

						1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
						Gentamycin	Aminoglycosides	Streptomycin	Kanamycin	Amikacin	Spectinomycin	Cefpodoxime	Cefotaxime	Cephalosporins	Cefalexin	Ceftriaxone	Ceftazidime	Cefotixin	Ampicillin	Penicillin	Penicillin	Sulfonamides
1	±	Kapata moyo et al.	Pus Aspirates	<i>S.aureus</i>	2010																	73%
2	±	Matundwelo et al.	Pus Swab	<i>S.aureus</i>	2016	100%																
3	±	Nagelkerke et al.	Nasal Swab	<i>S.aureus</i>	2017																	
4	±	Kabwe et al.	Blood	<i>S.aureus</i>	2016	50%							0%			33%		75%	33%	100%		67%
5	±	Chanda et al.	Blood	<i>S.aureus</i>														92%				
6	±	Chanda et al.	Urine	<i>S.aureus</i>														57%				
7	±	Chanda et al.	Wound Swab	<i>S.aureus</i>																		100%
8	±	Ziwa et al.	Wound Swab	<i>S.aureus</i>	2018	14%			8%			30%	58%		0%	32%			50%		60%	78%
9	<	Youn et al.	Wound Swab	<i>S.aureus</i>	2014																64%	36%
10	<	Schaumburg et al.	Oral Swabs	<i>S.aureus</i>	2012																75%	3%
11	±	Ziwa et al.	Hydrotherapy Bat	<i>S.aureus</i>	2018	14%			8%			30%	58%		0%	32%			50%		60%	78%
12	±	Youn et al.	Vet Hospital Faci	<i>S.aureus</i>	2014																64%	36%
13	±	Mwamungule et al.	Doctors Coats	<i>S.aureus</i>	2015	50%												68%	75%			68%
14	±	Mainda et al.		<i>E.coli</i>	2019	27%			99%	47%					50%							
15	±	Chiyangi et al.	Stool	<i>E.coli</i>			34%					29%	25%			24%	28%		61%	46%		57%
16	±	Mainda et al.	Stool	<i>E.coli</i>	2019	1%						67%	67%				67%		67%			100%
17	±	Kabwe et al.	Blood	<i>E.coli</i>		100%							100%			100%	100%		8%		5%	
18	±	Chanda et al.	Blood	<i>E.coli</i>													40%		100%	50%		100%
19	±	Chanda et al.	Urine	<i>E.coli</i>																		67%
20	±	Chanda et al.	Wound	<i>E.coli</i>													50%					100%
21	<	Mainda et al.		<i>E.coli</i>	2015	1%						2%							6%		4%	
22	±	Songe et al.	Fish Markets	<i>E.coli</i>	2016	91%	88%						100%				95%		100%			74%
23	±	Mwamungule et al.	Doctors Coats	<i>E.coli</i>		4%													50%			
24	±	Kabwe et al.	Blood	<i>Klebsiella</i>	2016	96%							96%			94%	97%		99%	93%		100%
25	±	Chanda et al.	Blood	<i>Klebsiella</i>																		100%
26	±	Chanda et al.	Urine	<i>Klebsiella</i>													69%					0%
27	±	Chanda et al.	Wound Swab	<i>Klebsiella</i>																		
28	±	Ziwa et al.	Wound Swab	<i>Klebsiella</i>		30%			20%			100%	100%			40%	100%		100%		90%	90%
29	±	Ziwa et al.	Hydrotherapy Bat	<i>Klebsiella</i>	2018	30%			20%			100%	100%			40%	100%		100%		90%	90%
30	±	Mwamungule et al.	Doctors Coats	<i>Klebsiella</i>		0%									50%				100%		90%	100%
31	±	Matundwelo et al.	Pus Swab	<i>P.Vulgaris</i>	2016	63%																
32	±	Nagelkerke et al.	Nasal Swab	<i>Enterobacteriaceae</i>	2017	78%										52%						
33	±	Chiyangi et al.	Stool	<i>V.cholerae</i>	2017	0%							0%					0%				100%
34	±	Mwape et al.		<i>V.cholerae 2009</i>															0%			
35	±	Mwape et al.		<i>V.cholerae 2010</i>															0%			100%
36	±	Mwape et al.		<i>V.cholerae 2016</i>																		100%
37	±	Inzaule et al.		HIV	2020																	
