

Table of Bacterial Causes of Infection

Key	✓ = Common Cause										= Not a Cause										? = Uncommon Cause OR only under specific circumstances (see notes)									
Clinical Scenarios	Gram-positive Bacteria										Gram-negative Bacteria										Non-Culturable									
	Staphylococcus aureus (MSSA)	Staphylococcus aureus (MRSA)	Coagulase Negative Staphylococcus	Beta-haemolytic Streptococcus (A, B, C, G)	Enterococcus faecalis	Enterococcus faecium	Streptococcus pneumoniae	Listeria monocytogenes	Anaerobes			Neisseria meningitidis	Neisseria gonorrhoeae	Haemophilus influenzae	Escherichia coli	ESBL-positive Escherichia coli	Enterobacteriaceae	Pseudomonas aeruginosa	Moraxella catarrhalis	Legionella pneumophila	Mycoplasma pneumoniae	Chlamydia spp.								
									Clostridium perfringens	Clostridium difficile	Bacteroides fragilis																			
Respiratory Infections																														
Community Acquired Pneumonia (CAP)	✓	-	-	-	-	-	✓	-	-	-	-	-	-	-	✓	-	-	-	-	✓	✓	✓								
Hospital Acquired Pneumonia (HAP)	✓	✓	-	-	-	-	✓	-	-	-	-	-	✓	?1	?1	✓	✓	-	-	-	-	-								
Ventilator Associated Pneumonia (VAP)	✓	✓	-	-	-	-	✓	-	-	-	-	-	✓	✓	✓	✓	✓	-	-	-	-	-								
Aspiration Pneumonia	✓	-	-	-	-	-	✓	-	-	-	-	-	✓	✓	✓	✓	-	-	-	-	-	-								
Exacerbation of COPD	✓	-	-	-	-	-	✓	-	-	-	-	-	✓	-	-	-	-	-	✓	-	-	-								
Head and Neck Infections																														
Otitis Media	-	-	-	-	-	-	✓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
Otitis Externa	✓	-	-	✓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
Orbital Cellulitis	✓	-	-	✓	-	-	✓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
Sinusitis	✓	-	-	✓	-	-	✓	-	-	-	-	-	✓	-	-	-	-	-	-	-	-	-								
Urogenital Infections																														
Urinary Tract Infection (UTI)	-	-	-	-	-	-	-	-	-	-	-	-	-	✓	✓	✓	?2	-	-	-	-	-								
Prostatitis	-	-	-	-	-	-	-	-	-	-	-	-	-	✓	✓	✓	?2	-	-	-	-	-								
STDs	-	-	-	-	-	-	-	-	-	-	-	-	✓	-	-	-	-	-	-	-	-	✓								
Skin, Soft Tissue, Bone and Joint Infections																														
Cellulitis	✓	✓	-	✓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
Cellulitis in Diabetes & Vascular	✓	✓	-	✓	-	-	-	-	✓	-	-	-	✓	-	-	✓	✓	-	-	-	-	-								
Bites	✓	-	-	✓	-	-	-	✓	-	-	-	✓	-	-	-	-	-	-	-	-	-	-								
Burns, Skin Grafts and Post-Operative Wounds	✓	✓	-	✓	-	-	-	✓	-	-	-	-	✓	-	✓	✓	-	-	-	-	-	-								
Intravenous Device Associated Infection	✓	✓	-	-	-	-	-	-	-	-	-	-	-	-	?3	?3	-	-	-	-	-	-								
Osteomyelitis	✓	✓	-	✓	-	-	-	-	-	-	-	-	-	?4	-	?4	-	-	-	-	-	-								
Septic Arthritis	✓	✓	-	✓	-	-	-	-	-	-	-	-	-	?4	-	?4	-	-	-	-	-	-								
Gastrointestinal Infections																														
Peritonitis	-	-	-	-	✓	✓	-	-	✓	-	✓	-	-	✓	?5	✓	?5	-	-	-	-	-								
Cholecystitis & Cholangitis	-	-	-	-	✓	✓	-	-	✓	-	✓	-	-	✓	?5	✓	?5	-	-	-	-	-								
Other Infections																														
Infective Endocarditis	✓	-	✓	-	✓	✓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
Emergencies																														
Sepsis	✓	✓	-	✓	-	-	✓	✓	-	-	✓	-	-	✓	-	✓	✓	-	-	-	-	-								
Neonatal Sepsis	-	-	-	✓6	-	-	-	-	-	-	-	-	-	✓	-	?7	-	-	-	-	-	-								
Neutropaenic Sepsis	✓	✓	-	-	-	-	-	-	-	-	-	-	-	✓	-	✓	✓	-	-	-	-	-								
Meningitis	-	-	-	-	-	-	✓	-	-	-	✓	-	✓	-	-	-	-	-	-	-	-	-								
Neonatal Meningitis	-	-	-	✓6	-	-	✓	-	-	-	-	-	✓	-	-	?7	-	-	-	-	-	-								
Epiglottitis	-	-	-	✓	-	-	-	-	-	-	-	✓	-	-	-	-	-	-	-	-	-	-								
Epidural Abscess	✓	-	-	-	-	-	-	-	-	-	-	-	✓	-	✓	-	-	-	-	-	-	-								
Necrotising Fasciitis	-	-	-	✓	-	-	-	-	✓	-	-	-	-	-	✓	-	-	-	-	-	-	-								
Toxic Shock Syndrome	✓	-	-	✓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								

1) *Escherichia coli* occasionally causes HAP in particularly debilitated patients
 2) *Pseudomonas aeruginosa* can cause UTIs and prostatitis in patients with anatomically abnormal urinary tracts or catheters
 3) Enterobacteriaceae and *Pseudomonas aeruginosa* can cause central venous catheter infections, particularly in the immunodeficient
 4) *Escherichia coli* and Enterobacteriaceae can cause osteomyelitis and septic arthritis in the elderly, particularly following haematogenous seeding from UTIs
 5) ESBL-positive *Escherichia coli* and *Pseudomonas aeruginosa* are more common in intra-abdominal infections following surgery
 6) Group B Beta-haemolytic *Streptococcus* is the most common cause of neonatal sepsis and meningitis
 7) Enterobacteriaceae such as *Klebsiella* spp., *Salmonella* spp. and *Serratia marcescens* are unusual but severe causes of neonatal sepsis and meningitis

