Percentage of susceptible Organisms Isolated From All Specimen, 9 hospitals, Jan - Dec 2019 (RMSc4 Saraburi)

	Organism	TOTAL ISOLATES	BETA - LACTAMS																			CARBAPENEMS			POLY MYXINS	QUINOLONES			AMINOGLYCOSIDES			GLYCOPEPTIDES			MISCELLANEOUS								
			PENICILLIN	PENICILLIN BY MIC	AMPICILLIN	AMOXICILLIN/ CLAVULANIC ACID	AMPICILLIN / SULBACTAM	PIPERACILLIN / TAZOBACTAM	CEFAZOLIN (A)	CEFAZOLIN (U)	CEFUROXIME SODIUM (parenteral)	CEFUROXIME SODIUM (Oral)	CEFOPERAZONE / SULBACTAM [a]	CEFOTAXIME	CEFOTAXIME BY MIC	CEFTAZIDIME	CEFTAZIDIME BY MIC	CEFTRIAXONE	CEFTRIAXONE BY MIC	CEFEPIME	OXACILLIN	CEFOXITIN	ERTAPENEM	IMIPENEM	MEROPENEM	COLISTIN BY MIC	CIPROFLOXACIN	CIPROFLOXACIN BY MIC	LEVOFLOXACIN	AMIKACIN	GENTAMICIN	GENTAMICIN 120 µg	VANCOMYCIN	VANCOMYCIN BY MIC	TEICOPLANIN	FOSFOMYCIN	CLINDAMYCIN	CLINDAMYCIN BY MIC	ERYTHROMYCIN	ERYTHROMYCIN BY MIC	NITROFURANTOIN (U)	CHLORAMPHENICOL	CO-TRIMOXAZOLE	TETRACYCLINE
Gram negative	*Acinetobacter calcoaceticus-baumannii* complex	5372			R	R	23.7 (801)	23.7 (4028)						5 (2244)	-	23.4 (4191)	-	5 (1944)	-	41.5 (41)			R	23.3 (3986)	22.9 (4012)	-	22.8 (4118)		19.5 (1060)	37.3 (4127)	31.1 (4112)					R						R	31.8 (3421)	- [u]
	(ICU)	1208			R	R	11.8 (136)	17 (874)						2.7 (443)	-	16.8 (916)	-	2.8 (423)	-	-			R	17 (863)	15.8 (867)	-	17.4 (889)		13 (299)	28.3 (889)	23.4 (900)					R						R	27.5 (772)	- [u]
	(inpatient)	3555			R	R	28.8 (361)	22.7 (2700)						5.1 (1321)	-	22.9 (2758)	-	5.1 (1117)	-	36.7 (30)			R	22.4 (2632)	22.2 (2636)	-	22.2 (2719)		19.9 (715)	37.7 (2727)	31.3 (2707)					R						R	31.2 (2433)	- [u]
	(outpatient)	176			R	R	48.6 (35)	53.2 (158)						19 (58)	-	48.8 (160)	-	33.3 (33)	-	-			R	55.6 (160)	55.8 (154)	-	44.2 (156)		40.5 (37)	64.9 (154)	63.4 (153)					R						R	53.2 (124)	- [u]
	Acinetobacter spp.	523					29.6 (115)	42.3 (357)						25 (216)	-	38.7 (382)	-	25 (156)	-	-				40.4 (381)	36.9 (360)	-	39.8 (379)		30.2 (202)	51.6 (382)	43.7 (371)												38.2 (262)	- [u]
	Aeromonas hydrophila	90						95.7 (47)			-			87.3 (63)	-	92.6 (68)	-	92.8 (69)	-	-		-	81.1 (37)	78.4 (37)	-			90.4 (73)		-	100 (48)	93.2 (44)									-	77.3 (75)	-
	Burkholderia cepacia complex	85			R	R	R	R						R [r]	R [r]	98.3 (60)	-	R [r]	R [r]	R			R	R [r]	96.7 (61)	R			- [e]	R [r]	R [r]	R [r]				R						- [e]	91.7 (60)	
	Burkholderia mallei	1															-							- [e]																		- [e]
	Burkholderia pseudomallei	49				- [e]											-							- [e]																	- [e]	- [e]