38	±	Bennett et al.		HIV	2020																	
39	±	Miti et al.	Blood	HIV	2020																	
40	±	Chanda et al.	Blood	<i>Citrobacter</i>																		100%
41	±	Chanda et al.	Urine	<i>Citrobacter</i>													75%					100%
42	±	Chanda et al.	Wound Swab	<i>Citrobacter</i>																		
43	±	Chanda et al.	Blood	<i>Coliform</i>														30%				100%
44	±	Chanda et al.	Urine	<i>Coliform</i>														50%				100%
45	±	Chanda et al.	Wound Swab	<i>Coliform</i>																		
46	±	Chanda et al.	Blood	<i>Enterobacter</i>													0%					100%
47	±	Chanda et al.	Urine	<i>Enterobacter</i>													46%					50%
48	±	Chanda et al.	Wound Swab	<i>Enterobacter</i>													100%					
49	±	Chanda et al.	Blood	<i>cnS</i>													100%					100%
50	±	Chanda et al.	Urine	<i>cnS</i>													40%					100%
51	±	Chanda et al.	Wound Swab	<i>cnS</i>													75%					100%
52	±	Chanda et al.	Blood	<i>Proteus</i>													0%					
53	±	Chanda et al.	Urine	<i>Proteus</i>													44%					100%
54	±	Chanda et al.	Wound Swab	<i>Proteus</i>													25%					
55	±	Chanda et al.	Blood	<i>Streptococcus</i>														100%				
56	±	Chanda et al.	Urine	<i>Streptococcus</i>													63%					
57	±	Chanda et al.	Wound Swab	<i>Streptococcus</i>													100%					
58	±	Chanda et al.	Blood	<i>Pseudomonas</i>																		
59	±	Chanda et al.	Urine	<i>Pseudomonas</i>													33%					
60	±	Chanda et al.	Wound Swab	<i>Pseudomonas</i>													100%					
61	±	Chanda et al.	Urine	<i>Yersinia</i>													100%					
62	±	Kapata et al.	Sputum	<i>M.tuberculosis</i>	2015		6%															
63	±	Masenga et al.		<i>M.tuberculosis</i>	2017																	
64	±	Kapata et al.		<i>M.tuberculosis</i>	2013		11%															
65	±	Habeenzu et al.		<i>M.tuberculosis</i>																		
66	±	Gill et al.	Nasopharyngeal	<i>S.pneumoniae</i>	2008																	65%
67	±	Chiyangi et al.	Stool	<i>S.Typhi</i>	2017		100%			75%									100%			100%
68	±	Hendriksen et al.		<i>S.typhi</i>	2014		99%												99%	1%	99%	
69	±	Chiyangi et al.	Stool	<i>S.Paratyphi B</i>	2017		100%												100%			100%
70	±	Chiyangi et al.	Stool	<i>NTS</i>	2017		67%			33%									88%			100%
71	±	Chiyangi et al.	Stool	<i>S.flexineri</i>			84%												100%	17%		100%
72	±	Chiyangi et al.	Stool	<i>S.dysenteriae</i>															100%			100%
73	±	Chiyangi et al.	Stool	<i>S.Boydii</i>															100%			100%
74	±	Chiyangi et al.	Stool	<i>C.jejuni</i>															33%			100%
75	<	Youn et al.	Wound Swab	<i>S.pseudointermedius</i>		2%															52%	10%
76	±	Mwamungule et al.	Doctors Coats	<i>Enterobacter</i>		50%									75%				25%			
77	±	Mwamungule et al.	Doctors Coats	<i>Pseudomonas</i>		25%									100%				75%			

					17	18	19	20	21	22	23	24	25	26	27	28	29	30
					Floroquinolones				B-lactam		Macrolide			Carbapenem	Nitrofruran	Tetracyclines	Chloramphenicol	Glycopeptide
e					Ciprofloxacin	Nalidixic acid	Ceftazidime	Norfloxacin	Oxacillin		Erythromycin	Azithromycin	Clindamycin	Imipenem	Nitrofurantoin	Tetracycline	Chloramphenicol	Vancomycin
