

**Table S1.** Comparative analysis of MDR/XDR ST175 and ST235 high-risk clones

Variable	MDR/XDR ST175 clone (n=43; 56.6%)	MDR/XDR ST235 clone (n=33; 43.4%)	p
Age (years)	59.0 (52.0-72.7)	62.0 (50.5-71.3)	0.699
Male sex	24 (55.8)	22 (66.7)	0.469
Comorbidity			
Charlson comorbidity index	2 (2-4)	2 (1-3)	0.077
Diabetes mellitus	10 (23.3)	14 (42.4)	0.125
End-stage renal disease	6 (13.9)	3 (9.0)	0.723
Solid malignancy	10 (23.3)	7 (21.2)	0.832
Hematological malignancy	21 (48.8)	8 (24.2)	0.051
Severe neutropenia	18 (41.9)	10 (30.3)	0.426
Transplant	8 (18.6)	5 (15.2)	0.929
ICU admission in previous 3 mo.	6 (13.9)	8 (24.2)	0.396
Prior invasive procedures			
Venous catheter	34 (79.1)	27 (81.8)	0.993
Urinary catheter	18 (41.9)	16 (48.5)	0.731
Mechanical ventilation	6 (13.9)	7 (21.2)	0.599
Surgery in previous mo.	12 (27.9)	15 (45.5)	0.179
Antimicrobial therapy in previous mo.			
Carbapenems	12 (27.9)	18 (54.5)	0.034
Fluoroquinolones	19 (44.2)	6 (18.2)	0.031
Acquisition type			
Nosocomial	37 (86.0)	23 (69.7)	0.147
Healthcare-associated	6 (13.9)	10 (30.3)	0.147
Community	0 (0)	0 (0)	
Primary source of infection			
High-risk source	29 (67.4)	25 (75.8)	0.591
Unknown	5 (11.6)	2 (6.0)	0.692
Respiratory	15 (34.9)	14 (42.4)	0.665
Abdominal	8 (18.6)	6 (18.2)	0.962
Soft tissue	1 (2.3)	3 (7.8)	0.310
Low-risk source	14 (32.6)	8 (24.2)	0.591
Urinary	9 (20.9)	6 (18.2)	0.993
Vascular catheter	4 (9.3)	2 (6.0)	0.962
Other	1 (2.3)	0 (0)	---
Clinical presentation			
Pitt bacteremia score ≥2	24 (55.8)	26 (78.8)	0.064
Septic shock	10 (23.3)	18 (54.5)	0.010
Inadequate empiric antibiotic	23 (53.5)	22 (66.7)	0.355
TTSS genotype			
<i>exoU+/exoS-</i>	0 (0)	33 (100)	<0.001
<i>exoU-/exoS+</i>	43 (100)	0 (0)	<0.001
<i>exoU-/exoS-</i>	0 (0)	0 (0)	---
Carbapenemase type			
VIM-2	43 (100)	0 (0)	<0.001
GES-5	0 (0)	33 (100)	<0.001
O-antigen serotype			
O1	0 (0)	4 (12.1)	---
O4	43 (100)	0 (0)	<0.001
O6	0 (0)	0 (0)	---
O11	0 (0)	29 (87.9)	<0.001
Other O-types	0 (0)	0 (0)	---
TTP of blood culture (hours) <sup>a</sup>	14.0 (10.3-17.0)	19.0 (14.0-20.0)	0.005
Outcome			
5-day mortality	14 (32.6)	15 (45.5)	0.363
30-day mortality	21 (48.8)	23 (69.7)	0.111

