

Table S11. Summary of outcome variables for the clinical data set. The percentage of missing values is shown in the rightmost column. Time to death in hospital and hospital length of stay are competing outcomes, thus one excludes the other, leading to missing values.

	Overall	Missing
n	957	
All cause death within 30 days from diagnosis (%)	142 (14.3)	0
All cause death in hospital (death before discharge) (%)	86 (8.1)	0
Time to death in hospital from diagnosis (d) (median [IQR])	8.0 [3.0, 13.8]	85.2
Hospital length of stay from diagnosis (d) (median [IQR])	8.0 [4, 17.0]	14.8
ICU admission (%)	335 (25.9)	0
Invasive infection (%)	248 (25.9)	0
Infection mentioned in letter (%)	773 (81.1)	0.4
No. medical disciplines involved (median [IQR])	3.0 [2.0, 4.0]	0

Table S12: Summary of explanatory variables for the clinical data set. The percentage of missing values is shown in the rightmost column.

	Overall	Missing
n	957	
<i>Klebsiella</i> species (%):		2.6
<i>K. pneumoniae</i>	593 (63.6)	
<i>K. quasipneumoniae</i>	33 (3.5)	
<i>K. variicola</i>	132 (14.2)	
<i>K. oxytoca</i>	88 (9.4)	
<i>K. michiganensis</i>	61 (6.5)	
<i>K. grimontii</i>	25 (2.7)	
Charlson Comorbidity Index (CCI; median [IQR])	2.0 [1.0, 3.0]	0
Age (years) (mean (sd))	69.9 (16.5)	0
Female (%)	491 (51.3)	0
Immune suppression (%)	188 (19.7)	0.2
Resistance vs. Ceftriaxon (%)	29 (3.9)	21.9
Resistance vs. Piperacillin-Tazobactam (%)	22 (2.9)	21.5
Resistance vs. Carbapenem (%)	2 (0.3)	21.5
Antibiotic treatment at entry or during hospitalisation (%)	841 (88.1)	0.2

Table S13: Odds ratio estimates from the generalized linear mixed-effects model (GLMM) for all cause death within 30 days from diagnosis; n = 929 complete cases with n = 139 events.

	OR	95 % CI	p-value
<i>K. oxytoca</i> group vs. <i>K. pneumoniae</i> group	1.16	[0.42,3.23]	0.762
<i>K. oxytoca</i> vs. <i>K. michiganensis</i>	1.09	[0.56,2.09]	0.802
<i>K. oxytoca</i> vs. <i>K. grimontii</i>	1.12	[0.49,2.59]	0.798
<i>K. pneumoniae</i> vs. <i>K. variicola</i>	0.94	[0.55,1.60]	0.814
<i>K. pneumoniae</i> vs. <i>K. quasipneumoniae</i>	1.13	[0.52,2.56]	0.751
CCI	1.36	[1.24,1.49]	<0.001
Age (centred; 10y-increase)	1.16	[1.01,1.34]	0.040
Female vs. male	0.60	[0.40,2.18]	0.012
Immunosuppression	1.38	[0.87,2.18]	0.173
Antibiotic treatment at entry or during hospitalisation	1.39	[0.71,2.71]	0.339

Table S14: Odds ratio estimates from the generalized linear mixed-effects model (GLMM) for ICU admission; n = 732 complete cases with n = 227 events.

	OR	95 % CI	p-value
<i>K. oxytoca</i> group vs. <i>K. pneumoniae</i> group	1.58	[0.68,3.71]	0.308
<i>K. oxytoca</i> vs. <i>K. michiganensis</i>	1.31	[0.71,2.40]	0.386
<i>K. oxytoca</i> vs. <i>K. grimontii</i>	1.49	[0.68,3.30]	0.329
<i>K. pneumoniae</i> vs. <i>K. variicola</i>	0.79	[0.52,1.19]	0.279
<i>K. pneumoniae</i> vs. <i>K. quasipneumoniae</i>	1.18	[0.64,2.19]	0.611
CCI	1.09	[1.00,1.18]	0.051
Age (centred; 10y-increase)	0.91	[0.81,1.01]	0.081
Female vs. male	0.63	[0.45,0.89]	0.009
Immunosuppression	1.22	[0.79,1.89]	0.36
Resistance to 3rd generation cephalosporines	1.01	[0.37,2.73]	0.98
Antibiotic treatment at entry or during hospitalisation	4.41	[2.10,8.93]	<0.001

