ePlex® Blood Culture Identification Panels

In the race against time for sepsis, get rapid results using the most comprehensive panels for bloodstream infections

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Physicians today are faced with significant challenges in the diagnosis of sepsis. It can **take days** to identify the causative organisms and treatment options for bloodstream infections (BSI), which can lead to delays in effective antimicrobial therapy, increased hospital costs and higher patient mortality rates.

The high cost of sepsis

Every year sepsis strikes nearly 49 million people across the globe.[1]

It is also the #1 cause of hospital readmission globally. In the United States alone each readmission costing more than $16,000 leading to an annual burden of $3.5 billion.[2]

The emerging risk of fungal pathogens

Fungal pathogens are a growing cause of BSI and are associated with some of the highest rates of inappropriate initial therapy and mortality.[3]

Bloodstream infections are the most expensive condition treated in hospitals[4,5] costing about

$18,000

per case[5]

resulting in a death every

3-4 seconds[7]

Hospital mortality rate of invasive candidiasis is estimated between

46%–75%[6]

with excessive costs per episode of up to[3]

$92,000

Rapid identification is critical

Traditional methods can take days to identify the causative agents of sepsis.

Antimicrobial resistance is a serious global crisis

Up to 50% of antibiotics prescribed in hospitals are either unnecessary or inappropriate, and taking antibiotics when not needed can put patients at risk for serious adverse events and lead to the development of antibiotic resistance.[8]

For every hour effective antibiotics are delayed, the sepsis mortality rate increases up to

8%[9]

20%–30%

of patients receive ineffective initial antibiotic therapy.[11]

Antimicrobial-resistant infections currently claim at least

50,000 lives each year across Europe and the US.[10]

By 2050, it is estimated that

10 million

people will **die** annually due to antimicrobial resistant infections.[10]

The **ePlex® BCID Panels** enable physicians to rapidly identify more clinically relevant bloodstream infections and their resistance genes while quickly ruling out blood culture contamination, which can result in earlier treatment decisions. Rapid molecular diagnosis of BSI has been shown to improve patient outcomes, antimicrobial stewardship and reduce hospital costs.

Rapid identification and reporting

True sample-to-answer workflow:
ePlex® System is so easy to use it can be run on any shift, so critical patient samples never have to wait until morning.

With automated results reporting via LIS and remote alerts there is **no delay** in patient reporting.

The value of resistance genes

Resistance genes can detect the potential for resistance even in cases where antibiotics appear active by antimicrobial susceptibility testing (AST) but may not be effective clinically, so even if a gene hasn't been expressed, the resistance genotype won't be missed.[12]

ePlex® BCID Panels deliver results in

~90 minutes[13,14]

beating conventional culture-based tests by as much as **2 days**.[15]

Coverage of

>95%[17]

of the organisms causing BSI, so nearly every patient will get a rapid result.

Deliver important information to aid in

rapid infection control[16]

Speed & reliability

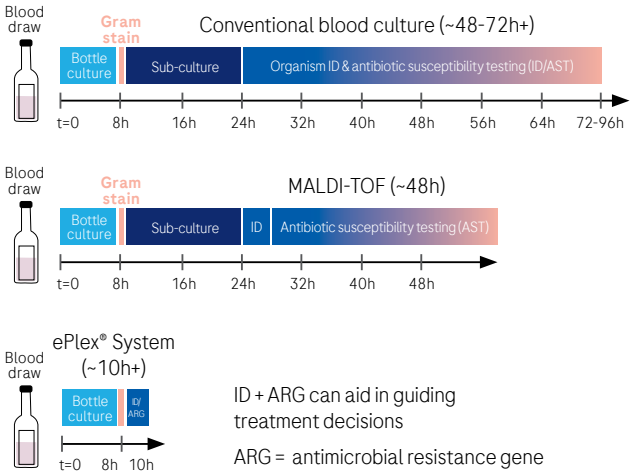
of resistant markers, combined with the broad coverage of AST, provide optimal patient care.

Enabling timely treatment decisions for more patients

ePlex® BCID Panels include the broadest[14,18] coverage of bacterial and fungal organisms and their resistance genes available from a sample-to-answer multiplex diagnostics platform.

Patient centered care

Rapid ID of the causative agents in BSI with multiplex molecular diagnostics has been shown to decrease time to targeted therapy by ~25 hours[19] and length of hospital stay by 2.5 days.[20]



ID + ARG can aid in guiding treatment decisions

ARG = antimicrobial resistance gene

ePlex® BCID Panels reduce time to actionable result for BSI by as much as several days compared to conventional methodologies.[13,14]

ePlex® BCID Panels can aid in earlier de-escalation of antibiotics

which can significantly help clinicians and healthcare personnel reduce adverse effects, like acute kidney injury (AKI) and *C. difficile* infection risk.[21,22,23]

Detect more

BSI while quickly ruling out blood culture contaminants with ePlex® BCID Panels

Designed to enable prompt treatment decisions.

Rapidly rule-out blood culture contamination

As much as 15 to 30% of positive blood cultures may be due to contaminants which can result in continuation of unnecessary antibiotics.[24] The ePlex® BCID Panels are designed to allow you to more rapidly differentiate a contaminant from a true infection, potentially enabling rapid de-escalation and discharge of patients with a bloodstream infection 2-3 days earlier than conventional methods. Common contaminants included on the ePlex® BCID-GP Panel but not on most competitor's panels[18] include: *Bacillus subtilis group, Corynebacterium, Cutibacterium acnes, Lactobacillus, Micrococcus.*

Comprehensive coverage of pathogens and resistance genes

Gram-positive targets
Bacillus cereus group
Bacillus subtilis group
Corynebacterium
Cutibacterium acnes
Enterococcus
Enterococcus faecalis
Enterococcus faecium
Lactobacillus
Listeria
Listeria monocytogenes
Micrococcus
Staphylococcus
Staphylococcus aureus
Staphylococcus epidermidis
Staphylococcus lugdunensis
Streptococcus
Streptococcus agalactiae (GBS)
Streptococcus anginosus group
Streptococcus pneumoniae
Streptococcus pyogenes (GAS)

Gram-negative targets
Acinetobacter baumannii
Bacteroides fragilis
Citrobacter
Cronobacter sakazakii
Enterobacter (non-*cloacae* complex)
Enterobacter cloacae complex
Escherichia coli
Fusobacterium nucleatum
Fusobacterium necrophorum
Haemophilus influenzae
Klebsiella oxytoca
Klebsiella pneumoniae
Morganella morganii
Neisseria meningitidis
Proteus
Proteus mirabilis
Pseudomonas aeruginosa
Salmonella
Serratia
Serratia marcescens
Stenotrophomonas maltophilia

Fungal targets
Candida albicans
Candida auris
Candida dubliniensis
Candida famata
Candida glabrata
Candida guilliermondii
Candida kefyr
Candida krusei
Candida lusitaniae
Candida parapsilosis
Candida tropicalis
Cryptococcus gattii
Cryptococcus neoformans
Fusarium
Rhodotorula

Resistance genes

mecA	CTX-M
mecC	IMP
vanA	KPC
vanB	NDM
	OXA
	VIM

Pan targets
Pan *Candida*
Pan Gram-Negative
Pan Gram-Positive

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