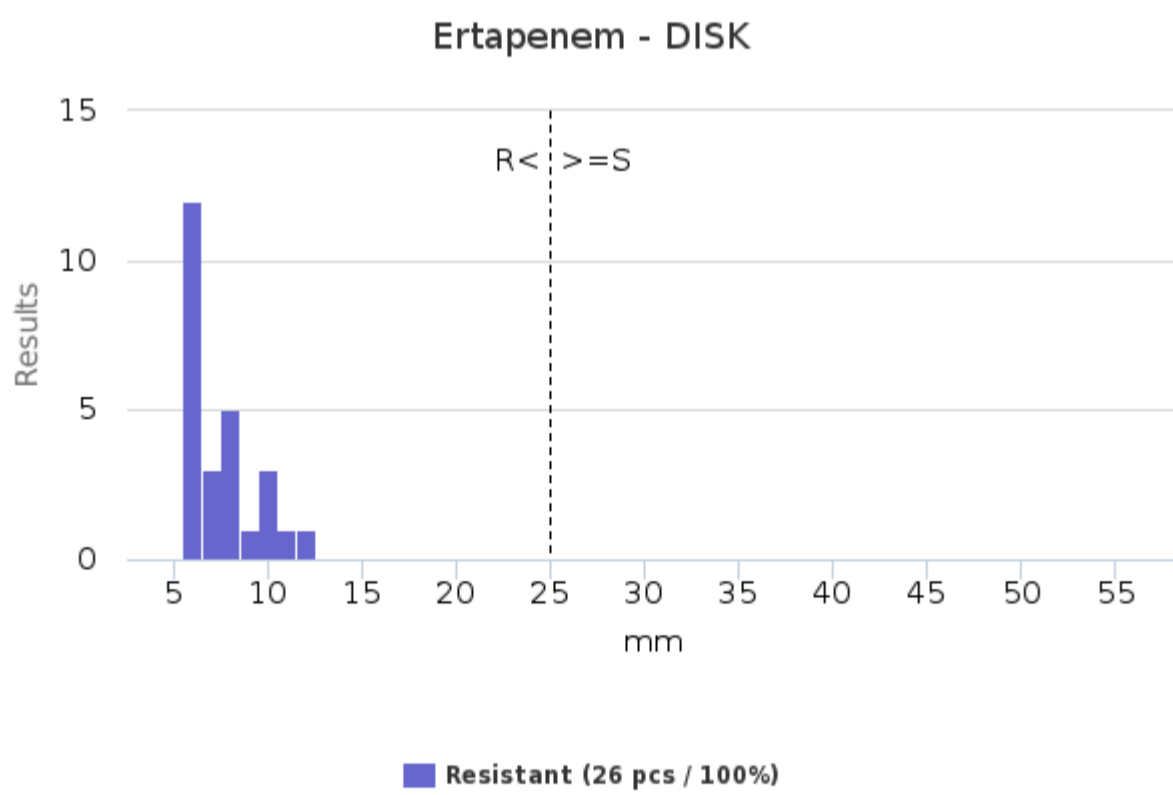
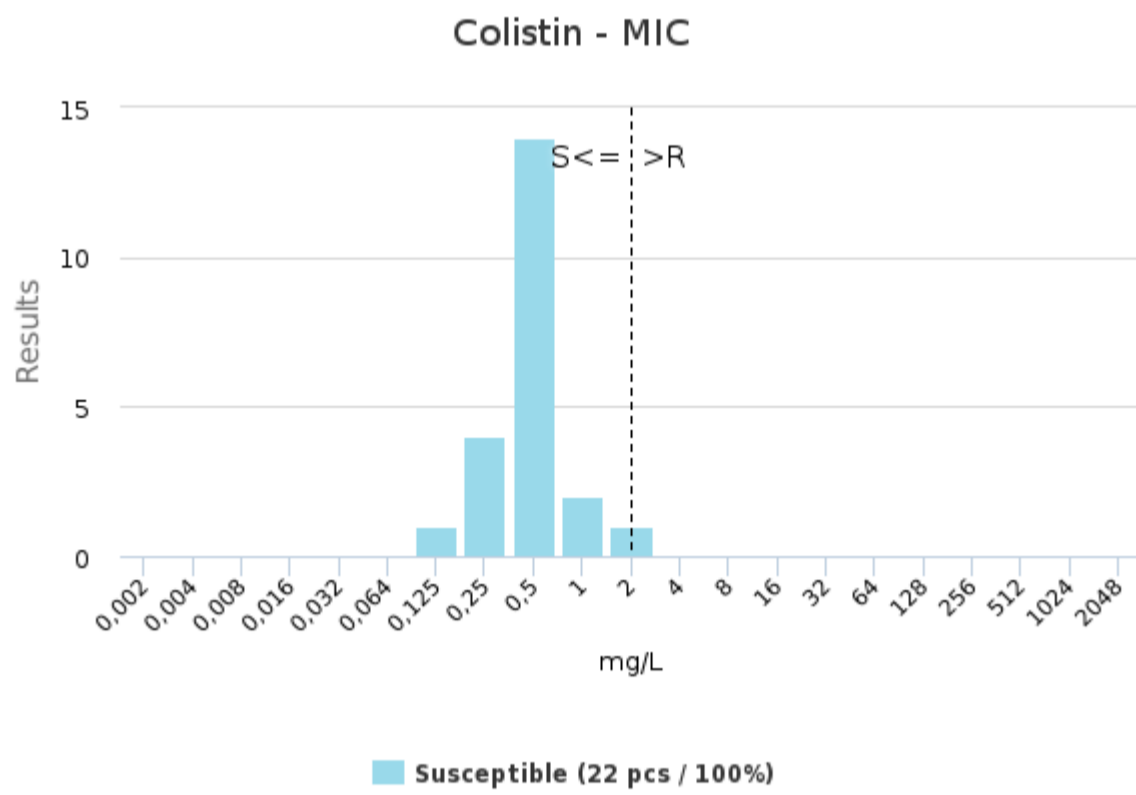
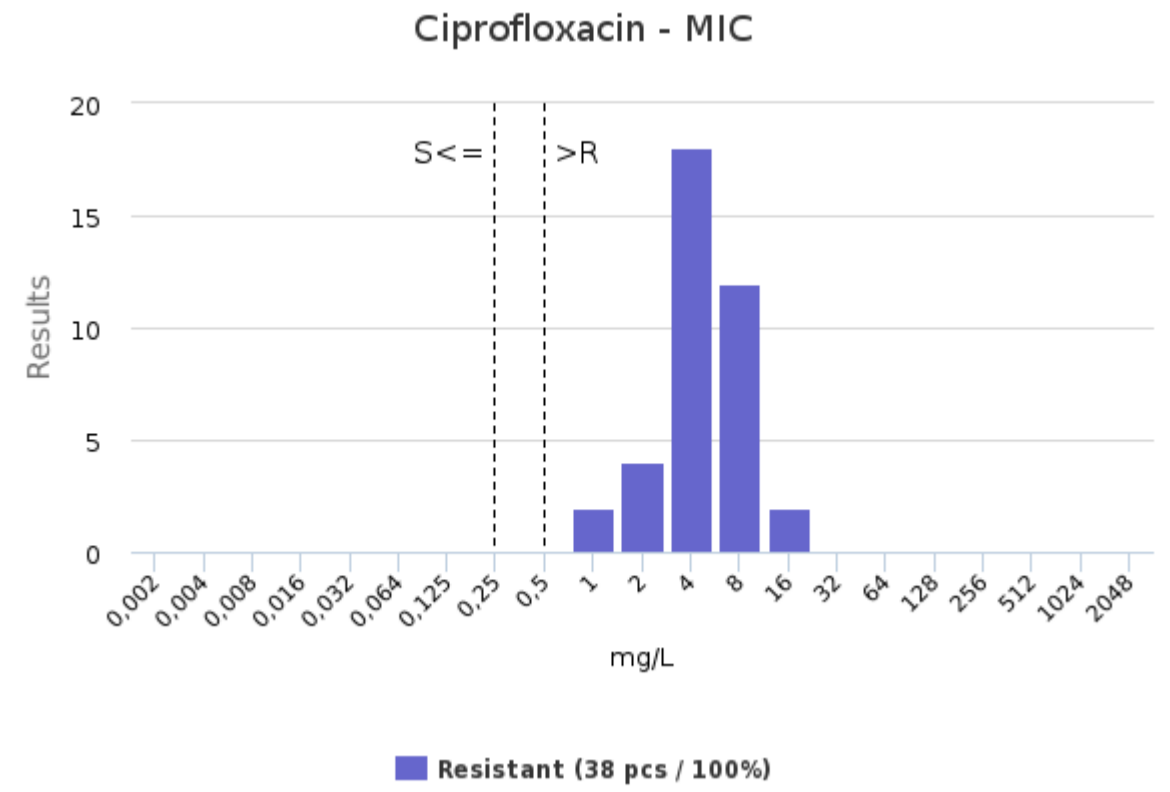
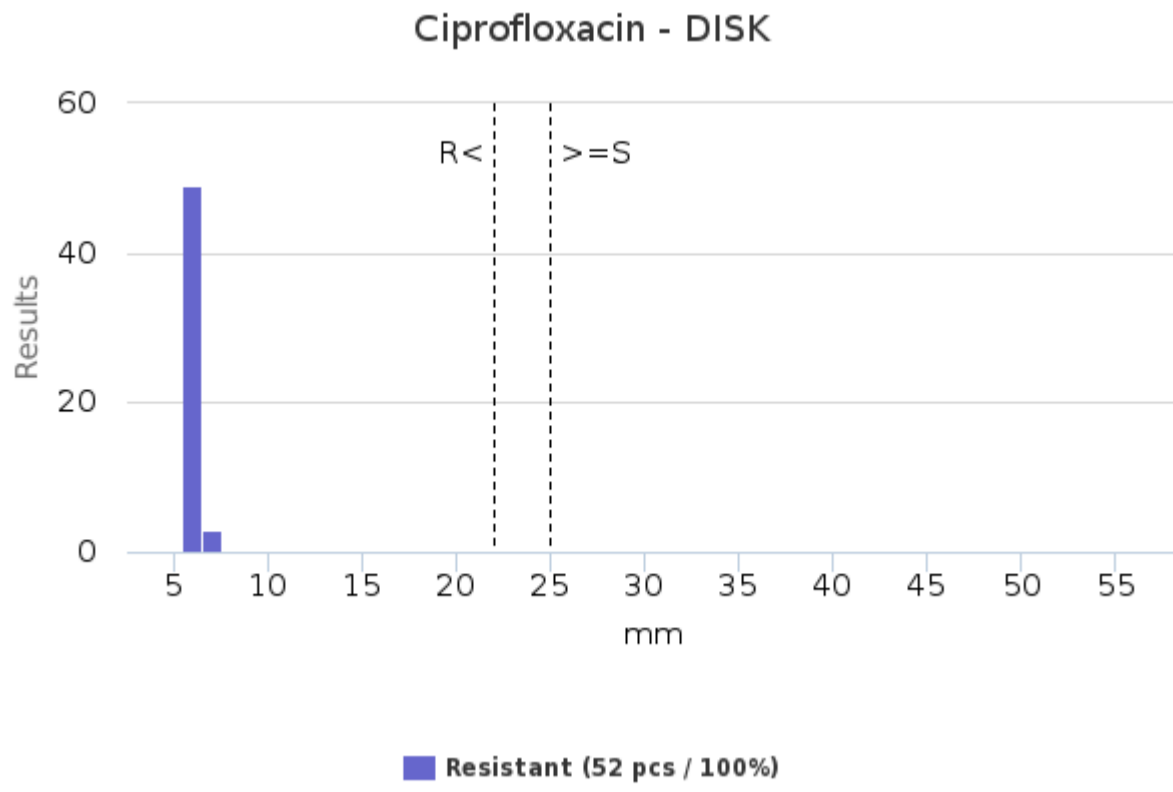
Chloramphenicol - DISK



Resistant (3 pcs / 100%)

LABQUALITY Surveillance for multidrug resistant bacteria, gramnegative rods, February, 1-2023

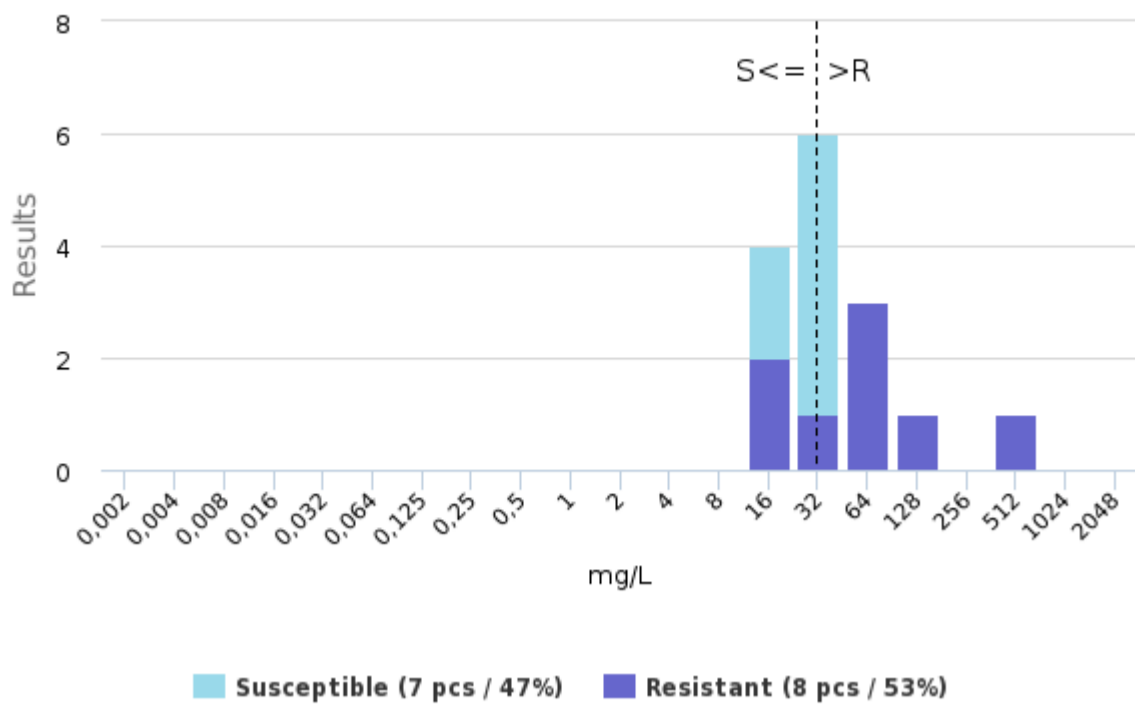
Antimicrobial susceptibility testing results, *Klebsiella pneumoniae*



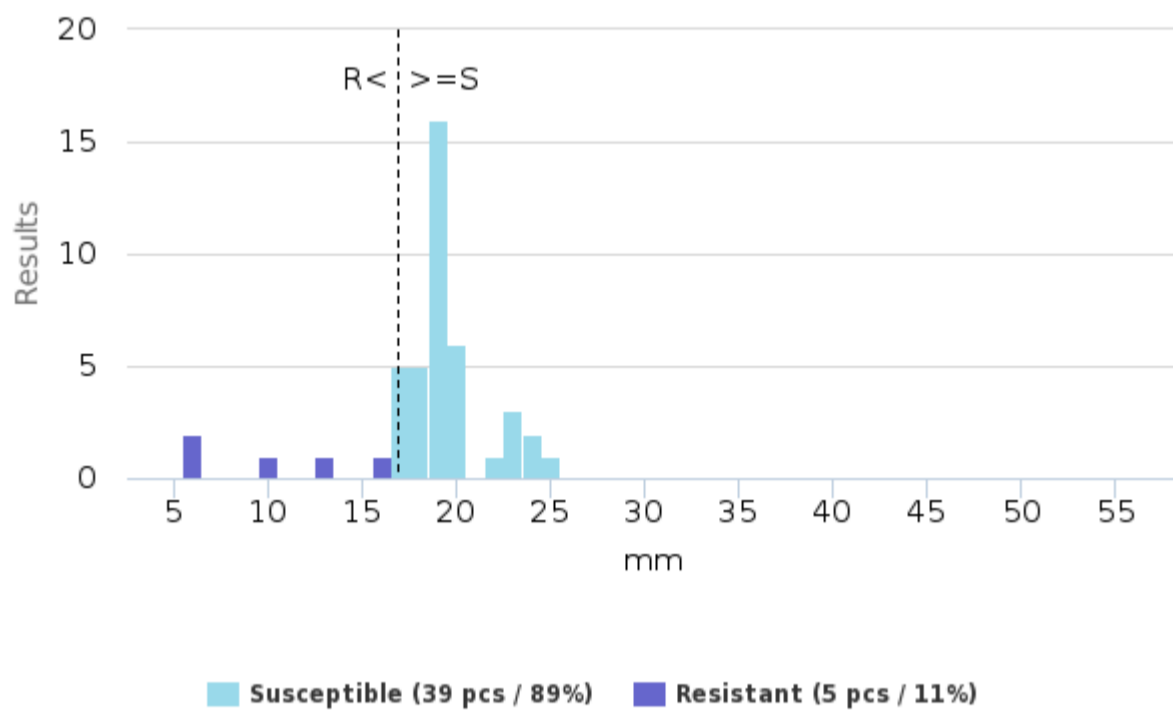
LABQUALITY Surveillance for multidrug resistant bacteria, gramnegative rods, February, 1-2023

Antimicrobial susceptibility testing results, *Klebsiella pneumoniae*

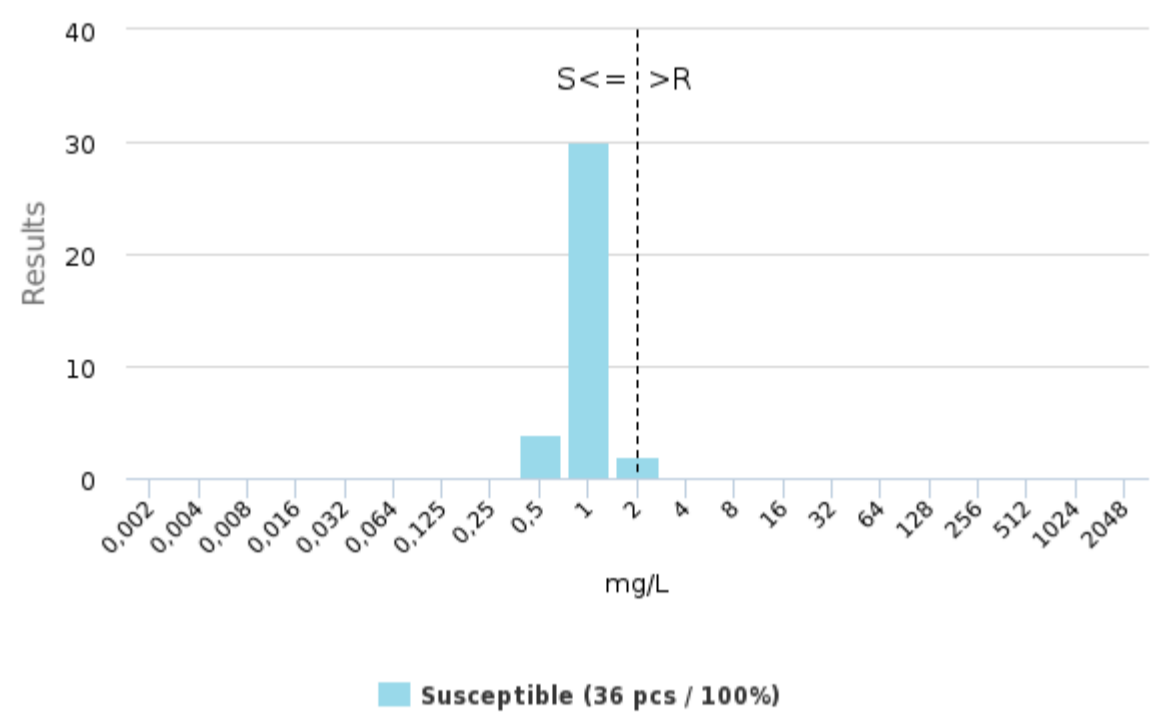
Fosfomicin - MIC



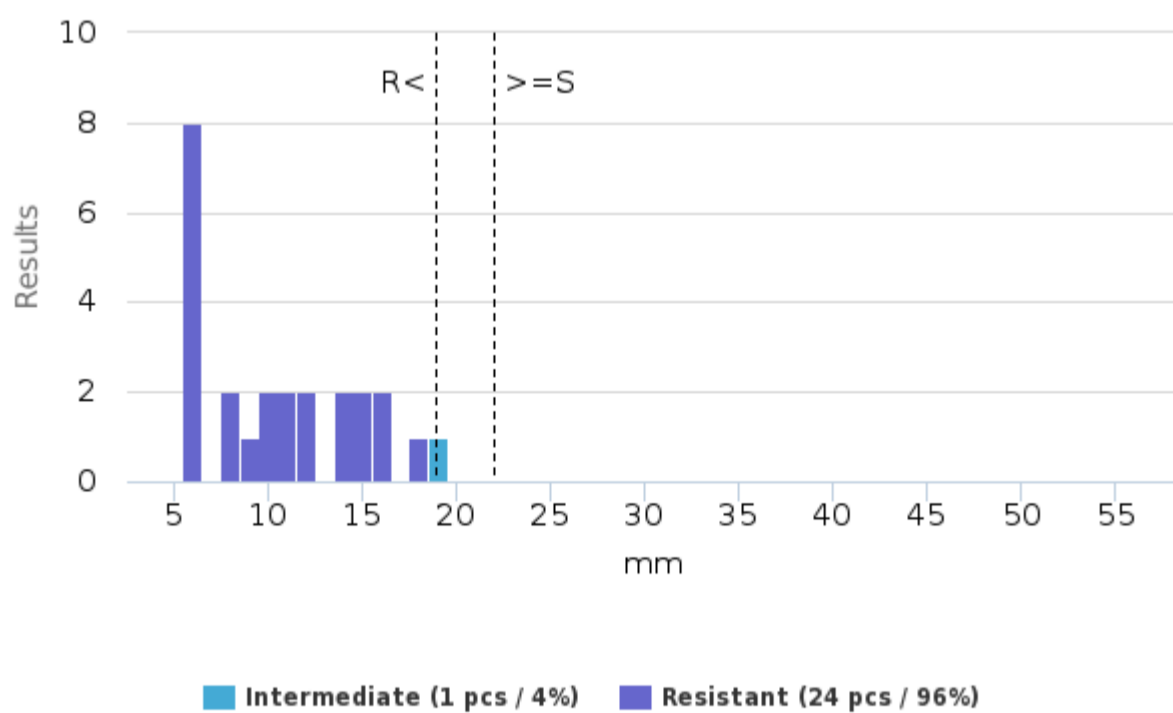
Gentamycin - DISK



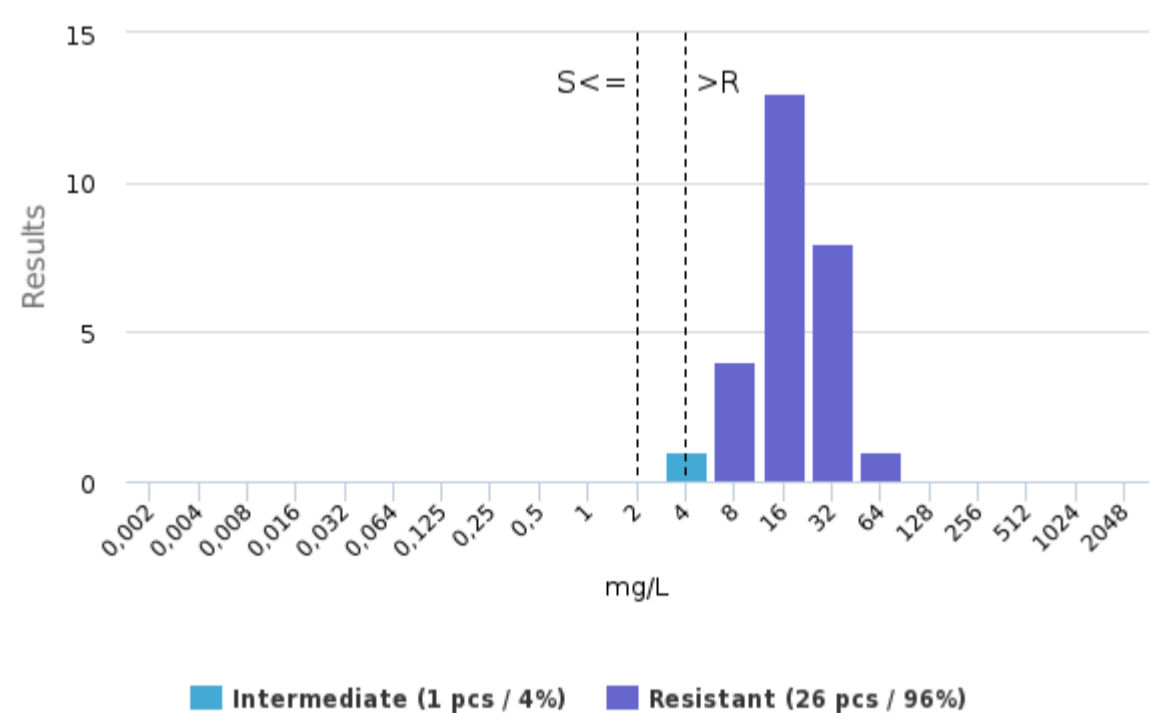
Gentamycin - MIC



Imipenem - DISK



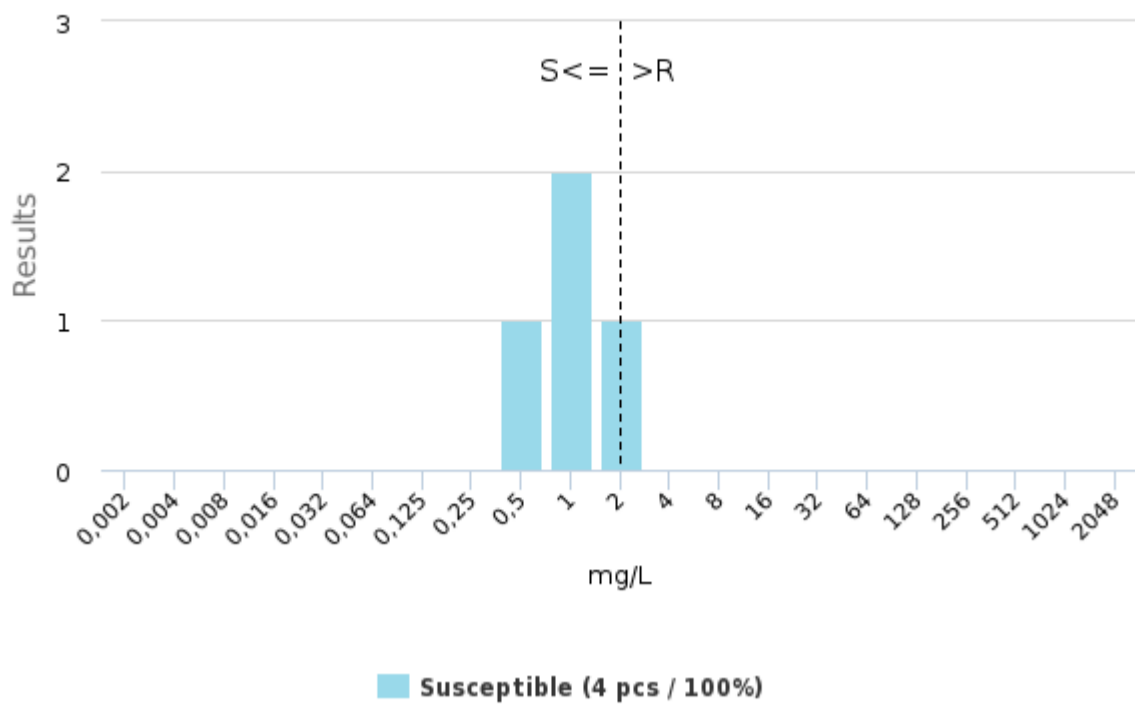
Imipenem - MIC



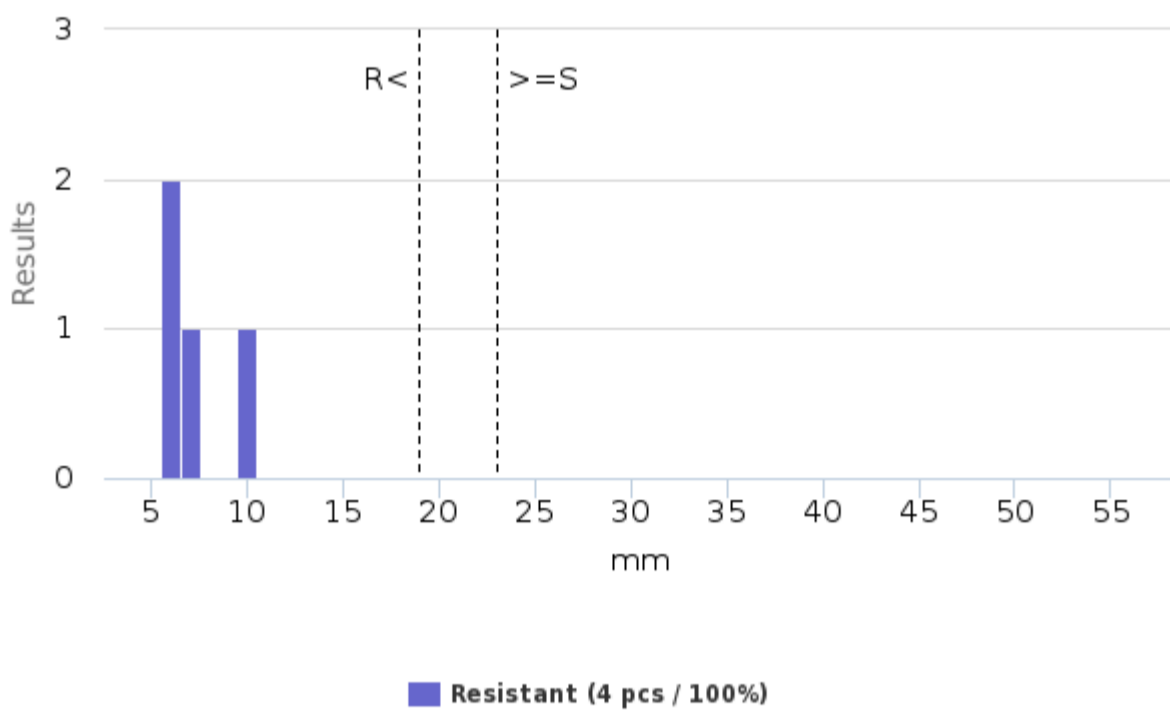
LABQUALITY Surveillance for multidrug resistant bacteria, gramnegative rods, February, 1-2023

