

Supplementary table S4: Characteristics for each study

	Years	Country	Study design	Control group	Study population	Setting	Outcome definition	Main objective	Pathogen
Lautenbach E ¹⁰	1997-1998	USA	Case cohort study	Non-ESBL-infection	All kinds of patients	Entire hospital	Attributable mortality; LOS	Risk factors for infection with ESBL-producing pathogens, difference in clinical outcomes of infections: resistant vs. susceptible organisms	EC, KP
Kim SH ¹⁴	2007-2008	South Korea	Cohort study, Retrospective	Non-ESBL-infection	Patients who received either chemotherapy or stem cell transplantation; neutropenic fever	Hematological ward, Others	All-cause mortality (28 day)	Risk factors for acquisition of ESBL, appropriateness of empirical antimicrobial therapy, clinical outcomes in relation to ESBL production	EC, KP
Chayakulkeere M ⁵³	2015-2015	Thailand	Cohort study, Retrospective	Non-ESBL-infection	All kinds of patients	Entire hospital	All-cause mortality	Prevalence & risk factors for infections with & antibiotic susceptibility patterns of & outcomes of patients infected with ESBL-producing-GNB	GNB
Apisarntharak A ⁵⁴	2003-2007	Thailand	Cohort study, Retrospective	Non-ESBL-infection	All kinds of patients	Entire hospital	All-cause mortality, LOS	Predictors for mortality associated with community-onset BSI with ESBL-producing pathogens, initial empirical antimicrobial regimens, associated hospital resource utilisation, costs accrued after diagnosis of BSI	EC, KP
Apisarntharak A ⁵⁵	2003-2004	Thailand	Case cohort study	Non-ESBL-infection	All kinds of patients	Entire hospital	All-cause mortality, LOS	Mortality associated with community-onset infection due to ESBL-producing pathogens, associated hospital resource use, post-infection hospital cost	EC
Jean SS ⁵⁶	2010-2011	Portugal, Columbia, the Philippines, Taiwan, Thailand	Cohort study, prospective	Non-ESBL-infection	All kinds of patients	Surgical ward	Attributable mortality, LOS	Clinical impact on hospitalised patients with community-acquired complicated intra-abdominal infection: ESBL-producing- vs. non-ESBL-producing pathogens	GNB
Lee J ⁵⁷	1999-2005	South Korea	interventional studies	Non-ESBL-infection	Children	Pediatric ward	All-cause mortality (28 day)	impact of a change in antibiotic policy on ESBL-prevalence	EC, KP
Briogoso-Figuero L.S ⁵⁸	2009-2010	Spain	Case cohort study	Non-ESBL-infection	All kinds of patients	Entire hospital	All-cause mortality	Characteristics & associated risk factors for EBSL-enterobacteria-UTIs	EC
Ha YE ⁵⁹	2010-2012	South Korea	Cohort study, retrospective	Non-ESBL-infection	Patients with cancer	Entire hospital	All-cause mortality (28 day)	Clinical & molecular epidemiology of ESBL-EC bacteraemia, clinical impact of ESBLs on patient outcome	EC
Du B ⁶⁰	1997-1999	China	Cohort study, retrospective	Non-ESBL-infection	All kinds of patients	Entire hospital	All-cause mortality	Risk factors for nosocomial ESBL-EC- and ESBL-KP- bacteraemia & influence on patient outcome.	EC, KP

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Stone PW ⁶¹	2001	USA	Case cohort study	Non-ESBL-infection	Neonates at NICU	NICU	LOS	costs of interventions aimed at controlling the outbreak, attributable length of stay associated with infection and colonisation with ESBL-KP	KP
Pillay T ¹⁵	1995-1996	South Africa	Cohort study, retrospective	Non-ESBL-infection	Neonates	Neonatal ward	All-cause mortality	Use of piperacillin/tazobactam in treatment of KP- infection	KP
Kim BN ¹⁶	1999-2000	South Korea	Cohort study, retrospective	Non-ESBL-infection	All kinds of patients	Entire hospital	Attributable mortality, LOS	Prevalence & clinical characteristics of ESBL-KP- bacteraemia, impact of ESBL- production on outcome of patients with KP- bacteraemia in endemic situation.	KP
