

bioMérieux Customer: Microbiology Chart Report Printed 9 ,1, 2022 7:19:31 AM CST

Patient Name: Patient ID: e19
 Location: Physician:
 Lab ID: 19 Isolate Number: 1

Organism Quantity:
 Selected Organism : *Escherichia coli*

Source: Urine Collected:

Comments:

Identification Information		Analysis Time: 3.85 hours	Status: Final
Selected Organism		99% Probability <i>Escherichia coli</i>	
ID Analysis Messages		Bionumber: 0405610550504611	

Susceptibility Information			Analysis Time: 10.70 hours	Status: Final	
Antimicrobial	MIC	Interpretation	Antimicrobial	MIC	Interpretation
ESBL	NEG	-	Amikacin	32	I
Ampicillin	>= 32	R	Gentamicin	>= 16	R
Piperacillin/Tazobactam	>= 128	R	Ciprofloxacin	>= 4	R
Cefazolin	>= 64	R	+Gemifloxacin		R
Cefoxitin	>= 64	R	Levofloxacin	>= 8	R
Cefazidime	>= 64	R	+Moxifloxacin		R
Ceftriaxone	>= 64	R	Tigecycline	<= 0.5	S
Cefepime	>= 64	R	Nitrofurantoin	128	R
Imipenem	>= 16	R	Trimethoprim/ Sulfamethoxazole	>= 320	R

AES Findings

Confidence: Consistent

Supplementary Fig.1. Identification report of *E. coli* by VITEK 2 device

bioMérieux Customer: Microbiology Chart Report Printed 9 ,1, 2022 7:19:33 AM CST

Patient Name: Patient ID: d20
 Location: Physician:
 Lab ID: 20 Isolate Number: 1

Organism Quantity:
 Selected Organism : *Klebsiella pneumoniae*

Source: Urine Collected:

Comments:

Susceptibility Information		Analysis Time: 9.00 hours	Status: Final		
Antimicrobial	MIC	Interpretation	Antimicrobial	MIC	Interpretation
ESBL	POS	+	Amikacin	16	*I
Ampicillin	>= 32	R	Gentamicin	<= 1	S
Piperacillin/Tazobactam	16	S	Ciprofloxacin	>= 4	R
Cefazolin	>= 64	R	+Gemifloxacin		R
Cefoxitin	8	S	Levofloxacin	>= 8	R
Cefazidime	16	R	+Moxifloxacin		R
Ceftriaxone	>= 64	R	Tigecycline	<= 0.5	S
Cefepime	>= 64	R	Nitrofurantoin	<= 16	S
Ertapenem	<= 0.5	S	Trimethoprim/ Sulfamethoxazole	>= 320	R
Imipenem	<= 0.25	S			

** AES modified **= User modified

AES Findings

Confidence: Consistent

Supplementary Fig.2. Identification report of *Klebsiella Sp* by VITEK 2 device

bioMérieux Customer: Microbiology Chart Report Printed 9 ,1, 2022 7:19:36 AM CST

Patient Name: Patient ID: d24
 Location: Physician:
 Lab ID: 24 Isolate Number: 2

Organism Quantity:
 Selected Organism : *Pseudomonas aeruginosa*

Source: Swab Collected:

Comments:

Susceptibility Information		Analysis Time: 9.98 hours	Status: Final		
Antimicrobial	MIC	Interpretation	Antimicrobial	MIC	Interpretation
Piperacillin/Tazobactam	8	S	Amikacin	4	S
Cefazolin	>= 64	R	Gentamicin	4	S
Cefazidime	4	S	Ciprofloxacin	<= 0.25	S
Cefepime	4	S	Levofloxacin	1	S
Imipenem	2	S	Tigecycline	>= 8	R

AES Findings

Confidence: Consistent

Supplementary Fig. 3. Identification report of *Pseudomonas aeruginosa* by VITEK 2 device

bioMérieux Customer: Microbiology Chart Report Printed 9 .1, 2022 7:21:08 AM CST
 Patient Name: Patient ID: a3
 Location: Physician:
 Lab ID: 3 Isolate Number: 1
 Organism Quantity:
 Selected Organism : Staphylococcus aureus
 Source: Unknown Collected:

Comments:					
Susceptibility Information		Analysis Time: 10.45 hours		Status: Final	
Antimicrobial	MIC	Interpretation	Antimicrobial	MIC	Interpretation
Cefoxitin Screen	POS	+	Teicoplanin	<= 0.5	S
Benzylopenicillin	>= 0.5	R	Vancomycin	1	S
Oxacillin	>= 4	R	Tetracycline	>= 16	R
Gentamicin	8	I	Tigecycline	<= 0.12	S
Tobramycin	>= 16	R	Fosfomycin		
Levofloxacin	>= 8	R	Nitrofurantoin	32	S
Moxifloxacin	4	R	Fusidic Acid	>= 32	R
Inducible Clindamycin Resistance	NEG	-	Mupirocin		
Erythromycin	>= 8	R	Rifampicin	>= 32	R
Clindamycin	>= 8	R	Trimethoprim/Sulfamethoxazole	80	R
Linezolid	2	S			
AES Findings					
Confidence:		Consistent			

Supplementary Fig. 4. Identification report of *Staphylococcus aureus* by VITEK 2 device

bioMérieux Customer: Microbiology Chart Report Printed 9 .1, 2022 7:21:14 AM CST
 Patient Name: Patient ID: aa40
 Location: Physician:
 Lab ID: 40 Isolate Number: 1
 Organism Quantity:
 Selected Organism : Staphylococcus epidermidis
 Source: Endocervical swab Collected:

Comments:					
Susceptibility Information		Analysis Time: 12.17 hours		Status: Final	
Antimicrobial	MIC	Interpretation	Antimicrobial	MIC	Interpretation
Cefoxitin Screen	POS	+	Teicoplanin	<= 0.5	S
Benzylopenicillin	>= 0.5	R	Vancomycin	<= 0.5	S
Oxacillin	<= 0.25*	*R	Tetracycline	<= 1	S
Gentamicin	<= 0.5	S	Tigecycline	<= 0.12	S
Tobramycin	<= 1	S	Fosfomycin		
Levofloxacin	<= 0.12	S	Nitrofurantoin	<= 16	S
Moxifloxacin	<= 0.25	S	Fusidic Acid	16	R
Inducible Clindamycin Resistance	NEG	-	Mupirocin		
Erythromycin	<= 0.25	S	Rifampicin	<= 0.5	S
Clindamycin	2	I	Trimethoprim/Sulfamethoxazole	<= 10	S
Linezolid	2	S			
** AES modified **= User modified					
AES Findings					
Confidence:		Consistent with correction			

Supplementary Fig. 5. Identification report of *Staphylococcus epidermidis* by VITEK 2 device

bioMérieux Customer: Microbiology Chart Report Printed 9 .1, 2022 7:21:10 AM CST
 Patient Name: Patient ID: 1122
 Location: Physician:
 Lab ID: 14 Isolate Number: 1
 Organism Quantity:
 Selected Organism : Staphylococcus haemolyticus
 Source: Urine Collected:

Comments:					
Identification Information		Analysis Time: 4.80 hours		Status: Final	
Selected Organism		99% Probability Staphylococcus haemolyticus			
ID Analysis Messages		Bionumber: 050002043760231			
Susceptibility Information		Analysis Time: 8.95 hours		Status: Final	
Antimicrobial	MIC	Interpretation	Antimicrobial	MIC	Interpretation
Cefoxitin Screen	POS	+	Teicoplanin	4	S
Benzylopenicillin	>= 0.5	R	Vancomycin	1	S
Oxacillin	>= 4	R	Tetracycline	2	S
Gentamicin	>= 16	R	Tigecycline	0.5	S
Tobramycin	>= 16	R	Fosfomycin		
Levofloxacin	4	R	Nitrofurantoin	<= 16	S
Moxifloxacin	1	I	Fusidic Acid	2	R
Inducible Clindamycin Resistance	NEG	-	Mupirocin		
Erythromycin	>= 8	R	Rifampicin	>= 32	R
Clindamycin	<= 0.25	S	Trimethoprim/Sulfamethoxazole	>= 320	R
Linezolid	2	S			
AES Findings					
Confidence:		Consistent			

Supplementary Fig. 6. Identification report of *Staphylococcus saprophyticus* by VITEK 2 device

bioMérieux Customer:

Microbiology Chart Report

Printed 9/1/2022 7:19:38 AM CST

Patient Name:
Location:
Lab ID: 35

Patient ID: e35
Physician:
Isolate Number: 1

Organism Quantity:
Selected Organism : *Proteus mirabilis*

Source: Urine

Collected:

Comments:

Susceptibility Information		Analysis Time: 11.93 hours		Status: Final	
Antimicrobial	MIC	Interpretation	Antimicrobial	MIC	Interpretation
Ampicillin	>= 32	R	Amikacin	16	*I
Piperacillin/Tazobactam	<= 4	S	Gentamicin	8	I
Cefazolin	>= 64	R	Ciprofloxacin	>= 4	R
Cefoxitin	<= 4	S	+Gemifloxacin		R
Ceftazidime	>= 64	R	Levofloxacin	>= 8	R
Ceftriaxone	>= 64	R	+Moxifloxacin		R
Cefepime	>= 64	R	Tigecycline	4	*R
Ertapenem	<= 0.5	S	Nitrofurantoin	128	R
Imipenem	4	R	Trimethoprim/ Sulfamethoxazole	>= 320	R

*= AES modified **= User modified

AES Findings	
Confidence:	Consistent

Supplementary Fig.7. Identification report of *Proteus* by VITEK 2 device

ID : 14141
Ref.by :
Age/Sex : 52 Years / Female

Name :
Requested : 28/11/2021 4:07PM
Reported : 30/11/2021 6:57PM

Item	Result	Reference Range
Physical Examination		
Volume	Fresh Sample	1 - 1.5 L/24hrs
Color	Turbid	Yellow
Odor	Aromatic	aromatic
Aspect	Turbid	Clear
S.Gravity	Q.N.S	1015 - 1025
Chemical Examination		
Reaction	Acidic 6.5	Acidic
Protein	±±	Absent
Sugar	Absent	Absent
Acetone	Absent	Absent
Nitrite	Absent	Absent
Bilirubin	Absent	Absent
Urobilinogen	Normal Trace	Normal trace
Leucocytes	±±	Absent
Blood	Absent	Absent
Microscopic Examination		
Pus cells	11-13	0 - 5 / HPF
RBCs	1 - 3	0 - 5 / HPF
Epl.cells	±±	Few / HPF
Mucus	±	Absent
Crystals	Am. Urates Few	Absent
Casts	Absent	Absent
Bacteria	±±±	Absent
Others	Absent	Absent

Comment:

Supplementary Fig. 8. Results of physical and biochemical tests for the urine of a person infected with bacteria

ID : 13105
Ref.by :
Age/Sex : 5 Years / Female

Name :
Requested : 2/11/2021 5:13PM
Reported : 6/11/2021 12:39PM

Item	Result	Reference Range
Physical Examination		
Volume	Fresh Sample	1 - 1.5 L/24hrs
Color	Yellow	Yellow
Odor	Aromatic	aromatic
Aspect	Slightly Turbid	Clear
S.Gravity	Q.N.S	1015 - 1025
Chemical Examination		
Reaction	Acidic 6	Acidic
Protein	±±	Absent
Sugar	Absent	Absent
Acetone	Absent	Absent
Nitrite	Absent	Absent
Bilirubin	Absent	Absent
Urobilinogen	Normal Trace	Normal trace
Leucocytes	±±	Absent
Blood	±±±	Absent
Microscopic Examination		
Pus cells	11-13	0 - 5 / HPF
RBCs	1 - 3	0 - 5 / HPF
Epl.cells	±±	Few / HPF
Mucus	Absent	Absent
Crystals	Am. Urates ±±	Absent
Casts	Absent	Absent
Bacteria	Absent	Absent
Others	Absent	Absent

Comment:

Supplementary Fig. 9. Results of physical and biochemical tests for the urine of a person infected with bacteria

ID	: 14240	Name	:
Ref.by	:	Requested	: 30/11/2021 4:38PM
Age/Sex	: 19 Years / Female	Reported	: 30/11/2021 6:47PM

Compelete Urine Examination		
Item	Result	Reference Range
Physical Examination		
Volume	Fresh Sample	1 - 1.5 L/24hrs
Color	Turbld	Yellow
Odor	Aromatic	aromatic
Aspect	Turbld	Clear
S.Gravity	Q.N.S	1015 - 1025
Chemical Examination		
Reaction	Alkaline 8	Acidic
Protein	±±±	Absent
Sugar	Absent	Absent
Acetone	Absent	Absent
Nitrite	Absent	Absent
Bilirubin	Absent	Absent
Urobilinogen	Normal Trace	Normal trace
Leucocytes	Absent	Absent
Blood	±±±	Absent
Microscopic Examination		
Pus cells	2-3	0 - 5 / HPF
RBCs	1-3	0 - 5 / HPF
Epl.cells	±±±	Few / HPF
Mucus	Absent	Absent
Crystals	Am_Phosphates ±	Absent
Casts	Absent	Absent
Bacteria	±±±	Absent
Others	Absent	Absent