Antimicrobial susceptibility testing results, *Klebsiella pneumoniae*

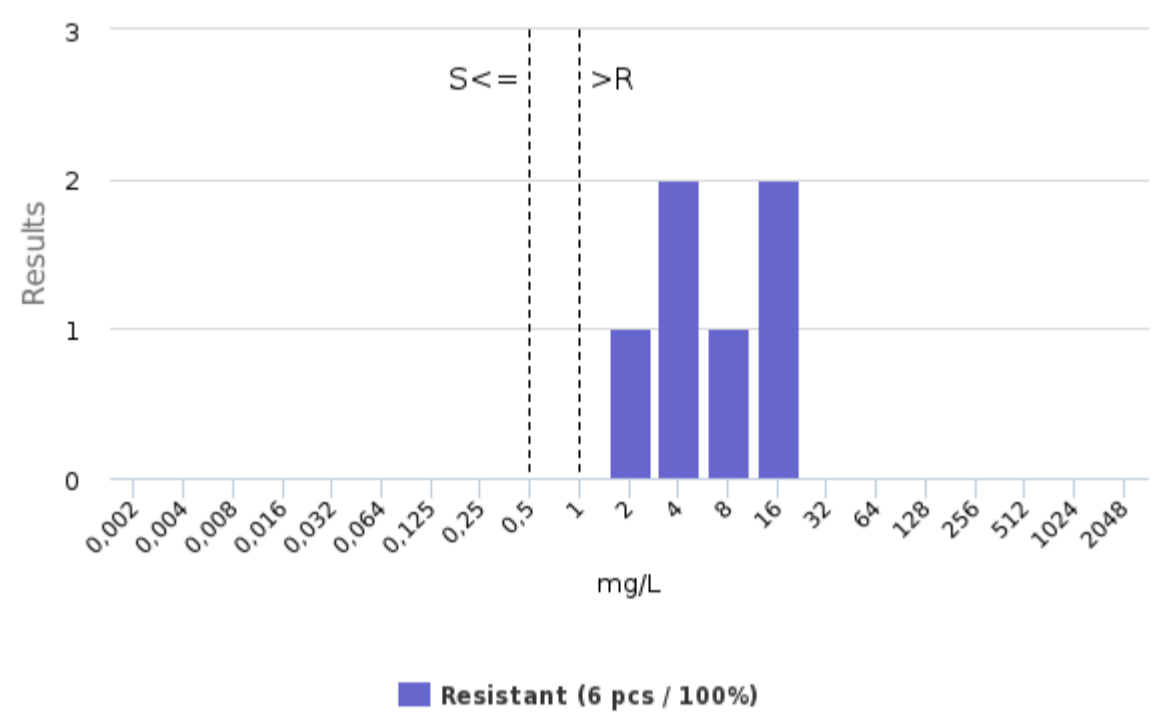
Imipenem-relebactam - MIC



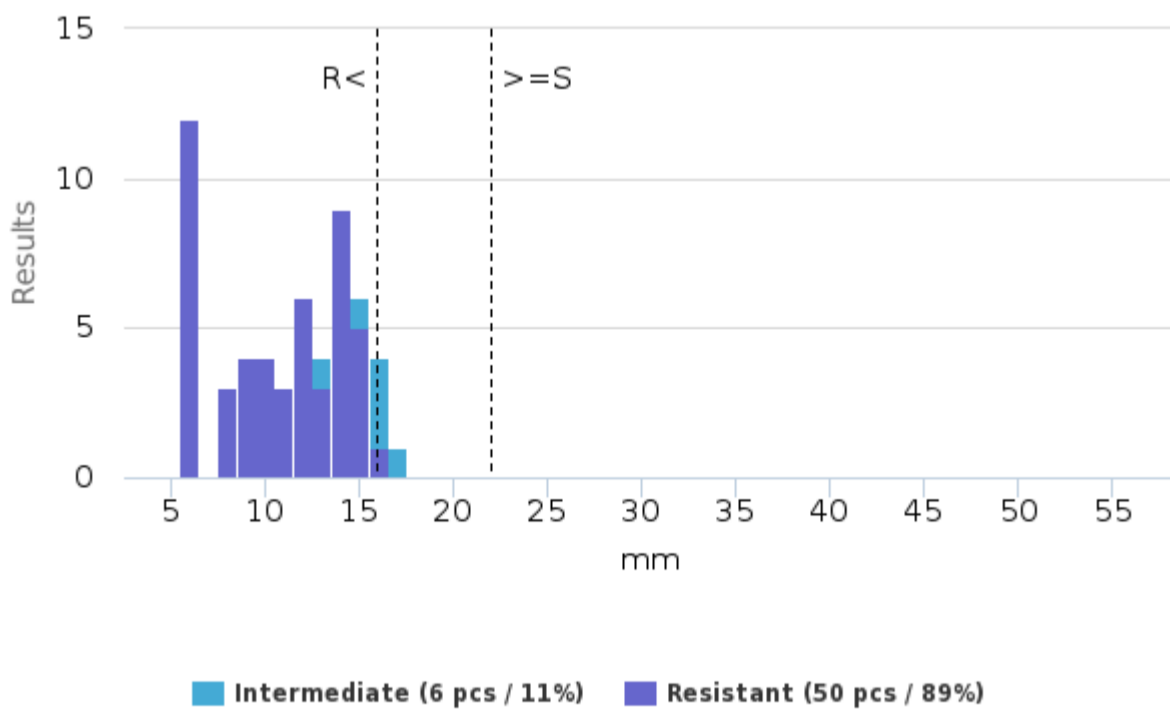
Levofloxacin - DISK



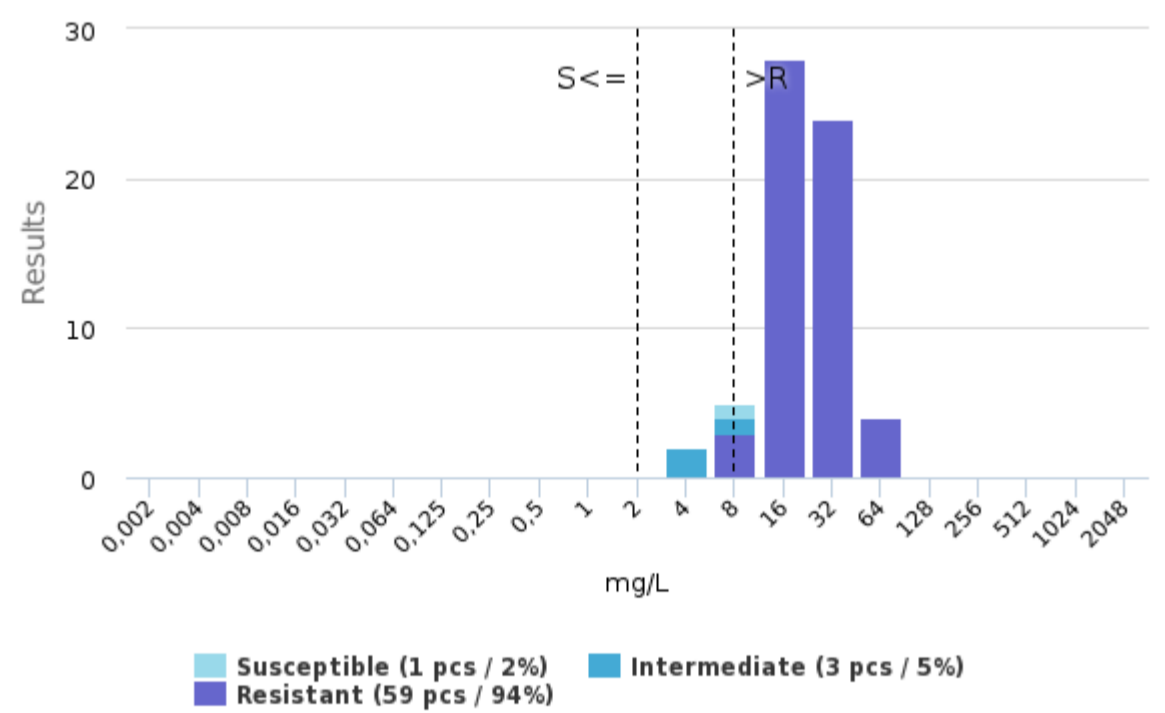
Levofloxacin - MIC



Meropenem - DISK



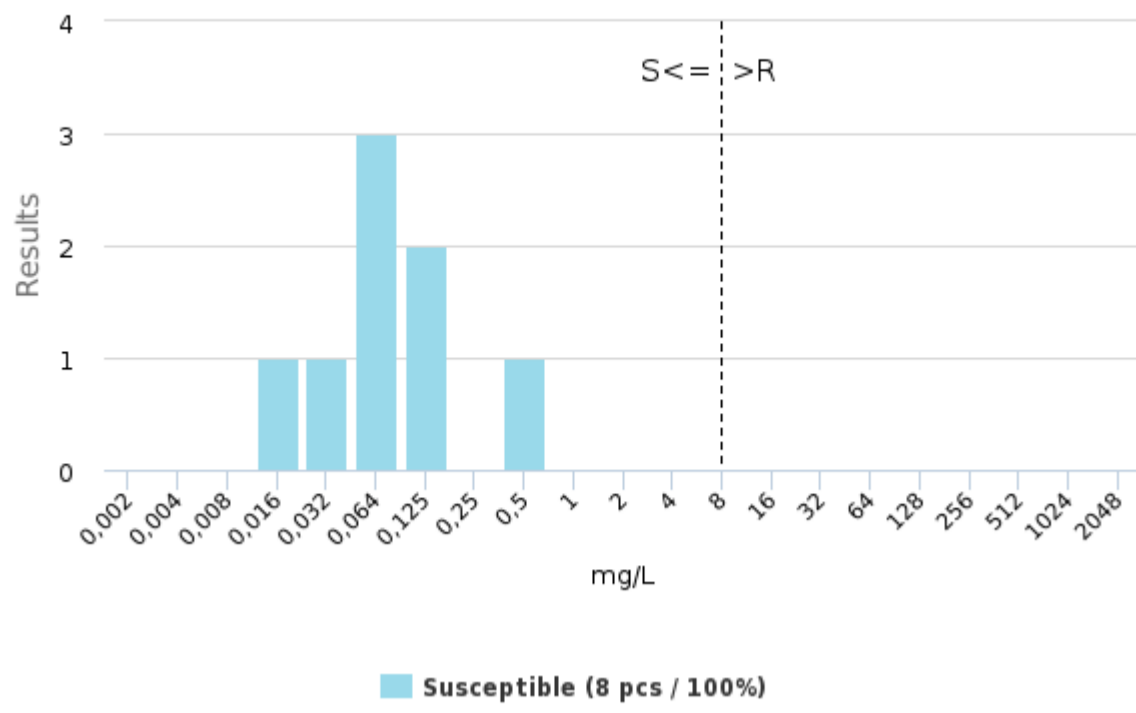
Meropenem - MIC



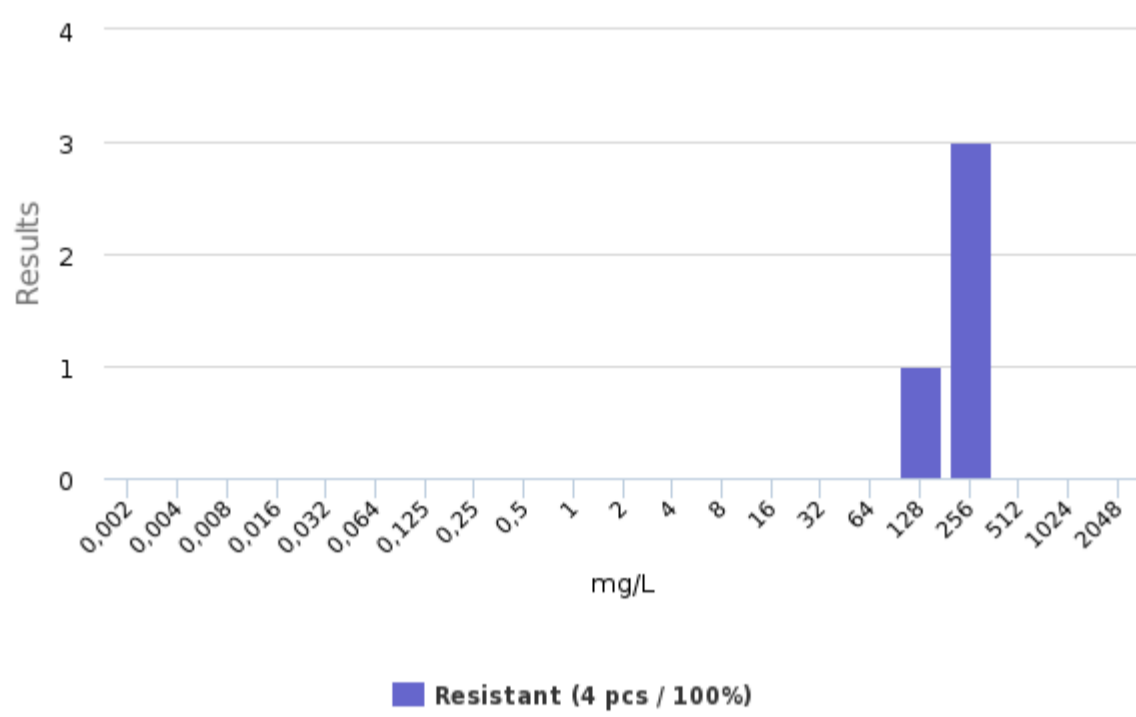
LABQUALITY Surveillance for multidrug resistant bacteria, gramnegative rods, February, 1-2023

Antimicrobial susceptibility testing results, *Klebsiella pneumoniae*

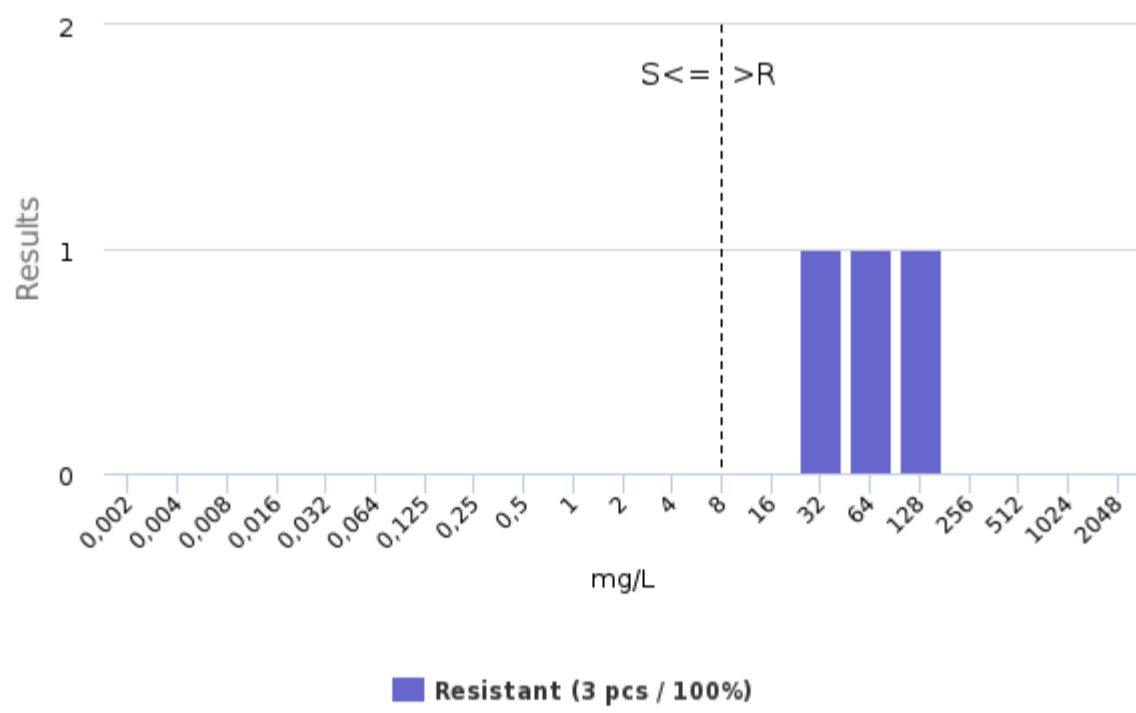
Meropenem-vaborbactam - MIC



Nitrofurantoin - MIC



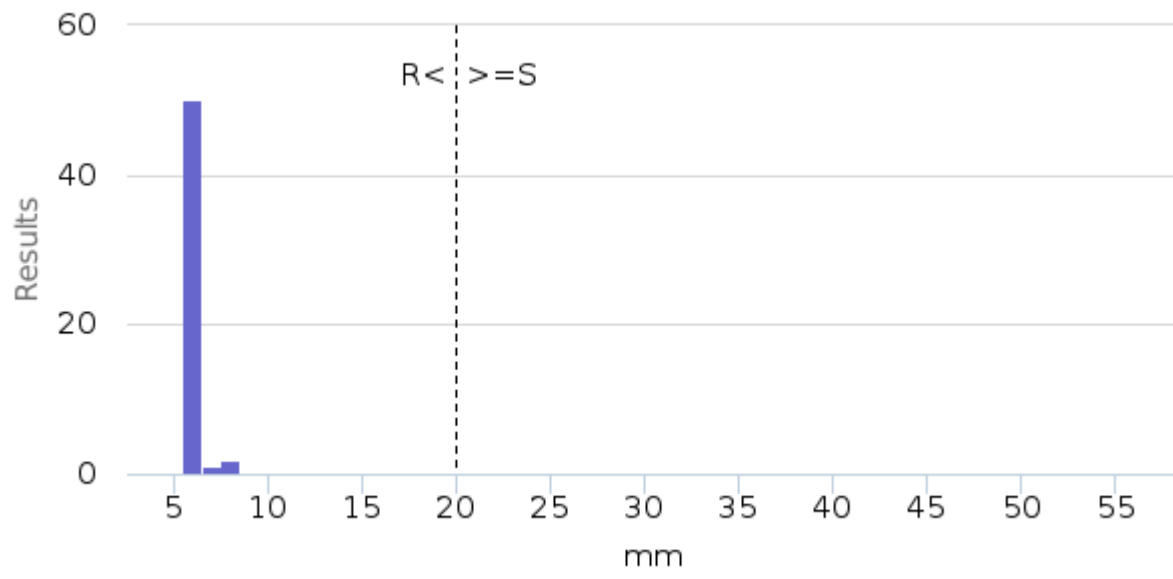
Piperacillin - MIC



LABQUALITY Surveillance for multidrug resistant bacteria, gramnegative rods, February, 1-2023

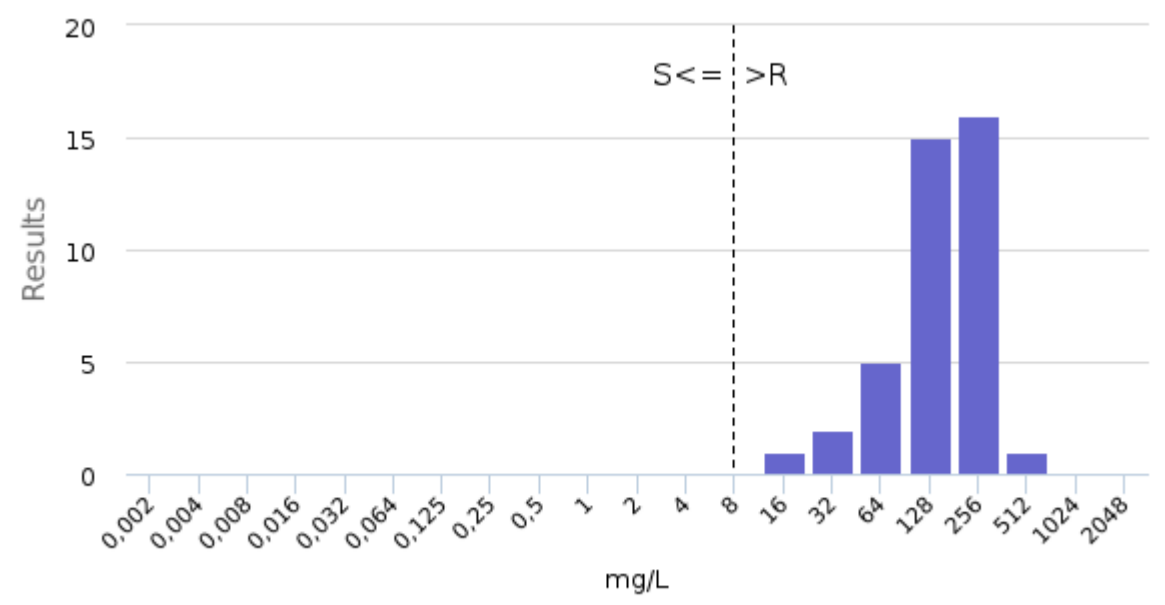
Antimicrobial susceptibility testing results, *Klebsiella pneumoniae*

Piperacillin-tazobactam - DISK



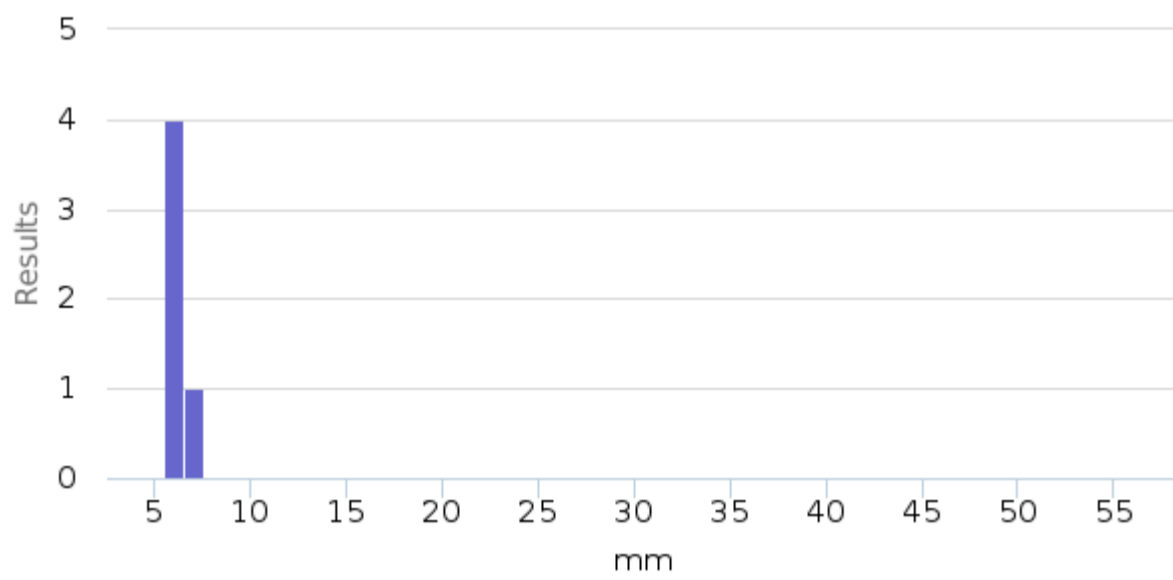
Resistant (53 pcs / 100%)

Piperacillin-tazobactam - MIC



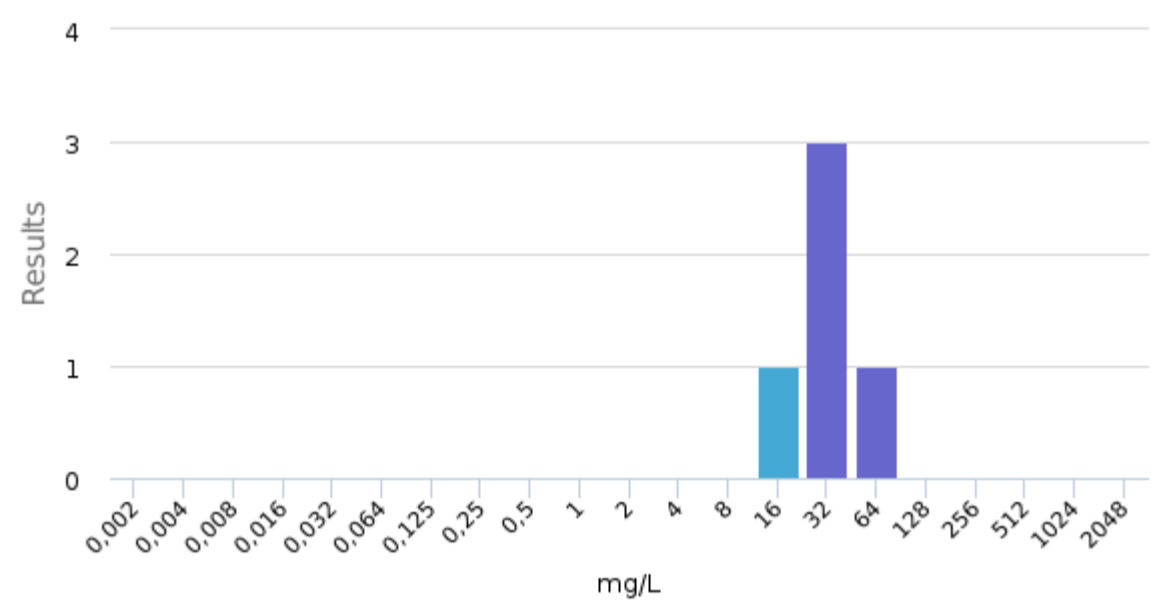
Resistant (40 pcs / 100%)

Temocillin - DISK



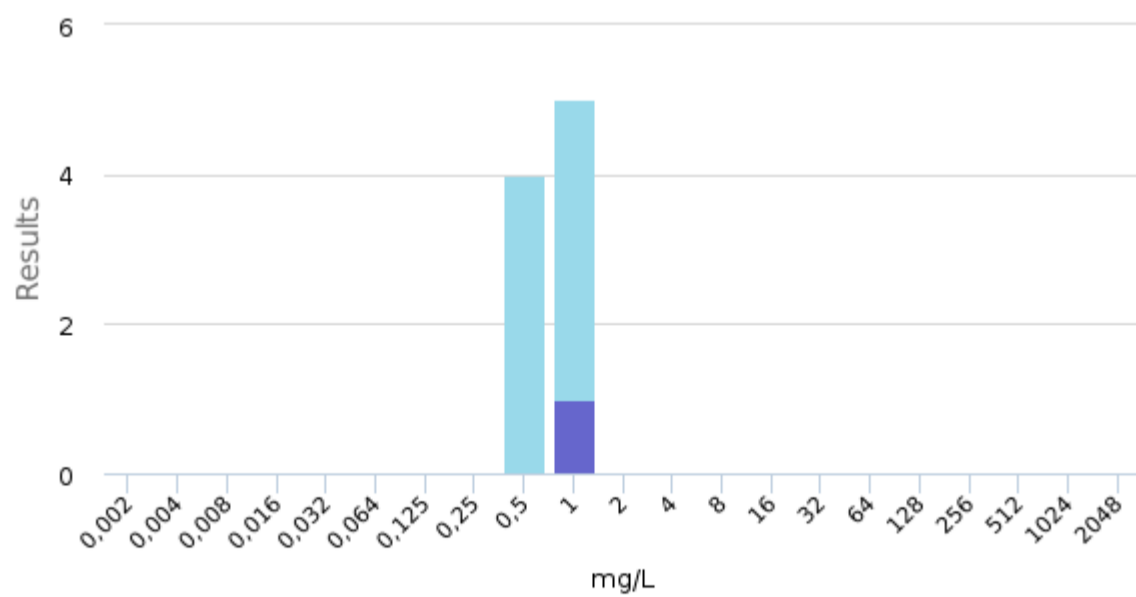
Resistant (5 pcs / 100%)

Temocillin - MIC



Intermediate (1 pcs / 20%) Resistant (4 pcs / 80%)

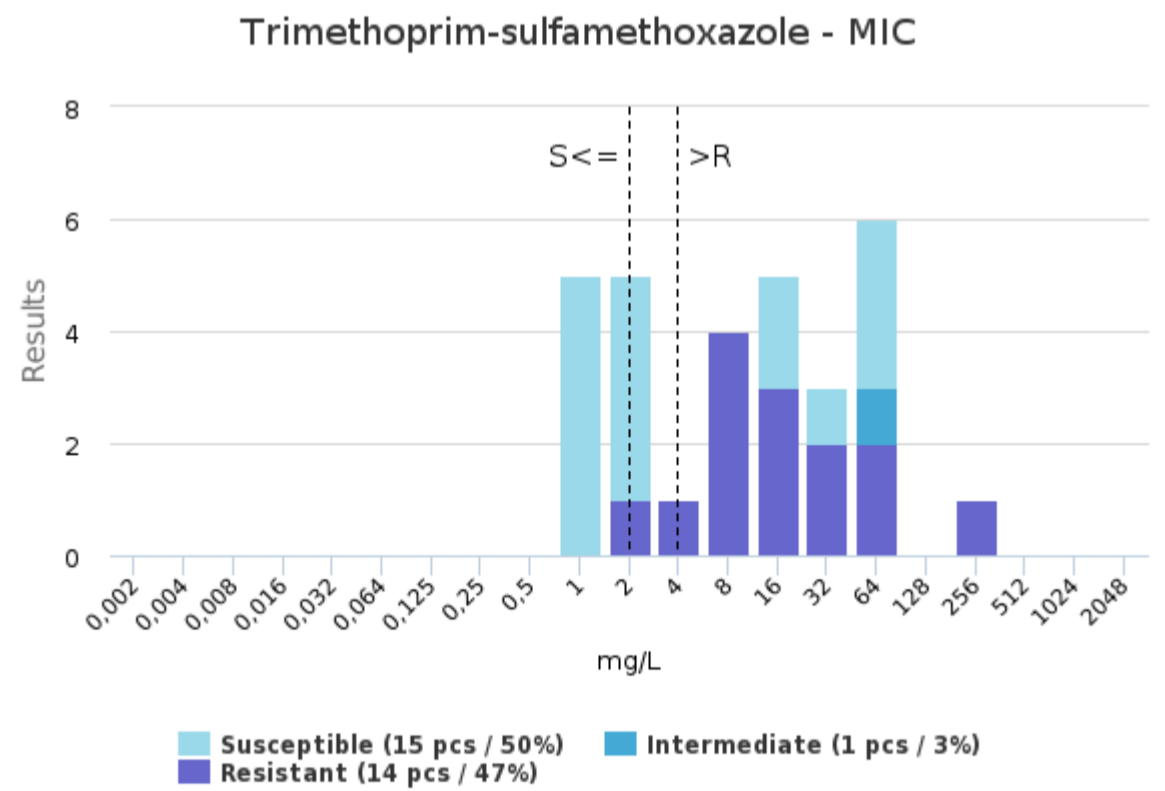
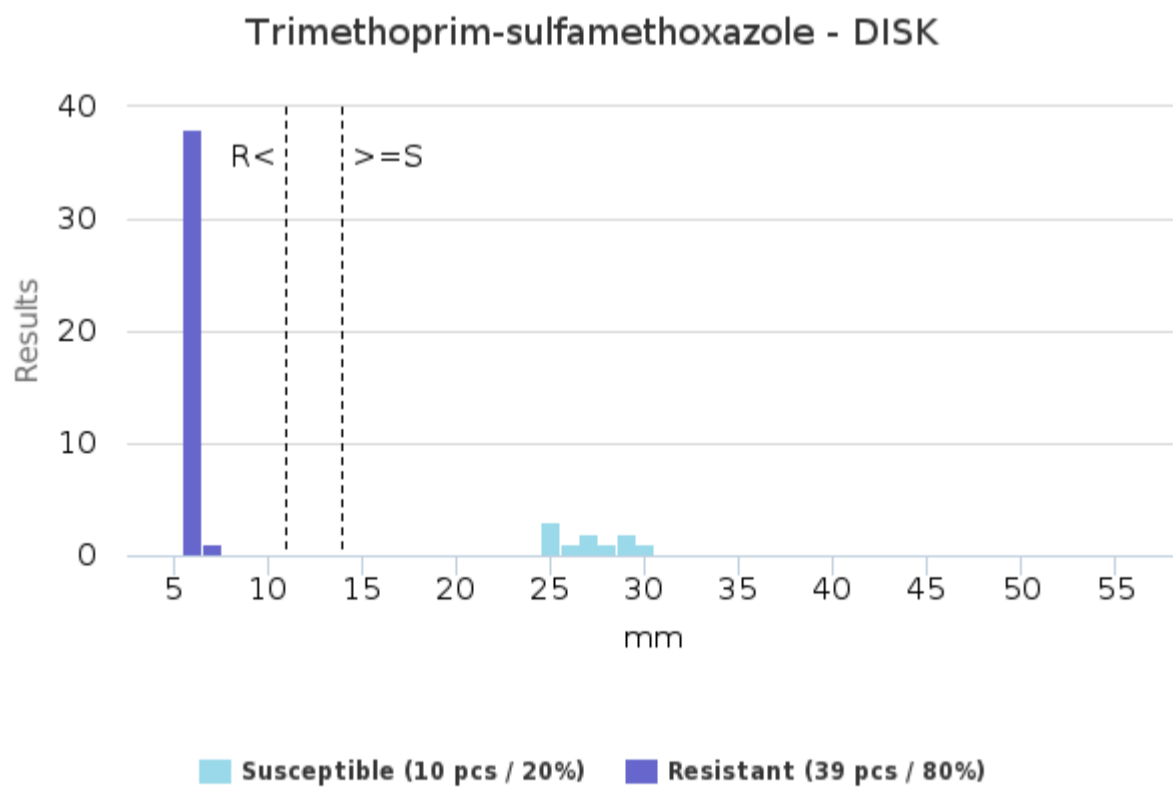
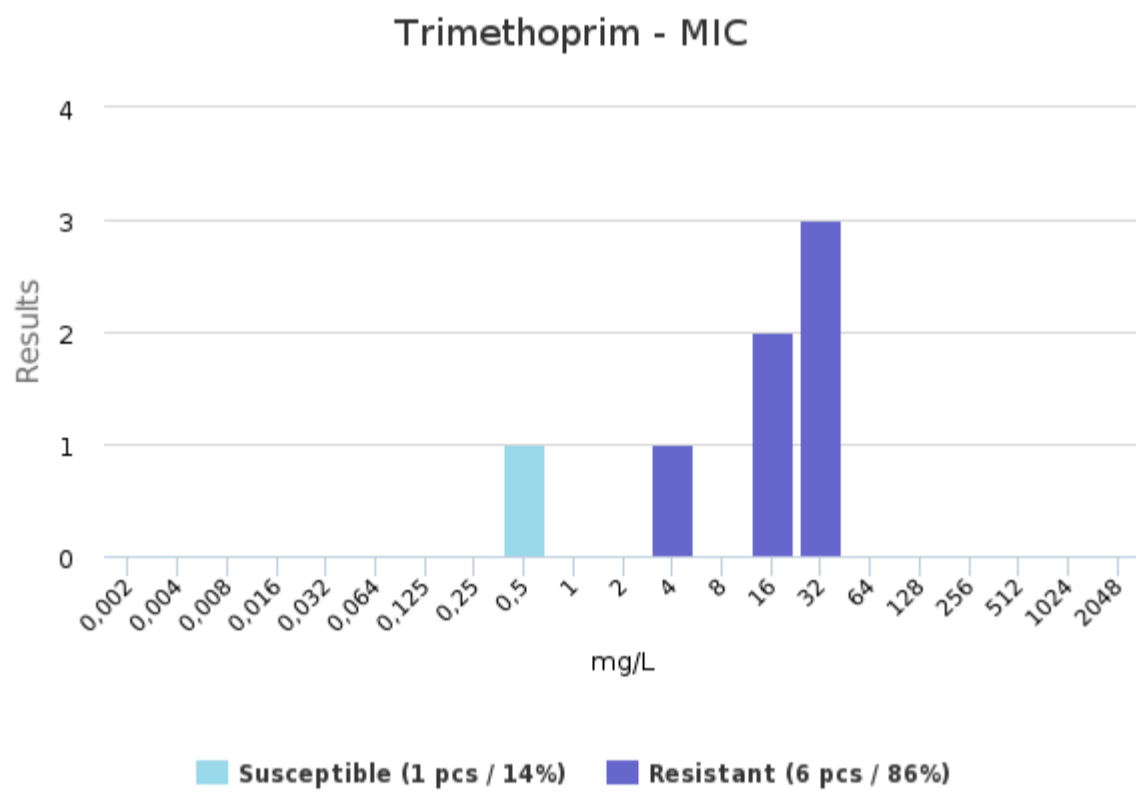
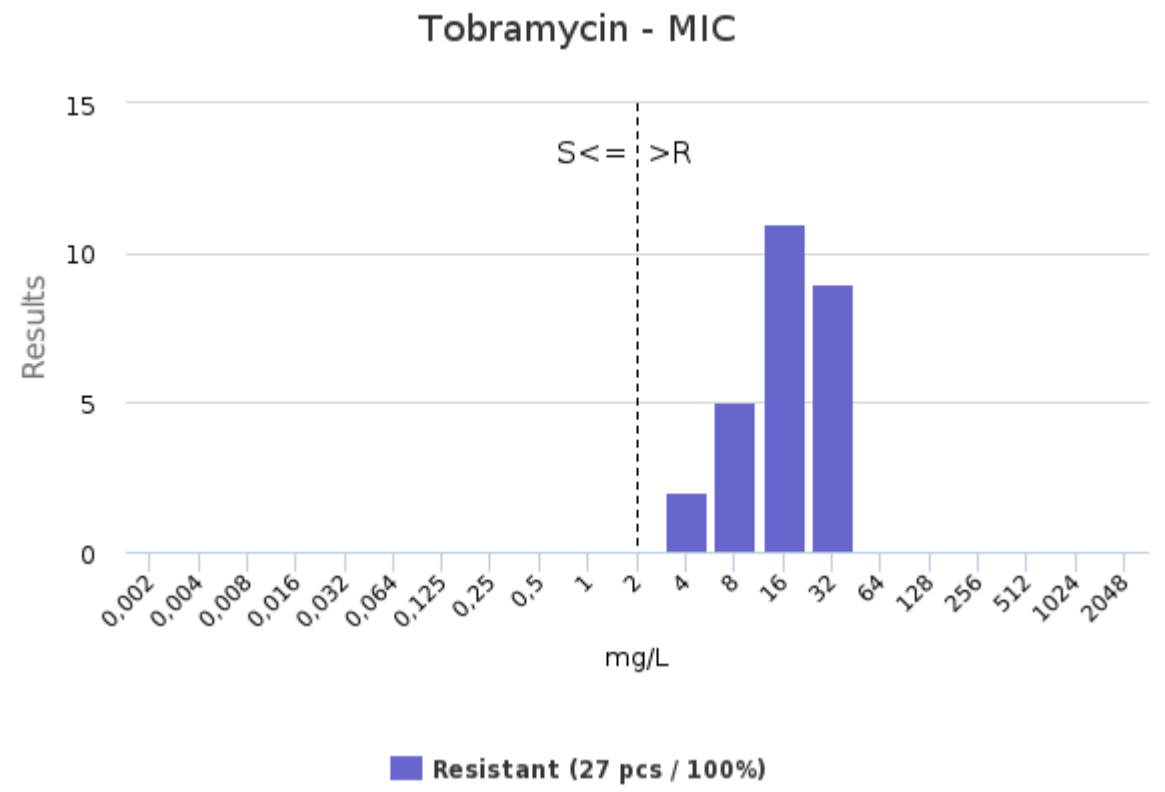
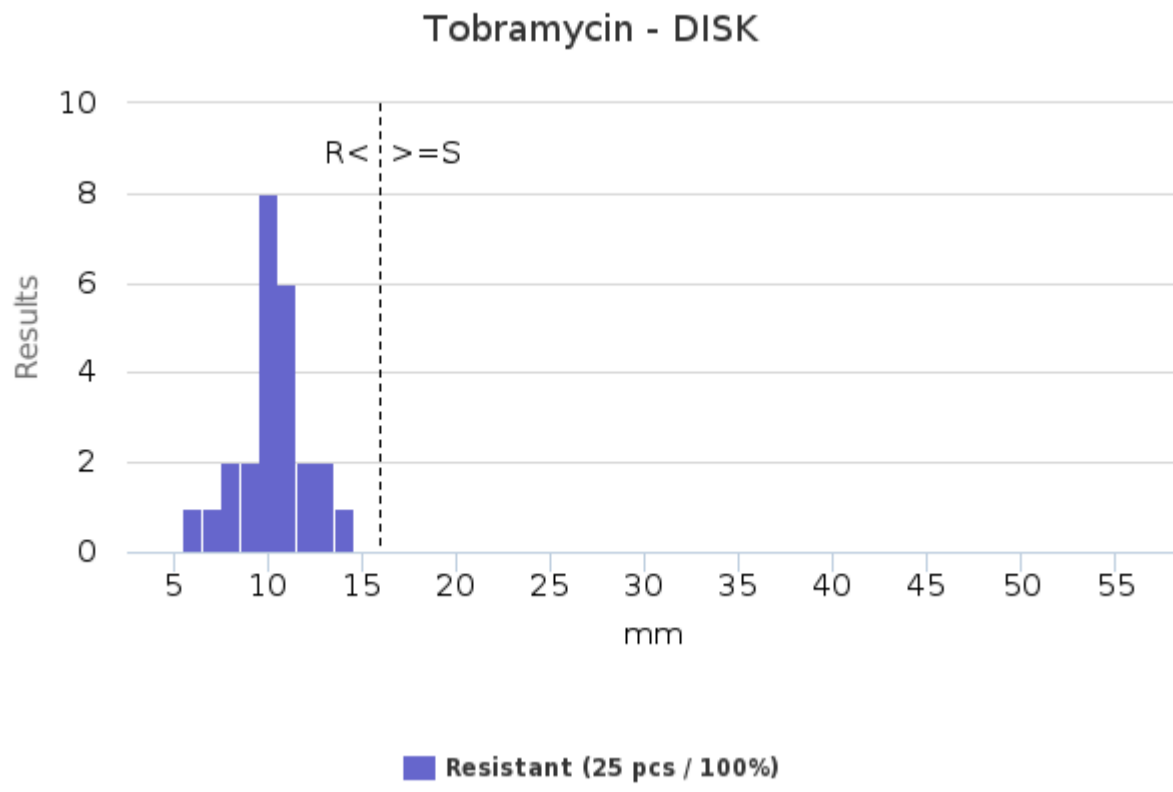
Tigecycline - MIC