Kim YK ¹⁷	1993-1998	South Korea	Cohort study, retrospective	Non-ESBL-infection	Children	Pediatric ward	All-cause mortality	Risk factors & clinical outcomes & clinical responses to treatment of ESBL-EC- and ESBL-KP-bacteraemia, prevalence and types of their ESBLs	EC, KP
Bhavnani SM ¹⁸	2001-2002	USA	Cohort study, prospective	Non-ESBL-infection	All kinds of patients	Entire hospital	Attributable mortality, all-cause mortality	Risk factors for occurrence of invasive ESBL-EC- and ESBL-KP-infections, factors associated with clinical outcome, drug regimens for treatment of infections associated ESBL/non-ESBL strains in real-life clinical practice, clinical response rates for patients treated with cephalosporins/other classes of antimicrobial agents, /carbapenems, clinical response for those patients with infection associated with ESBL and non-ESBL-producing strains with MIC values ≥ 8 Ag/mL treated with cephalosporins.	GNB
Blomberg B ¹⁹	2001-2002	Tanzania	Cohort study, prospective	Non-ESBL-infection	Neonates, children	Pediatric ward	All-cause mortality	Prevalence & clinical implications of ESBL production in EC-,KP-, Salmonellae- septicemia	GNB
Pena C ⁶²	1993-1995	Spain	Cohort study, prospective	Non-ESBL-infection	All kinds of patients	Entire hospital	Attributable mortality, all-cause mortality	Clinical epidemiology& outcome of ESBL-KP- bacteraemia, relevance of ESBL strains in mortality of patients with hospital-acquired KP-BSI.	KP
Kola A ⁶³	2002-2004	Germany	Case cohort study	Non-ESBL-infection	All kinds of patients	Entire hospital	All-cause mortality, LOS, ICU-LOS	Outcomes of ESBL-EC- and ESBL-KP-infections	EC, KP
Tsai MH ⁶⁴	2001-2012	Taiwan	Case cohort study	Control group: non-ESBL-infection, second control group: all hospitalised patients	Neonates at NICU	NICU	Attributable mortality, all-cause mortality, LOS	Clinical features& risk factors& molecular epidemiology of ESBL-GNB	GNB
Maslikowska JA ⁶⁵	2010-2013	Canada	Case cohort study	Non-ESBL-infection	All kinds of patients	Entire hospital	Attributable mortality, all-cause mortality, LOS	Differences in clinical & microbiological outcome, mortality, and/or hospital resource use: ESBL-EC- and ESBL-Ks- vs non-ESBL-EC- and non-ESBL-Ks-infections	GNB

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Onken A ⁶⁶	2012-2013	Tanzania	Cohort study, prospective	Non-ESBL-infection	All kinds of patients	Entire hospital	All-cause mortality	Most common bacterial pathogens causing BSI, antimicrobial susceptibility	GNB
Nguyen ML ⁶⁷	2005-2010	Canada	Case cohort study	Non-ESBL-infection	All kinds of patients	Entire hospital	All-cause mortality, LOS, ICU-LOS	Risk factors for & patient outcomes associated with ESBL-EC- and ESBL-Ks- bacteraemia, appropriateness of empiric antibiotic therapy & effect of inappropriate empiric therapy on outcomes	GNB
Denis B ⁶⁸	2005-2009	France	Case-control study	Non-ESBL-infection	All kinds of patients	Entire hospital	All-cause mortality (28 day), LOS	Prevalence & risk factors for ESBL-EC bacteraemia, impact on length of stay & 30day mortality	EC
Chopra T ⁶⁹	2004-2009	USA	Case cohort study	Case 2(Control1): non-ESBL-infection, second control group: no infection	All kinds of patients	Entire hospital	All-cause mortality (28 day)	Predictors of ESBL-EC- and ESBL-KP-BSI, focus on cefepime exposure.	EC, KP
Panhotra BR ²⁰	2001-2003	Kingdom of Saudi Arabia	Case cohort study	Non-ESBL-infection	All kinds of patients	Entire hospital	All-cause mortality	Risk factors & clinical outcome of ESBL-KP-bacteraemia (hospital acquired)	KP