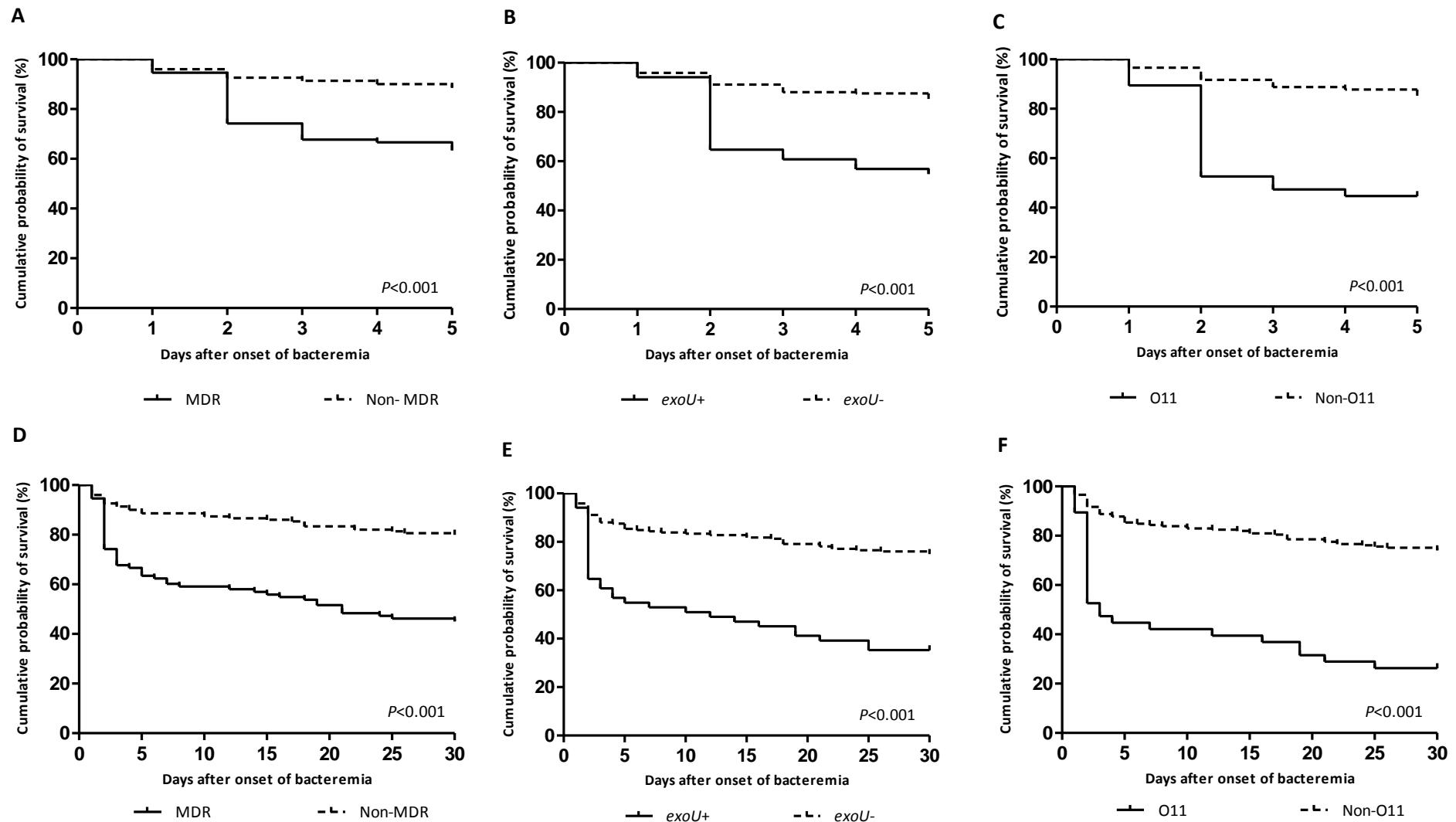
All the data are expressed as n (%) or median (IQR). MDR, multidrug-resistant; XDR, extensively drug-resistant; ICU, intensive care unit; ST, sequence type; TTSS, type III secretion system TTP, time to positivity. <sup>a</sup>Time from the start of incubation to the alert signal by the blood culture system.

**Table S2.** Baseline characteristics of patients with *P. aeruginosa* bloodstream infection according to *exoU* genotype