Susceptible (8 pcs / 89%) Resistant (1 pcs / 11%)

LABQUALITY Surveillance for multidrug resistant bacteria, gramnegative rods, February, 1-2023

Antimicrobial susceptibility testing results, *Klebsiella pneumoniae*



Report info

Participants

Altogether 147 laboratories from 19 countries participated in this EQA round.

Report info

The susceptibility testing results are presented for positive screening samples only. The results are shown in laboratory specific summary tables and histograms. 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 meant results which are obtained and interpreted according to the same standard (EUCAST, CLSI or CA-SFM). Laboratory's own results are indicated with a black radio button in the table and an orange dot in the histograms. Average (x) is used as a reference value for disk results and mode (Mo) is used for MIC results. According to the experts' assessment some antimicrobials may be excluded from the final summary tables, e.g., antimicrobial agents to which the microbe is intrinsically resistant or to which only one result has been reported.

If you have not reported antimicrobial susceptibility testing results, or, your results have been excluded, you will get a note: "You have not reported antimicrobial susceptibility results, 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.

LABQUALITY Surveillance for multidrug resistant bacteria, gramnegative rods, February, 1-2023

Antimicrobial susceptibility testing results, Acinetobacter baumannii

Sample S003

Acinetobacter baumannii KSKS 2822

Antimicrobial agent	Guideline	DISK						MIC				
		x (mm)	sd (mm)	S	I	R	n	Mo (mg/L)	S	I	R	n
Amikacin	CA-SFM	7	2	0 (0%)	0 (0%)	9 (100%)	9	-	-	-	-	-
	CLSI	6	1	0 (0%)	0 (0%)	4 (100%)	4	64	0 (0%)	0 (0%)	3 (100%)	3
	EUCAST	6	2	0 (0%)	0 (0%)	23 (100%)	23	64	0 (0%)	0 (0%)	17 (100%)	17
	All			0 (0%)	0 (0%)	36 (100%)	36		0 (0%)	0 (0%)	20 (100%)	20
Amoxicillin-clavulanate	CLSI	6	-	0 (0%)	0 (0%)	1 (100%)	1	-	-	-	-	-
	EUCAST	6	0	0 (0%)	0 (0%)	3 (100%)	3	32	0 (0%)	0 (0%)	1 (100%)	1
	All			0 (0%)	0 (0%)	4 (100%)	4		0 (0%)	0 (0%)	1 (100%)	1
Ampicillin	CLSI	6	-	0 (0%)	0 (0%)	1 (100%)	1	-	-	-	-	-
	EUCAST	6	-	0 (0%)	0 (0%)	2 (100%)	2	8	0 (0%)	0 (0%)	1 (100%)	1
	All			0 (0%)	0 (0%)	3 (100%)	3		0 (0%)	0 (0%)	1 (100%)	1
Ampicillin-sulbactam	CLSI	12	-	0 (0%)	1 (50%)	1 (50%)	2	-	-	-	-	-
	All			0 (0%)	1 (50%)	1 (50%)	2		0	0	0	0
Aztreonam	CA-SFM	6	-	0 (0%)	0 (0%)	2 (100%)	2	-	-	-	-	-
	EUCAST	6	-	0 (0%)	0 (0%)	1 (100%)	1	16	0 (0%)	0 (0%)	1 (100%)	1
	All			0 (0%)	0 (0%)	3 (100%)	3		0 (0%)	0 (0%)	1 (100%)	1
Cefazolin	CLSI	6	-	0 (0%)	0 (0%)	1 (100%)	1	64	0 (0%)	0 (0%)	2 (100%)	2
	All			0 (0%)	0 (0%)	1 (100%)	1		0 (0%)	0 (0%)	2 (100%)	2
Cefepime	CA-SFM	9	3	0 (0%)	0 (0%)	11 (100%)	11	64	0 (0%)	0 (0%)	4 (100%)	4
	CLSI	-	-	-	-	-	-	32	0 (0%)	0 (0%)	1 (100%)	1
	EUCAST	12	-	0 (0%)	0 (0%)	1 (100%)	1	-	0 (0%)	0 (0%)	2 (100%)	2
	All			0 (0%)	0 (0%)	12 (100%)	12		0 (0%)	0 (0%)	7 (100%)	7
Cefiderocol	CLSI	20	-	1 (100%)	0 (0%)	0 (0%)	1	-	-	-	-	-
	EUCAST	25	-	1 (100%)	0 (0%)	0 (0%)	1	-	-	-	-	-
	All			2 (100%)	0 (0%)	0 (0%)	2		0	0	0	0
Cefotaxime	CA-SFM	6	0	0 (0%)	0 (0%)	4 (100%)	4	32	0 (0%)	0 (0%)	1 (100%)	1
	CLSI	6	1	0 (0%)	0 (0%)	3 (100%)	3	64	0 (0%)	0 (0%)	1 (100%)	1
	EUCAST	6	0	0 (0%)	0 (0%)	4 (100%)	4	-	-	-	-	-
	All			0 (0%)	0 (0%)	11 (100%)	11		0 (0%)	0 (0%)	2 (100%)	2
Cefoxitin	EUCAST	-	-	-	-	-	-	16	0 (0%)	0 (0%)	1 (100%)	1
	All			0	0	0	0		0 (0%)	0 (0%)	1 (100%)	1
Antimicrobial agent	Guideline	DISK						MIC				
Antimicrobial agent	Guideline	x (mm)	sd (mm)	S	I	R	n	Mo (mg/L)	S	I	R	n
Antimicrobial agent	Guideline	x (mm)	sd (mm)	S	I	R	n	Mo (mg/L)	S	I	R	n
Antimicrobial agent	Guideline	x (mm)	sd (mm)	S	I	R	n	Mo (mg/L)	S	I	R	n
Ceftazidime	CA-SFM	6	1	0 (0%)	0 (0%)	7 (100%)	7	64	0 (0%)	0 (0%)	5 (100%)	5
	CLSI	6	1	0 (0%)	0 (0%)	4 (100%)	4	64	0 (0%)	0 (0%)	3 (100%)	3
	EUCAST	6	0	0 (0%)	0 (0%)	7 (100%)	7	64	0 (0%)	0 (0%)	6 (100%)	6
	All			0 (0%)	0 (0%)	18 (100%)	18		0 (0%)	0 (0%)	14 (100%)	14
Ceftazidime-avibactam	CLSI	12	-	0 (0%)	0 (0%)	1 (100%)	1	-	-	-	-	-
	EUCAST	-	-	-	-	-	-	512	0 (0%)	0 (0%)	2 (100%)	2
	All			0 (0%)	0 (0%)	1 (100%)	1		0 (0%)	0 (0%)	2 (100%)	2
Ceftolozane-tazobactam	CLSI	6	-	0 (0%)	0 (0%)	1 (100%)	1	-	-	-	-	-
	EUCAST	-	-	-	-	-	-	512	0 (0%)	0 (0%)	1 (100%)	1
	All			0 (0%)	0 (0%)	1 (100%)	1		0 (0%)	0 (0%)	1 (100%)	1
Ceftriaxone	CA-SFM	6	-	0 (0%)	0 (0%)	1 (100%)	1	-	-	-	-	-
	CLSI	6	1	0 (0%)	0 (0%)	3 (100%)	3	64	0 (0%)	0 (0%)	2 (100%)	2
	EUCAST	6	0	0 (0%)	0 (0%)	3 (100%)	3	-	0 (0%)	0 (0%)	2 (100%)	2
	All			0 (0%)	0 (0%)	7 (100%)	7		0 (0%)	0 (0%)	4 (100%)	4
Cefuroxime (iv/parenteral)	CLSI	6	-	0 (0%)	0 (0%)	1 (100%)	1	-	-	-	-	-
	EUCAST	6	0	0 (0%)	0 (0%)	3 (100%)	3	-	-	-	-	-
	All			0 (0%)	0 (0%)	4 (100%)	4		0	0	0	0
Cefuroxime (oral)	EUCAST	-	-	-	-	-	-	8	0 (0%)	0 (0%)	1 (100%)	1
	All			0	0	0	0		0 (0%)	0 (0%)	1 (100%)	1

LABQUALITY Surveillance for multidrug resistant bacteria, gramnegative rods, February, 1-2023

Antimicrobial susceptibility testing results, Acinetobacter baumannii

Cephalexin	EUCAST	6	-	0 (0%)	0 (0%)	1 (100%)	1	16	0 (0%)	0 (0%)	1 (100%)	1
	All			0 (0%)	0 (0%)	1 (100%)	1		0 (0%)	0 (0%)	1 (100%)	1
Chloramphenicol	CLSI	6	-	0 (0%)	0 (0%)	1 (100%)	1	-	-	-	-	-
	All			0 (0%)	0 (0%)	1 (100%)	1		0	0	0	0
Ciprofloxacin	CA-SFM	6	0	0 (0%)	0 (0%)	10 (100%)	10	4	0 (0%)	0 (0%)	4 (100%)	4
	CLSI	6	1	0 (0%)	0 (0%)	4 (100%)	4	-	0 (0%)	0 (0%)	2 (100%)	2
	EUCAST	6	0	0 (0%)	0 (0%)	39 (100%)	39	4	0 (0%)	0 (0%)	28 (100%)	28
	All			0 (0%)	0 (0%)	53 (100%)	53		0 (0%)	0 (0%)	34 (100%)	34
Colistin	CA-SFM	-	-	-	-	-	-	-	6 (100%)	0 (0%)	0 (0%)	6
	CLSI	-	-	-	-	-	-	0.5	0 (0%)	1 (100%)	0 (0%)	1
	EUCAST	-	-	-	-	-	-	1	20 (100%)	0 (0%)	0 (0%)	20
	All			0	0	0	0		26 (96%)	1 (4%)	0 (0%)	27
				DISK					MIC			
Antimicrobial agent	Guideline	x (mm)	sd (mm)	S	I	R	n	Mo (mg/L)	S	I	R	n
Doxycycline	CLSI	16	-	1 (100%)	0 (0%)	0 (0%)	1	-	-	-	-	-
	All			1 (100%)	0 (0%)	0 (0%)	1		0	0	0	0
Ertapenem	CA-SFM	-	-	-	-	-	-	32	0 (0%)	0 (0%)	1 (100%)	1
	CLSI	7	-	0 (0%)	0 (0%)	1 (100%)	1	-	-	-	-	-
	EUCAST	-	-	-	-	-	-	64	0 (0%)	0 (0%)	3 (100%)	3
	All			0 (0%)	0 (0%)	1 (100%)	1		0 (0%)	0 (0%)	4 (100%)	4
Fosfomycin	EUCAST	-	-	-	-	-	-	128	0 (0%)	0 (0%)	1 (100%)	1
	All			0	0	0	0		0 (0%)	0 (0%)	1 (100%)	1
Gentamycin	CA-SFM	10	2	0 (0%)	0 (0%)	7 (100%)	7	8	0 (0%)	0 (0%)	3 (100%)	3
	CLSI	13	2	1 (25%)	0 (0%)	3 (75%)	4	16	0 (0%)	0 (0%)	3 (100%)	3
	EUCAST	11	2	0 (0%)	0 (0%)	28 (100%)	28	8	5 (20%)	0 (0%)	20 (80%)	25
	All			1 (3%)	0 (0%)	38 (97%)	39		5 (16%)	0 (0%)	26 (84%)	31
Imipenem	CA-SFM	12	3	0 (0%)	0 (0%)	12 (100%)	12	8	0 (0%)	0 (0%)	7 (100%)	7
	CLSI	11	4	0 (0%)	0 (0%)	4 (100%)	4	8	0 (0%)	0 (0%)	2 (100%)	2
	EUCAST	11	2	0 (0%)	0 (0%)	26 (100%)	26	16	0 (0%)	1 (3%)	29 (97%)	30
	All			0 (0%)	0 (0%)	42 (100%)	42		0 (0%)	1 (3%)	38 (97%)	39
Imipenem-relebactam	EUCAST	15	-	0 (0%)	0 (0%)	1 (100%)	1	1	1 (100%)	0 (0%)	0 (0%)	1
	All			0 (0%)	0 (0%)	1 (100%)	1		1 (100%)	0 (0%)	0 (0%)	1
Levofloxacin	CA-SFM	9	2	0 (0%)	0 (0%)	9 (100%)	9	8	0 (0%)	0 (0%)	3 (100%)	3
	EUCAST	10	2	0 (0%)	0 (0%)	8 (100%)	8	8	0 (0%)	0 (0%)	12 (100%)	12
	All			0 (0%)	0 (0%)	17 (100%)	17		0 (0%)	0 (0%)	15 (100%)	15
Meropenem	CA-SFM	13	2	0 (0%)	2 (22%)	7 (78%)	9	-	0 (0%)	1 (17%)	5 (83%)	6
	CLSI	12	5	0 (0%)	0 (0%)	4 (100%)	4	16	0 (0%)	0 (0%)	4 (100%)	4
	EUCAST	12	3	0 (0%)	8 (19%)	35 (81%)	43	16	0 (0%)	12 (29%)	30 (71%)	42
	All			0 (0%)	10 (18%)	46 (82%)	56		0 (0%)	13 (25%)	39 (75%)	52
Minocycline	CA-SFM	20	3	5 (100%)	0 (0%)	0 (0%)	5	-	-	-	-	-
	EUCAST	6	-	0 (0%)	0 (0%)	1 (100%)	1	2	3 (100%)	0 (0%)	0 (0%)	3
	All			5 (83%)	0 (0%)	1 (17%)	6		3 (100%)	0 (0%)	0 (0%)	3
Nitrofurantoin	EUCAST	-	-	-	-	-	-	64	0 (0%)	0 (0%)	1 (100%)	1
	All			0	0	0	0		0 (0%)	0 (0%)	1 (100%)	1
				DISK					MIC			
Antimicrobial agent	Guideline	x (mm)	sd (mm)	S	I	R	n	Mo (mg/L)	S	I	R	n
				DISK					MIC			
Antimicrobial agent	Guideline	x (mm)	sd (mm)	S	I	R	n	Mo (mg/L)	S	I	R	n
Ofloxacin	CLSI	5	-	0 (0%)	0 (0%)	1 (100%)	1	-	-	-	-	-
	All			0 (0%)	0 (0%)	1 (100%)	1		0	0	0	0
Piperacillin	CA-SFM	8	2	0 (0%)	0 (0%)	6 (100%)	6	128	0 (0%)	0 (0%)	3 (100%)	3
	CLSI	5	-	0 (0%)	0 (0%)	1 (100%)	1	-	-	-	-	-
	EUCAST	6	-	0 (0%)	0 (0%)	1 (100%)	1	128	0 (0%)	0 (0%)	1 (100%)	1
	All			0 (0%)	0 (0%)	8 (100%)	8		0 (0%)	0 (0%)	4 (100%)	4
Piperacillin-tazobactam	CA-SFM	9	2	0 (0%)	0 (0%)	8 (100%)	8	128	0 (0%)	0 (0%)	3 (100%)	3
	CLSI	6	1	0 (0%)	0 (0%)	3 (100%)	3	-	0 (0%)	0 (0%)	2 (100%)	2
	EUCAST	7	1	0 (0%)	0 (0%)	8 (100%)	8	128	0 (0%)	0 (0%)	9 (100%)	9
	All			0 (0%)	0 (0%)	19 (100%)	19		0 (0%)	0 (0%)	14 (100%)	14
Tetracycline	CA-SFM	12	-	0 (0%)	1 (50%)	1 (50%)	2	-	-	-	-	-
	All			0 (0%)	1 (50%)	1 (50%)	2		0	0	0	0
Ticarcillin	CA-SFM	6	1	0 (0%)	0 (0%)	9 (100%)	9	128	0 (0%)	0 (0%)	2 (100%)	2
	EUCAST	6	-	0 (0%)	0 (0%)	1 (100%)	1	128	0 (0%)	0 (0%)	2 (100%)	2

LABQUALITY Surveillance for multidrug resistant bacteria, gramnegative rods, February, 1-2023

Antimicrobial susceptibility testing results, *Acinetobacter baumannii*

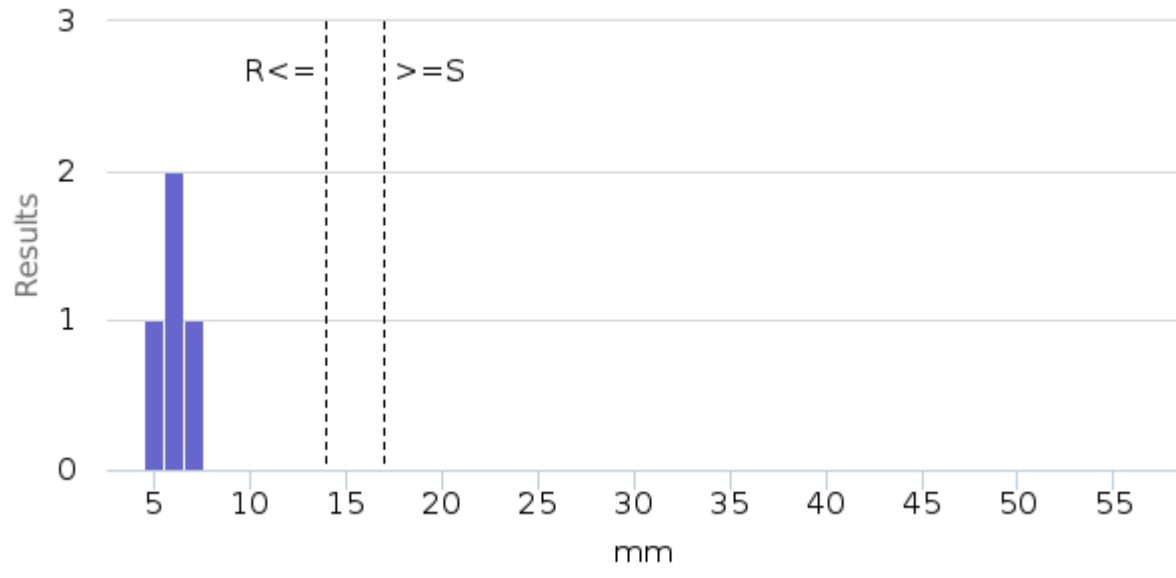
	All			0 (0%)	0 (0%)	10 (100%)	10		0 (0%)	0 (0%)	4 (100%)	4
Tigecycline	CLSI	16	-	0 (0%)	1 (100%)	0 (0%)	1	-	-	-	-	-
	EUCAST	-	-	-	-	-	-	4	0 (0%)	1 (100%)	0 (0%)	1
	All			0 (0%)	1 (100%)	0 (0%)	1		0 (0%)	1 (100%)	0 (0%)	1
Tikarcillin-clavulanic acid	CA-SFM	6	1	0 (0%)	0 (0%)	6 (100%)	6	128	0 (0%)	0 (0%)	2 (100%)	2
	EUCAST	6	-	0 (0%)	0 (0%)	1 (100%)	1	128	0 (0%)	0 (0%)	2 (100%)	2
	All			0 (0%)	0 (0%)	7 (100%)	7		0 (0%)	0 (0%)	4 (100%)	4
Tobramycin	CA-SFM	8	2	0 (0%)	0 (0%)	9 (100%)	9	8	0 (0%)	0 (0%)	2 (100%)	2
	CLSI	7	-	0 (0%)	0 (0%)	2 (100%)	2	32	0 (0%)	0 (0%)	1 (100%)	1
	EUCAST	8	2	0 (0%)	0 (0%)	26 (100%)	26	8	0 (0%)	0 (0%)	23 (100%)	23
	All			0 (0%)	0 (0%)	37 (100%)	37		0 (0%)	0 (0%)	26 (100%)	26
Trimethoprim	EUCAST	-	-	-	-	-	-	4	0 (0%)	0 (0%)	1 (100%)	1
	All			0	0	0	0		0 (0%)	0 (0%)	1 (100%)	1
Trimethoprim-sulfamethoxazole	CA-SFM	6	0	0 (0%)	0 (0%)	8 (100%)	8	16	1 (33%)	0 (0%)	2 (67%)	3
	CLSI	6	1	0 (0%)	0 (0%)	3 (100%)	3	64	0 (0%)	0 (0%)	1 (100%)	1
	EUCAST	6	0	0 (0%)	0 (0%)	40 (100%)	40	16	0 (0%)	0 (0%)	25 (100%)	25
	All			0 (0%)	0 (0%)	51 (100%)	51		1 (3%)	0 (0%)	28 (97%)	29

LABQUALITY Surveillance for multidrug resistant bacteria, gramnegative rods, February, 1-2023

Antimicrobial susceptibility testing results, *Acinetobacter baumannii*

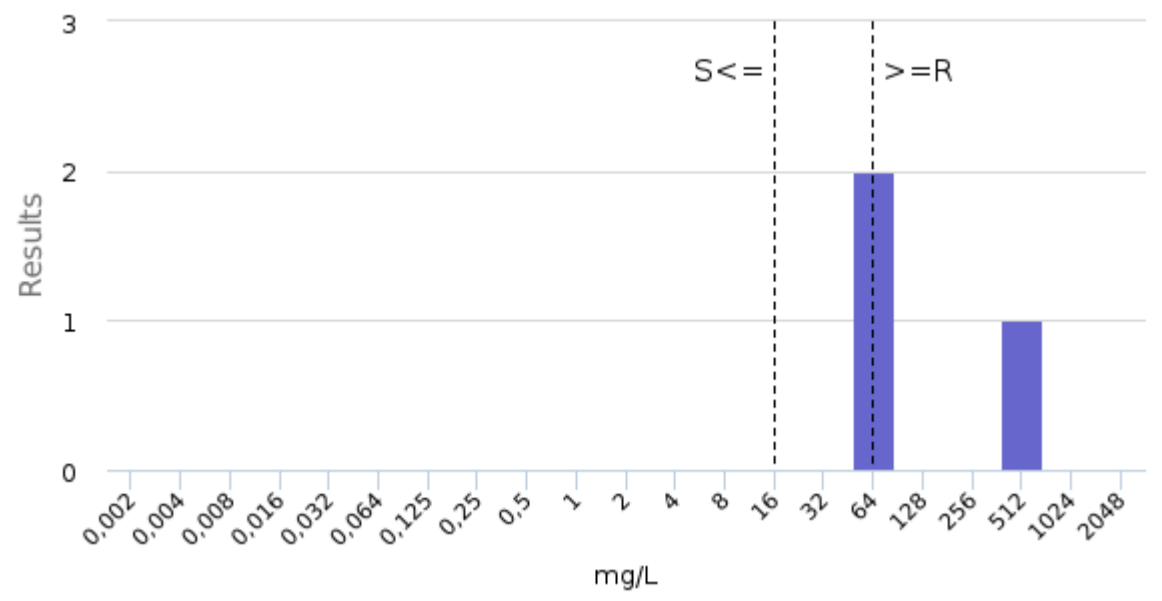
Sample S003 | CLSI

Amikacin - DISK



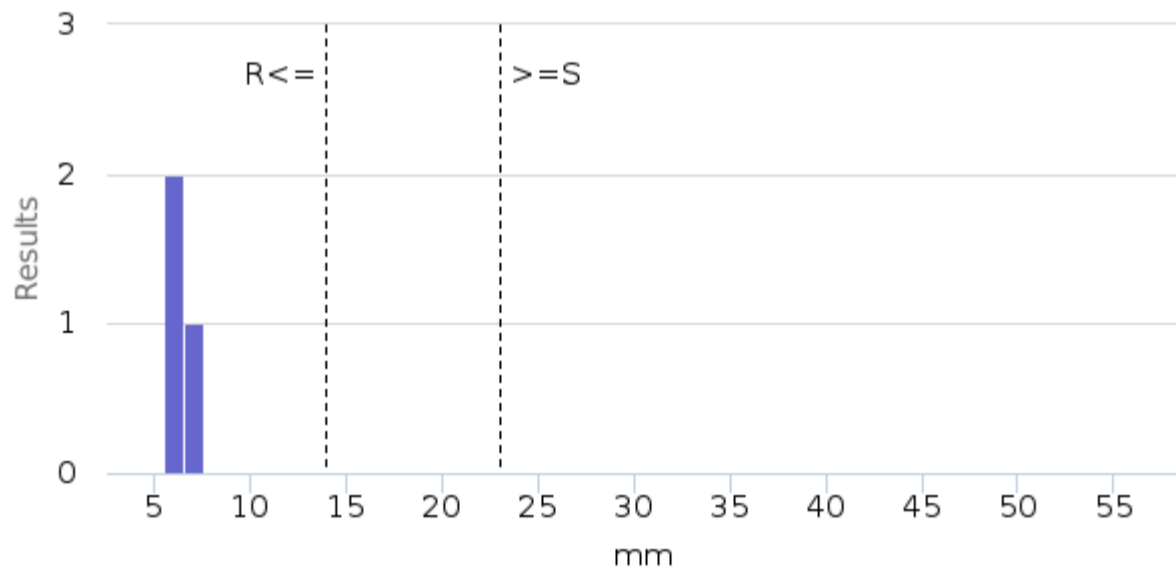
Resistant (4 pcs / 100%)