Marra AR ²¹	1996-2001	Brazil	Cohort study, retrospective	Non-ESBL-infection	All kinds of patients	Entire hospital	All-cause mortality (14 day)	ESBL-KP- associated mortality	KP
Skippen I ²²	2003-2005	UK	Case cohort study	Non-ESBL-infection	All kinds of patients	Entire hospital	All-cause mortality	Risk factors for & outcomes of ESBL-EC- and ESBL-KP-invasive transmission of organism in the healthcare setting	GNB
Schwaber MJ ²³	2000-2003	Israel	Cohort study, retrospective	Non-ESBL-infection	All kinds of patients	Entire hospital	Attributable mortality, all-cause mortality	Outcomes of ESBL-production in Enterobacteriaceae-bacteraemia.	GNB
Apisarnthanarak A ²⁴	2003-2004	Thailand	Case cohort study	Control group: non-ESBL-infection, second control group: no infection	All adult patients	Entire hospital	All-cause mortality, LOS	Clinical & molecular epidemiologic factors associated with community onset ESBL-EC- infections, hospital resource utilisation, estimate costs associated with medical care (hospitalised patients)	EC
Tumbarello M ²⁵	1999-2003	Italy	Case cohort study	Non-ESBL-infection	All kinds of patients	Entire hospital	Attributable mortality, all-cause mortality, LOS, ICU-LOS	Factors associated with isolation of ESBL- KP-strains	KP
Leistner R ¹¹	2008-2010	Germany	Cohort study, retrospective	Non-ESBL-infection	All kinds of patients	Entire hospital,	All-cause mortality, LOS	Difference in mortality: ESBL-EC-BSIs vs. non-ESBL-EC-BSIs, molecular epidemiology of ESBL-positive isolates	EC

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Apisarnthanarak A ²⁶	2003-2004	Thailand	Case cohort study	Control group: non-ESBL-infection, second control group: no infection	All kinds of patients	Entire hospital	All-cause mortality, LOS	Risk factors for & outcomes of ESBL-EC- and ESBL-KP-infections (healthcare associated)	EC, KP
Kanafani ZA ²⁷	2003	Lebanon	Case cohort study	Non-ESBL-infection	All kinds of patients	Entire hospital	All-cause mortality, LOS	Epidemiology of infections with ESBL-EC and ESBL-Ks at AUBMC risk factors & outcomes of infections - focus on effect of prior antibiotic administration & the risks imparted by specific classes of antimicrobial agents	GNB
Zaoutis TE ²⁸	1999-2003	USA	Case cohort study	Non-ESBL-infection	Children	Entire hospital	All-cause mortality, LOS	Risk factors & outcomes associated with ESBL-EC-and ESBL-KP-BSI	EC, KP
Loh LC ²⁹	2003-2004	Malaysia	Cohort study, retrospective	Non-ESBL-infection	All kinds of patients	Entire hospital	All-cause mortality, LOS	Impact of ESBL-KP-respiratory tract infections on hospital mortality, requirement for mechanical ventilation & length stay	KP
Melzer M ³⁰	2003-2005	UK	Cohort study, prospective	Non-ESBL-infection	All kinds of patients	Entire hospital	All-cause mortality	Differences in mortality & length of hospital stay & time from bacteraemia to death in patients with ESBL-EC- vs. non-ESBL-EC-bacteremic-infection	EC
Song KH ³¹	2000-2006	South Korea	Case cohort study	Non-ESBL-infection	Patients with spontaneous bacterial peritonitis	Not provided	All-cause mortality (28 day)	Outcomes of ESBL-EC-and ESBL-Ks- vs non-ESBL-EC-and ESBL-Ks-SBP (based on isolation from ascites), impact of ineffective initial antimicrobial therapy on outcome in patients with ESBL-EC- and ESBL-Ks-SBP, risk factors for infection by ESBL-producing microorganisms.	GNB
Bennett JW ³²	2004-2008	USA	Cohort study, prospective	Non-ESBL-infection	ICU-patients	ICU, Surgical ward, Burn unit	All-cause mortality (28 day)	ESBL types and strain variability, presence of host factors to determine potential role in morbidity and mortality during ESBL-KP-infections	KP
