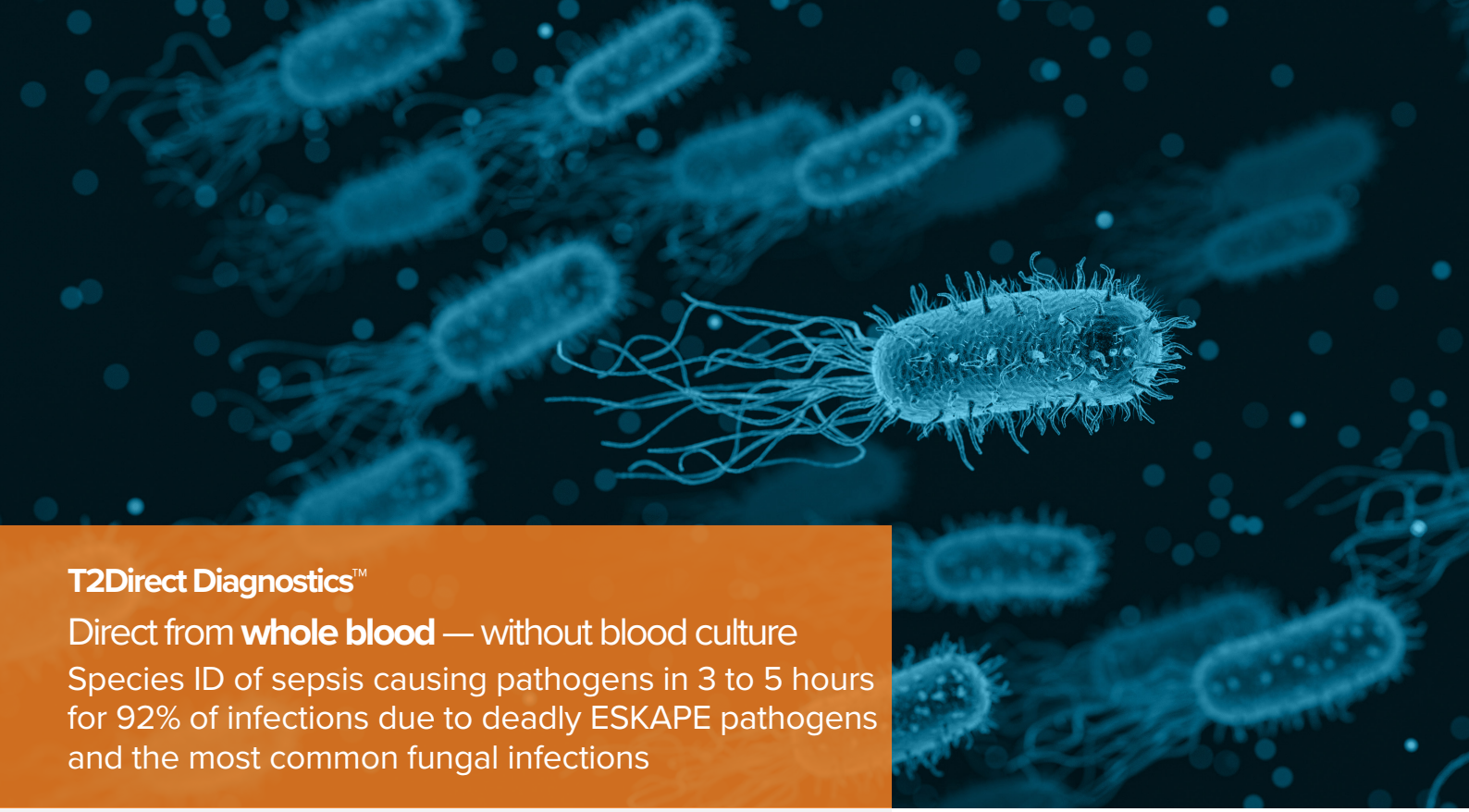

T2Direct Diagnostics™

Direct from **whole blood** — without blood culture

Species ID of sepsis causing pathogens in 3 to 5 hours for 92% of infections due to deadly ESKAPE pathogens and the most common fungal infections

Rapid Diagnostics for the Critically Ill Patient

Treating critically ill patients quickly with targeted antimicrobial therapy is challenging due to lack of rapid and accurate diagnostics compounded by slow turnaround times and lack of sensitivity with traditional blood culture methods. Blood culture has been the gold standard but takes 1 to 6 days to provide species specific results with a sensitivity of 50-65%*. Additionally, the false negatives for blood culture can be problematic due to the interference from antibiotics or antifungals in the bloodstream, especially for patients in the ICU.