Amikacin - MIC



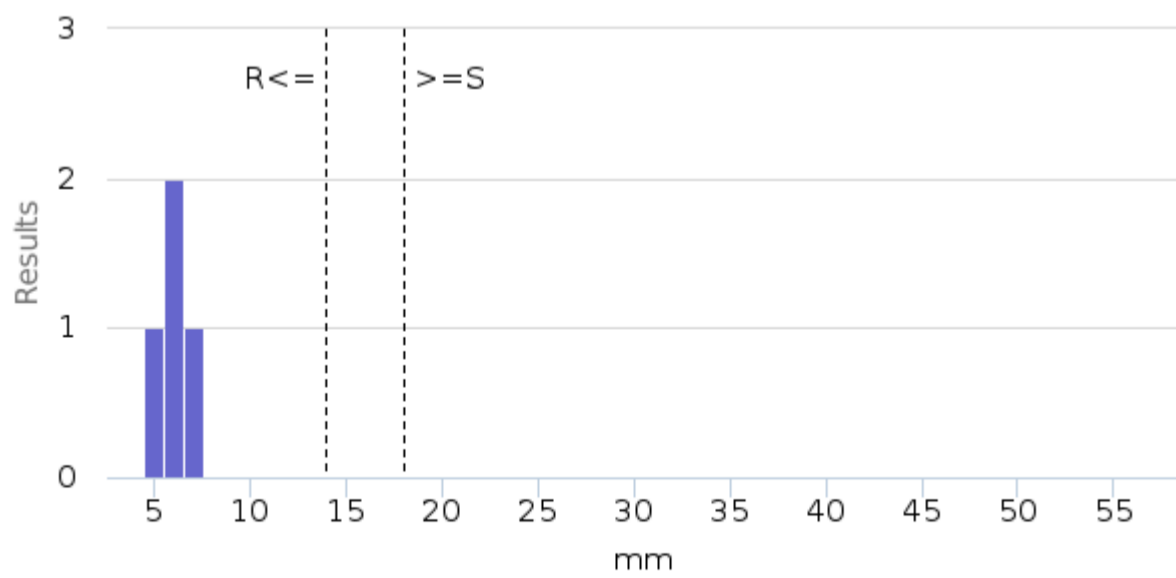
Resistant (3 pcs / 100%)

Cefotaxime - DISK



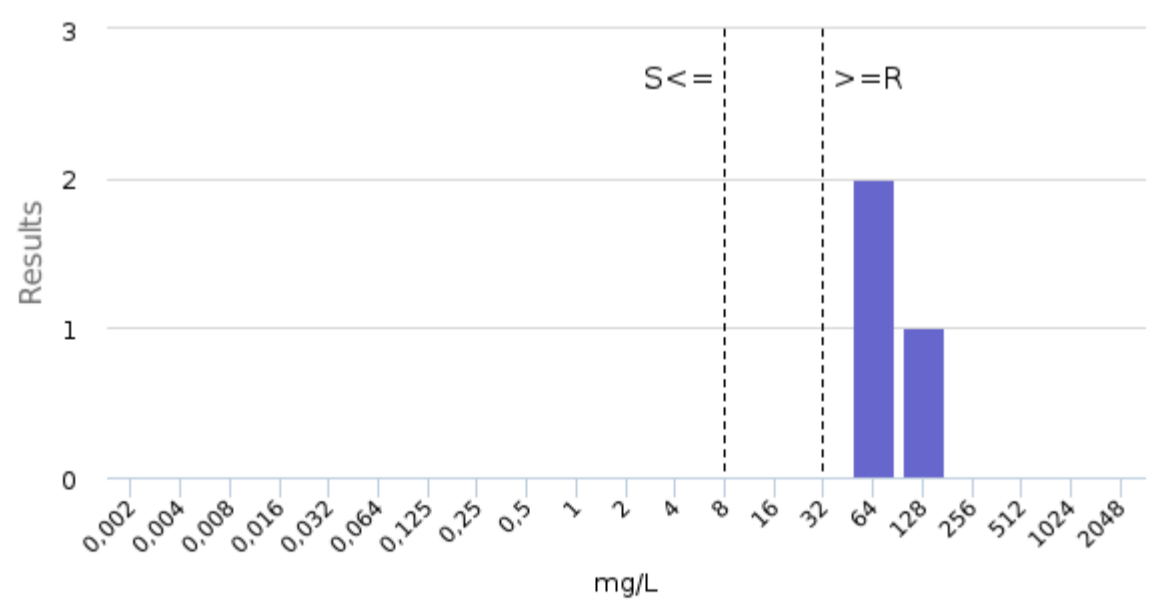
Resistant (3 pcs / 100%)

Ceftazidime - DISK



Resistant (4 pcs / 100%)

Ceftazidime - MIC

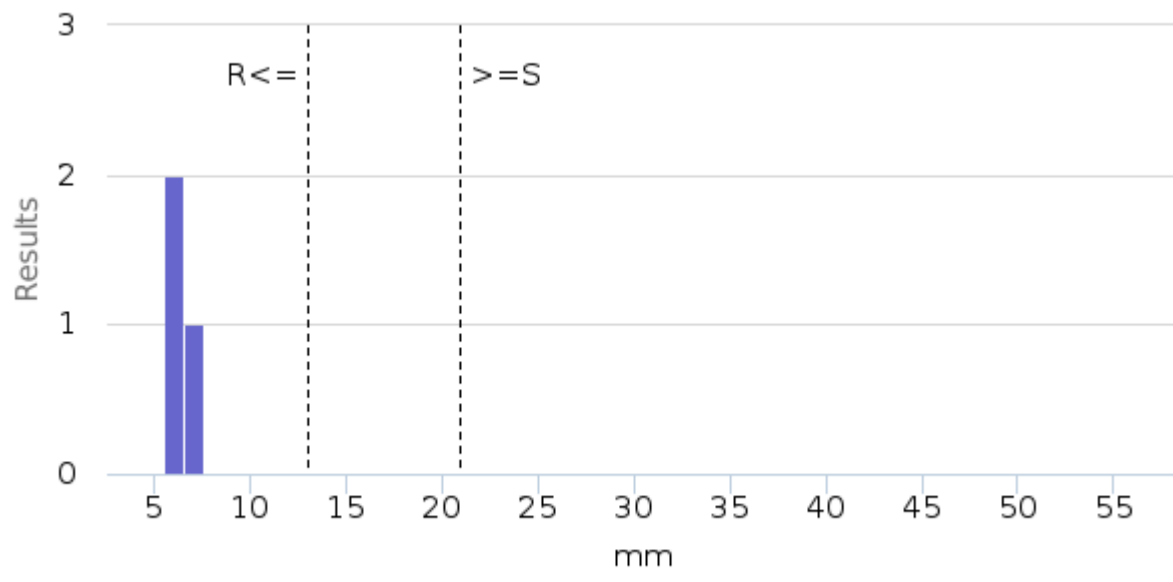


Resistant (3 pcs / 100%)

LABQUALITY Surveillance for multidrug resistant bacteria, gramnegative rods, February, 1-2023

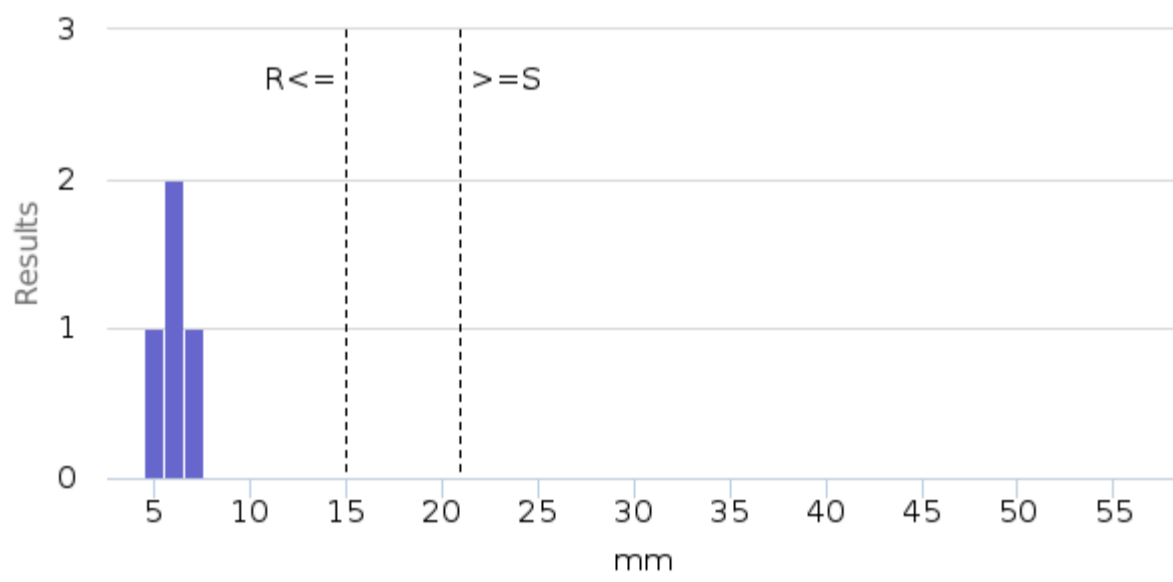
Antimicrobial susceptibility testing results, Acinetobacter baumannii

Ceftriaxone - DISK



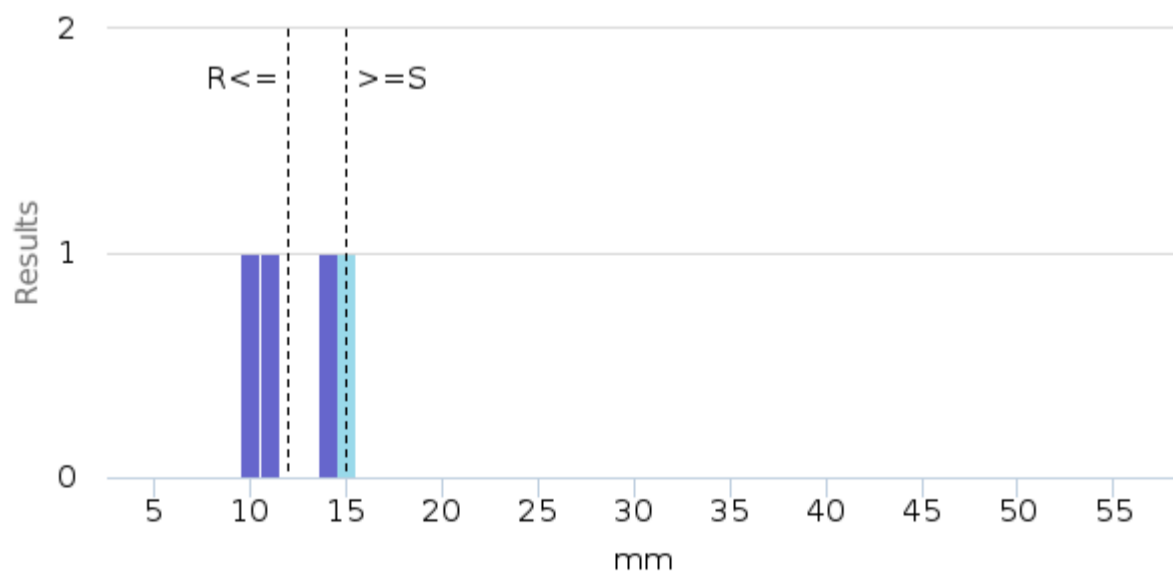
Resistant (3 pcs / 100%)

Ciprofloxacin - DISK



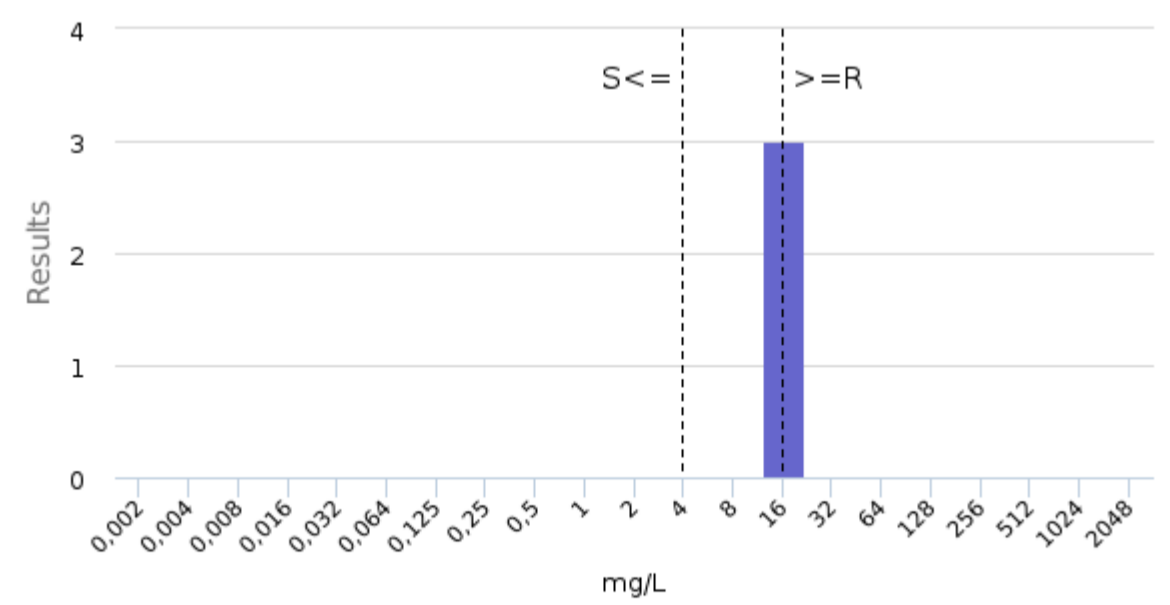
Resistant (4 pcs / 100%)

Gentamycin - DISK



Susceptible (1 pcs / 25%) Resistant (3 pcs / 75%)

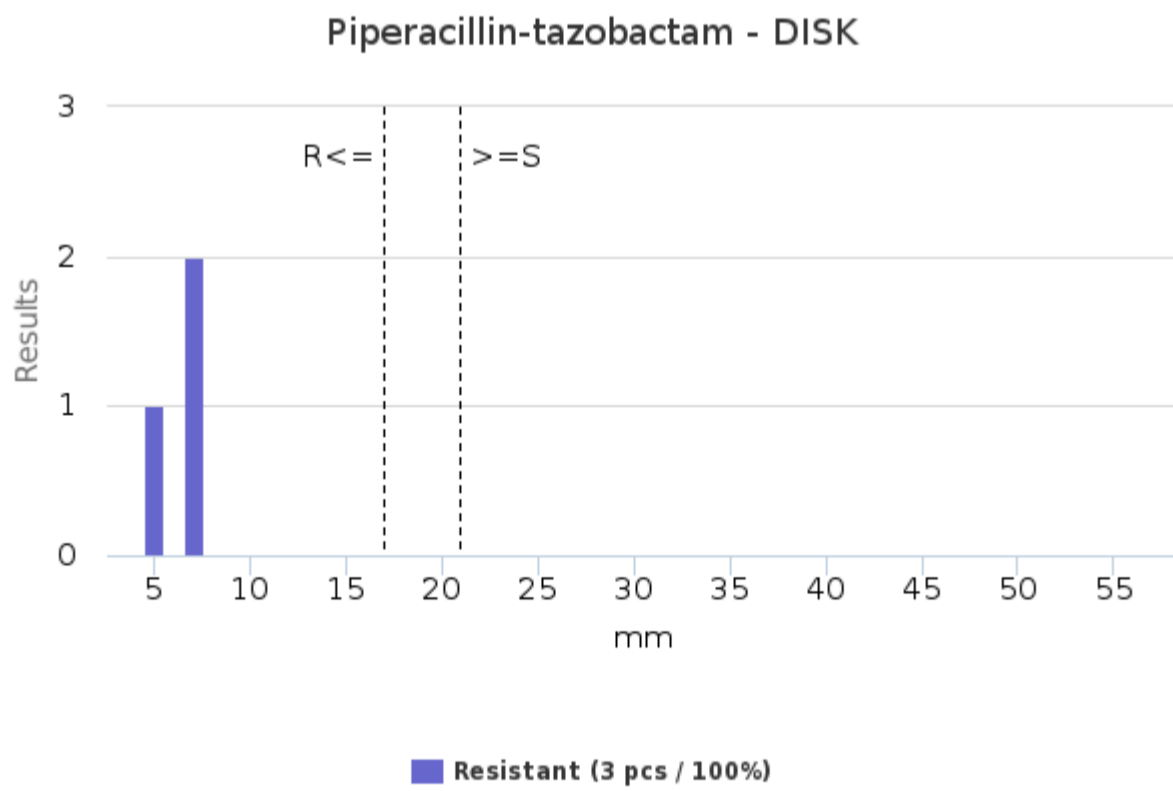
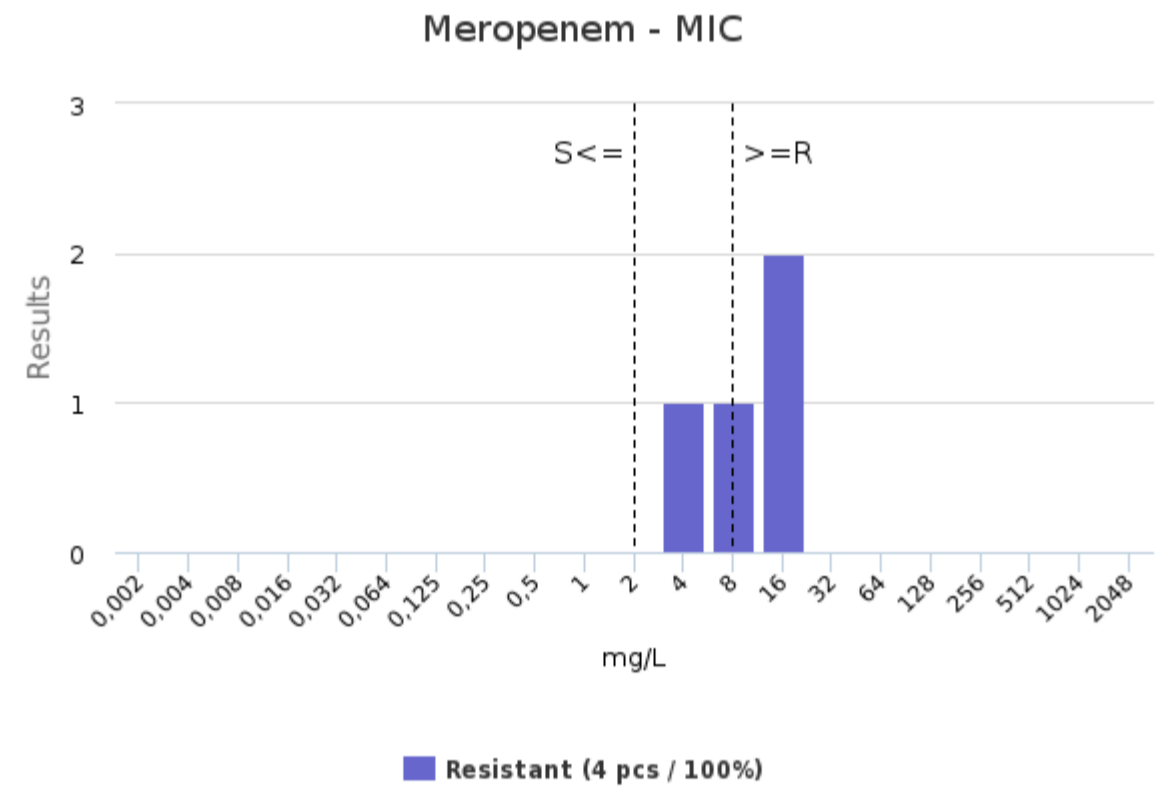
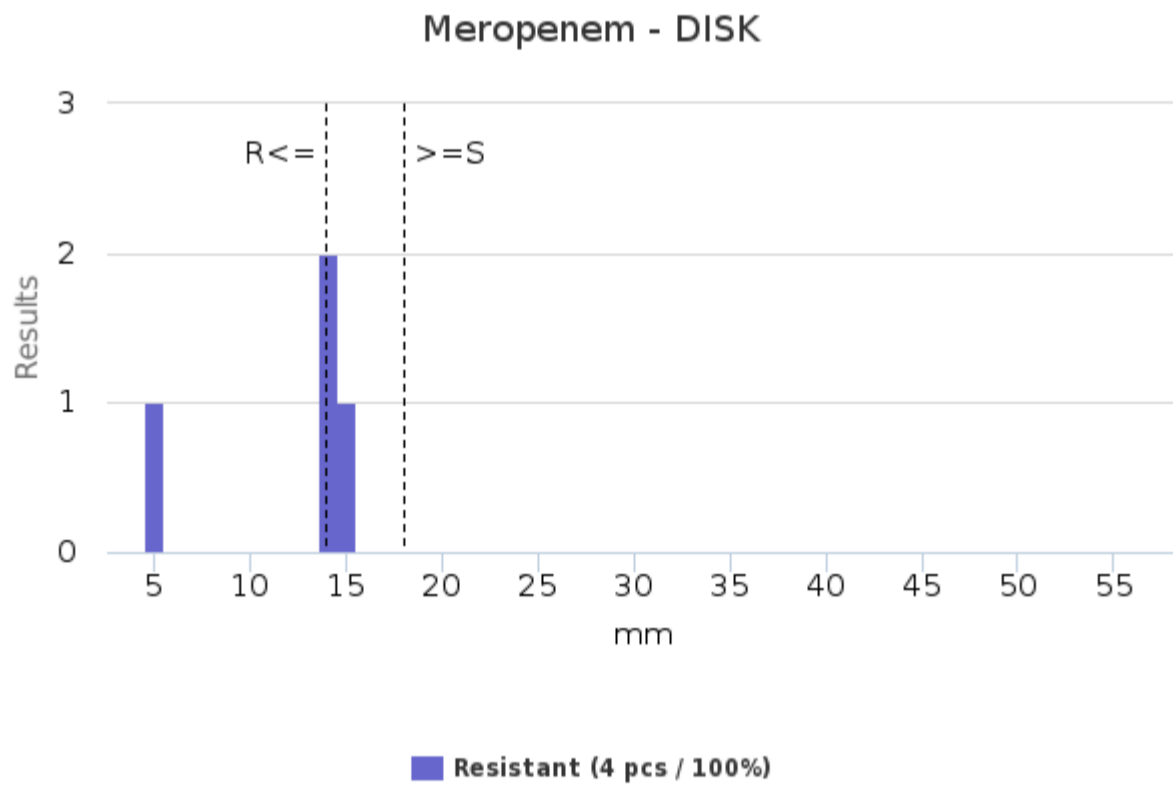
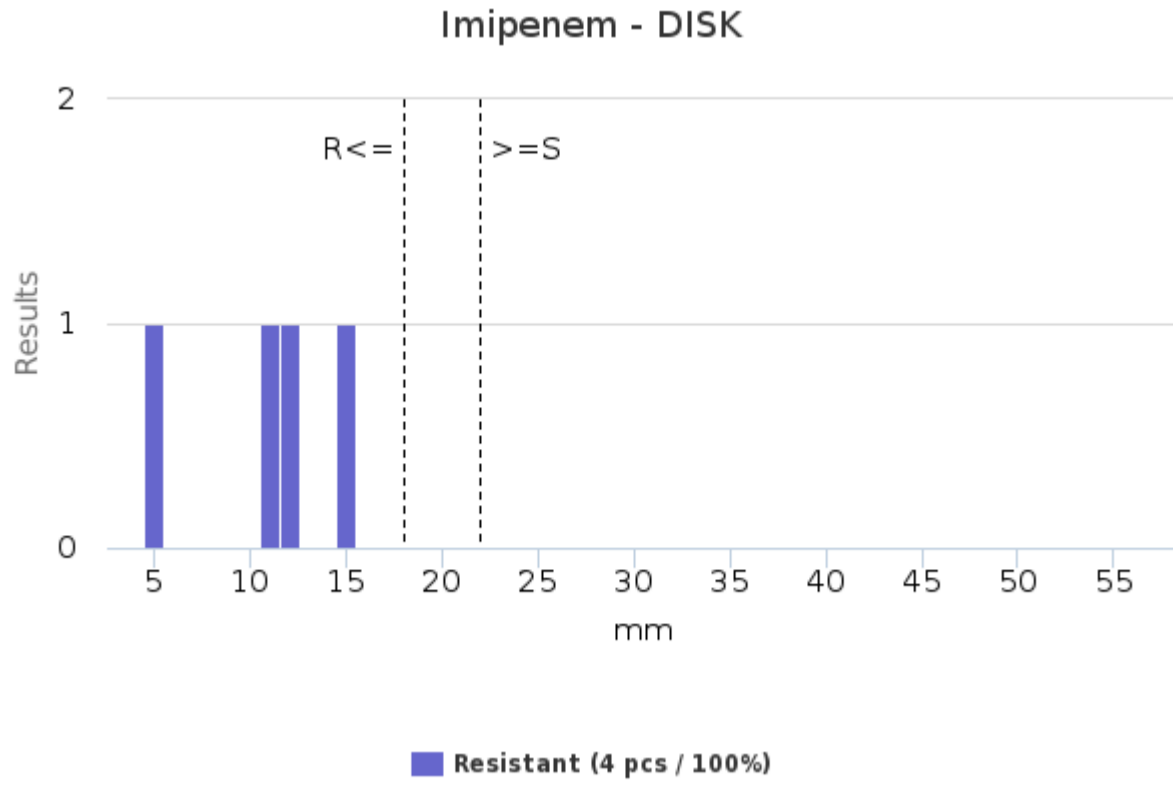
Gentamycin - MIC



Resistant (3 pcs / 100%)

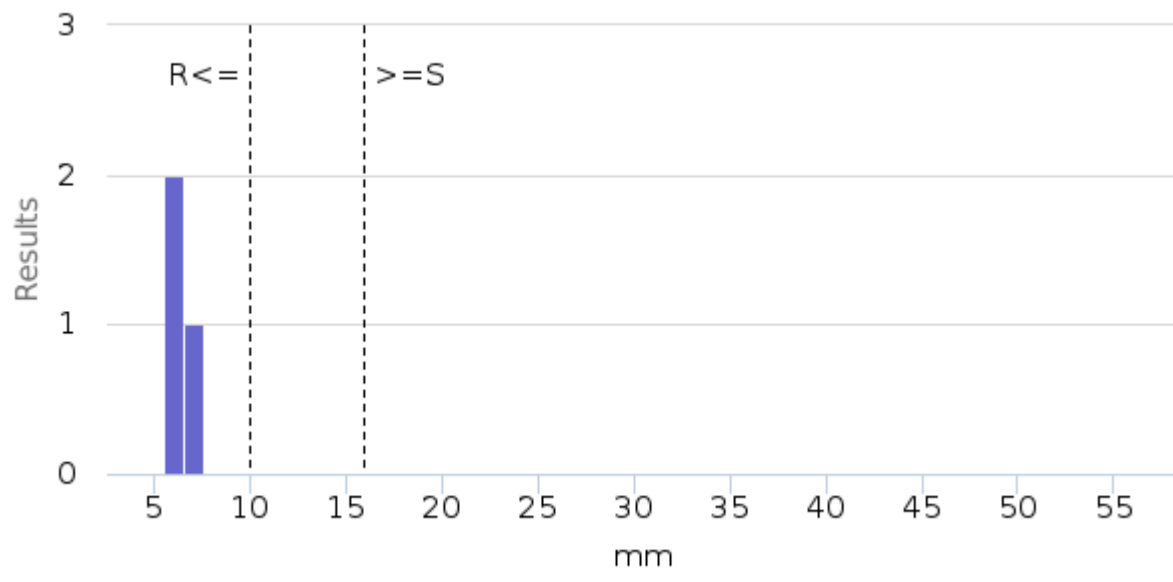
LABQUALITY Surveillance for multidrug resistant bacteria, gramnegative rods, February, 1-2023

Antimicrobial susceptibility testing results, *Acinetobacter baumannii*



Antimicrobial susceptibility testing results, *Acinetobacter baumannii*

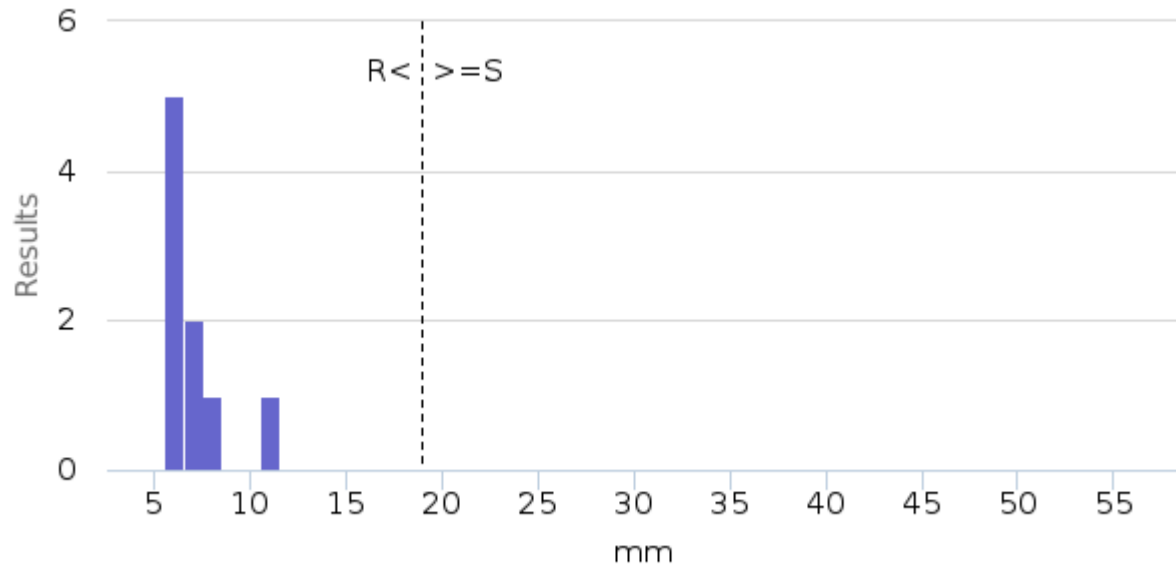
Trimethoprim-sulfamethoxazole - DISK



■ Resistant (3 pcs / 100%)

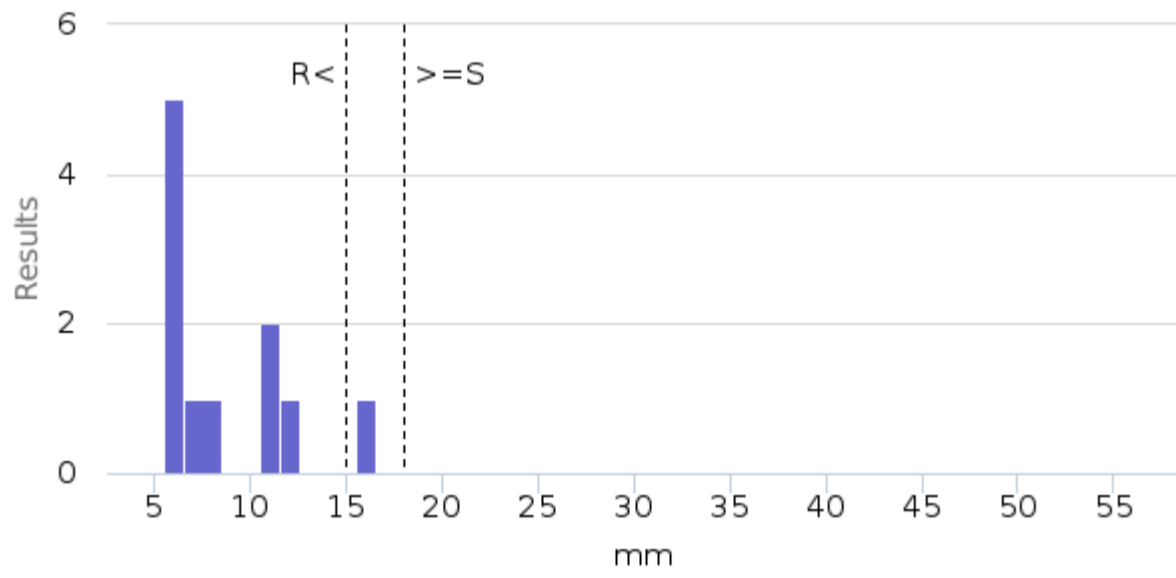
Sample S003 | CA-SFM

Amikacin - DISK



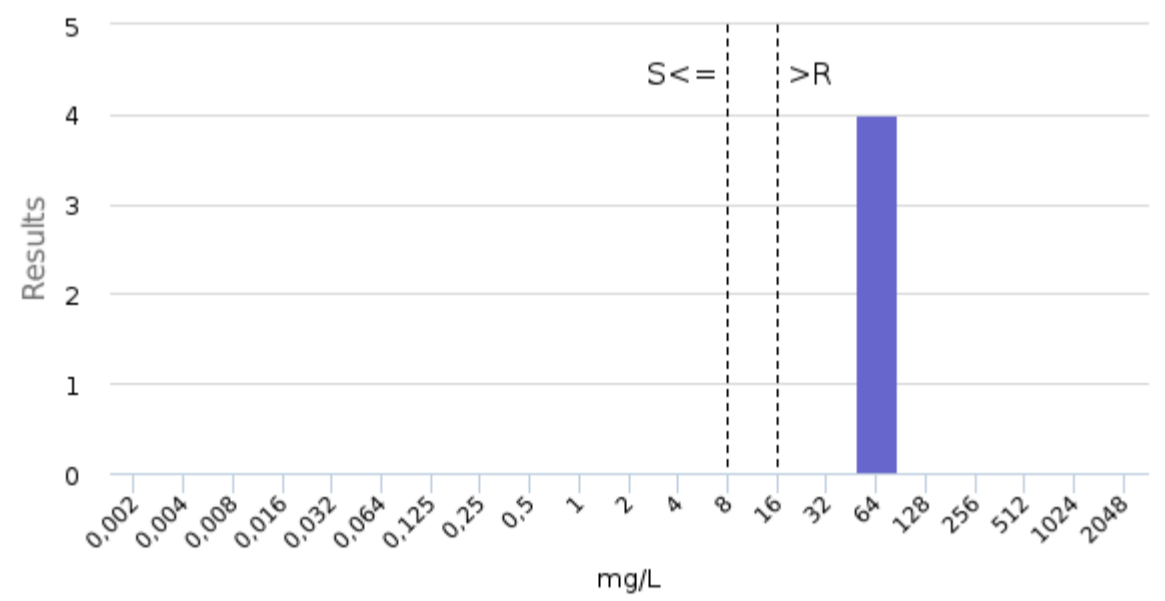
Resistant (9 pcs / 100%)