Trecarichi EM ³³	2000-2007	Italy	Cohort study, retrospective	Non-ESBL-infection	Patients with hematological malignancies	Entire hospital	All-cause mortality (28 day)	Risk factors for mortality in patients suffering from hematological malignancies with concurrent EC-bacteraemia. Focus on impact of ESBL- production & fluoroquinolone resistance by bacterial isolates	EC
Tuon FF ³⁴	2006-2009	Brazil	Cohort study, retrospective	Non-ESBL-infection	All kinds of patients	Entire hospital	All-cause mortality (28 day), LOS	Risk factors & mortality rate in ESBL-KP-bacteraemia	KP
Kang CI ³⁵	2008-2009	South Korea	Cohort study, retrospective	Non-ESBL-infection	All kinds of patients	Entire hospital	All-cause mortality (28 day)	Risk factors of ESBL-EC among community-onset bacteraemia, treatment outcomes	EC

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Pena C ³⁶	1996-2003	Spain	Cohort study, retrospective	Non-ESBL-infection	All kinds of patients	Entire hospital	All-cause mortality (28 day)	Risk factors for mortality among patients with EC- infections	EC
Tumbarello M ³⁷	2006	Italy	Cohort study, retrospective	Non-ESBL-infection	All kinds of patients	ICU, Medical ward, Entire hospital, surgical wide	All-cause mortality (21 day), LOS	Clinical & economic impacts of ESBL production, inadequate Initial Antibiotic Therapy of EC-BSI	EC
Kang Ci ³⁸	2006-2009	South Korea	Case cohort study	Non-ESBL-infection	All kinds of patients	Entire hospital	Attributable mortality, all-cause mortality (28 day)	Impact of ESBL-producing bacteraemia on outcome in patients with hematologic malignancy.	EC, KP
Wu YH ³⁹	2009-2012	Taiwan	Cohort study, prospective	Non-ESBL-infection	All kinds of patients	Medical ward	LOS	Host-related risk factors for community-onset UTI due to levofloxacin- or cefazolin-nonsusceptible isolates or uropathogens with ESBL production, clinical impact of UTIs due to antimicrobial-nonsusceptible pathogens	GNB
Rodriguez-Bano J ⁴⁰	2004-2006	Spain	Case cohort study	Non-ESBL-infection	All kinds of patients	Entire hospital	All-cause mortality (14 day)	Epidemiology & risk factors (focus on previous antimicrobial use) & mortality rate for patients with ESBL-EC-COBSI	EC
Gürtneke S ⁴¹	2008-2011	Germany	Cohort study, retrospective	Non-ESBL-infection	All kinds of patients	Entire hospital	All-cause mortality, LOS	Distribution of ESBL genotypes, hospital mortality in cases of ESBL-KP-BSI	KP
Oh MM ⁴²	2006-2011	South Korea	Cohort study, retrospective	Non-ESBL-infection	Patients after Prostatitis Biopsy	Entire hospital	LOS	Impact of ESBL-positive-strains on clinical course & progression to chronic prostatitis in patients with postbiopsy acute prostatitis.	GNB
Leistner R ⁴³	2008-2011	Germany	Cohort study, retrospective	Non-ESBL-infection	All kinds of patients	Entire hospital	All-cause mortality, LOS	Financial disease burden attributable to ESBL-positive species in cases of EC-and KP-BSI	EC, KP
Lin JN ¹²	2005-2009	Taiwan	Case cohort study	Non-ESBL-infection	All kinds of patients	Emergency Room	Attributable mortality, all-cause mortality (28 day), LOS, ICU-LOS	Clinical & microbiological characteristics, risk factors for acquisition of infection, prescription of initial empirical antibiotics mortality rate of infection	GNB
Ku NS ⁴⁴	2006-2010	South Korea	Case cohort study	Non-ESBL-infection	All kinds of patients	Entire hospital	All-cause mortality (28 day)	Clinical usefulness of breakpoints for treatment of Enterobacteriaceae-bacteraemia, (focus on EC- and Ks-bacteraemia): CLSI 2009- vs. CLSI 2010-guidelines.	EC, KP