	Citrobacter freundii	113			R	R	R	89.9 (89)	R	R	R	R	86.7 (30)	72.1 (68)	-	80.6 (98)	-	71.4 (70)	-	-		R	95.2 (42)	94.9 (78)	95.6 (90)		57.3 (96)		-	99 (97)	79.8 (94)								-	-	63.2 (87)	-
	Enterobacter cloacae	911			R	R	R	84.6 (635)	R	R			87.6 (315)	59.8 (587)	-	67.5 (684)	-	61.4 (521)	-	-		R	90.5 (430)	89.3 (646)	92.1 (580)	- WT	63.5 (676)		75.6 (131)	95.5 (687)	78 (674)								-	-	65.2 (603)	-
	Enterobacter spp.	193			7.5 (80)	22.8 (57)	52.3 (44)	84 (144)	-	-	-	-	85.4 (96)	60.9 (110)	-	67.9 (162)	-	61 (146)	-	-		62.7 (51)	88.2 (93)	88.4 (129)	91.8 (146)		56.4 (163)		90.5 (42)	90.7 (162)	73.1 (156)								-	-	62.6 (115)	-
	Escherichia coli (all isolates)	9286			14.2 (3250)	68 (4550)	46.1 (672)	92.3 (6490)	30.4 (3631)	-	51 (2351)	-	93.2 (2895)	53.1 (5594)	-	65.7 (6724)	-	53.6 (5407)	-	80.3 (127)		87 (2290)	95.4 (4889)	96.3 (6129)	96.5 (5693)	- WT	36.6 (6564)		47.4 (1215)	98.1 (6734)	61.3 (6589)								97.1 (272)	-	43.2 (5724)	-
	(Urine-inpatient)	3748			12.7 (1100)	67.1 (1577)	57.9 (145)	89.2 (2611)		-	45.7 (1085)	-	91.1 (1112)	48.1 (2085)	-	62.3 (2677)	-	49.5 (2218)	-	75.4 (61)		84.9 (833)	93 (1834)	94.7 (2384)	94.7 (2242)	- WT [l]	32.9 (2601)		41.8 (574)	97.8 (2682)	58.7 (2624)				99 (477)				96.3 (187)	-	40.3 (2356)	-
	(Urine-outpatient)	1521			13.3 (481)	67.2 (548)	41.7 (72)	94.8 (1049)		-	56.7 (545)	-	93.1 (290)	57.7 (990)	-	68.2 (1071)	-	57.4 (782)	-	-		88.4 (415)	97.6 (887)	98.5 (1049)	98.9 (969)	- WT [l]	29.6 (1042)		38.1 (139)	98.8 (1072)	61.6 (1062)				99.3 (141)				98 (50)	-	41.5 (958)	-
	Haemophilus influenzae (all isolates)	240			59.7 (221)	93.7 (221)	-	-			94.6 (129)			98.3 (120)	-	100 (33)	-	98.6 (144)						-	98.9 (94)		98.3 (176)		100 (81)											90 (60)	52.3 (149)	75 (120)
	(age 0-5 years old)	38			55.9 (34)	82.9 (35)	-	-			-			-	-	-	-	-						-	-		100 (32)		-										-	-	-
	(age > 5 years old)	155			60 (140)	94.4 (142)	-	-			93.2 (88)			100 (62)	-	-	-	99.1 (116)						-	97 (33)		97.9 (143)		-										90.7 (54)	54.3 (127)	73.5 (102)
	(CSF)	1			-	-	-	-			-			-	-	-	-	-						-	-		-		-										-	-	-
	(Sterile sites) b	16			-	-	-	-			-			-	-	-	-	-						-	-		-		-										-	-	-
	(Non-sterile sites) c	228			60 (210)	93.8 (211)	-	-			94.4 (125)			98.2 (113)	-	-	-	98.5 (134)						-	98.9 (92)		98.2 (165)		100 (80)											89.7 (58)	51.8 (139)	75.2 (113)
	Klebsiella aerogenes	333			R	R	R	77.9 (253)	R	R			72 (75)	54.5 (257)	-	63.8 (271)	-	51.5 (200)	-	-		R	83.2 (173)	80.6 (268)	84.7 (242)	- WT	56 (268)		69 (42)	92.3 (271)	75 (268)								-	-	67.1 (255)	-