Cefepime - DISK



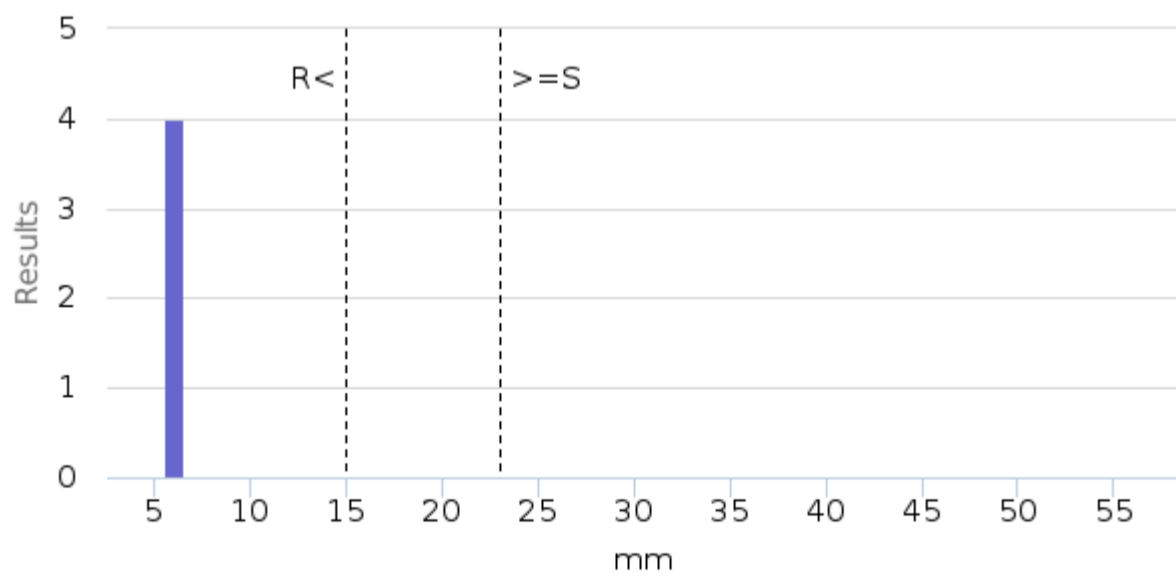
Resistant (11 pcs / 100%)

Cefepime - MIC



Resistant (4 pcs / 100%)

Cefotaxime - DISK

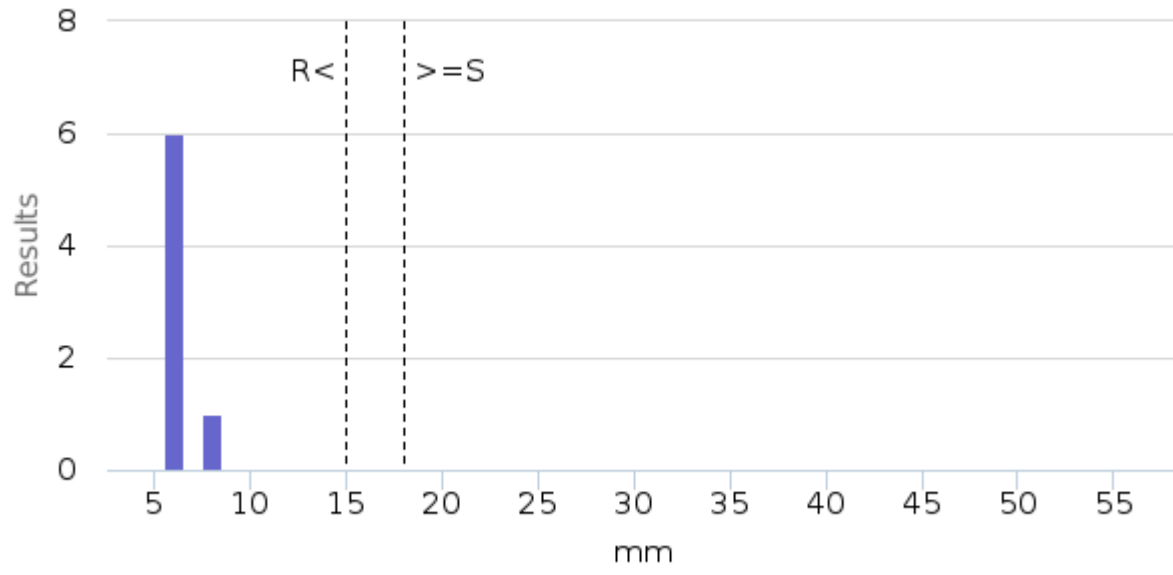


Resistant (4 pcs / 100%)

LABQUALITY Surveillance for multidrug resistant bacteria, gramnegative rods, February, 1-2023

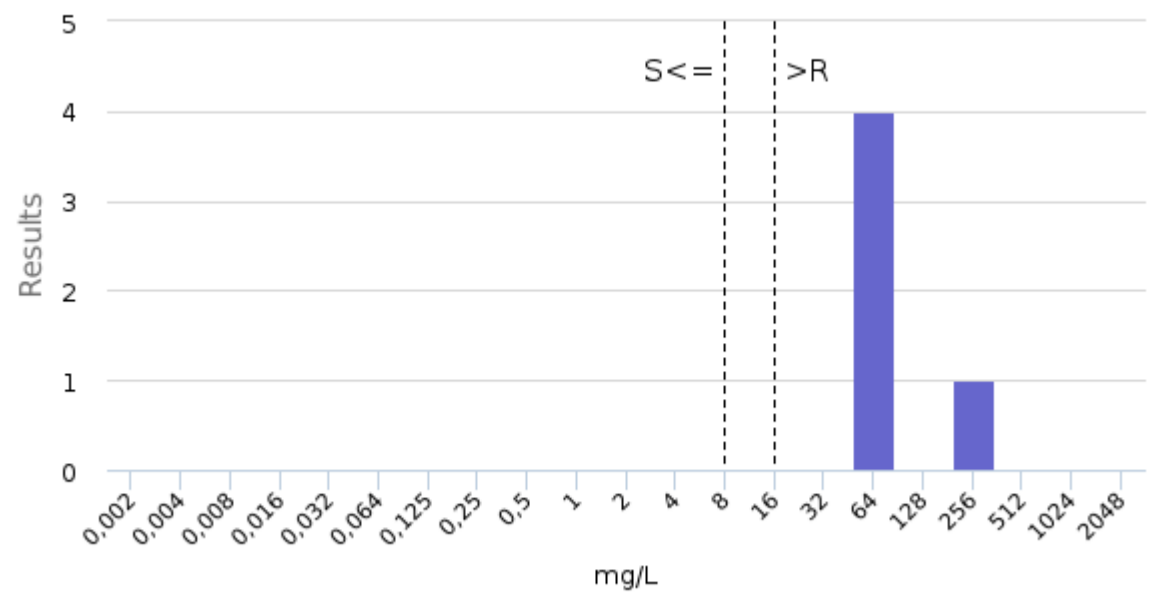
Antimicrobial susceptibility testing results, Acinetobacter baumannii

Ceftazidime - DISK



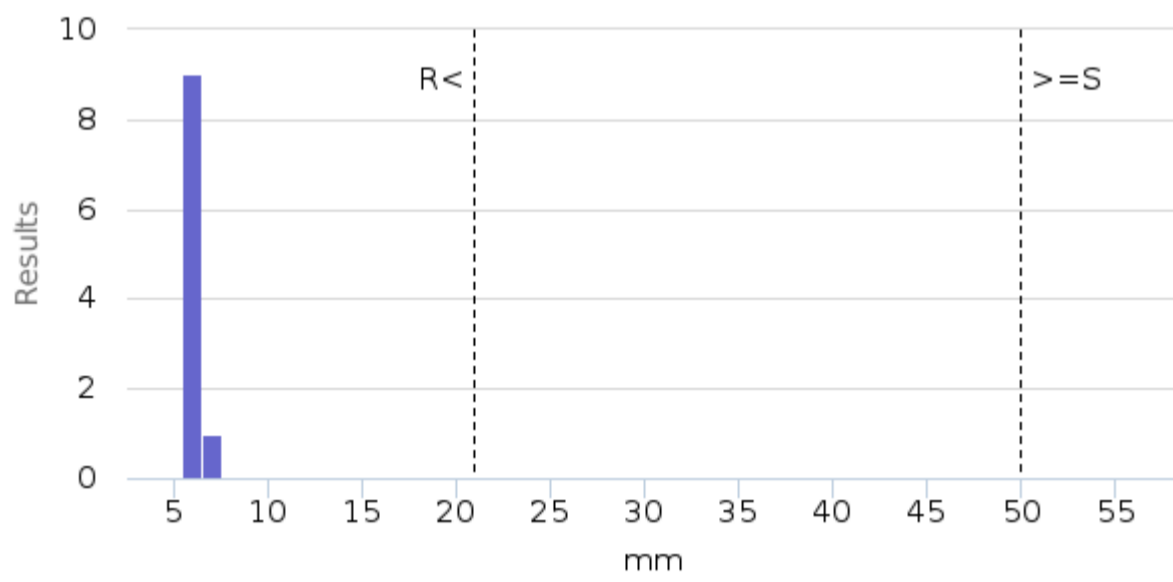
Resistant (7 pcs / 100%)

Ceftazidime - MIC



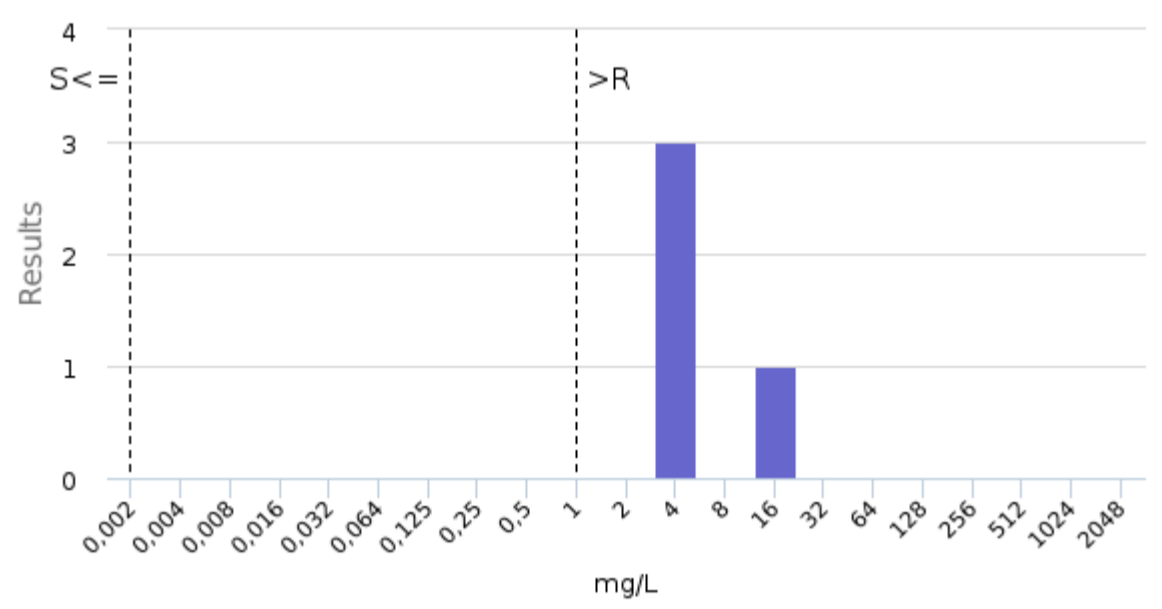
Resistant (5 pcs / 100%)

Ciprofloxacin - DISK



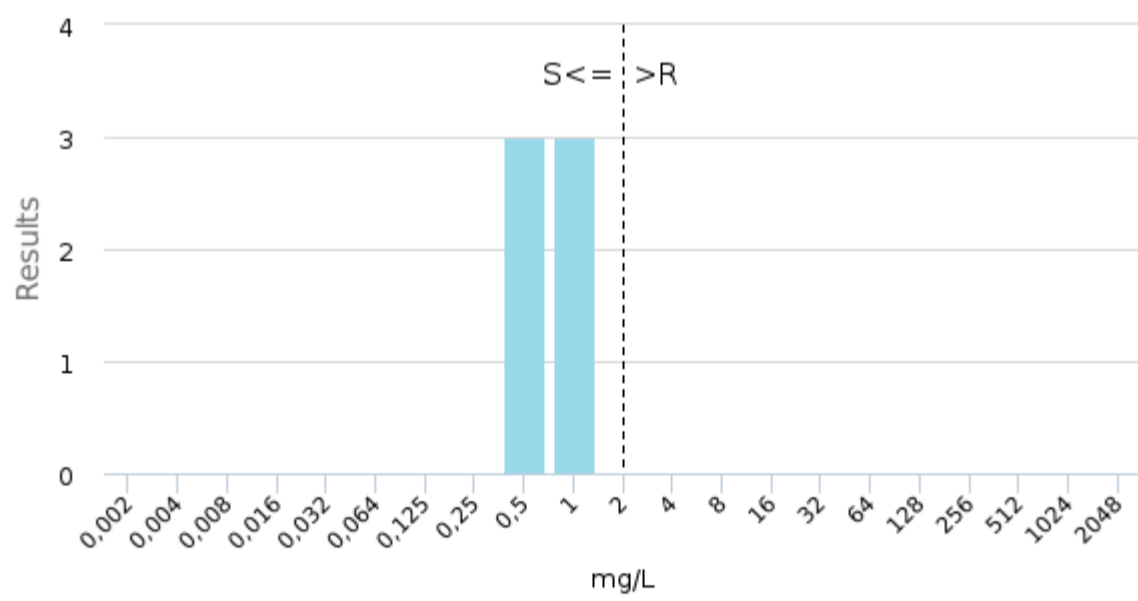
Resistant (10 pcs / 100%)

Ciprofloxacin - MIC



Resistant (4 pcs / 100%)

Colistin - MIC

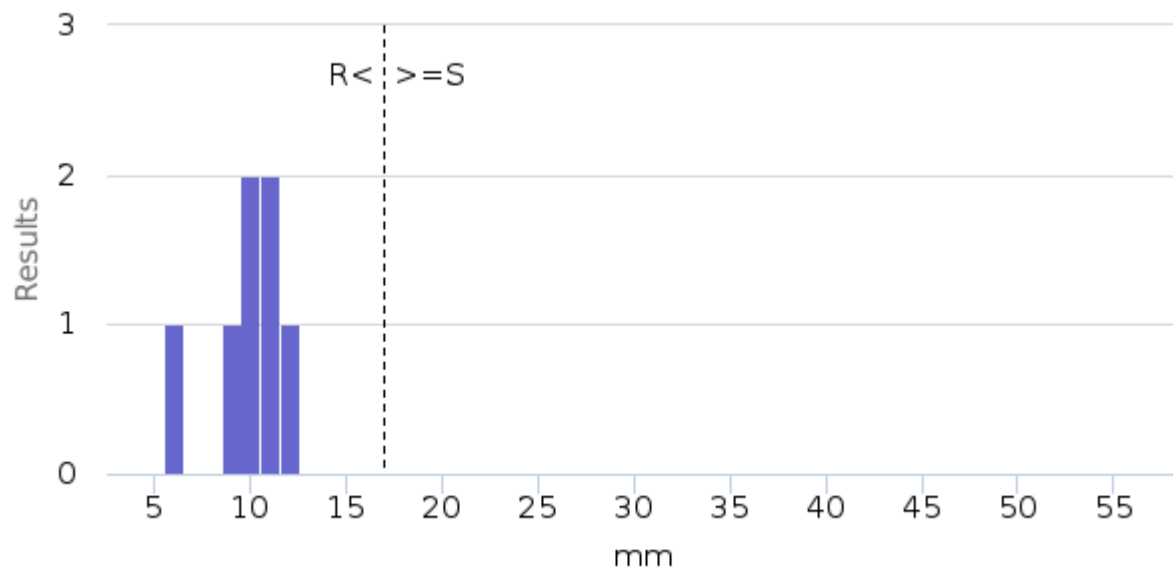


Susceptible (6 pcs / 100%)

LABQUALITY Surveillance for multidrug resistant bacteria, gramnegative rods, February, 1-2023

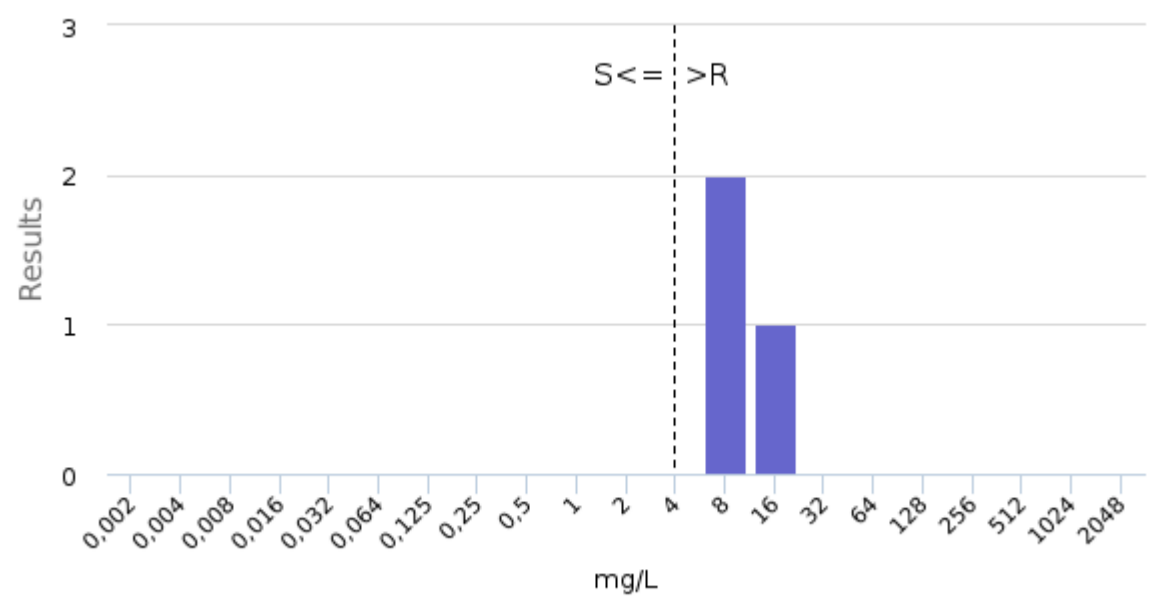
Antimicrobial susceptibility testing results, Acinetobacter baumannii

Gentamycin - DISK



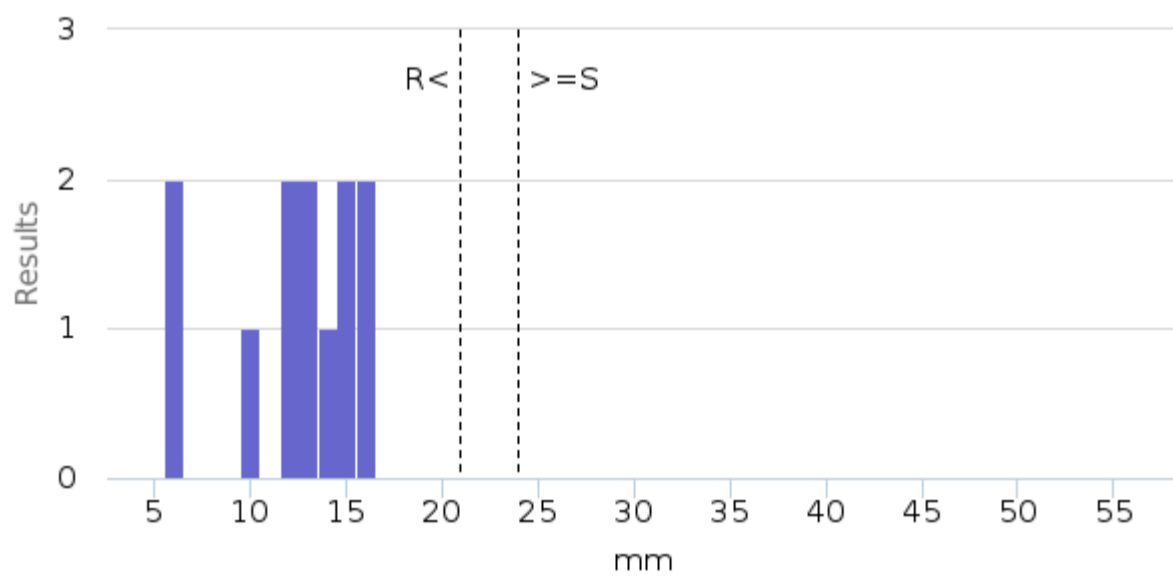
Resistant (7 pcs / 100%)

Gentamycin - MIC



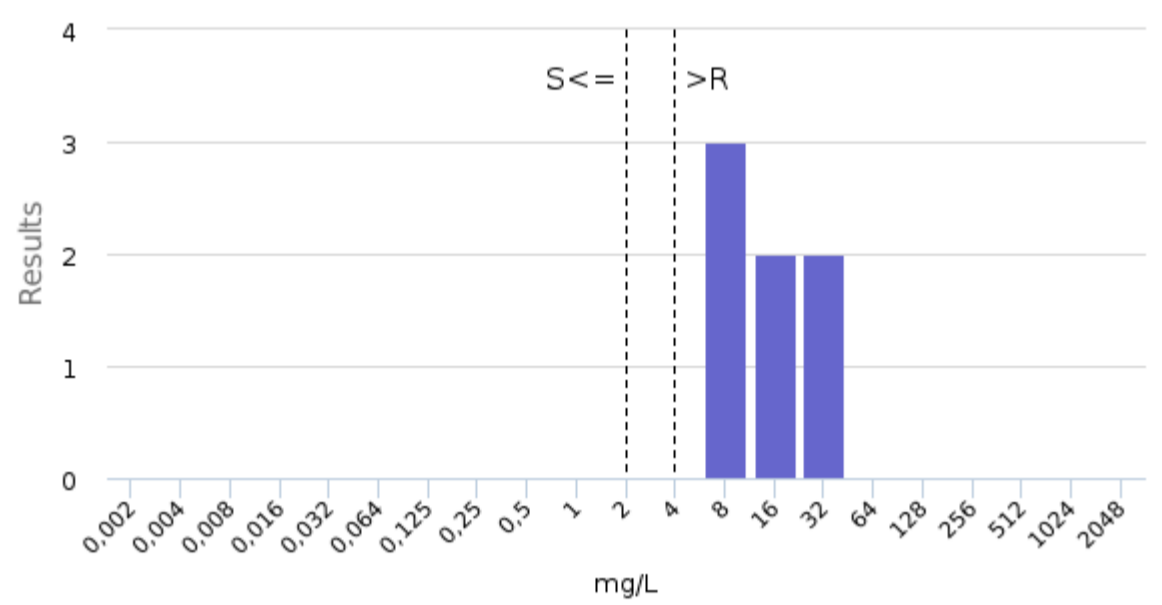
Resistant (3 pcs / 100%)

Imipenem - DISK



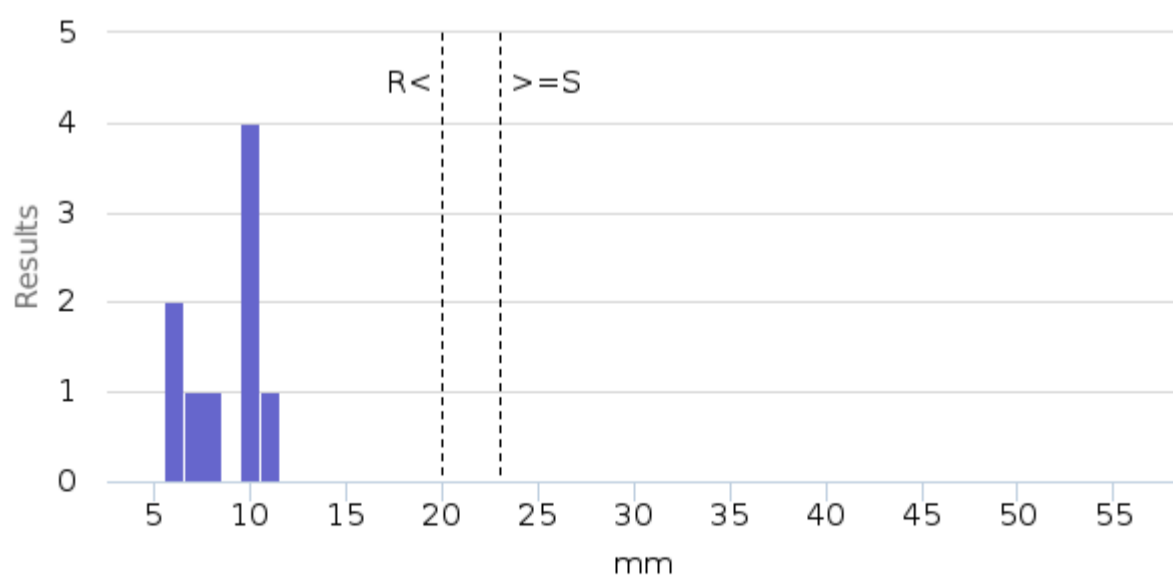
Resistant (12 pcs / 100%)

Imipenem - MIC



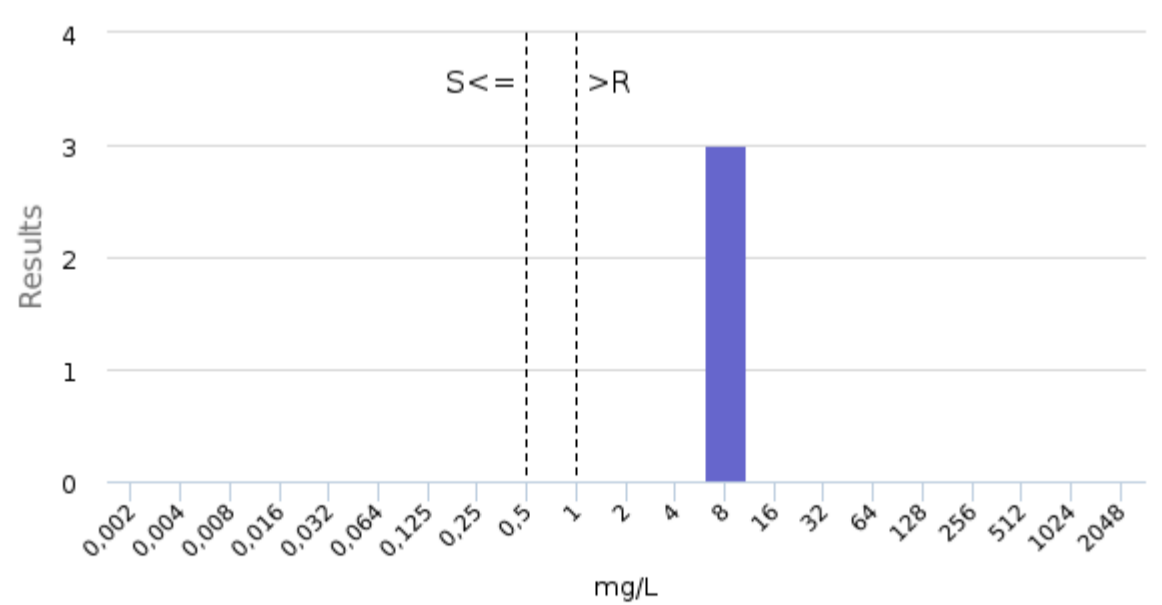
Resistant (7 pcs / 100%)

Levofloxacin - DISK



Resistant (9 pcs / 100%)

Levofloxacin - MIC

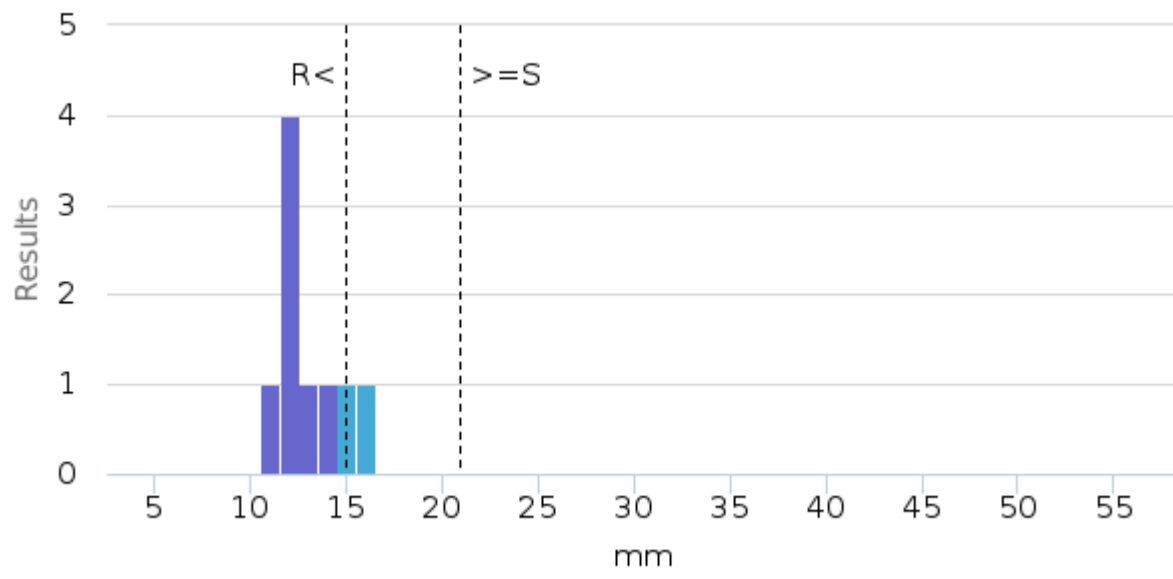


Resistant (3 pcs / 100%)

LABQUALITY Surveillance for multidrug resistant bacteria, gramnegative rods, February, 1-2023

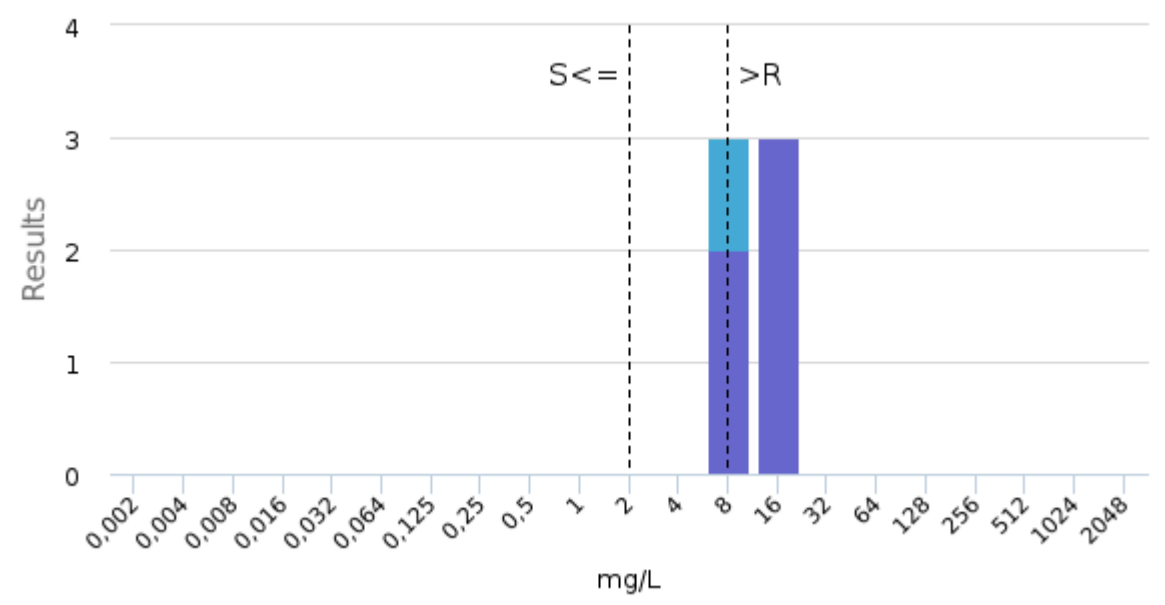
Antimicrobial susceptibility testing results, Acinetobacter baumannii