1	⚔	Kapatamoyo et al.	Pus Aspirates	S.aureus	2010	1%				31%		5%				48%	7%	
2	⚔	Matundwelo et al.	Pus Swab	S.aureus	2016	32%		22%										
3	⚔	Nagelkerke et al.	Nasal Swab	S.aureus	2017				0%								20%	
4	⚔	Kabwe et al.	Blood	S.aureus	2016	0%		50%		0%		33%		0%				
5	⚔	Chanda et al.	Blood	S.aureus		64%	100%		100%						0%		38%	
6	⚔	Chanda et al.	Urine	S.aureus		65%	92%		75%						38%		37%	
7	⚔	Chanda et al.	Wound Swab	S.aureus		40%	100%		67%						100%		0%	
8	⚔	Ziwa et al.	Wound Swab	S.aureus	2018	20%						42%	18%	0%		50%	12%	
9	<	Youn et al.	Wound Swab	S.aureus	2014											9%		
10	<	Schaumburg et al.	Oral Swabs	S.aureus	2012				0%			3%	3%			36%		
11	⚔	Ziwa et al.	Hydrotherapy Bath	S.aureus	2018	20%						42%	18%	0%		50%	12%	
12	⚔	Youn et al.	Vet Hospital Facility	S.aureus	2014											9%		
13	⚔	Mwamungule et al.	Doctors Coats	S.aureus	2015	33%		46%				53%	42%			50%	16%	58%
14	⚔	Mainda et al.		E.coli	2019	20%										51%	22%	
15	⚔	Chiyaangi et al.	Stool	E.coli			16%									50%	16%	
16	⚔	Mainda et al.	Stool	E.coli	2019	0%										14%		
17	⚔	Kabwe et al.	Blood	E.coli		80%					100%			0%			60%	
18	⚔	Chanda et al.	Blood	E.coli		57%	43%		30%						33%		67%	
19	⚔	Chanda et al.	Urine	E.coli		63%	76%	61%	62%						48%		26%	
20	⚔	Chanda et al.	Wound	E.coli		100%			100%						0%			
21	<	Mainda et al.		E.coli	2015	0%										11%		
22	⚔	Songe et al.	Fish Markets	E.coli	2016	95%	93%		91%							91%	81%	
23	⚔	Mwamungule et al.	Doctors Coats	E.coli		0%										0%	0%	
24	⚔	Kabwe et al.	Blood	Klebsiella	2016	71%					92%			1%			71%	
25	⚔	Chanda et al.	Blood	Klebsiella		33%	33%	50%	33%						33%		0%	
26	⚔	Chanda et al.	Urine	Klebsiella		68%	56%		40%						75%		44%	
27	⚔	Chanda et al.	Wound Swab	Klebsiella		100%											100%	
28	⚔	Ziwa et al.	Wound Swab	Klebsiella		28%					32%		0%	0%		40%	21%	
29	⚔	Ziwa et al.	Hydrotherapy Bath	Klebsiella	2018	28%					32%		0%	0%		40%	21%	
30	⚔	Mwamungule et al.	Doctors Coats	Klebsiella												50%	50%	0%
31	⚔	Matundwelo et al.	Pus Swab	P. Vulgaris	2016	13%		9%										
32	⚔	Nagelkerke et al.	Nasal Swab	Enterobacteriaceae	2017	60%												
33	⚔	Chiyaangi et al.	Stool	V.cholerae	2017	27%	100%		21%		32%	0%			100%	0%	9%	
34	⚔	Mwape et al.		V.cholerae 2009			100%											
35	⚔	Mwape et al.		V.cholerae 2010			100%											
36	⚔	Mwape et al.		V.cholerae 2016			98%											
37	⚔	Inzaule et al.		HIV	2020													
38	⚔	Bennett et al.		HIV	2020													
39	⚔	Miti et al.	Blood	HIV	2020													
40	⚔	Chanda et al.	Blood	Citrobacter		100%		100%									100%	
41	⚔	Chanda et al.	Urine	Citrobacter		100%	100%	100%							67%		50%	
42	⚔	Chanda et al.	Wound Swab	Citrobacter		0%										0%		
43	⚔	Chanda et al.	Blood	Coliform		44%	44%		0%						44%		46%	
44	⚔	Chanda et al.	Urine	Coliform		61%	71%	72%							38%		67%	
45	⚔	Chanda et al.	Wound Swab	Coliform		50%	83%								75%		33%	
46	⚔	Chanda et al.	Blood	Enterobacter		0%	0%								0%		100%	
47	⚔	Chanda et al.	Urine	Enterobacter		73%	75%	100%							67%		88%	
48	⚔	Chanda et al.	Wound Swab	Enterobacter		100%	100%								100%		0%	