Variable	Total (n= 243; 100%)	<i>exoU+</i> (n=50; 20.6%)	<i>exoU-</i> (n=193; 79.4%)	p
Age (years)	66.0 (55.0-77.0)	64.0 (57.0-74.0)	66.0 (55.0-77.0)	0.731
Male sex	161 (66.3)	35 (70.0)	126 (65.3)	0.645
Comorbidity				
Charlson comorbidity index	2 (2-3)	2 (1-4)	2 (2-3)	0.699
Diabetes mellitus	63 (25.9)	21 (42.0)	42 (21.8)	0.006
End-stage renal disease	41 (16.9)	8 (16.0)	33 (17.1)	0.853
Solid malignancy	50 (20.6)	10 (20.0)	40 (20.7)	0.910
Hematological malignancy	62 (25.5)	12 (24.0)	50 (25.9)	0.925
Severe neutropenia	58 (23.9)	13 (26.0)	45 (23.3)	0.833
Transplant	52 (21.4)	8 (16.0)	44 (22.8)	0.395
ICU admission in previous 3 mo.	44 (18.1)	12 (24.0)	32 (16.6)	0.313
Prior invasive procedures				
Venous catheter	146 (60.1)	37 (74.0)	109 (56.5)	0.036
Urinary catheter	107 (44.0)	25 (50.0)	82 (42.5)	0.427
Mechanical ventilation	36 (14.8)	10 (20.0)	26 (13.5)	0.349
Surgery in previous mo.	81 (33.3)	21 (42.0)	60 (31.1)	0.197
Antimicrobial therapy in previous mo.				
Carbapenems	54 (22.2)	20 (40.0)	34 (17.6)	0.001
Fluoroquinolones	52 (21.4)	8 (16.0)	44 (22.8)	0.395
Acquisition type				
Nosocomial	137 (56.4)	31 (62.0)	106 (54.9)	0.459
Healthcare-associated	82 (33.7)	18 (36.0)	64 (33.2)	0.833
Community	24 (9.9)	1 (2.0)	23 (11.9)	0.034
Primary source of infection				
High-risk source	150 (61.7)	36 (72.0)	114 (59.1)	0.130
Unknown	26 (10.7)	5 (10.0)	21 (10.9)	1.000
Respiratory	55 (22.6)	18 (36.0)	37 (19.2)	0.019
Abdominal	50 (20.6)	9 (18.0)	41 (21.2)	0.757
Soft tissue	19 (7.8)	4 (8.0)	15 (7.8)	1.000
Low-risk source	93 (38.3)	14 (28.0)	79 (40.9)	0.130
Urinary	67 (27.6)	12 (24.0)	55 (28.5)	0.648
Vascular catheter	23 (9.5)	2 (4.0)	21 (10.9)	0.180
Other	3 (1.2)	0 (0)	3 (1.6)	1.000
Clinical presentation				
Pitt bacteremia score ≥2	135 (55.6)	37 (74.0)	98 (50.8)	0.005
Septic shock	66 (27.2)	26 (52.0)	40 (20.7)	<0.001
Resistance phenotype				
Non-MDR	150 (61.7)	17 (34.0)	133 (68.9)	<0.001
ModR	127 (52.3)	13 (26.0)	114 (59.1)	<0.001
MultiS	23 (9.5)	4 (8.0)	19 (9.8)	1.000
MDR	93 (38.3)	33 (66.0)	60 (31.1)	<0.001
XDR	87 (35.8)	33 (66.0)	54 (27.9)	<0.001
Non-XDR	6 (2.5)	0 (0)	6 (3.1)	0.351
Carbapenemase/ST				
VIM-2/ST175	43 (17.7)	0 (0)	43 (22.3)	<0.001
GES-5/ST235	33 (13.6)	33 (66.0)	0 (0)	<0.001
O-antigen serotype				
O1	38 (15.6)	7 (14.0)	31 (16.1)	0.889
O4	50 (20.6)	0 (0)	50 (25.9)	<0.001
O6	38 (15.6)	2 (4.0)	36 (18.7)	0.009
O11	37 (15.2)	33 (66.0)	4 (2.1)	<0.001
Other O-types	80 (32.9)	8 (16.0)	72 (37.3)	0.007
TTP of blood culture (hours) <sup>a</sup>	16.0 (12.0-19.0)	17.0 (14.0-19.0)	15.0 (12.0-18.0)	0.077
Outcome				
5-day mortality	49 (20.2)	20 (40.0)	29 (15.0)	<0.001
30- day mortality	81 (33.3)	30 (60.0)	51 (26.4)	<0.001

All the data are expressed as n (%) or median (IQR). MDR, multidrug-resistant; XDR, extensively drug-resistant; ICU, intensive care unit; ST, sequence type; TTP, time to positivity. <sup>a</sup>Time from the start of incubation to the alert signal by the blood culture system.

**Figure S1.** Kaplan-Meier curves showing the crude impact of MDR versus non-MDR phenotype (A and D), *exoU*+ versus *exoU*- genotype (B and E), and O11 versus no-O11 serotype (C and F) on 5-day (A to C) and 30-day (D to E) mortality of patients with *P. aeruginosa* BSI. Statistical significance was determined by the log-rank test.



**Figure S2.** Relationship between mortality and time to positivity of blood culture. Significative association was assessed by the Mantle-Haenszel test for linear trends for 5-day mortality (black bars,  $p=0.006$ ) and 30-day mortality (grey bars,  $p=0.010$ ).