Comment:

Supplementary Fig. 10. Results of physical and biochemical tests for the urine of a person infected with bacteria

ID	: 13143	Name	:
Ref.by	:	Requested	: 3/11/2021 3:49PM
Age/Sex	: 27 Years / Female	Reported	: 6/12/2021 4:42PM

Compelete Urine Examination		
Item	Result	Reference Range
Physical Examination		
Volume	Fresh Sample	1 - 1.5 L/24hrs
Color	Yellow	Yellow
Odor	Aromatic	aromatic
Aspect	Turbid	Clear
S.Gravity	Q.N.S	1015 - 1025
Chemical Examination		
Reaction	Acidic 5.5	Acidic
Protein	±±	Absent
Sugar	Absent	Absent
Acetone	Absent	Absent
Nitrite	Absent	Absent
Bilirubin	Absent	Absent
Urobilinogen	Normal Trace	Normal trace
Leucocytes	+++	Absent
Blood	±±	Absent
Microscopic Examination		
Pus cells	37 - 39	0 - 5 / HPF
RBCs	1 - 3	0 - 5 / HPF
Epl.cells	±	Few / HPF
Mucus	±±	Absent
Crystals	±±	Absent
Casts	Absent	Absent
Bacteria	±±	Absent
Others	Absent	Absent

Comment:

Supplementary Fig. 11. Results of physical and biochemical tests for the urine of a person infected with bacteria

ID	: 14238	Name	:
Ref.by	:	Requested	: 30/11/2021 4:28PM
Age/Sex	: 39 Years / Female	Reported	: 30/11/2021 6:47PM

Compelete Urine Examination		
Item	Result	Reference Range
Physical Examination		
Volume	Fresh Sample	1 - 1.5 L/24hrs
Color	Yellow	Yellow
Odor	Aromatic	aromatic
Aspect	Turbid	Clear
S.Gravity	Q.N.S	1015 - 1025
Chemical Examination		
Reaction	Acidic 6	Acidic
Protein	±±	Absent
Sugar	Absent	Absent
Acetone	Absent	Absent
Nitrite	Absent	Absent
Bilirubin	Absent	Absent
Urobilinogen	Normal Trace	Normal trace
Leucocytes	±±	Absent
Blood	Absent	Absent
Microscopic Examination		
Pus cells	20-22	0 - 5 / HPF
RBCs	1-3	0 - 5 / HPF
Epl.cells	±±	Few / HPF
Mucus	Absent	Absent
Crystals	Am_Urates ±	Absent
Casts	Absent	Absent
Bacteria	±±	Absent
Others	Absent	Absent

Comment:

Supplementary Fig. 12. Results of physical and biochemical tests for the urine of a person infected with bacteria

Item	Result	Reference Range
Physical Examination		
Volume	Fresh Sample	1 - 1.5 L/24hrs
Color	Yellow	Yellow
Odor	Aromatic	aromatic
Aspect	Turbid	Clear
S.Gravity	Q.N.S	1015 - 1025
Chemical Examination		
Reaction	Acidic 6	Acidic
Protein	±±	Absent
Sugar	Absent	Absent
Acetone	Absent	Absent
Nitrite	Absent	Absent
Bilirubin	Absent	Absent
Urobilinogen	Normal Trace	Normal trace
Leucocytes	Absent	Absent
Blood	Absent	Absent
Microscopic Examination		
Pus cells	5-7	0 - 5 / HPF
RBCs	1-3	0 - 5 / HPF
Epl.cells	Few	Few / HPF
Mucus	±±	Absent
Crystals	Am. Urates +++	Absent
Casts	Absent	Absent
Bacteria	±±	Absent
Others	Absent	Absent

Comment:

Supplementary Fig. 13. Results of physical and biochemical tests for the urine of a person infected with bacteria

Item	Result	Reference Range
Physical Examination		
Volume	Fresh Sample	1 - 1.5 L/24hrs
Color	Yellow	Yellow
Odor	Aromatic	aromatic
Aspect	Turbid	Clear
S.Gravity	Q.N.S	1015 - 1025
Chemical Examination		
Reaction	Acidic 6	Acidic
Protein	Absent	Absent
Sugar	Absent	Absent
Acetone	Absent	Absent
Nitrite	Absent	Absent
Bilirubin	Absent	Absent
Urobilinogen	Normal Trace	Normal trace
Leucocytes	+	Absent
Blood	Absent	Absent
Microscopic Examination		
Pus cells	8 - 11	0 - 5 / HPF
RBCs	1 - 3	0 - 5 / HPF
Epl.cells	++	Few / HPF
Mucus	Absent	Absent
Crystals	Am. Urates +	Absent
Casts	Absent	Absent
Bacteria	Few	Absent
Others	Absent	Absent