49	⚔	Chanda et al.	Blood	cnS		56%	100%								33%		25%	
50	⚔	Chanda et al.	Urine	cnS		70%	88%	83%							43%		25%	
51	⚔	Chanda et al.	Wound Swab	cnS		67%	100%	100%	100%						100%		0%	
52	⚔	Chanda et al.	Blood	Proteus		100%	100%	100%	100%						100%		0%	
53	⚔	Chanda et al.	Urine	Proteus		63%	78%	50%							67%		83%	
54	⚔	Chanda et al.	Wound Swab	Proteus		40%	100%	100%	100%						100%		50%	
55	⚔	Chanda et al.	Blood	Streptococcus		67%									100%		100%	
56	⚔	Chanda et al.	Urine	Streptococcus		67%	100%	71%							36%		75%	
57	⚔	Chanda et al.	Wound Swab	Streptococcus		100%									100%		100%	
58	⚔	Chanda et al.	Blood	Pseudomonas											100%		100%	
59	⚔	Chanda et al.	Urine	Pseudomonas		50%	100%	67%							50%		100%	
60	⚔	Chanda et al.	Wound Swab	Pseudomonas		0%	100%								100%		100%	
61	⚔	Chanda et al.	Urine	Yersinia		100%	60%	100%							25%		67%	
62	⚔	Kapata et al.	Sputum	M.tuberculosis	2015													
63	⚔	Masenga et al.		M.tuberculosis	2017													
64	⚔	Kapata et al.		M.tuberculosis	2013													
65	⚔	Habeenzu et al.		M.tuberculosis														
66	⚔	Gill et al.	Nasopharyngeal	S.pneumoniae	2008													
67	⚔	Chiyaangi et al.	Stool	S.Typhi	2017	9%						18%					73%	
68	⚔	Hendriksen et al.		S.typhi	2014	4%	3%										83%	
69	⚔	Chiyaangi et al.	Stool	S.Paratyphi B	2017												100%	
70	⚔	Chiyaangi et al.	Stool	NTS	2017													
71	⚔	Chiyaangi et al.	Stool	S.flexineri												17%	50%	
72	⚔	Chiyaangi et al.	Stool	S.dysenteriae												17%	84%	
73	⚔	Chiyaangi et al.	Stool	S.Boydii												25%	25%	
74	⚔	Chiyaangi et al.	Stool	C.jejuni													100%	
75	<	Youn et al.	Wound Swab	S.psuedointermedius		4%					10%					33%		
76	⚔	Mwamungule et al.	Doctors Coats	Enterobacter		50%										25%		
77	⚔	Mwamungule et al.	Doctors Coats	Pseudomonas		25%										25%	50%	

					31	32	33	34	35	36	37	2
					Colistin	Antivirals NRTI	NNRTI	Pis	Tuberculosis Rifampicin	Isoniazid	Ethambutam	Streptomycin
1	±	Kapata moyo et al.	Pus Aspirates	<i>S.aureus</i>	2010							
2	±	Matundwelo et al.	Pus Swab	<i>S.aureus</i>	2016							
3	±	Nagelkerke et al.	Nasal Swab	<i>S.aureus</i>	2017							
4	±	Kabwe et al.	Blood	<i>S.aureus</i>	2016							
5	±	Chanda et al.	Blood	<i>S.aureus</i>								
6	±	Chanda et al.	Urine	<i>S.aureus</i>								
7	±	Chanda et al.	Wound Swab	<i>S.aureus</i>								
8	±	Ziwa et al.	Wound Swab	<i>S.aureus</i>	2018							
9	<	Youn et al.	Wound Swab	<i>S.aureus</i>	2014							
10	<	Schaumburg et al.	Oral Swabs	<i>S.aureus</i>	2012							
11	±	Ziwa et al.	Hydrotherapy Bat	<i>S.aureus</i>	2018							
12	±	Youn et al.	Vet Hospital Faci	<i>S.aureus</i>	2014							
13	±	Mwamungule et al.	Doctors Coats	<i>S.aureus</i>	2015							
14	±	Mainda et al.		<i>E.coli</i>	2019							
15	±	Chiyangi et al.	Stool	<i>E.coli</i>								34%
16	±	Mainda et al.	Stool	<i>E.coli</i>	2019							
17	±	Kabwe et al.	Blood	<i>E.coli</i>								
18	±	Chanda et al.	Blood	<i>E.coli</i>								
19	±	Chanda et al.	Urine	<i>E.coli</i>								
20	±	Chanda et al.	Wound	<i>E.coli</i>								
21	<	Mainda et al.		<i>E.coli</i>	2015							