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Anunnatsiri S ⁴⁵	2005-2006	Thailand	Cohort study, retrospective	Non-ESBL-infection	All kinds of patients	Entire hospital	All-cause mortality, LOS	Incidence of ESBL-EC-septicemia, factors associated with infection & clinical outcomes	EC
Kang CI ⁴⁶	1998-2002	South Korea	Case cohort study	Non-ESBL-infection	All kinds of patients	Hospital-wide	All-cause mortality (28 day)	Risk factors for mortality & treatment outcome of ESBL-EC- and ESBL-KP-BSI	EC, KP
Raviv Y ⁴⁷	2004-2007	Israel	Cohort study, retrospective	Control group: non-ESBL-infection, second control group: no infection	patients with lung transplantation	Not provided	All-cause mortality (28 day)	Outcomes of lung transplant recipients infected by CRKP and ESBL carbapenem-sensitive KP (referred to MDR-KP)	KP
Kim HJ ¹³	2005-2010	South Korea	Cohort study, retrospective	Non-ESBL-infection	All kinds of patients	Medical ward	All-cause mortality (28 day), LOS	Clinical outcome of patients with biliary tract infection: ESBL-producing bacterial isolates vs. non-ESBL-producing-bacterial isolates, predictors of poor prognosis, impact of ineffective antimicrobial therapy on clinical outcome	EC, KP
MacVane SH ⁴⁸	2011-2012	USA	Cohort study, retrospective	Non-ESBL-infection	All kinds of patients	Entire hospital	Attributable mortality, all-cause mortality, LOS	clinical & economic outcomes of patients with ESBL-EC- and ESBL-KP-UTI vs. non-ESBL-EC- and non-ESBL-KP-UTI	EC, KP
Abhilash KP ⁴⁹	2007	India	Cohort study, prospective	Non-ESBL-infection	All kinds of patients	Entire hospital	All-cause mortality (14 day)	Prevalence & risk factors & outcome of antibiotic treatment among hospitalised patients with ESBL-EC- and ESBL-Ks-BSI	GNB
Shanthy M ⁵⁰	2006	India	Cohort study, retrospective	Non-ESBL-infection	All kinds of patients	Entire hospital	All-cause mortality, LOS	Prevalence & impact on clinical outcome of ESBL-production among nosocomial isolates of EC & KP	EC, KP
Han SB ⁵¹	2009-2013	South Korea	Cohort study, retrospective	Non-ESBL-infection	Children (immunocompromised, with cancer, neutropenic fever)	Pediatric ward	Attributable mortality, all-cause mortality (28 day)	Clinical outcomes of ESBL-EC- and ESBL-KP-bacteraemia & their antibiotic susceptibilities	EC, KP
Lee S ⁵²	2009-2011	South Korea	Cohort study, retrospective	Non-ESBL-infection	Patients with Acute Pyelonephritis	Entire hospital	All-cause mortality (14 day), LOS	Impact of ESBL on clinical outcomes of Acute Pyelonephritis treated with empirical ceftriaxone (which was inappropriate for ESBL-producing organisms)	EC
Artero A ⁷⁰	2013-2015	Spain	Cohort study, prospective	Non-ESBL-infection	Elderly	Medical ward	All-cause mortality, LOS	Identify clinical factors to predict ESBL-EC among elderly patients with UTI admitted to hospital in a high rate setting of ESBL-EC	EC

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Chen IL ⁷¹	2004-2015	Taiwan	Cohort study, retrospective	Non-ESBL-infection	Neonates	Neonatal ward	All-cause mortality	Compare the clinical characteristics & laboratory data of preterm babies with EC BSI: survival vs. nonsurvival groups, ESBL vs non-ESBL groups, determine the predictive factors of EC BSI in preterm babies	EC
Islas-Munoz B ⁷²	2016-2017	Mexico	Cohort study, prospective	Non-ESBL-infection	Cancer patients	Oncological ward	All-cause mortality (28 day)	Evaluate the clinical epidemiological characteristics & risk factors associated with mortality in cancer patients with BSI-special emphasis on MDR bacteria	GNB (and others)
Ma J ⁷³	2012-2015		Cohort study, retrospective	Non-ESBL-infection	Patients with hematological diseases	Entire hospital	All-cause mortality (28 day)	Evaluate the antimicrobial resistance & clinical features & risk factors for septic shock & death of nosocomial EC-BSI	EC