Meropenem - DISK



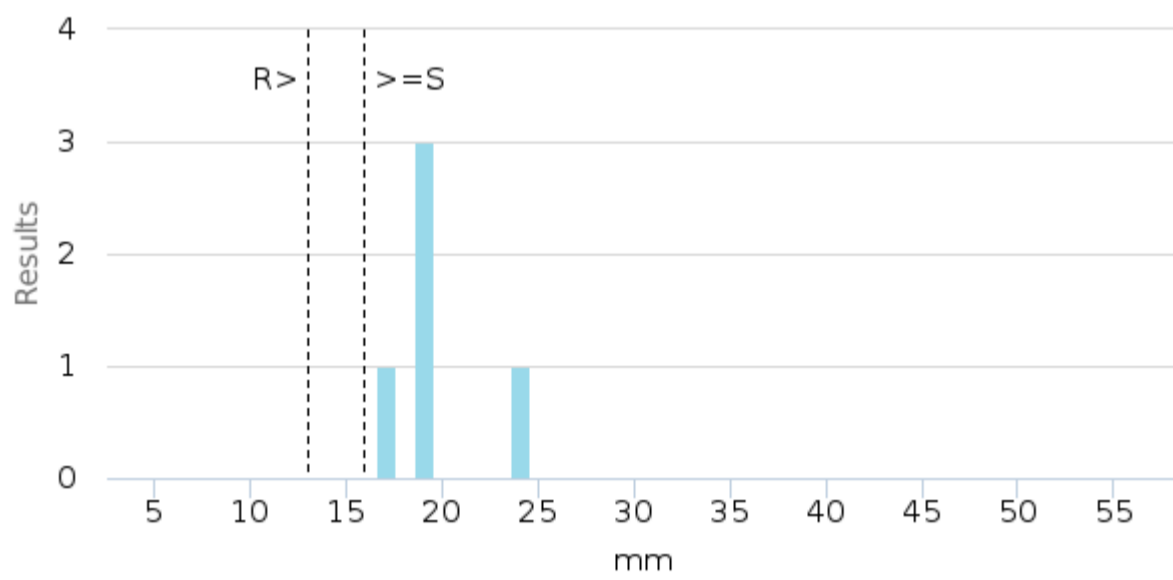
Intermediate (2 pcs / 22%) Resistant (7 pcs / 78%)

Meropenem - MIC



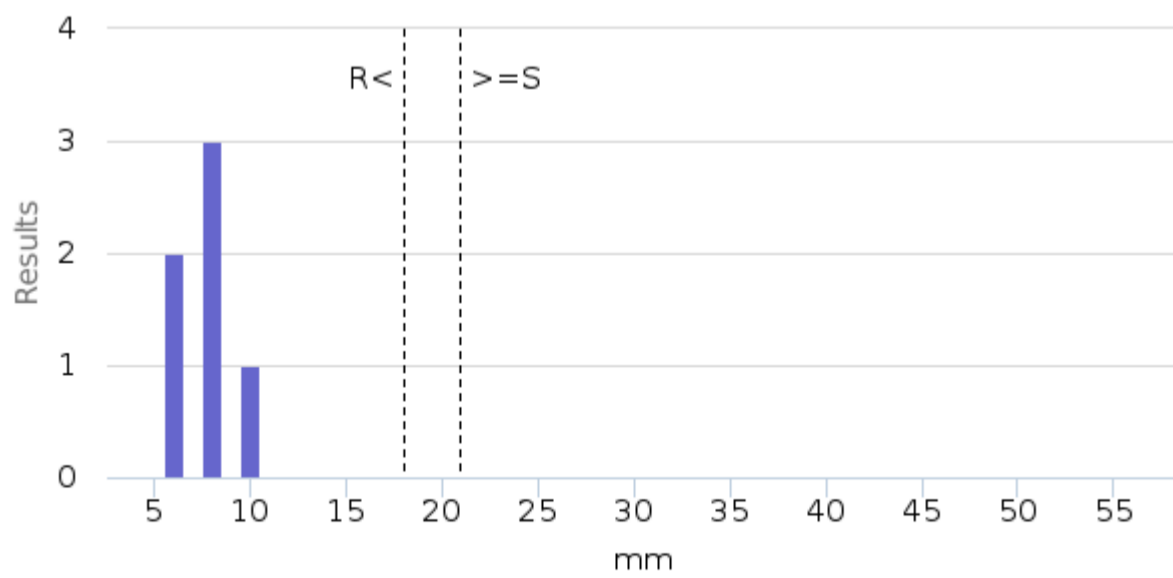
Intermediate (1 pcs / 17%) Resistant (5 pcs / 83%)

Minocycline - DISK



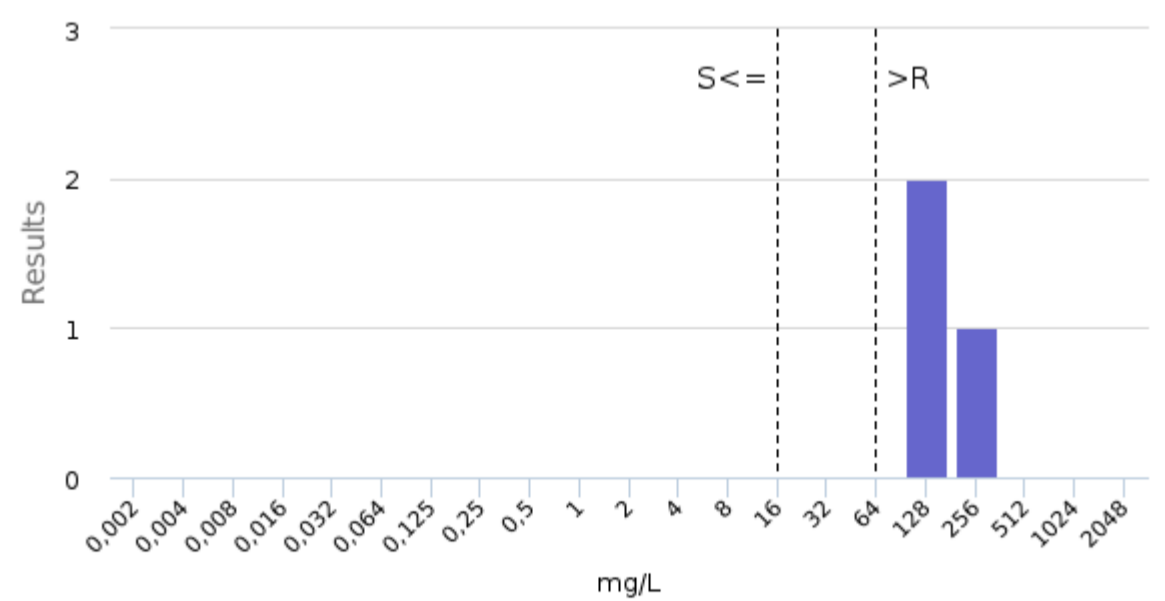
Susceptible (5 pcs / 100%)

Piperacillin - DISK



Resistant (6 pcs / 100%)

Piperacillin - MIC

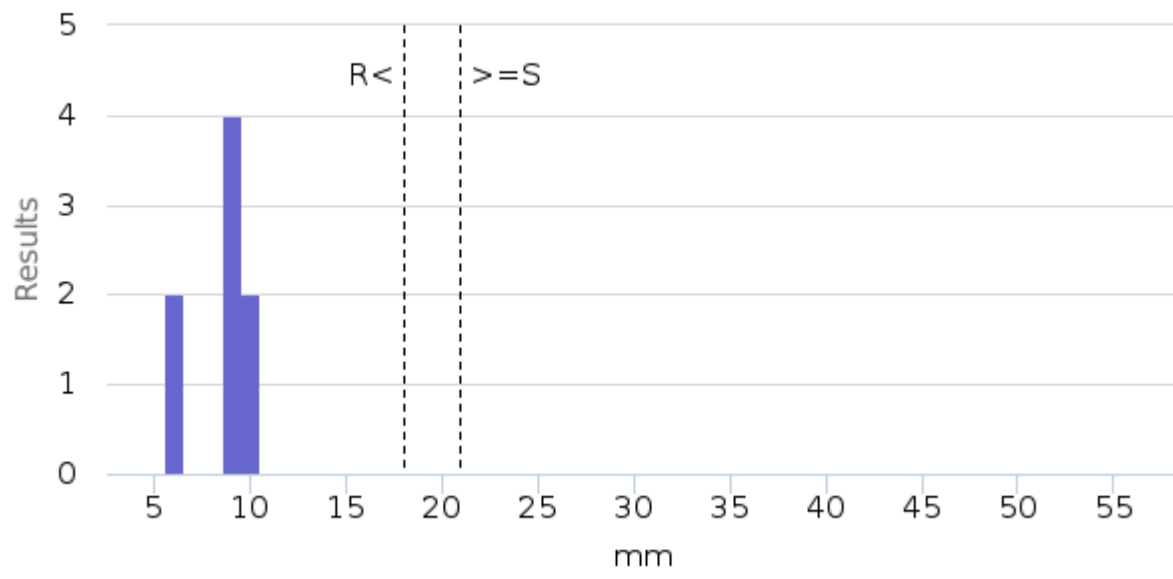


Resistant (3 pcs / 100%)

LABQUALITY Surveillance for multidrug resistant bacteria, gramnegative rods, February, 1-2023

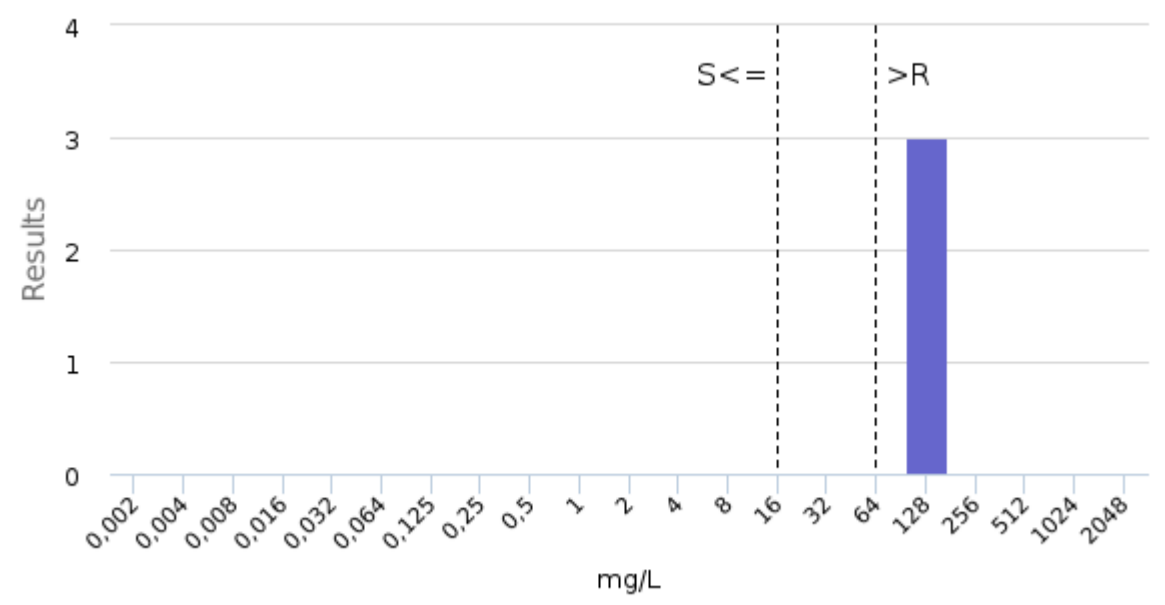
Antimicrobial susceptibility testing results, Acinetobacter baumannii

Piperacillin-tazobactam - DISK



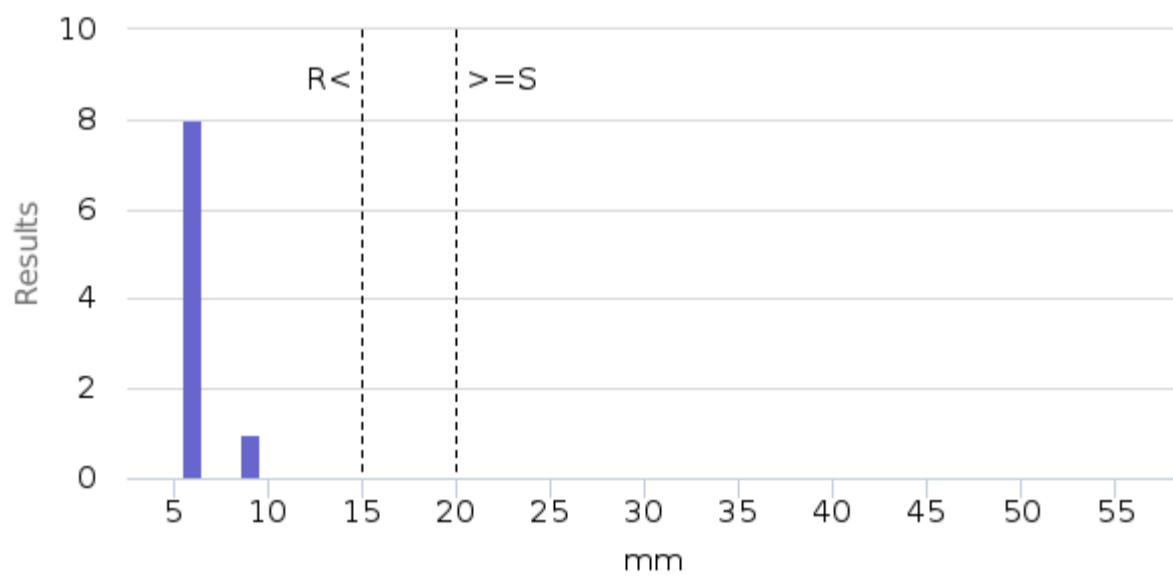
Resistant (8 pcs / 100%)

Piperacillin-tazobactam - MIC



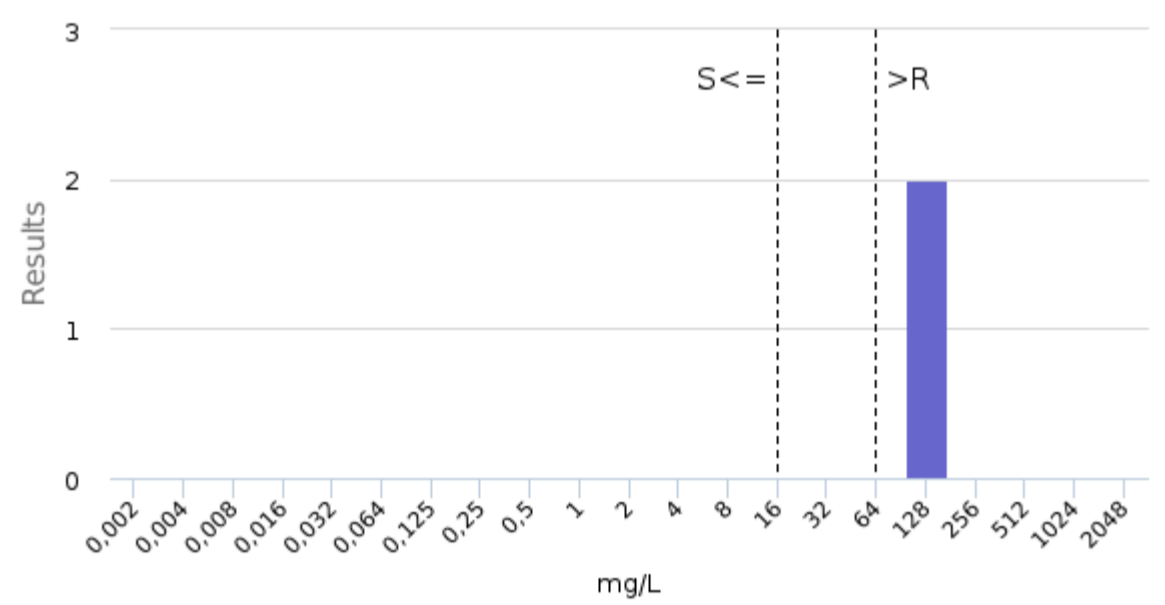
Resistant (3 pcs / 100%)

Ticarcillin - DISK



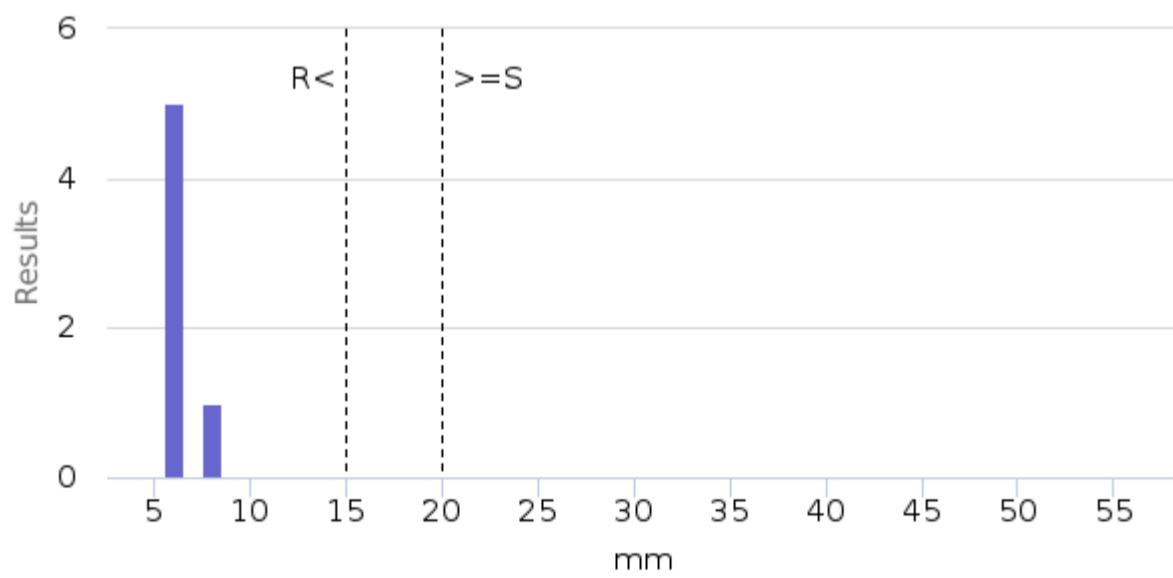
Resistant (9 pcs / 100%)

Ticarcillin - MIC



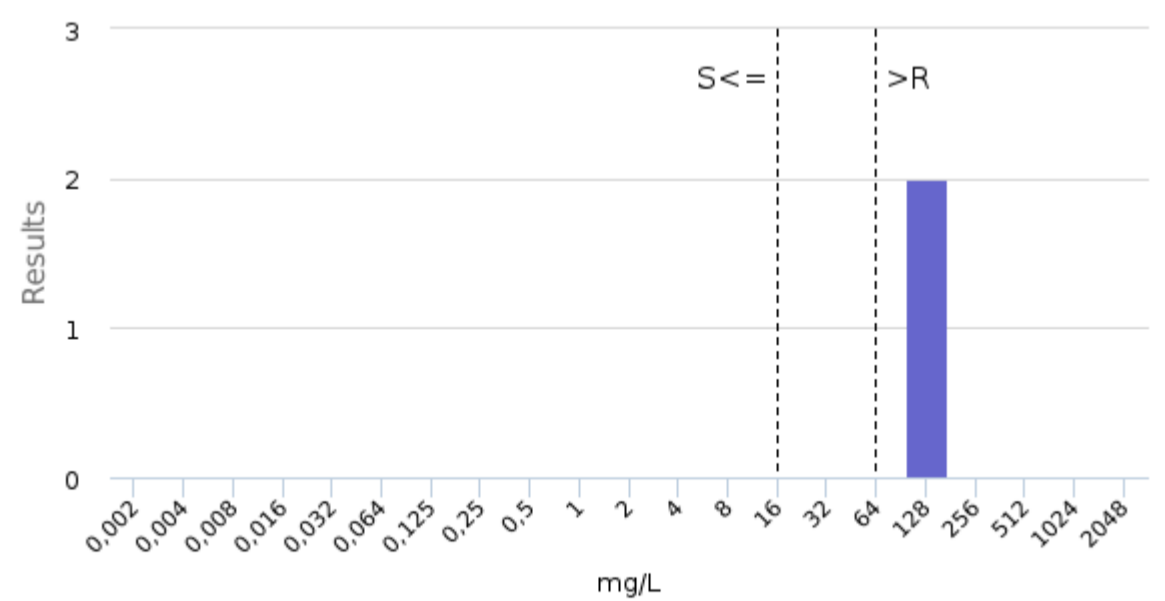
Resistant (2 pcs / 100%)

Tikarcillin-clavulanic acid - DISK



Resistant (6 pcs / 100%)

Tikarcillin-clavulanic acid - MIC

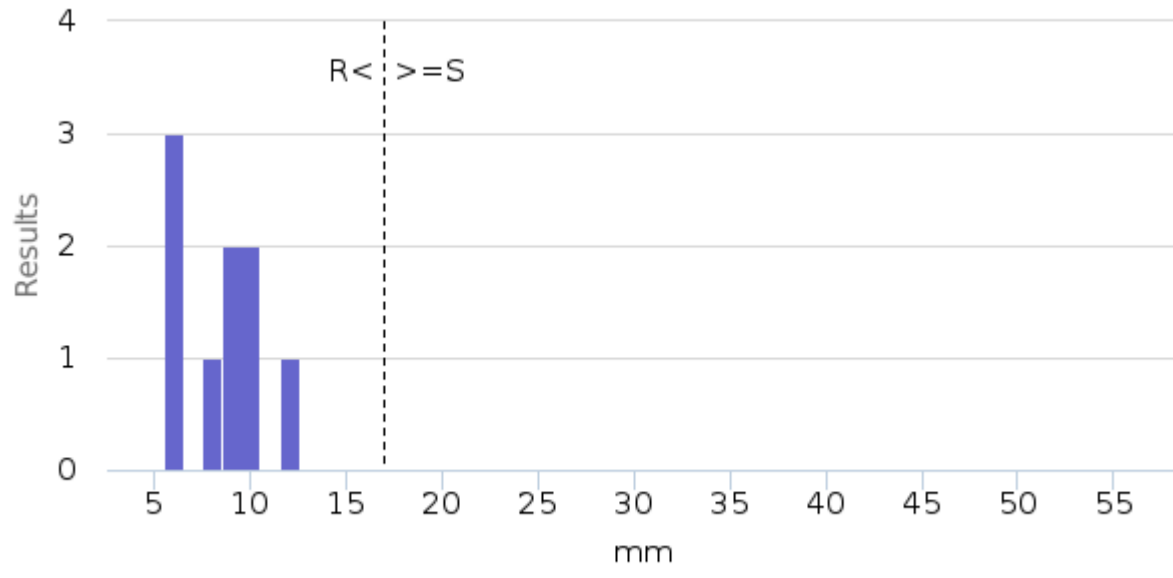


Resistant (2 pcs / 100%)

LABQUALITY Surveillance for multidrug resistant bacteria, gramnegative rods, February, 1-2023

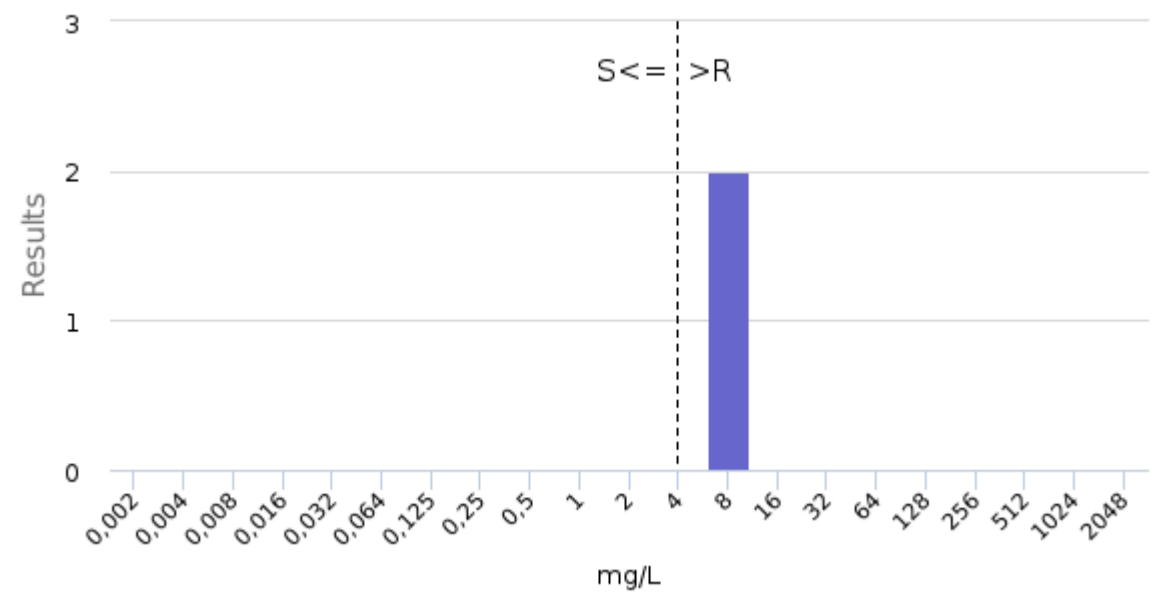
Antimicrobial susceptibility testing results, Acinetobacter baumannii

Tobramycin - DISK



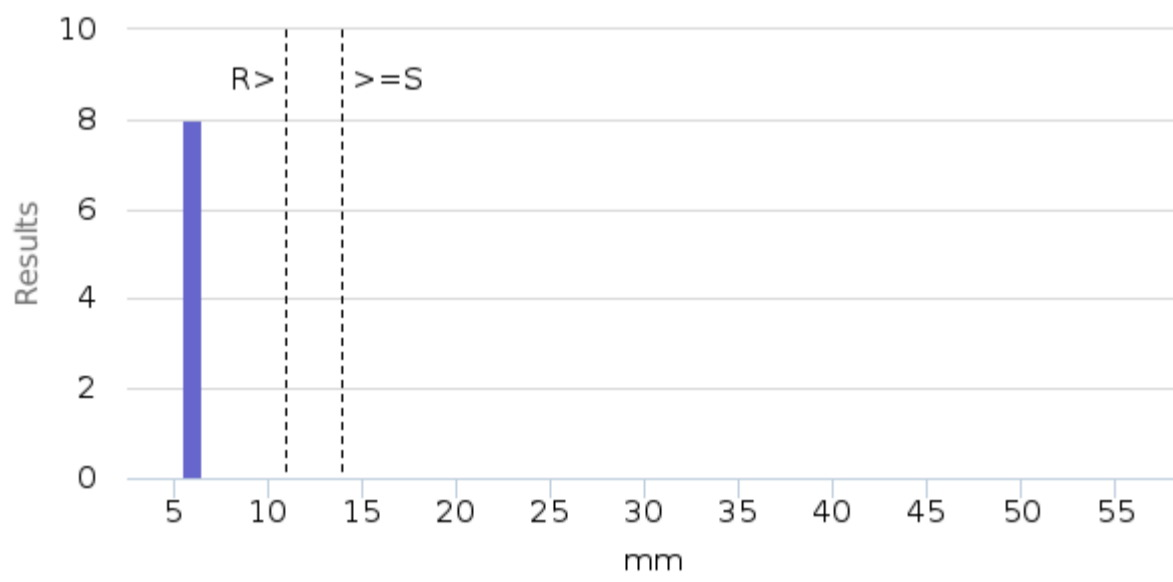
Resistant (9 pcs / 100%)

Tobramycin - MIC



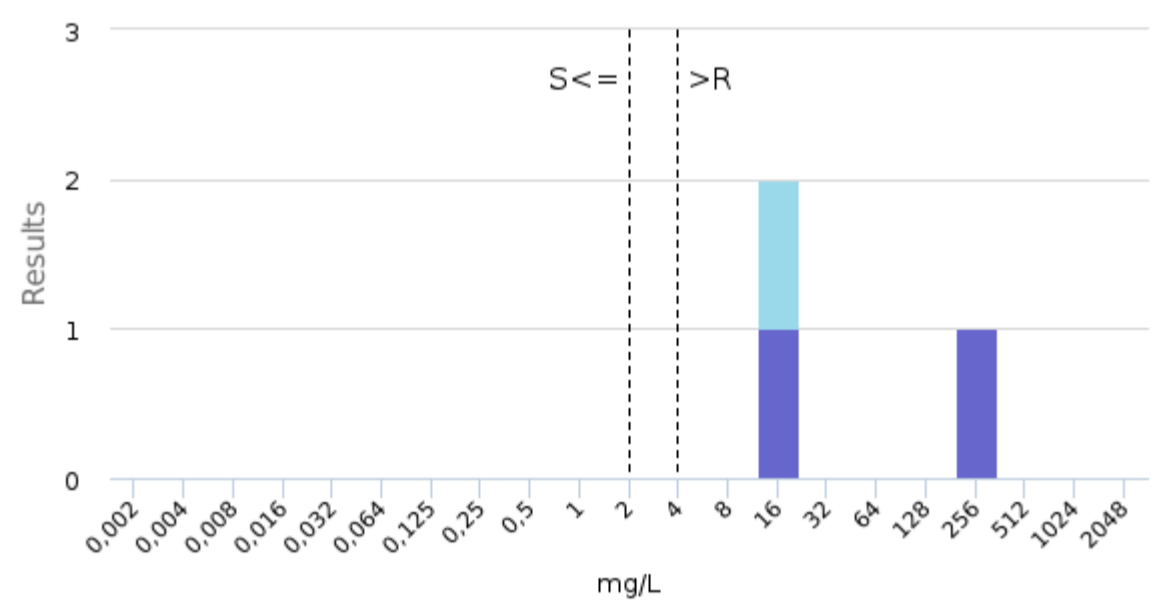
Resistant (2 pcs / 100%)

