

**Additional file 22 - Results for healthcare costs and the type of resistance of interest for a systematic review evaluating whether the measures of health or healthcare system burden increase in humans with antimicrobial-resistant *E. coli* infections.**

Citation (Reference # in manuscript)	Definition of healthcare system cost measure	Mean cost in resistant (R) group	SD for R	Total patients in R	Mean cost in susceptible (S) group	SD for S	Total patients in S	Year, currency	Additional cost related results
<b>22a) Third-generation cephalosporin resistance</b>									
Apisarnthanarak A, 2008. (43)	The costs were "the direct and indirect costs required to provide healthcare services and medications." They were the costs after onset of infection.	nr	nr	46	nr	nr	138	nr, USD	median (range) R - \$528 (\$43-\$3,173); S - \$194 (\$53-\$1,861); p<0.05
Esteve-Palau E, 2015. (75)	(a) Cost of hospitalization, including costs related to pharmacy (antibiotics and pharmacy costs), laboratory and hospital stay. (b) Cost of parenteral outpatient antibiotic therapy (OPAT). (c) Cost of episode - combination of (a) and (b)	nr	nr	60	nr	nr	60	nr, Euros	median (IQR) (a) R - \$3,611 (\$2,619-\$7,141), S - \$2,502 (\$1,716-\$4,218), p=0.007; (b) R - \$2,966 (\$1,998-\$5,254), S - \$1,577 (\$782-\$2,473), p=0.04; (c) R - \$4,980 (\$2,783-\$8,465), S - \$2,612 (\$1,810-\$4,318), p<0.001; OR 3.1; 95% CI 1.3-7.0; p = 0.008; Multivariable logistic regression for cost of episode adjusted for male gender, chronic renal failure and OPAT
Leistner R, 2014. (112)	(a) Total costs that included direct and indirect costs. Direct costs included medical products, laboratory and pharmacy costs. Indirect costs included overhead, costs of staffing. (b) Average cost per day.	nr	nr	92	nr	nr	92	nr, Euros	median (IQR) (a) R - \$15,082 (\$6,263-\$41,488), S - \$16,561 (\$5,599-\$47,028), p=0.36; (b) - R - \$696/day (\$469-\$990/day), S - \$658/day (\$444-\$1,003/day), p=0.69
Tumbarello M, 2010. (84)	Direct health care costs, "total expenditures incurred by the hospital to provide services or goods for each patient with a BSI." This included costs related to medical care, nursing care, pharmacy services, diagnostic testing, support services, other costs (eg utilities, admission/discharge costs, depreciation costs, overhead costs).	\$ 13,709	\$ 16,312	37	\$ 8,683	\$ 6,683	97	2006, Euros	p=0.03

22b) MDR									
Riu M, 2016. (55)	"Cost of the hospitalization episode."	\$ 16,754	nr	39	\$ 21,883	nr	145	2012, Euros	n/a
Thaden JT, 2017. (63)	"Cost estimates include fixed direct costs and variable direct costs for all medical services received, inclusive of supplies, laboratory tests, drugs, dietary needs," salary and benefits (not physicians), overhead costs and depreciation. Physician fees were estimated using the Medicare physician fee schedule.	\$ 18,917	\$ 29,394	165	\$ 14,776	\$ 24,416	165	2015, USD	median (IQR) R - \$9,527 (\$5,915-\$19,648); S - \$7503 (\$4301-\$13447); Means ratio 1.43; 95%CI 1.20-1.71; p<0.0001; multivariable generalized linear model with gamma distribution and log link adjusted for age, race, APACHE II score, gender, 8 different co-morbidities, hospital-acquired vs community-acquired.

SD - standard deviation; nr - not reported