	Klebsiella oxytoca	90			0 (37)	81.1 (37)	-	82.4 (74)	25.5 (51)	-	71 (31)	-	-	59.7 (67)	-	64.5 (76)	-	55.4 (65)	-	-		75.7 (37)	86 (57)	85.3 (68)	88.2 (68)	[l]	47.9 (73)		-	88.2 (76)	67.1 (76)								-	-	54.3 (70)	-
	Klebsiella pneumoniae (all isolates)	6398			R	62.5 (3622)	41.9 (735)	74.2 (4630)	42.1 (2898)	-	54.9 (1773)	-	75.3 (2060)	53.5 (4173)	-	59.5 (4898)	-	53.2 (4019)	-	83.5 (121)		69.8 (1837)	80.3 (3591)	81.9 (4521)	81.4 (4191)	- WT	49.1 (4781)		60.9 (956)	90.2 (4889)	76.5 (4796)								66.1 (115)	-	56.5 (4233)	-
	(ICU)	805			R	52 (481)	40 (75)	65.4 (587)	31.7 (388)	-	42.8 (229)	-	64.6 (277)	41.3 (496)	-	49.8 (621)	-	44.3 (537)	-	-		65.1 (238)	74.8 (489)	76.1 (578)	77 (556)	- WT	45.9 (603)		55.4 (148)	87.2 (616)	69.3 (602)								-	-	48.9 (542)	-
	(inpatient)	4075			R	60.3 (2490)	47.5 (278)	73.7 (3011)	-	-	51.7 (1289)	-	78.2 (1284)	52.1 (2557)	-	57.9 (3117)	-	51.6 (2604)	-	76.3 (97)		69.1 (1085)	78.6 (2250)	81.2 (2837)	80.7 (2595)	- WT	47.7 (3048)		59.3 (702)	90.8 (3113)	77.5 (3055)								63.9 (83)	-	54.9 (2730)	-
	(outpatient)	619			R	75.3 (384)	-	84.7 (491)	51.8 (357)	-	68.5 (273)	-	83 (135)	68.4 (446)	-	74.2 (507)	-	69.1 (376)	-	-		79.7 (222)	89.1 (450)	90 (491)	89.7 (468)	- WT	56.3 (485)		67.5 (83)	95.5 (507)	84.4 (493)								-	-	68.1 (452)	-
	Morganella morganii	235			R	R	-	96.4 (192)	R	R	R	R	94.8 (58)	82.9 (170)	-	87.7 (195)	-	86.4 (118)	-	-		71.1 (38)	98.3 (119)	62.2 (180)	98.3 (175)	R	59.1 (193)		-	99.5 (198)	76.8 (198)								R	-	63.6 (176)	-
	Neiseria meningitidis			-	- [e]									-	-			-	-						-		-		- [e]										-	-	
	Proteus mirabilis	1427			44.7 (588)	84.3 (808)	76.5 (81)	98.6 (1154)	28.8 (657)	-	76.2 (551)	-	98.6 (428)	78.7 (994)	-	90.9 (1195)	-	78.6 (903)	-	-		94.5 (343)	98.6 (761)	93.7 (1075)	99 (1064)	R	60.3 (1160)		62.6 (227)	99.1 (1197)	79.7 (1176)								R	-	50.8 (1065)	R
	Proteus vulgaris	198			R	69.7 (122)	-	96.5 (173)	R	R	R	R	96.6 (87)	73 (159)	-	84.5 (181)	-	77.5 (160)	-	-		93.9 (49)	97.7 (130)	91 (166)	98 (149)	R	61.1 (180)		71.4 (42)	98.9 (182)	78.3 (180)								R	-	53.1 (160)	R
	Providencia rettgeri	107			R	R	-	92.4 (92)	R	R	48.9 (47)	-	94.6 (37)	73.2 (82)	-	75 (96)	-	74.1 (81)	-	-		73.3 (30)	97.4 (77)	90.9 (88)	96.2 (78)	R	54.3 (94)		-	97.9 (94)	85.1 (94)								R	-	67.4 (86)	R
	Providencia stuartii	77			R	R	-	96.9 (64)	R	R	-	-	-	78.3 (46)	-	73.8 (65)	-	62.2 (37)	-	-		-	100 (35)	89.3 (56)	100 (59)	R	49.2 (65)		-	100 (54)	75 (52)								R	-	68.8 (64)	R