Trimethoprim-sulfamethoxazole - DISK



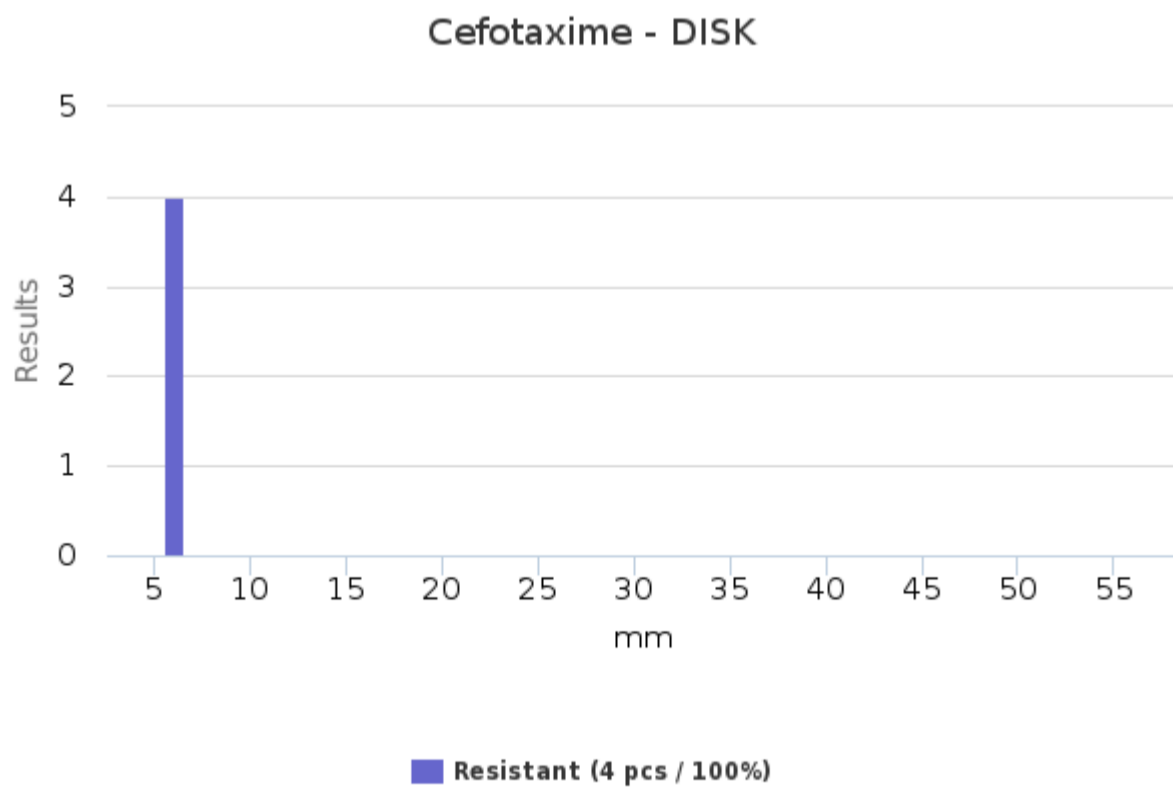
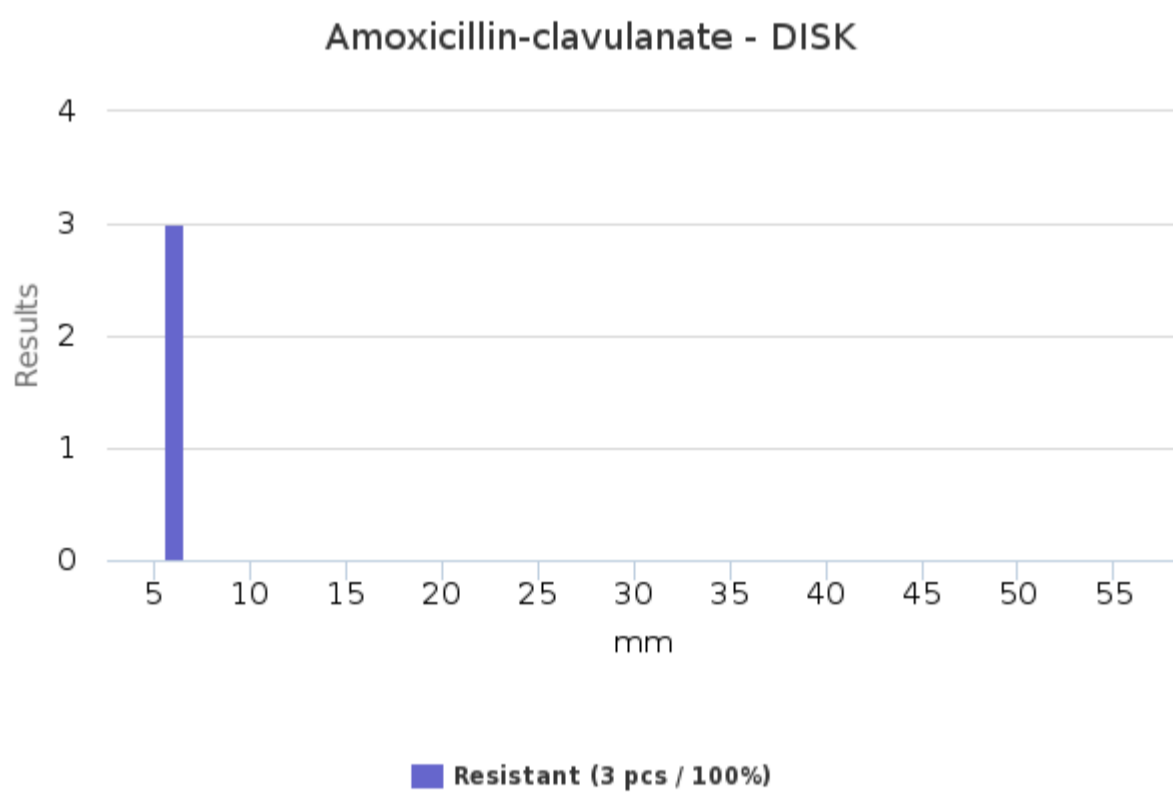
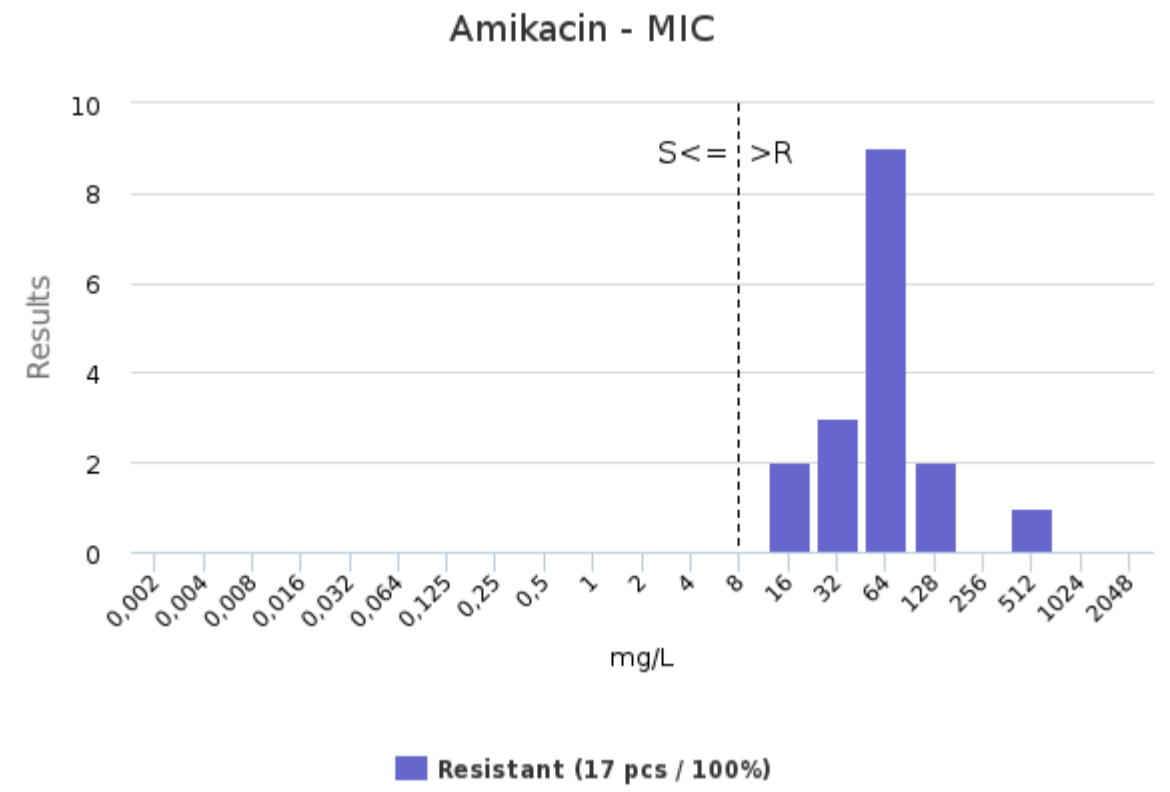
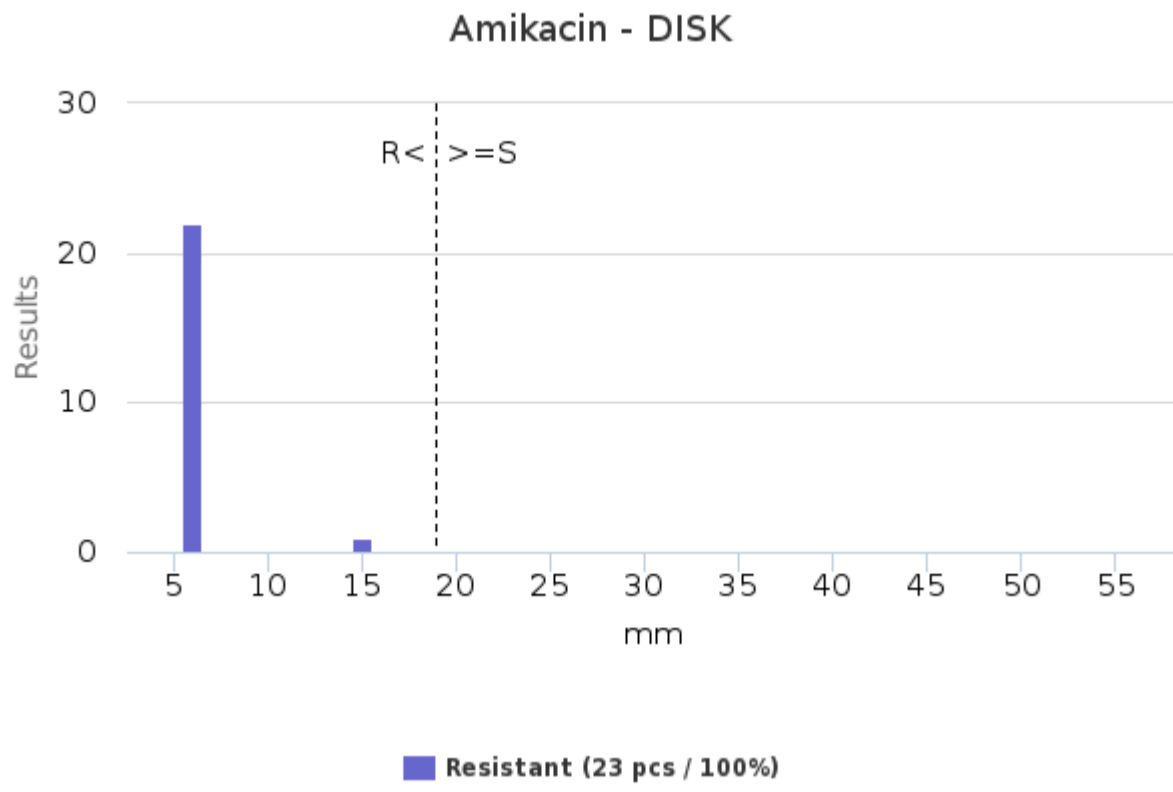
Resistant (8 pcs / 100%)

Trimethoprim-sulfamethoxazole - MIC



Susceptible (1 pcs / 33%) Resistant (2 pcs / 67%)

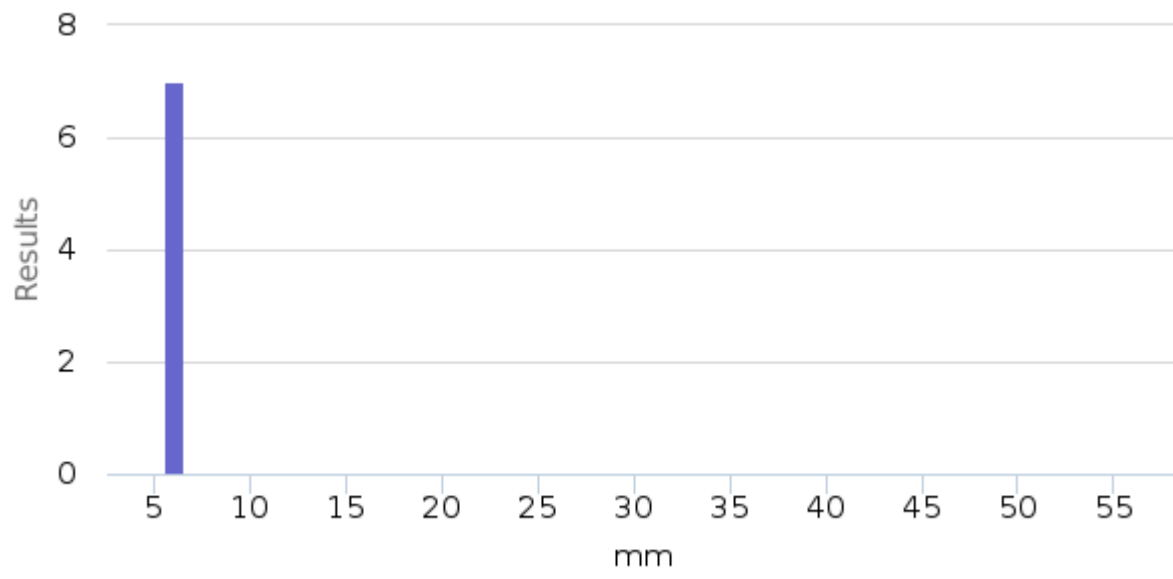
Sample S003 | EUCAST



LABQUALITY Surveillance for multidrug resistant bacteria, gramnegative rods, February, 1-2023

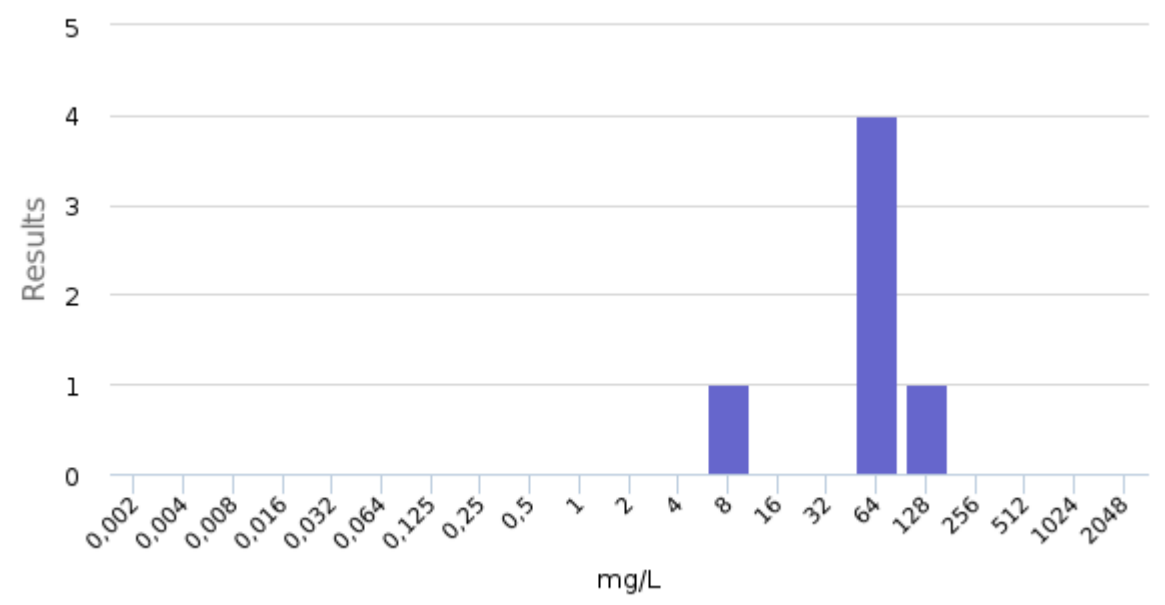
Antimicrobial susceptibility testing results, *Acinetobacter baumannii*

Ceftazidime - DISK



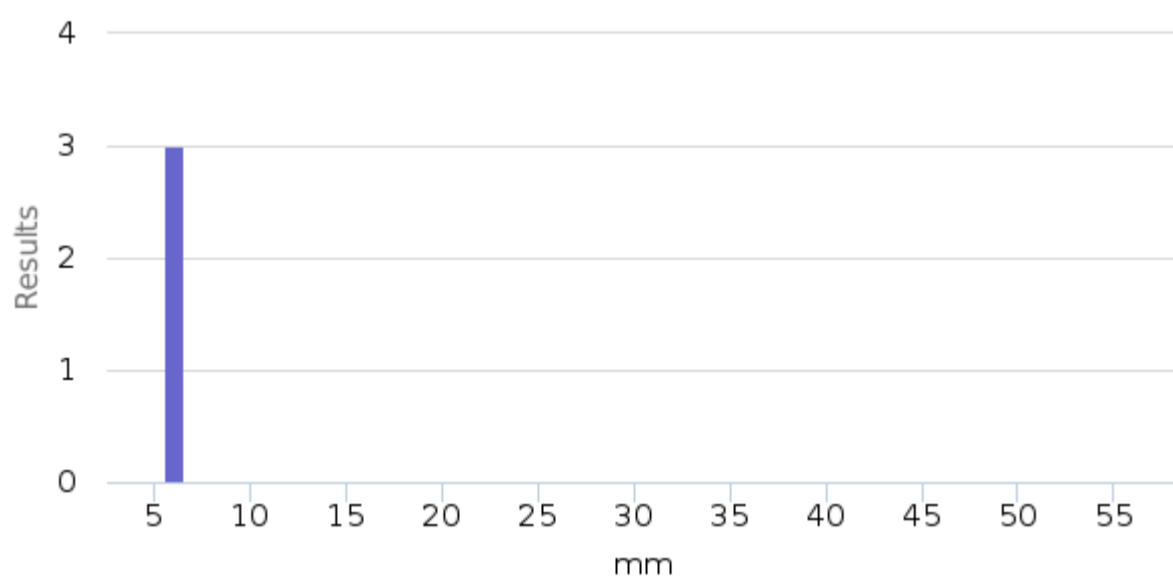
Resistant (7 pcs / 100%)

Ceftazidime - MIC



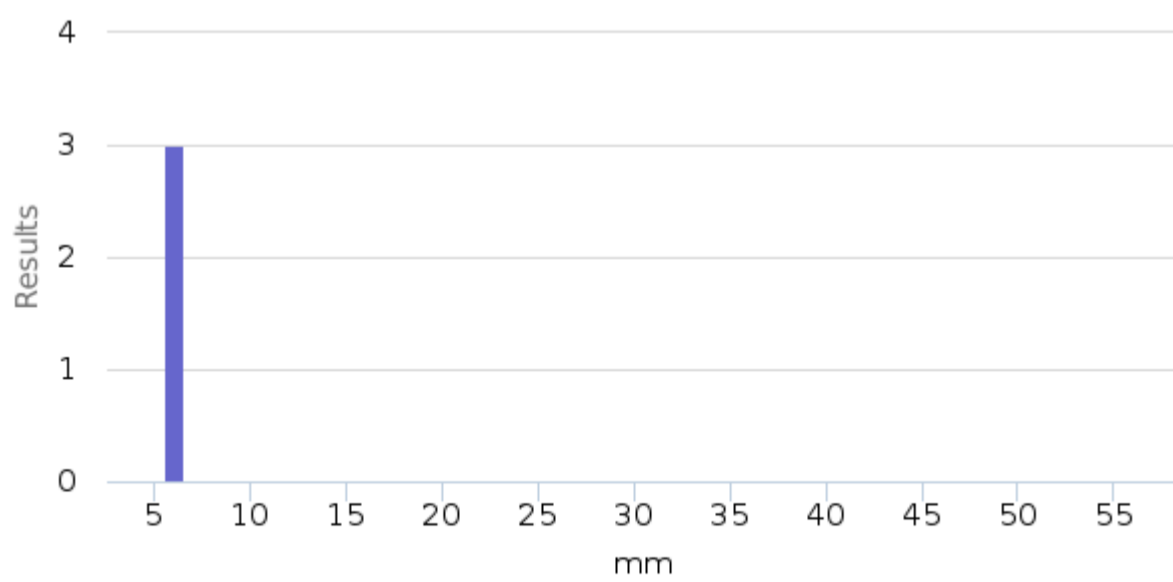
Resistant (6 pcs / 100%)

Ceftriaxone - DISK



Resistant (3 pcs / 100%)

Cefuroxime (iv/parenteral) - DISK

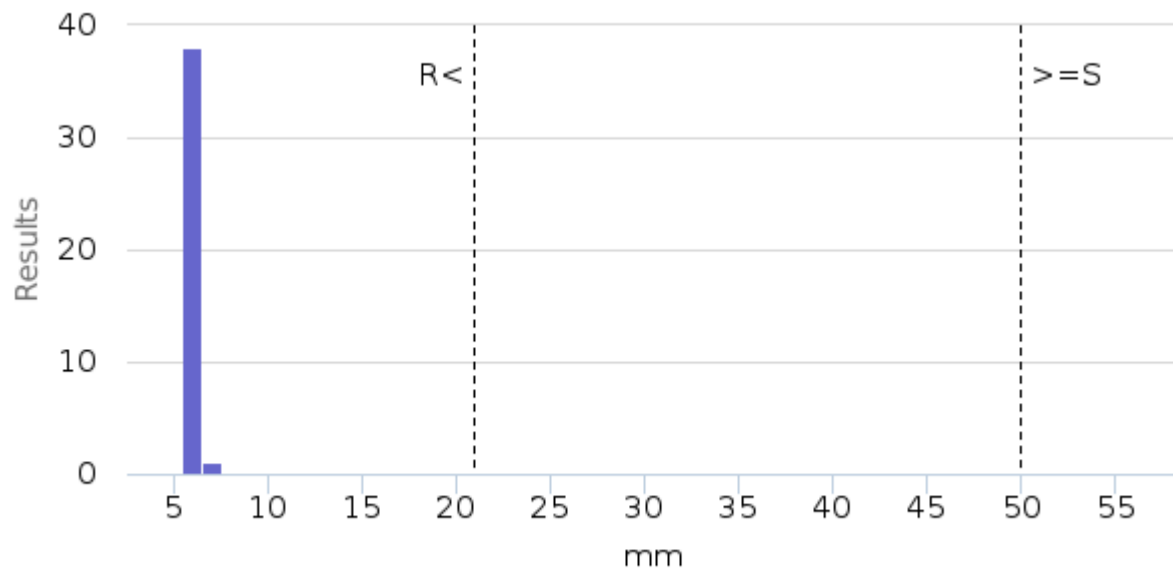


Resistant (3 pcs / 100%)

LABQUALITY Surveillance for multidrug resistant bacteria, gramnegative rods, February, 1-2023

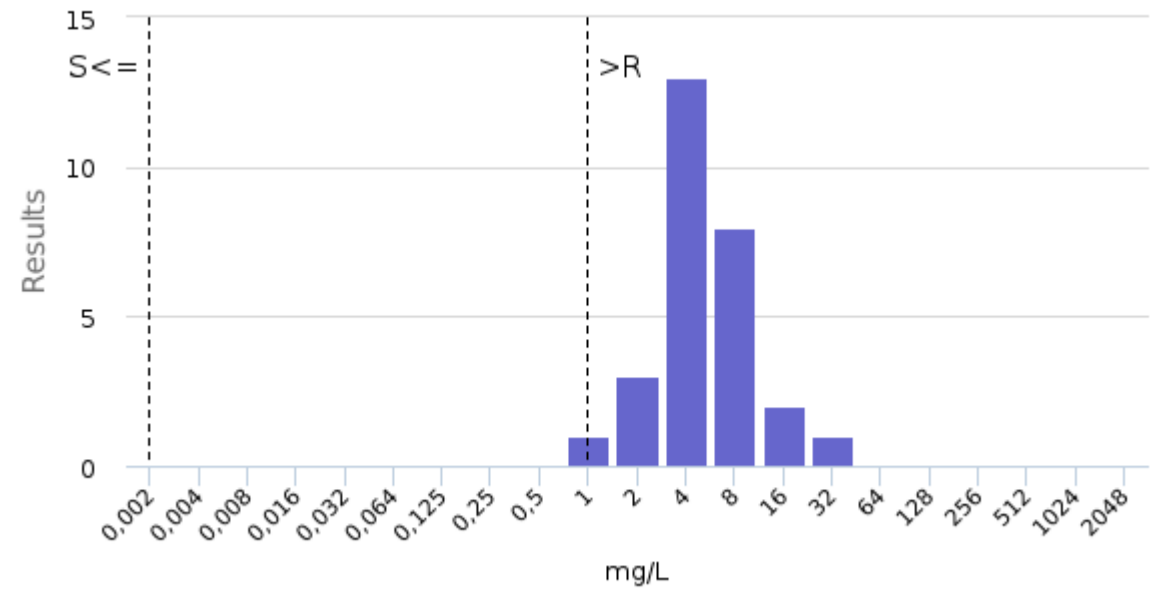
Antimicrobial susceptibility testing results, Acinetobacter baumannii

Ciprofloxacin - DISK



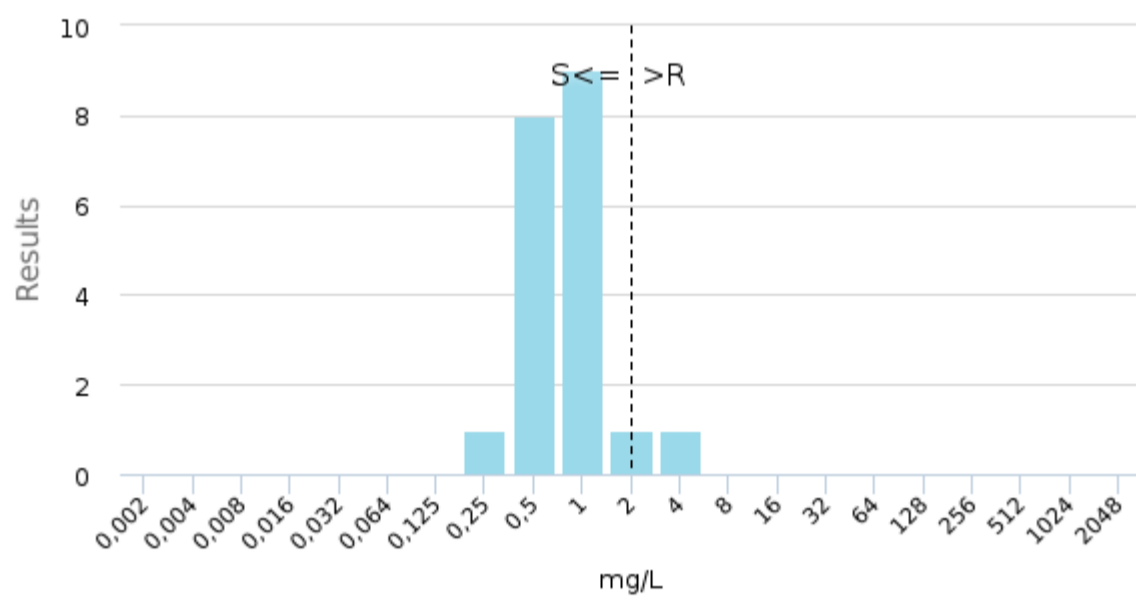
Resistant (39 pcs / 100%)

Ciprofloxacin - MIC



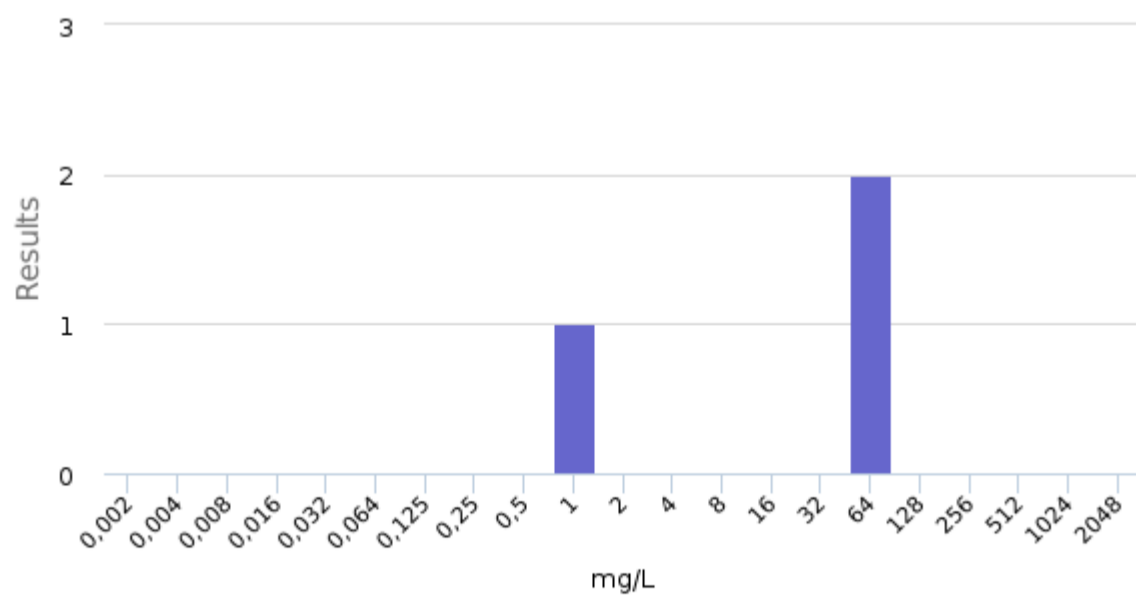
Resistant (28 pcs / 100%)

Colistin - MIC



Susceptible (20 pcs / 100%)

Ertapenem - MIC

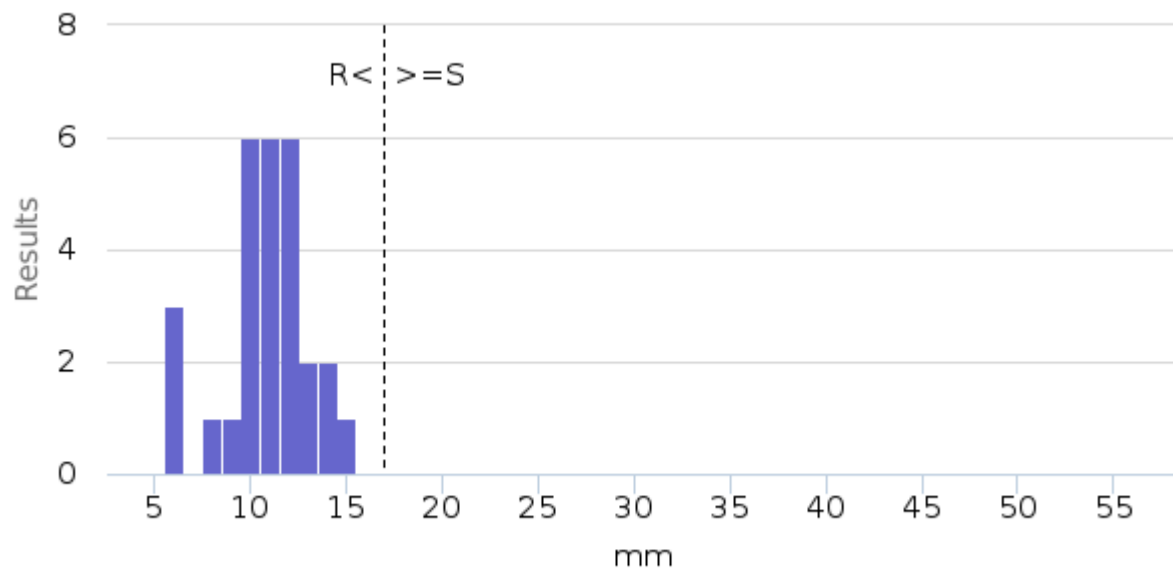


Resistant (3 pcs / 100%)

LABQUALITY Surveillance for multidrug resistant bacteria, gramnegative rods, February, 1-2023

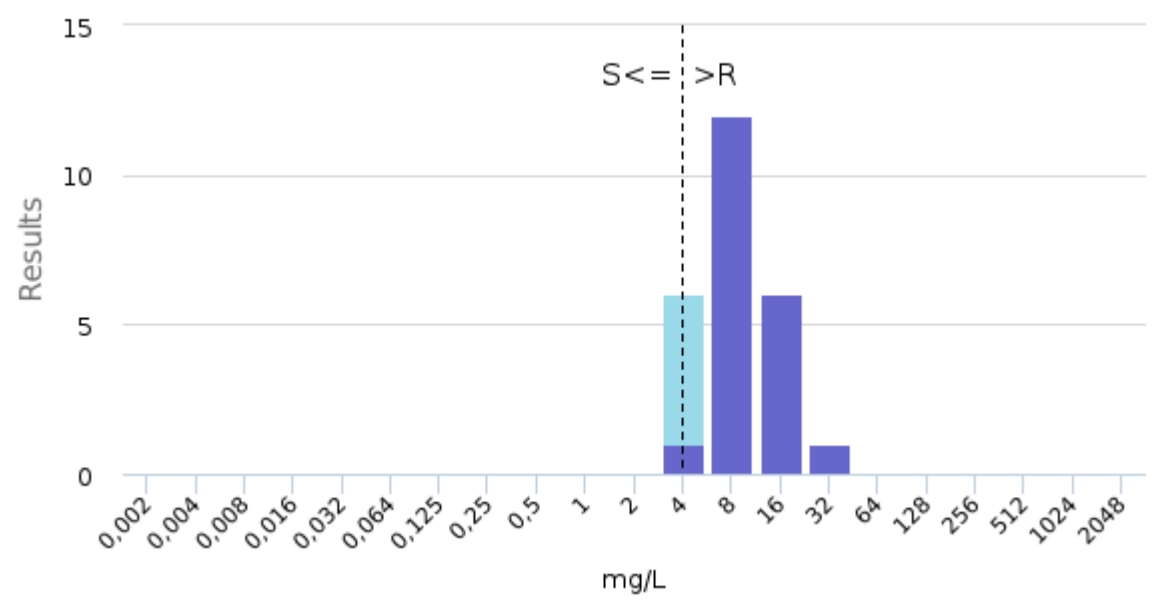
Antimicrobial susceptibility testing results, Acinetobacter baumannii

Gentamycin - DISK



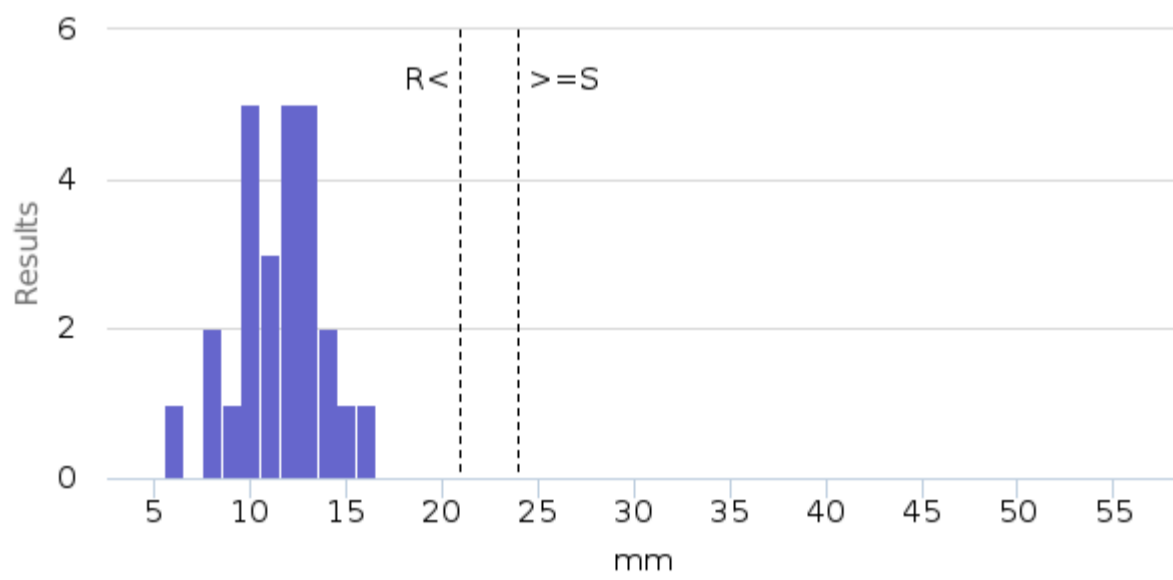
Resistant (28 pcs / 100%)