Comment:

Supplementary Fig. 14. Results of physical and biochemical tests for the urine of a person infected with bacteria

Item	Result	Reference Range
Physical Examination		
Volume	Fresh Sample	1 - 1.5 L/24hrs
Color	Yellow	Yellow
Odor	Aromatic	aromatic
Aspect	Turbid	Clear
S.Gravity	Q.N.S	1015 - 1025
Chemical Examination		
Reaction	Acidic 6	Acidic
Protein	Absent	Absent
Sugar	++	Absent
Acetone	Absent	Absent
Nitrite	Absent	Absent
Bilirubin	Absent	Absent
Urobilinogen	Normal Trace	Normal trace
Leucocytes	+++	Absent
Blood	++	Absent
Microscopic Examination		
Pus cells	11 - 13	0 - 5 / HPF
RBCs	8 - 10	0 - 5 / HPF
Epl.cells	Absent	Few / HPF
Mucus	Absent	Absent
Crystals	Am. Urates ++	Absent
Casts	Absent	Absent
Bacteria	Absent	Absent
Others	Absent	Absent

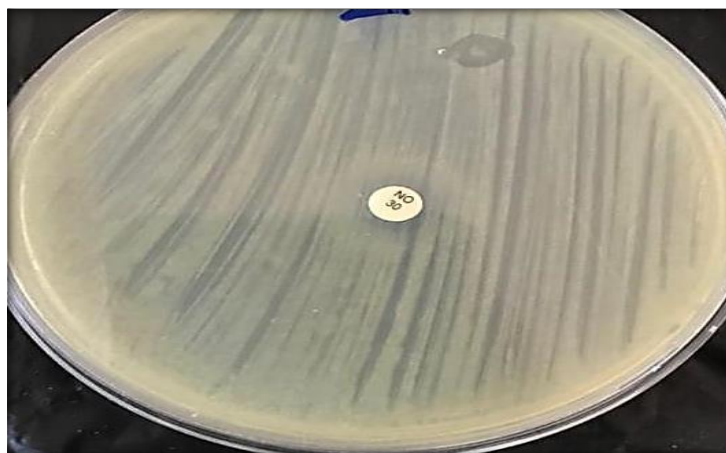
Comment:

Supplementary Fig. 15. Results of physical and biochemical tests for the urine of a person infected with bacteria

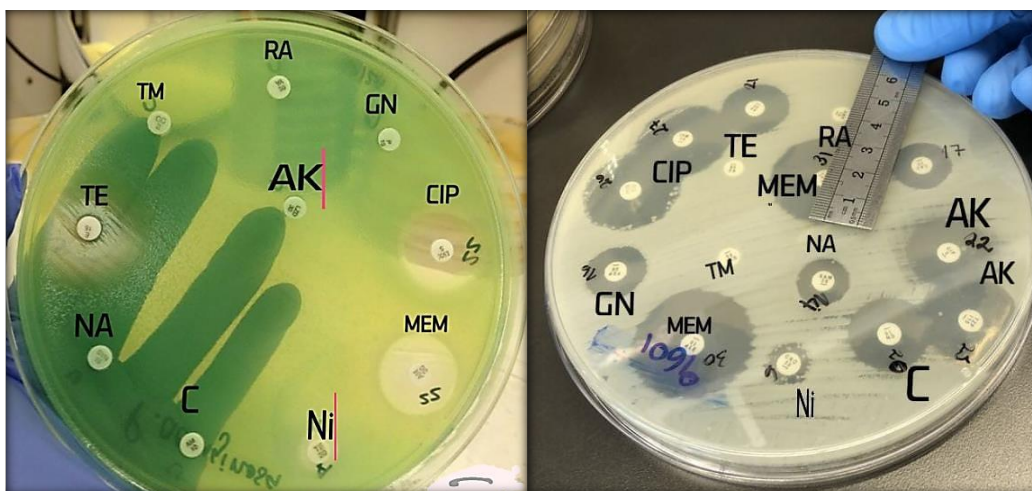
Item	Result	Reference Range
Physical Examination		
Volume	Fresh Sample	1 - 1.5 L/24hrs
Color	Turbid	Yellow
Odor	Aromatic	aromatic
Aspect	Turbid	Clear
S. Gravity	Q.N.S	1015 - 1025
Chemical Examination		
Reaction	Acidic 6	Acidic
Protein	+++	Absent
Sugar	Absent	Absent
Acetone	Absent	Absent
Nitrite	Absent	Absent
Bilirubin	Absent	Absent
Urobilinogen	Normal Trace	Normal trace
Leucocytes	+++	Absent
Blood	Absent	Absent
Microscopic Examination		
Pus cells	13-15	0 - 5 / HPF
RBCs	1 - 3	0 - 5 / HPF
EpL cells	+++	Few / HPF
Mucus	Absent	Absent
Crystals	Am. Urates ++	Absent
Casts	Absent	Absent
Bacteria	Absent	Absent
Others	Absent	Absent