T2Direct Diagnostics, the first and only FDA-cleared, CE-marked system to identify deadly sepsis-causing pathogens directly in whole blood—**without the need to wait for blood culture results**—delivers faster results in 3 to 5 hours with a sensitivity greater than 90%.

- Quickly administer targeted therapy
- Potential to de-escalate therapy
- May prevent progression to sepsis or septic shock
- Potentially reduce morbidity and mortality outcomes
- Reduce resistance while improving antimicrobial stewardship
- Reduce the costs of sepsis management

*Based on sensitivity of 1 set of blood culture across all species
**A combination of samples was run in both the prospective and contrived arms of the study. T2Bacteria showed an overall average sensitivity of 90% in the prospective arm of the study, with an overall average PPA of 97% in the contrived arm of the study.

T2Dx® Instrument

- LoD as low as 1 CFU/mL
- Easy to operate
- Minimal hands-on time
- Results in 3 to 5 hours

T2Bacteria® Panel*

95.8% Sensitivity* | 98.2% Specificity[1]

- *Enterococcus faecium*
- *Staphylococcus aureus*
- *Klebsiella pneumoniae*
- *Acinetobacter baumannii*
- *Pseudomonas aeruginosa*
- *Escherichia coli*

T2Candida® Panel

91.1% Sensitivity | 99.4% Specificity[2]

- *Candida albicans*
- *Candida tropicalis*
- *Candida krusei*
- *Candida glabrata*
- *Candida parapsilosis*

T2Biosystems®

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T2Direct Diagnostics

Early species Identification for sepsis-causing pathogens direct from **whole blood** — without blood culture results

Get patients on the right therapy faster

- Results in 3 to 5 hours
- Detects deadly pathogens that cause sepsis
- Test at first suspicion for biggest impact

Improve outcomes

- Potential reduction in mortality and morbidity
- Reduced length of stay, including ICU days
- More rapid treatment for patients suspected of sepsis

Improve stewardship

- Reduced use of antibiotics and antifungals
- Rapid adjustment and de-escalation of therapy
- Better management of drug costs

Reduce the cost of sepsis management

- Cost reductions from early discharge, including reduced ICU duration
- Reduced antimicrobial spend

Proven outcomes with a 3x-7x ROI

With T2Direct Diagnostics, multiple hospitals have shown that making targeted treatment decisions faster leads to improved outcomes, better stewardship, and reduces the cost of sepsis management.

Henry Ford[3]

$2.3MM in annual **savings** according to a statistically powered study

75% of negative patients had **antifungals discontinued** or de-escalated

7 days reduced median **ICU length of stay** per patient

Lee Health[4]

$200 average net **antifungal savings** for each patient ceasing therapy

41% unnecessary **antifungal therapy avoided** in patients

7 days reduction in average patient **length of stay**

15% additional patients **discontinued unnecessary antifungal** therapy after 1 dose

To learn more about T2Direct Diagnostics, email info@t2biosystems.com or visit www.t2biosystems.com

1. Nguyen, M. H., et al. (In press). Performance of the T2Bacteria Panel for Diagnosing Bloodstream Infections. A Diagnostic Accuracy Study.
2. Mylonakis, E., Clancy, C. J., Ostrosky-Zeichner, L., Garey, et. al. (2015). T2 magnetic resonance assay for the rapid diagnosis of candidemia in whole blood: a clinical trial. *Clinical Infectious Diseases,* 60(6), 892-899.
3. Wilson, N.M., Kenney, R.M., Tibbetts, R.J., et. al. T2 Magnetic Resonance Improves the Timely Management of Candidemia. Poster Presentation IDWeek 2016.
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