Table S15: Hazard ratio estimates from cause-specific hazards Cox proportional hazards model for time to death within hospital after diagnosis with hospital discharge as competing event; n = 929 complete cases with 82 within hospital deaths and 847 discharged alive.

	HR	95 % CI	p-value
<i>K. oxytoca</i> group vs. <i>K. pneumoniae</i> group	0.55	[0.16,1.85]	0.333
<i>K. oxytoca</i> vs. <i>K. michiganensis</i>	0.80	[0.35,1.87]	0.611
<i>K. oxytoca</i> vs. <i>K. grimonitii</i>	2.52	[0.66,9.70]	0.177
<i>K. pneumoniae</i> vs. <i>K. variicola</i>	1.00	[0.62,1.62]	0.999
<i>K. pneumoniae</i> vs. <i>K. quasipneumoniae</i>	0.78	[0.41,1.47]	0.443
CCI	1.13	[1.02,1.25]	0.018
Age (centred; 10y-increase)	1.43	[1.19,1.71]	<0.001
Female vs. male	0.54	[0.34,0.87]	0.011
Immunosuppression	1.01	[0.59,1.17]	0.983
Antibiotic treatment at entry or during hospitalisation	0.15	[0.41,3.21]	0.788

Table S16: Estimates of the multiplicative effects from the Poisson generalized linear mixed-effects model (GLMM) for the number of medical disciplines involved; n = 954 complete cases.

	Estimate	95 % CI	p-value
<i>K. oxytoca</i> group vs. <i>K. pneumoniae</i> group	1.028	[0.834,1.269]	0.787
<i>K. oxytoca</i> vs. <i>K. michiganensis</i>	0.996	[0.865,1.146]	0.956
<i>K. oxytoca</i> vs. <i>K. grimontii</i>	1.2	[0.999,1.443]	0.054
<i>K. pneumoniae</i> vs. <i>K. variicola</i>	1.022	[0.920,1.135]	0.67
<i>K. pneumoniae</i> vs. <i>K. quasipneumoniae</i>	0.925	[0.798,1.077]	0.287
CCI	1.031	[1.010,1.052]	0.003
Age (centred; 10y-increase)	1.019	[0.993,1.047]	0.158
Female vs. male	0.882	[0.812,0.959]	0.003
Immunosuppression	1.107	[0.998,1.226]	0.053
Antibiotic treatment at entry or during hospitalisation	1.252	[1.093,1.433]	0.001

Table S17: Odds ratio estimates from the generalized linear mixed-effects model (GLMM) for the mentioning of the infection in the patient letter; n = 951 complete cases with 771 events.

	OR	95 % CI	p-value
<i>K. oxytoca</i> group vs. <i>K. pneumoniae</i> group	0.60	[0.21,1.63]	0.339
<i>K. oxytoca</i> vs. <i>K. michiganensis</i>	0.82	[0.41,1.63]	0.58
<i>K. oxytoca</i> vs. <i>K. grimontii</i>	1.18	[0.52,2.72]	0.705
<i>K. pneumoniae</i> vs. <i>K. variicola</i>	1.57	[0.92,2.73]	0.115
<i>K. pneumoniae</i> vs. <i>K. quasipneumoniae</i>	0.66	[0.28,1.54]	0.352
CCI	1.04	[0.93,1.16]	0.456
Age (centred; 10y-increase)	1.09	[0.95,1.23]	0.21
Female vs. male	1.22	[0.79,1.86]	0.371
Immunosuppression	0.92	[0.53,1.59]	0.752
Antibiotic treatment at entry or during hospitalisation	56.63	[31.60,100.89]	<0.001