	Providencia spp.	45			-	2.7 (37)	-	88.6 (44)	-	-	56.2 (32)	-	-	78.6 (42)	-	80 (45)	-	79.1 (43)	-	-		-	100 (41)	88.6 (44)	100 (41)		32.6 (43)		-	100 (44)	73.8 (42)										-	-	53.7 (41)	-
	Pseudomonas aeruginosa	4064			R	R	R	80.5 (3610)						R	R	80.4 (3679)	-	R	R	81.1 (37)			R	77.4 (3482)	77.8 (3488)	-	78.1 (3617)		81.8 (751)	87.2 (3691)	82.6 (3654)											R	R	R
	Salmonella , Typhoidal	2			-								-	-	-	-	-	-	-								-	-	-[e]													-	-	
	Salmonella spp.	1058			44.3 (908)								100 (53)	85 (100)	-	84.5 (103)	-	88.7 (381)	-								72.2 (726)	-	-[e]													-	85.6 (912)	
	Serratia marcescens	96			R	R	R	96.2 (79)	R	R	R	R	-	93.1 (58)	-	95.1 (81)	-	89.5 (57)	-	-		R	100 (46)	97 (67)	98.5 (68)	R	90 (80)		-	-	96.2 (80)										R	-	90.9 (77)	-
	Shigella spp.	9			-																						-		-														-	
Gram negative	*Stenotrophomonas maltophilia*	744			R	R	R	R						R	R		-	R	R				R	R	R				96.9 (421)	R	R	R				R						-[e]	95.8 (619)	R
Gram negative	*Vibrio cholerae (all serotypes)*	9			-																																					-	-	-
Gram negative	*Vibrio cholerae* O1				-																																					-	-	-
Gram negative	*Vibrio cholerae* non O1, non O139	9			-																																					-	-	-
Gram negative	*Vibrio parahaemolyticus*	62			3.1 (32)	-	-	-	-[e]	-[e]	-			-	-	-	-			-		-		-	-		63.4 (41)	-	-	-	-												100 (37)	100 (42)
Gram negative	*Vibrio* spp.	24			-	-	-	-	-[e]	-[e]	-			-	-	-	-			-		-		-	-		-	-	-	-	-												-	-
Gram positive	*Enterococcus faecalis*	1507	70.7 (1038)	-	96.4 (1279)				R	R	R	R	R	R	R	R	R	R	R	R							32.0[u] (906)	-[u]	54.8[u] (135)	R	R	53.2[h] (77)	99.5 (1371)	-	99.1 (230)	94.8[u] (884)	R	R	30.7 (137)	-	98.8 (166)		R	6.2[u] (80)
Gram positive	*Enterococcus faecium*	1219	9 (714)	-	15.9 (1067)				R	R	R	R	R	R	R	R	R	R	R	R							2.5[u] (830)	-[u]	10.8[u] (120)	R	R	-[h]	87.2 (1109)	-	84.2 (221)		R	R	8.4 (107)	-	11.3 (133)		R	12.4[u] (105)
Gram positive	*Enterococcus* spp.	468	56.8 (44)	-	63.8 (409)																						-[u]	-[u]	-[u]			47.7[h] (109)	97.6 (416)	-	-				-	-	-			-[u]
Gram positive	*Staphylococcus aureus (all isolates)*	2953	6.9 (1035)	-																	79.8[f] (188)						89.8 (1867)	-	95.3 (300)		94.6 (2292)			98.7 (226)	-[e]		84.4 (2703)	-	78.8 (2606)	-	-	-	97.9 (2327)	53 (717)
Gram positive	(MRSA)	42	-	-																	0.0[f] (42)						-	-	-		-			100 (34)	-[e]		40 (40)	-	12.5 (40)	-	-	-	-	-
Gram positive	(MSSA)	151	-	-																	100.0[f] (151)						-	-	-		100 (38)			-	-[e]		90.6 (149)	-	87.2 (149)	-	-	-	-	-
Gram positive	(ICU)	208	11 (82)	-																	-[f]						87 (123)	-	-		92.4 (157)			-	-[e]		84.7 (196)	-	79 (181)	-	-	-	98.2 (168)	45.3 (64)
Gram positive	(inpatient)	1901	6.9 (677)	-																	84.5[f] (58)						89 (1267)	-	94.1 (205)		94.4 (1593)			97.1 (69)	-[e]		84.5 (1739)	-	79.6 (1670)	-	-	-	97.7 (1615)	51.9 (395)