Comment:

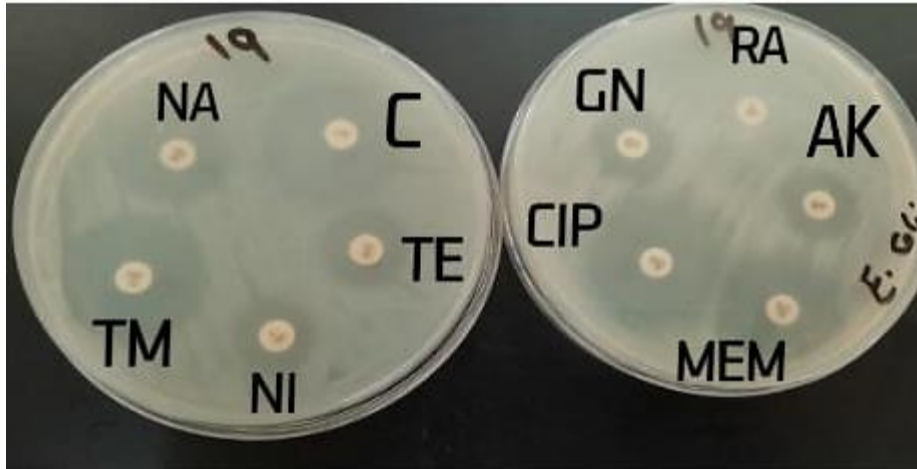
Supplementary Fig. 16. Results of physical and biochemical tests for the urine of a person infected with bacteria



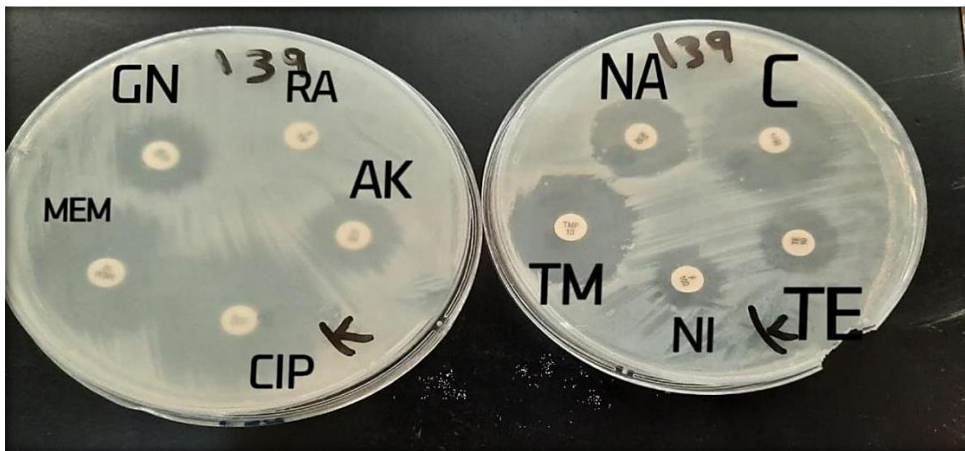
A- Staph resistance. *saprophyticus* for anti-novobiocin.



B- sensitivity *staph. epidermidis* for antibiotics. C- Sensitive *Pseudomonas SP.* for antibiotics.



D. *E. coli* bacteria sensitivity to antibiotics.



E. Sensitivity of *Klebsiella* sp. to antibiotics.

Supplementary Fig. 17. (A-E) Bacterial Suitability to antibiotic