Gentamycin - MIC



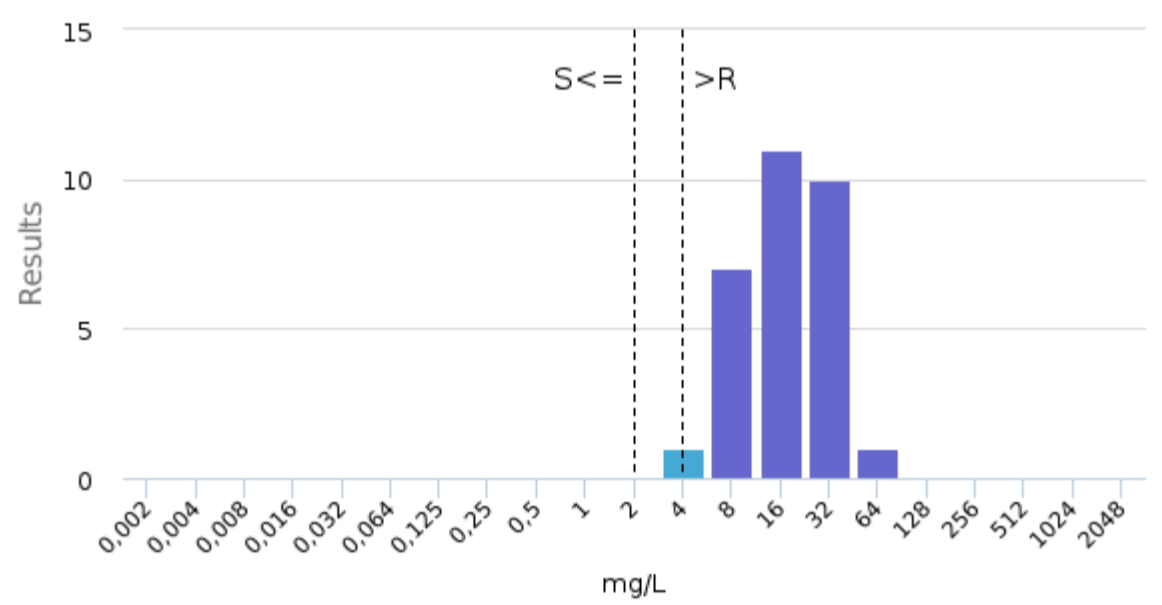
Susceptible (5 pcs / 20%) Resistant (20 pcs / 80%)

Imipenem - DISK



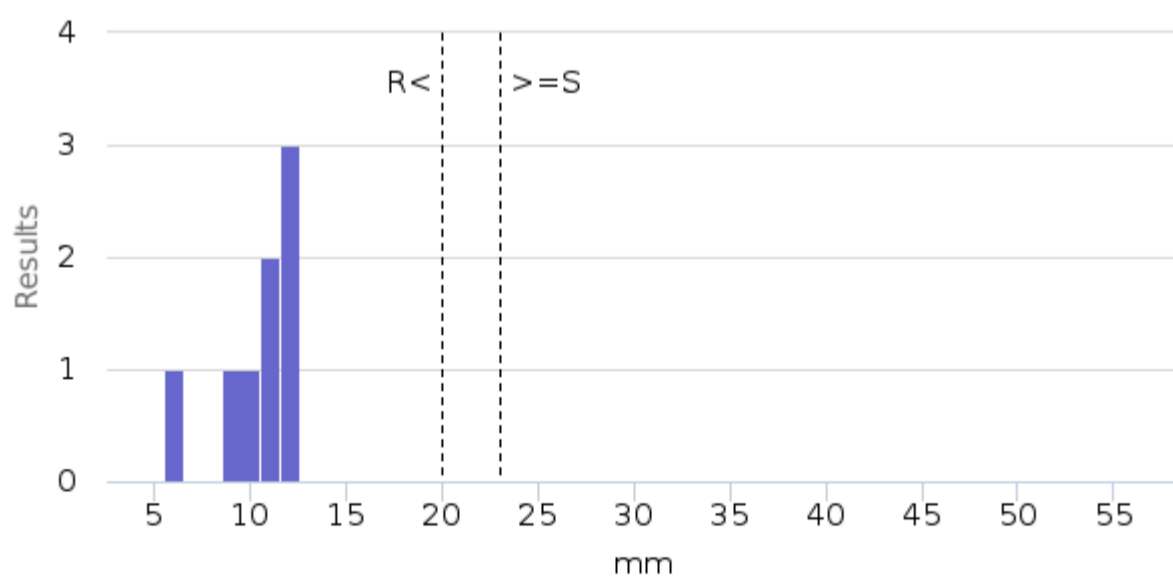
Resistant (26 pcs / 100%)

Imipenem - MIC



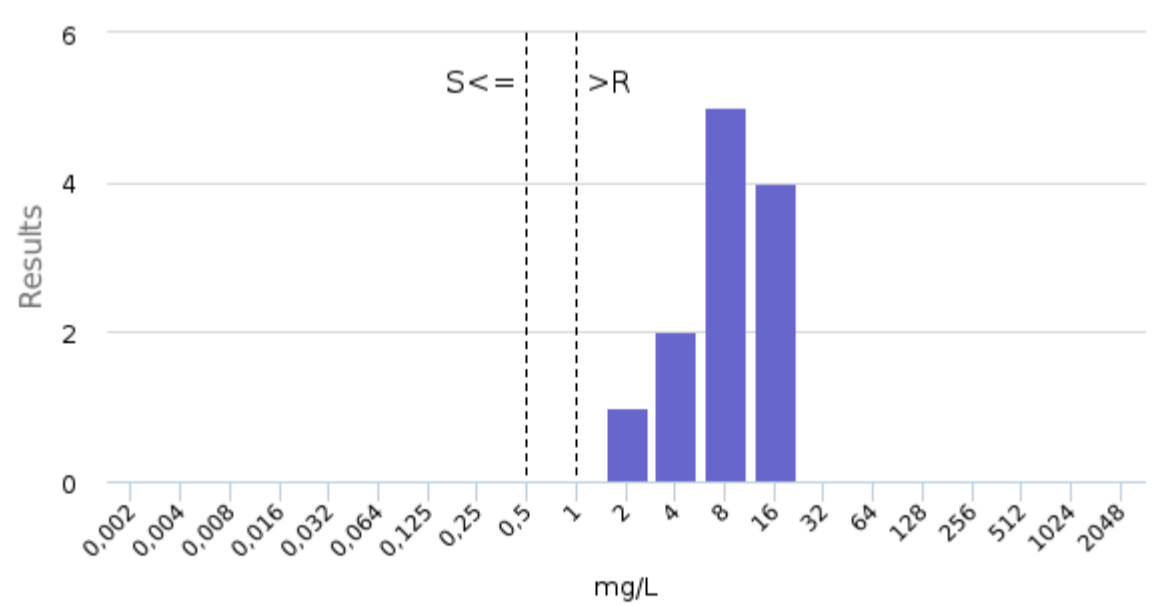
Intermediate (1 pcs / 3%) Resistant (29 pcs / 97%)

Levofloxacin - DISK



Resistant (8 pcs / 100%)

Levofloxacin - MIC

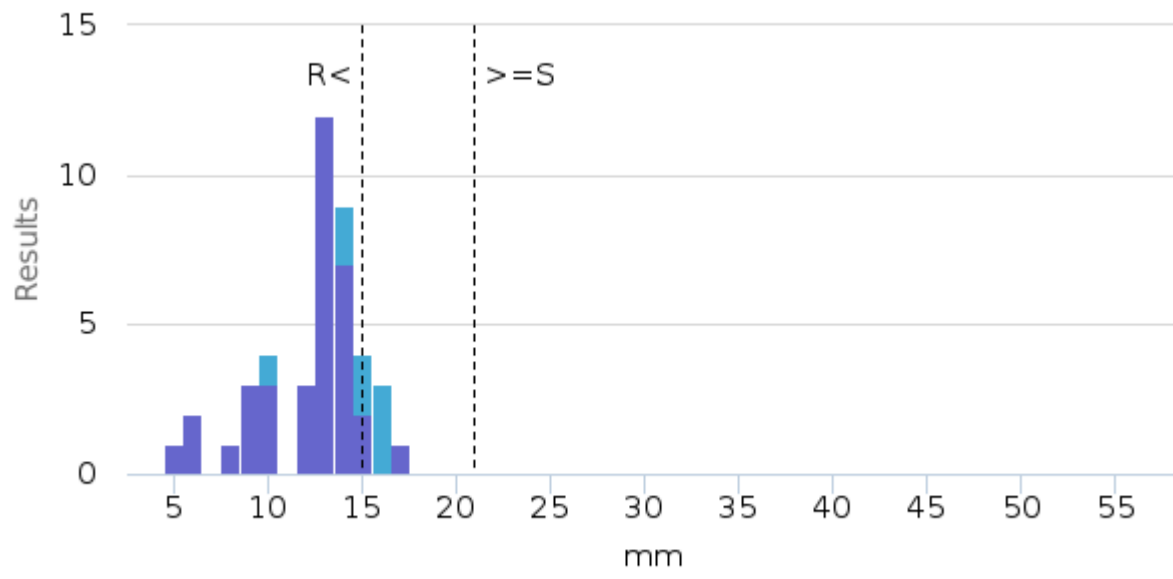


Resistant (12 pcs / 100%)

LABQUALITY Surveillance for multidrug resistant bacteria, gramnegative rods, February, 1-2023

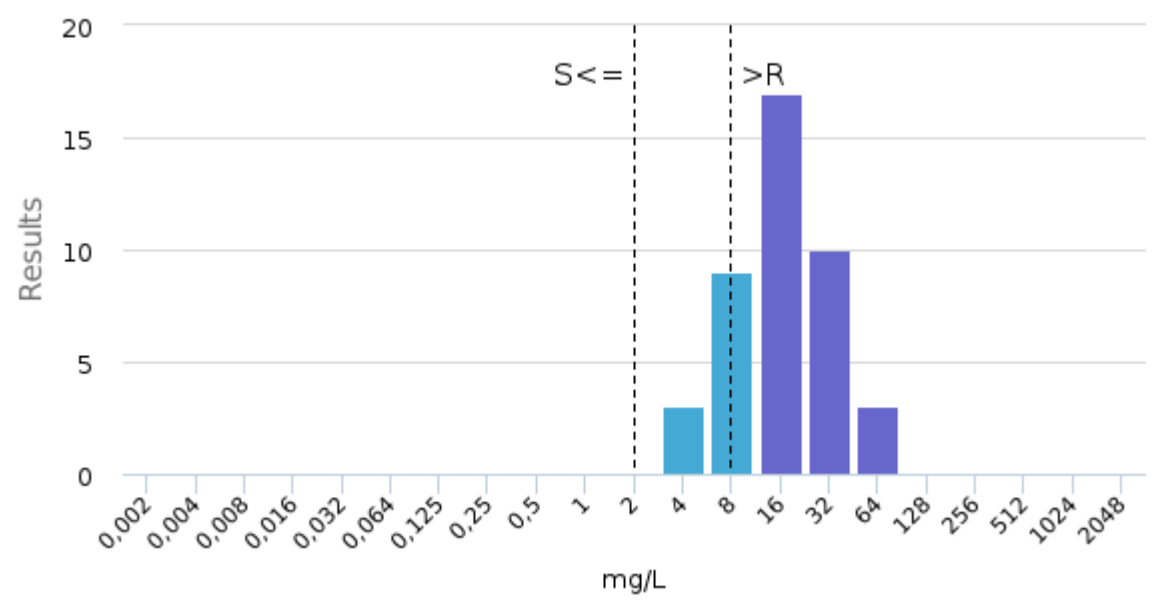
Antimicrobial susceptibility testing results, Acinetobacter baumannii

Meropenem - DISK



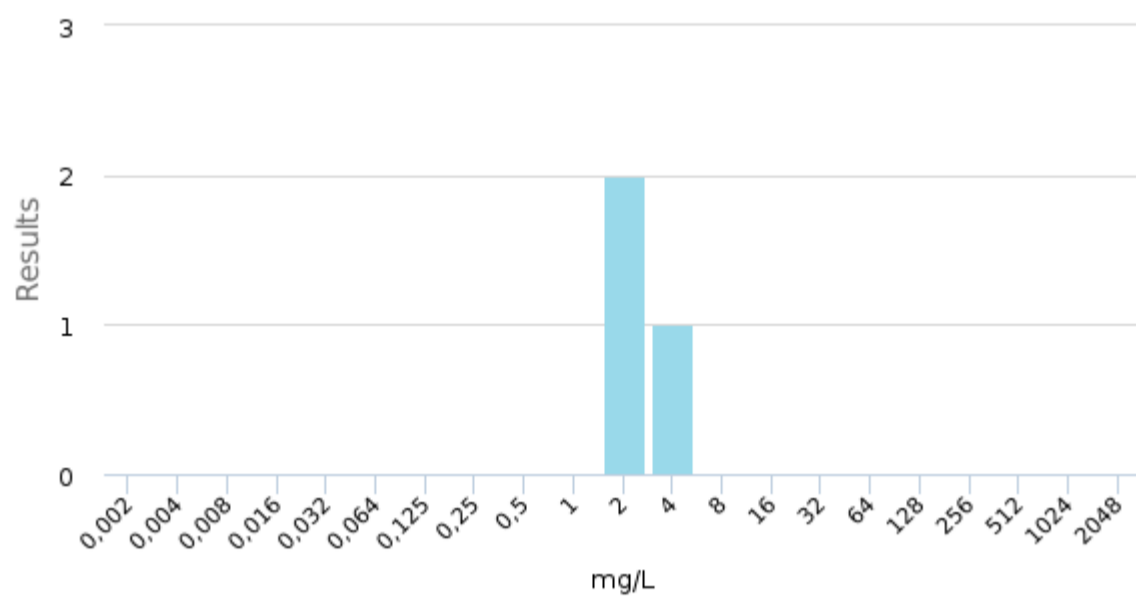
Intermediate (8 pcs / 19%) Resistant (35 pcs / 81%)

Meropenem - MIC



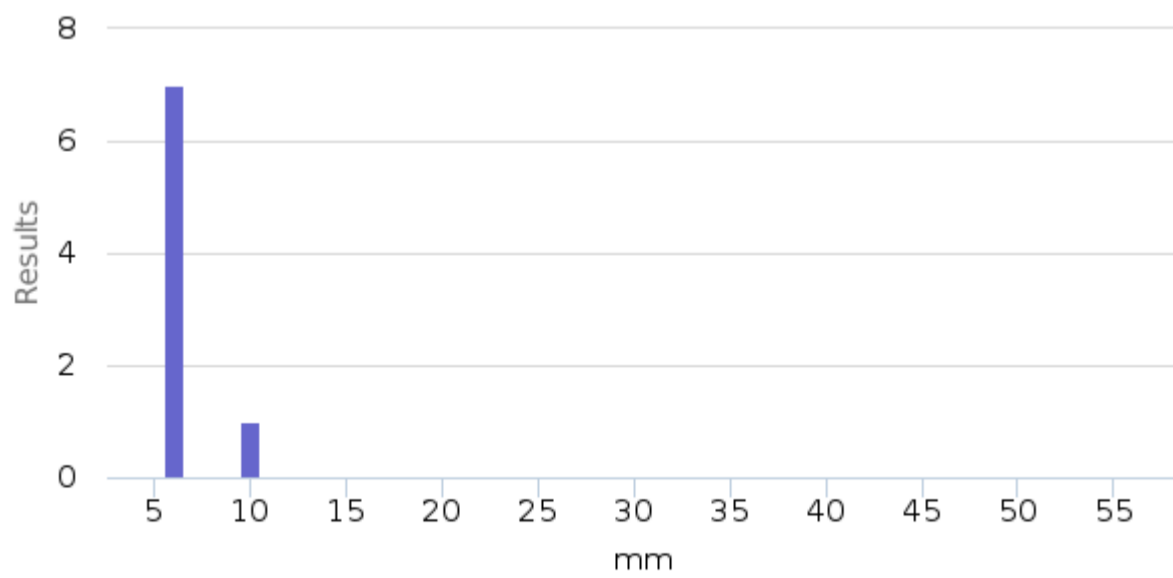
Intermediate (12 pcs / 29%) Resistant (30 pcs / 71%)

Minocycline - MIC



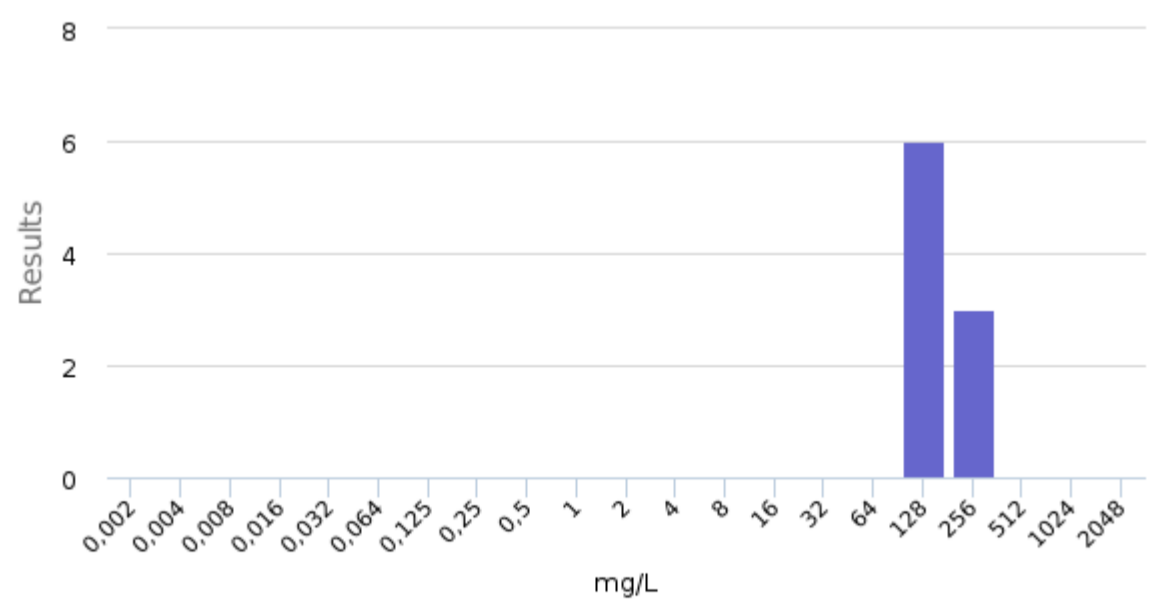
Susceptible (3 pcs / 100%)

Piperacillin-tazobactam - DISK



Resistant (8 pcs / 100%)

Piperacillin-tazobactam - MIC

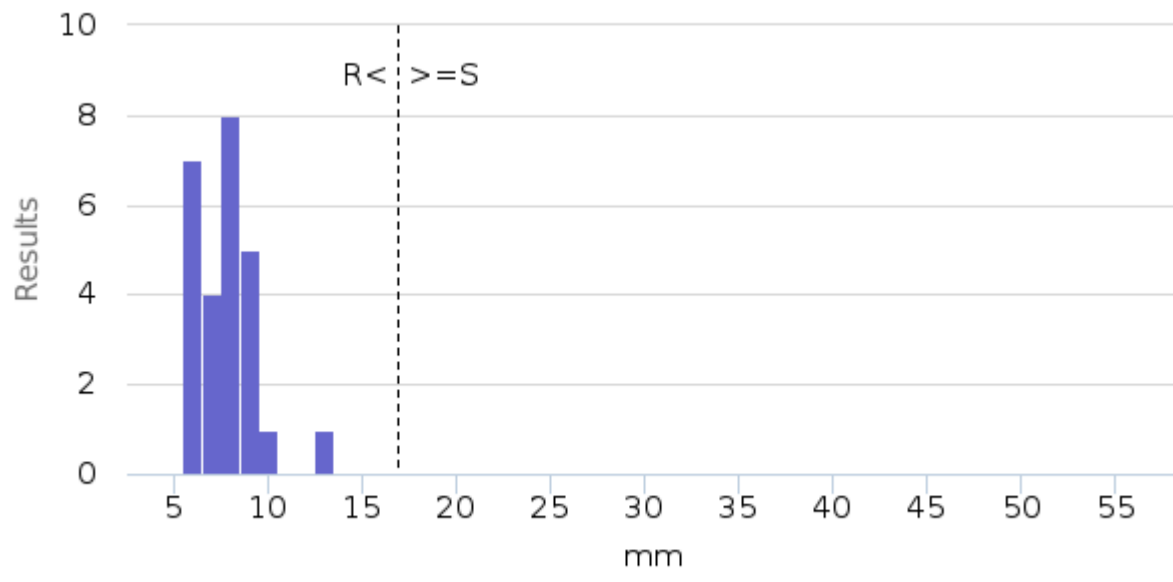


Resistant (9 pcs / 100%)

LABQUALITY Surveillance for multidrug resistant bacteria, gramnegative rods, February, 1-2023

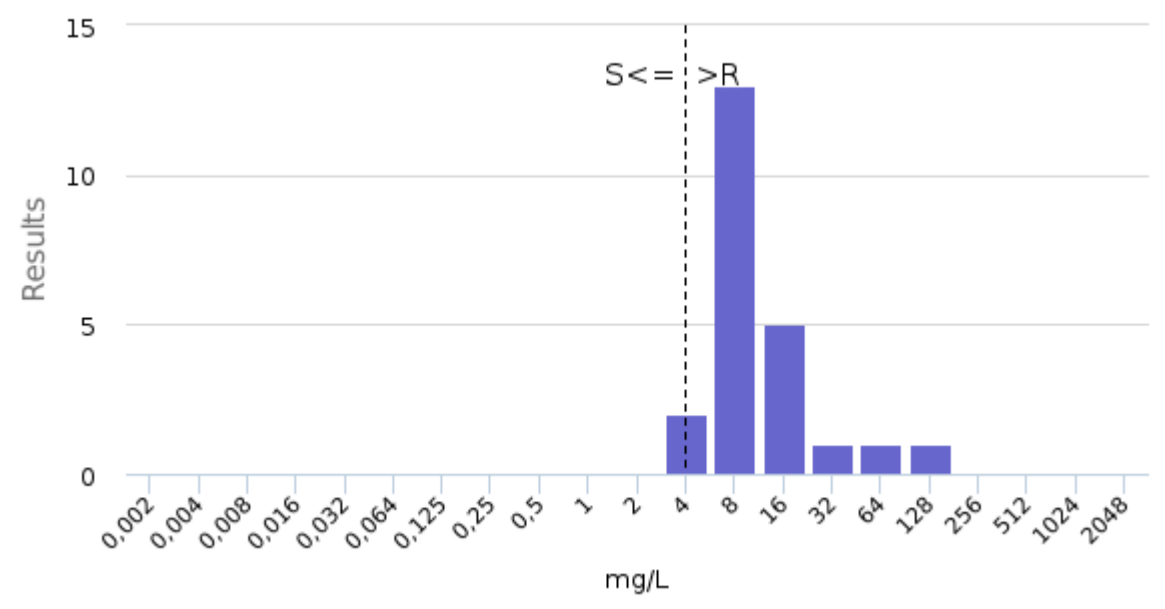
Antimicrobial susceptibility testing results, Acinetobacter baumannii

Tobramycin - DISK



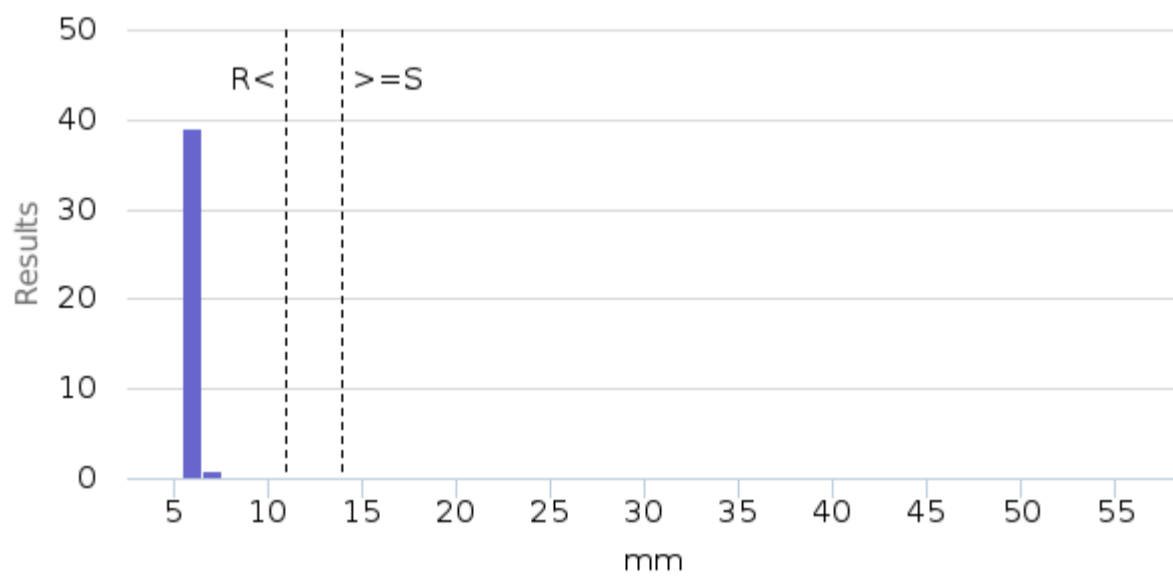
Resistant (26 pcs / 100%)

Tobramycin - MIC



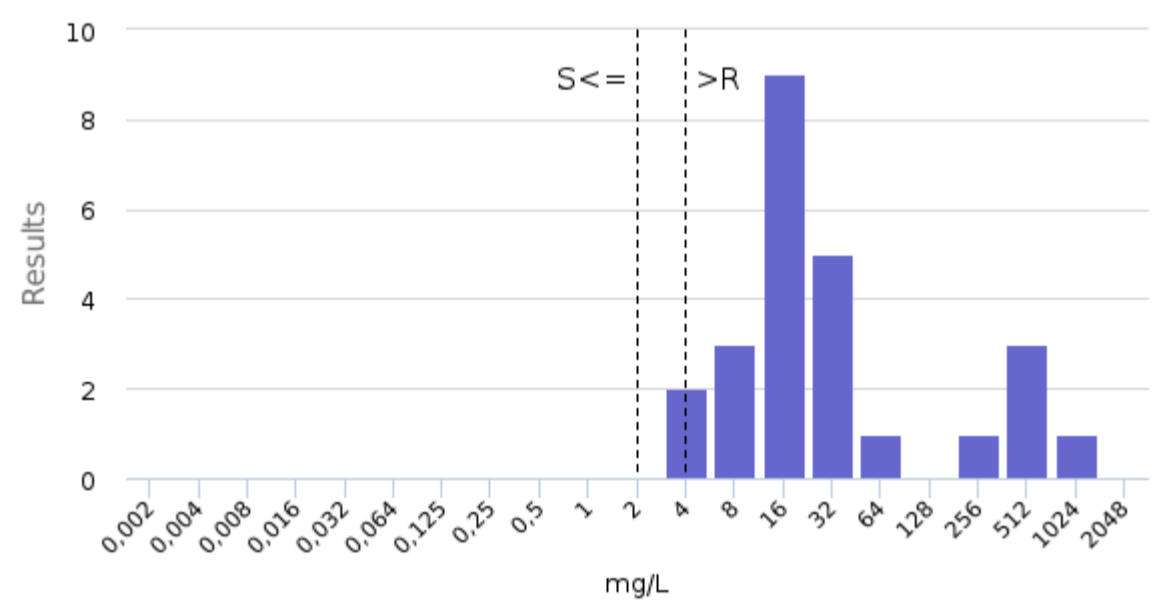
Resistant (23 pcs / 100%)

Trimethoprim-sulfamethoxazole - DISK



Resistant (40 pcs / 100%)

Trimethoprim-sulfamethoxazole - MIC



Resistant (25 pcs / 100%)

LABQUALITY Surveillance for multidrug resistant bacteria, gramnegative rods, February, 1-2023

Antimicrobial susceptibility testing results, Acinetobacter baumannii

Report info

Participants

Altogether 147 laboratories from 19 countries participated in this EQA round.

Report info

The susceptibility testing results are presented for positive screening samples only. The results are shown in laboratory specific summary tables and histograms. 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 meant results which are obtained and interpreted according to the same standard (EUCAST, CLSI or CA-SFM). Laboratory's own results are indicated with a black radio button in the table and an orange dot in the histograms. Average (x) is used as a reference value for disk results and mode (Mo) is used for MIC results. According to the experts' assessment some antimicrobials may be excluded from the final summary tables, e.g., antimicrobial agents to which the microbe is intrinsically resistant or to which only one result has been reported.

If you have not reported antimicrobial susceptibility testing results, or, your results have been excluded, you will get a note: "You have not reported antimicrobial susceptibility results, 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.

External Quality Assessment Scheme

Surveillance for multidrug resistant bacteria, gramnegative rods Round 1, 2023

Specimens

The round included one lyophilized sample. The sample lot was tested in an accredited Finnish reference laboratory and the results were consistent with the certificate 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 lot is to be considered as homogeneous, stable, and suitable for external quality assessment. The material was sent without temperature control packaging.

The sample included the following microbes:

Sample S003 (LQ762023013)

Klebsiella pneumoniae ATCC® BAA-2343™ (CPE, KPC)

Acinetobacter baumannii KSKS 2822 (CRAB, OXA-58)

Proteus mirabilis ATCC® 12453™

Expected result: *Klebsiella pneumoniae* CPE positive, and *Acinetobacter baumannii*, CRAB positive.

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, as it contains important information of the samples and results in each round.

Comments – Expert

Out of 141 participating laboratories, 137 reported having CPE screening in their portfolio. Of these, 133 (97%) scored full 4 points. Also, no reduction of scores for the two participants that reported not performing species identification. A negative screening result was reported by two laboratories who include CPE screening in their test selection, and by four laboratories that reportedly did not. Some laboratories reported finding even two KPC strains with slightly different resistance profiles.

Screening of carbapenem-resistant *Acinetobacter baumannii* (CRAB) was part of 118 (84%) laboratories' workup. Ninety (76%) reported a fully correct result, *Acinetobacter baumannii* or *A. baumannii* complex that was resistant to carbapenems or produced carbapenemase. Also, the identifications *A. baumannii/calcoaceticus* (5 laboratories) or CPE-positive *A. baumannii* (2 laboratories) were accepted. Twenty-one (18%) laboratories returned a false negative result. All reported AST results for meropenem and imipenem showed reduced susceptibility, although some ended up in the I category.

Most often resistance to carbapenems in *A. baumannii* is due to an oxa-type carbapenemase (OXA-23, or OXA-58). Commercial tests designed for detection of carbapenemase-producing Enterobacterales often do not detect these variants. Nine laboratories had confirmed the mechanism by a specific PCR. Two laboratories reported a false IMP-positive result based on a lateral flow test.

Exceptions in scoring

No exceptions.

2023-04-14

FINAL REPORT

Product no. 5073

Subcontracting: Sample pretesting

Samples sent	2023-02-28
Round closed	2023-03-27
Expected results	2023-03-29
Final report	2023-04-14

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

EQA Coordinator

Yvonne Björkman

yvonne.bjorkman@labquality.fi

Expert

Kaisu Rantakokko-Jalava, MD, Ph.D.,
Turku University Hospital, Turku,
Finland.

Labquality Oy

Kumpulantie 15
FI-00520 HELSINKI
Finland

Tel. + 358 9 8566 8200

Fax + 358 9 8566 8280

info@labquality.fi

www.labquality.com



End of report

Copyright © Labquality Oy

Labquality does not permit any reproduction for commercial purposes of any portion of the material subject to this copyright. Labquality prohibits any use of its name, or reference to Labquality EQA program, or material in this report in any advertising, brochures or other commercial publications. Labquality EQA data do not necessarily indicate the superiority of instruments, reagents, testing equipments or materials used by participating laboratories. Use of Labquality EQA data to suggest superiority or inferiority of equipments or materials may be deceptive and misleading. Proficiency test results are handled confidentially. Labquality will not issue any statements to third parties of the performance of laboratories in external quality assessment schemes unless otherwise agreed.