Gram positive	(outpatient)	406	3.2 (62)	-																	67.3[f] (52)						90.4 (271)	-	-		95.9 (317)			100 (34)	-[e]		83.4 (374)	-	77.1 (363)	-	-	-	97.7 (308)	56.5 (46)
Gram positive	*Staphylococcus,* coagulase negative	5746	12.5 (824)	-																	50.4[f] (113)						53.9 (1619)	-	68.8 (96)		72.5 (2396)			98.1 (106)	-[e]		44.4 (3033)	-	34.4 (2986)	-	94.9 (39)	-	63.4 (2442)	56.4 (1194)
Gram positive	*Staphylococcus, coagulase negative (blood)*	3874	13 (630)	-																	48.1[f] (52)						52.7 (1238)	-	65.5 (87)		72.1 (1811)			98 (101)	-[e]		44.9 (2474)	-	34.3 (2442)	-		-	62.4 (1864)	61 (956)
Gram positive	*Streptococcus agalactiae*	314	98.3 (172)	-	-									98.1 (54)	-			97.5 (81)	-	-									95.4 (87)				99.4 (163)				81.5 (157)	-	82.2 (157)	-		-		
Gram positive	*Streptococcus, β-hemolytic not Group A,B*	171	96.1 (77)	-	-									-	-			100 (33)	-	-									95.8 (48)				100 (95)				88.4 (95)	-	82.6 (92)	-		-		
Gram positive	*Streptococcus pyogenes*	489	96.7 (269)	-	96.4 (111)									100 (86)	-			100 (97)	-	-									97.5 (119)				99.3 (278)				91.6 (299)	-	87.8 (288)	-		-		
Gram positive	*Streptococcus pneumoniae (all isolates)*	450	-[d]	28.4 (74)		-[e]					-[e]	-[e]																	97.5 (163)				100 (391)				70.2 (379)	-	52.6 (399)	-		-	43.8 (317)	13.4 (112)
Gram positive	(age 0-5 years old)	59	[d]	-		-[e]					-[e]	-[e]																	-				100 (46)				65.4 (52)	-	39.2 (51)	-		-	29.7 (37)	-
Gram positive	(age > 5 years old)	351	-[d]	40 (45)		-[e]					-[e]	-[e]																	97.2 (106)				100 (304)				70.9 (320)	-	57.8 (308)	-		-	45.3 (274)	12.2 (90)
Gram positive	(Sterile sites) b	128	-[d]	47.2 (36)		-[e]					-[e]	-[e]																	97.1 (34)				100 (112)				67 (112)	-	60.2 (118)	-		-	51.2 (86)	15.2 (33)
Gram positive	(Non-sterile sites) c	345	-[d]	18.2 (44)		-[e]					-[e]	-[e]																	97.8 (134)				100 (298)				71.9 (288)	-	50.5 (303)	-		-	42.2 (249)	12.9 (85)
Gram positive	(Meningitis: by E-test)	4		-											-				-	-[e]																								
Gram positive	(Nonmeningitis: by E-test)	449		100 (76)		-[e]									-				-	-[e]																								

[a] : No CLSI Interpretive Criteria. Interprete according to cefoperazone/sulbactam in *Enterobacteriaceae*

[b] : Blood, Pleural Fluid

[c] : Sputum, Ear, Sinus

[d] : Interprete according to oxacillin susceptibility test

[e] : MIC Interpretive Criteria

[f] : Interprete according to cefoxitin susceptibility test

[h] : High-Level Aminoglycoside

[u] : Urine, Urine Catheter, Urine Clean- Voided

[WT] : Wild-type

R : Intrinsic resistance

[r] : Listed as resistance in previous editions of M100 cannot be comfirmed

%S: ≥ 90 | 80-89 | 70-79 | 50-69 | < 50