22	±	Songe et al.	Fish Markets	<i>E.coli</i>	2016							88%
23	±	Mwamungule et al.	Doctors Coats	<i>E.coli</i>								
24	±	Kabwe et al.	Blood	<i>Klebsiella</i>	2016							
25	±	Chanda et al.	Blood	<i>Klebsiella</i>								
26	±	Chanda et al.	Urine	<i>Klebsiella</i>								
27	±	Chanda et al.	Wound Swab	<i>Klebsiella</i>								
28	±	Ziwa et al.	Wound Swab	<i>Klebsiella</i>								
29	±	Ziwa et al.	Hydrotherapy Bat	<i>Klebsiella</i>	2018							
30	±	Mwamungule et al.	Doctors Coats	<i>Klebsiella</i>								
31	±	Matundwelo et al.	Pus Swab	<i>P. Vulgaris</i>	2016							
32	±	Nagelkerke et al.	Nasal Swab	<i>Enterobaciaceae</i>	2017							
33	±	Chiyangi et al.	Stool	<i>V.cholerae</i>	2017							
34	±	Mwape et al.		<i>V.cholerae</i> 2009								
35	±	Mwape et al.		<i>V.cholerae</i> 2010								
36	±	Mwape et al.		<i>V.cholerae</i> 2016								
37	±	Inzaule et al.		HIV	2020							
38	±	Bennett et al.		HIV	2020	10%	44%	2%				
39	±	Miti et al.	Blood	HIV	2020	81%	65%					
40	±	Chanda et al.	Blood	<i>Citrobacter</i>								
41	±	Chanda et al.	Urine	<i>Citrobacter</i>								
42	±	Chanda et al.	Wound Swab	<i>Citrobacter</i>								
43	±	Chanda et al.	Blood	<i>Coliform</i>								
44	±	Chanda et al.	Urine	<i>Coliform</i>								
45	±	Chanda et al.	Wound Swab	<i>Coliform</i>								
46	±	Chanda et al.	Blood	<i>Enterobacter</i>								
47	±	Chanda et al.	Urine	<i>Enterobacter</i>								
48	±	Chanda et al.	Wound Swab	<i>Enterobacter</i>								
49	±	Chanda et al.	Blood	<i>cnS</i>								
50	±	Chanda et al.	Urine	<i>cnS</i>								
51	±	Chanda et al.	Wound Swab	<i>cnS</i>								
52	±	Chanda et al.	Blood	<i>Proteus</i>								
53	±	Chanda et al.	Urine	<i>Proteus</i>								
54	±	Chanda et al.	Wound Swab	<i>Proteus</i>								
55	±	Chanda et al.	Blood	<i>Streptococcus</i>								
56	±	Chanda et al.	Urine	<i>Streptococcus</i>								
57	±	Chanda et al.	Wound Swab	<i>Streptococcus</i>								
58	±	Chanda et al.	Blood	<i>Pseudomonas</i>								
59	±	Chanda et al.	Urine	<i>Pseudomonas</i>								
60	±	Chanda et al.	Wound Swab	<i>Pseudomonas</i>								
61	±	Chanda et al.	Urine	<i>Yersinia</i>								
62	±	Kapata et al.	Sputum	<i>M.tuberculosis</i>	2015				1%	6%	0%	6%
63	±	Masenga et al.		<i>M.tuberculosis</i>	2017				6%			
64	±	Kapata et al.		<i>M.tuberculosis</i>	2013				5%	13%	4%	11%
65	±	Habeenzu et al.		<i>M.tuberculosis</i>								
66	±	Gill et al.	Nasopharyngeal	<i>S.pneumoniae</i>	2008							
67	±	Chiyangi et al.	Stool	<i>S.Typhi</i>	2017							100%
68	±	Hendriksen et al.		<i>S.typhi</i>	2014							99%
69	±	Chiyangi et al.	Stool	<i>S.Paratyphi B</i>	2017							100%
70	±	Chiyangi et al.	Stool	<i>NTS</i>	2017	17%						67%
71	±	Chiyangi et al.	Stool	<i>S.flexineri</i>								84%
72	±	Chiyangi et al.	Stool	<i>S.dysenteriae</i>								
73	±	Chiyangi et al.	Stool	<i>S.Boydii</i>								
74	±	Chiyangi et al.	Stool	<i>C.jejuni</i>								
75	<	Youn et al.	Wound Swab	<i>S.pseudointermedius</i>								
76	±	Mwamungule et al.	Doctors Coats	<i>Enterobacter</i>								
77	±	Mwamungule et al.	Doctors Coats	<i>Pseudomonas</i>								