Empiric Recommendations for Bacteremia with Biofire 2.0 Blood Culture Identification Panel (BCID2)

- Empiric antimicrobial guidance is provided **ONLY** for **uncomplicated bacteremia** (may not be applicable for disease processes including meningitis or endovascular infection) in the **absence of identified or suspected antimicrobial resistance** and does not replace clinical judgement.
- **Always check if a patient had prior resistant infection(s)** or **allergies** before antibiotic selection.
- Tailor antibiotics as indicated per further identification and susceptibility data when available.
- ID consultation should be considered, at least, for all detected organisms marked by an asterisk (*).

Order/Species/Organism	**Empiric Antimicrobial(s)**	**Additional comments**
Acinetobacter baumannii complex*	Ampicillin-sulbactam	Amoxicillin-clavulanate should not be used
*Bacteroides fragilis**	Metronidazole	
Enterobacterales		Enterobacterales is the group—it is not the genus Enterobacter!
Enterobacter cloacae complex	Cefepime	If **CTX-M** gene is detected, this indicates an ESBL-producing organism resistant to all routine beta-lactam agents. **Meropenem** is recommended. If **IMP, KPC, OXA-48-like, NDM**, or **VIM** gene is detected, this suggests resistance to all routine beta-lactams, including carbapenems. **Consult ID.**
Escherichia coli	Ceftriaxone	
Klebsiella (Enterobacter) aerogenes	Cefepime	
Klebsiella oxytoca	Ceftriaxone	
Klebsiella pneumoniae	Ceftriaxone	
Proteus spp.	Ceftriaxone	
Salmonella spp.	Ceftriaxone	
Serratia marcescens	Cefepime	
Haemophilus influenzae	Ampicillin-sulbactam	
*Neisseria meningitidis**	Ceftriaxone	
Pseudomonas aeruginosa	Ceftazidime or cefepime	
*Stenotrophomonas maltophilia**	Trimethoprim-sulfamethoxazole **AND** levofloxacin	Double coverage is recommended initially. Monotherapy may be appropriate after clinical improvement
Enterococcus faecalis	Ampicillin	If ***van*A/B** gene detected, this indicates vancomycin resistance. **Consult ID.**
Enterococcus faecium	Vancomycin	
*Listeria monocytogenes**	Ampicillin	
***Staphylococcus* spp.**		It is only *S. aureus* if both "*Staphylococcus* spp." and "*Staphylococcus aureus*" are detected. If BCID2 only indicates "*Staphylococcus,*" it is coagulase-negative
*Staphylococcus aureus**	Cefazolin *(mecA+C* negative, SA/MREJ negative*)* Vancomycin *(mecA+C* positive or SA/MREJ positive*)*	*mecA+C* and SA/MREJ indicate methicillin resistance
Staphylococcus epidermidis	Cefazolin	*mecA+C* indicate methicillin resistance

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	(mecA+C negative*)* Vancomycin *(mecA+C* positive*)*	Guidance is for *S. epidermidis* only, not all coagulase-negative staphylococci.
Staphylococcus lugdunensis	Cefazolin *(mecA+C* negative*)* Vancomycin *(mecA+C* positive*)*	*mecA+C* indicate methicillin resistance
***Streptococcus* spp.**		
Streptococcus agalactiae	Ampicillin	
Streptococcus pneumoniae	Ampicillin	
*Streptococcus pyogenes**	Ampicillin	Consider adding clindamycin if concern for toxic shock syndrome
Candida species*	Micafungin	
*Candida auris**	Micafungin	ID consult strongly recommended
Cryptococcus neoformans or *gattii**	----------	ID consult strongly recommended

Common pathogens to consider if no targets are detected by BCID2 include:

- Gram positive cocci (*Micrococcus* spp., *Kocuria* spp., *Rothia* spp.)
- Gram negative rod (*Acinetobacter non-baumannii* spp., *Chryseobacterium* spp., *Pseudomonas non-aeruginosa* spp., *Kingella kingae)*
- Yeast (*Candida lusitaniae, Candida dubliniensis, Candida metapsilosis)*

Guidance if *only* order or genus detected by BCID2

Order/Genus	**Empiric Antimicrobial**	**Additional comments**
Enterobacterales	Cefepime	
Staphylococcus spp.	Vancomycin	
Streptococcus spp.	Ceftriaxone	Vancomycin if neutropenic

Guidance if *nothing* detected by BCID2

Morphology	**Empiric Antimicrobial**	**Additional comments**
Gram positive cocci	Vancomycin	
Gram negative rod	Cefepime	
Yeast	Micafungin	