

1. ENTEROBACTERIACEAE

MH agar, McFarland 0.5, incubation air 35°C ± 1°C, incubation time 18h ± 2 h.

QC strains: *Escherichia coli* ATCC 29522, *Escherichia coli* ATCC 35218 (amoxicillin-clavulanate, piperacillin-tazobactam, temocillin).

• STANDARD PANEL (hospitalized patients, pus/wound, respiratory, blood)

MDRO setting: resistance to ≥ 3 drug classes (aminoglycosides, third and fourth generation cephalosporins, fluoroquinolones) or ESBL positive or carbapenemase positive strain.

PRIMARY TESTING	SUGGESTED REPORTING (NON MDRO SETTING)	SUGGESTED REPORTING (MDRO SETTING)
Ampicillin or amoxicillin.	+	+
Amoxicillin-clavulanate.	+	+
Piperacillin-tazobactam.	(+)*	+
Temocillin ¹ .		+
Cefuroxime ² .	+	+
Cefoxitin ³ .		
Cefotaxime or ceftriaxone.	(+)**	+
Ceftazidime.		+
Cefepime.		+
Ertapenem ¹ .		
Meropenem.		+
Cotrimoxazole.	+	+
Ciprofloxacin or levofloxacin.	+	+
Amikacin ^{2,4} .	+	+
Gentamicin ^{2,4} .	+	+

SUPPLEMENTAL TESTING	SUGGESTED REPORTING (NON MDRO SETTING)	SUGGESTED REPORTING (MDRO SETTING)
Aztreonam.		+
Colistin ⁵ .		+
Tigecycline.		+
Ceftazidime-avibactam ⁶ .		+

* Report of piperacillin-tazobactam could be suggested if amoxicillin-clavulanate "R"

** Report of a third generation cephalosporin (cefotaxime/ceftriaxone) could be suggested if cefuroxime "R"

1. Ertapenem, meropenem (EUCAST screening breakpoint) and temocillin suggested for screening of CPE.
2. For *Salmonella* spp. and *Shigella* spp., aminoglycosides, first and second generation cephalosporins may appear active in vitro, but are not clinically effective and should not be reported as susceptible.
3. Cefoxitin testing is optional; may be useful for the resistance mechanism distinction of AmpC cephalosporinase vs ESBL in non chromosomal AmpC producing species.
4. Reporting of either amikacin or gentamicin alone may be considered in a non MDRO setting.
5. Colistin susceptibility result should be verified by broth microdilution method if considered for treatment.
6. Ceftazidime-avibactam remains active against many MDRO including some CPE like OXA-48 and KPC but is intrinsically inactive against MBL producers (NDM, VIM, IMP).

• URINARY TRACT PANEL (and outpatients)

PRIMARY TESTING	SUGGESTED REPORTING (NON MDRO SETTING)	SUGGESTED REPORTING (MDRO SETTING)
Ampicillin or amoxicillin.	+	
Amoxicillin-clavulanate.	+	
Cefuroxime axetil.	+	
Cefotaxime or ceftriaxone.	+*	
Ertapenem ¹ .		
Temocillin ¹ .		
Cotrimoxazole.	+	
Ciprofloxacin or levofloxacin.	+	
Nitrofurantoin.	+	
Fosfomycin ² .	+	

* If resistant, consider testing "standard panel" (see above).

1. Ertapenem, meropenem (EUCAST screening breakpoint) and temocillin suggested for screening of CPE.
2. Fosfomycin (+G6P) disk testing only applies for *E. coli* (for other *Enterobacteriaceae*, use a commercial MIC method and follow the instructions of the manufacturer).