Man MY ⁷⁴	2009-2016	China	Cohort study, retrospective	Non-ESBL-infection	All kinds of patients, except patients from Burn unit, transplant surgery ward or with thoracic therapy	Entire hospital	All-cause mortality (28 day)	Evaluate the incidence & clinical characteristics & outcomes of patients with KP BSI in critical care & general ward settings	KP
Marando R ⁷⁵	2016	Tanzania	Cohort study, prospective	Non-ESBL-infection	Neonates	NICU	All-cause mortality	Investigate factors associated with ESBL-PE neonatal sepsis & mortality among neonates, characterise selected isolates to show virulence potential & transmission dynamics	GNB
Namikawa H ⁷⁶	2011-2015	Japan	Cohort study, retrospective	Non-ESBL-infection	All kinds of patients	Entire hospital	All-cause mortality	Investigate clinical characteristics of patients with ESBL-EC-BSI	EC
Shi SH ⁷⁷	2008-2015	China	Cohort study, retrospective	Non-ESBL-infection	Patients with pyogenic liver abscess	Centre for hepatopancreaticobiliary diseases	All-cause mortality, LOS	Aetiology & morbidity & clinical characteristics of pyogenic liver abscess caused by ESBL-PE	GN
Tanir Basaranoglu S ⁷⁸	2011-2015	Turkey	Cohort study, retrospective	Non-ESBL-infection	Children	Pediatric ward	All-cause mortality (28 day)	Assess risk factors for health care associated ESBL-KP-BSI in children, analyze clinical outcomes: ESBL-KP vs. non-ESBL-KP	KP
Razazi K ⁷⁹	2009-2015	France	Cohort study, prospective	Non-ESBL-infection	ICU-patients	ICU	All-cause mortality, LOS, ICU-LOS	Determine, among ESBL-PE carriers, the prevalence & associated factors & clinical impact of ESBL-PE pneumonia, determine factors associated with ICUAP caused by carbapenem-resistant bacteria	GNB

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Ray S ⁸⁰	2014-2016	India	Cohort study, prospective	Non-ESBL-infection	ICU-patients	ICU	All-cause mortality	Investigate spectrum of microbial resistance pattern in the community and their effects on mortality	GNB
Haruki Y ⁸¹	2006-2016	Japan	Cohort study, retrospective	Non-ESBL-infection	ICU-patients	ICU	All-cause mortality	Compare the clinical characteristics & outcomes of critically ill patients in an ICU, who were hospitalised for BSI caused by ESBL-EC or non-ESBL-EC.	GNB
Lin WT ⁸²	2009-2014	Taiwan	Cohort study, retrospective	Non-ESBL-infection	All kinds of patients	Entire hospital	All-cause mortality	Investigate the clinical manifestations & bacteriological features of culture-proven, GNB arthritis	GNB
Buys H ⁸³	2006-2011	South Africa	Cohort study, retrospective	Non-ESBL-infection	Children	Pediatric ward	All-cause mortality	Describe the clinical presentation of KPBSI, risk factors associated with ESBL-KPBSI, antibiotic susceptibility patterns of the KP isolates & KPBSI mortality including factors associated with in-patient mortality	KP
Lee CC ⁸⁴	2008-2013	Taiwan	Cohort study, retrospective	Non-ESBL-infection	All kinds of patients	Emergency Department	Attributable mortality, all-cause mortality (28 day), LOS, ICU-LOS	Analyse the impact of ESBL-producing isolates on the outcome of bacteremic patient after controlling for baseline patient characteristics & bacteraemia severity by using a propensity-matched analysis (PSM)	GNB
Huang YY ⁸⁵	2011-2013	Canada	Case cohort study	Non-ESBL-infection	All kinds of patients	Entire hospital	All-cause mortality, LOS	Determine cumulative incidence of ESBL urosepsis, identify major risk factors for ESBL urosepsis, determine impact of international travel on development of ESBL urosepsis	EC, KP
Komatsu Y ⁸⁶	2008-2013	Japan	Case cohort study	Non-ESBL-infection	All kinds of patients	Entire hospital	All-cause mortality (14 day)	Identify risk factors & clinical outcomes in patients with BSI due to ESBL- or carbapenemase-producing EC, determine prevalence & genetic background	EC
Liu MM ⁸⁷	2011-2016	China	Case cohort study	Control group: non-ESBL-infection, second control group: no infection	ICU-patients	ICU	All-cause mortality	Identify risk factors for ESBL-producing ECBSI among carriers at ICU	EC
Nivesivat T ⁸⁸	2010-2017	Thailand	Cohort study, retrospective	Non-ESBL-infection	Children	Pediatric ward	All-cause mortality, LOS	Determine prevalence, risk factors & clinical outcomes of ESBL-producing EB in paediatric BSI	EC, KP

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Cordery RJ ⁸⁹	2004-2006	UK	Cohort study, retrospective	Non-ESBL-infection	ICU-patients	ICU	All-cause mortality	Elucidate specific risk factors for the acquisition of ESBL infection in the ICU; all-cause mortality (in ICU) compared in patients with infections due to ESBL- and non-ESBL-producing organisms	GNB
Daikos GI ⁹⁰	2003-2005	Greece	Cohort study, prospective	Non-ESBL-infection	All kinds of patients	Entire hospital	All-cause mortality	Identify risk factors associated BSI caused by integron-carrying EB; evaluate the consequences of these genetic elements on patient outcome	GNB
Gudiol C ⁹¹	2006-2008	Spain	Cohort study, prospective	Non-ESBL-infection	Cancer patients and hematopoietic stem cell transplant patients	Entire hospital	All-cause mortality	Assess clinical features, risk factors, molecular epidemiology & outcome of ESBLEC BSI in hospitalised cancer patients	EC
Marchaim D ⁹²	2006-2008	Israel	Cohort study, prospective	Non-ESBL-infection	All kinds of patients	Entire hospital	All-cause mortality, LOS	Define predictors & outcomes of ESBL BSI among patients with bacteraemia due to EB upon hospital admission	GNB
Menashe G ⁹³	1997	Israel	Cohort study, retrospective	Non-ESBL-infection	All kinds of patients	Entire hospital	All-cause mortality	Determine: prevalence of ESBL-P organisms among adult patients with nosocomial EB BSI treated in our institution; association between ESBL production & resistance to other antibiotics; clinical characteristics of patients with nosocomial ESBL-P BSI compared with those infected with non-producing strains; impact of ESBL production on outcome of patients with nosocomial EB BSI	GNB
Ortega M ⁹⁴	1991-2007	Spain	Cohort study, prospective	Non-ESBL-infection	All kinds of patients	Entire hospital	All-cause mortality	Describe source, resistance rate to fluoroquinolone & beta-lactam antibiotics and mortality of EC BSI episodes in a single institution; identify predictive factors for isolation of fluoroquinolone-resistant or ESBL-producing strains.	EC
Sziglyi M ⁹⁵	2005-2008	Hungary	Cohort study, retrospective	Non-ESBL-infection	All kinds of patients	Entire hospital	Attributable mortality, all-cause mortality,	Investigate risk factors for & outcomes of BSI caused by ESBL-producing and ESBL-non-producing KP	KP
Tsai SS ⁹⁶	2005-2006	Taiwan	Cohort study, retrospective	Non-ESBL-infection	Diabetic patients	Entire hospital	All-cause mortality	Analyze characteristics, risk factors & outcomes of diabetic patients with community- vs. hospital-acquired KP BSI	KP

EC = *Escherichia coli*
KP = *Klebsiella pneumoniae*
GNB = Gram-negative bacteria
BSI = Bloodstream infection
UTI = Urinary tract infection
ICU = Intensive care unit
NICU = Neonatal intensive care unit
ESBL-PE = Extended-spectrum beta-lactamase-producing Enterobacteriaceae
EB = Enterobacteriaceae
LOS = Length of stay