

IVD



NEW workflow
and improved formulation

When every minute counts

MBT Sepsityper[®]

- For Direct Pathogen Identification from Positive Blood Culture Bottles within 15-20 Minutes

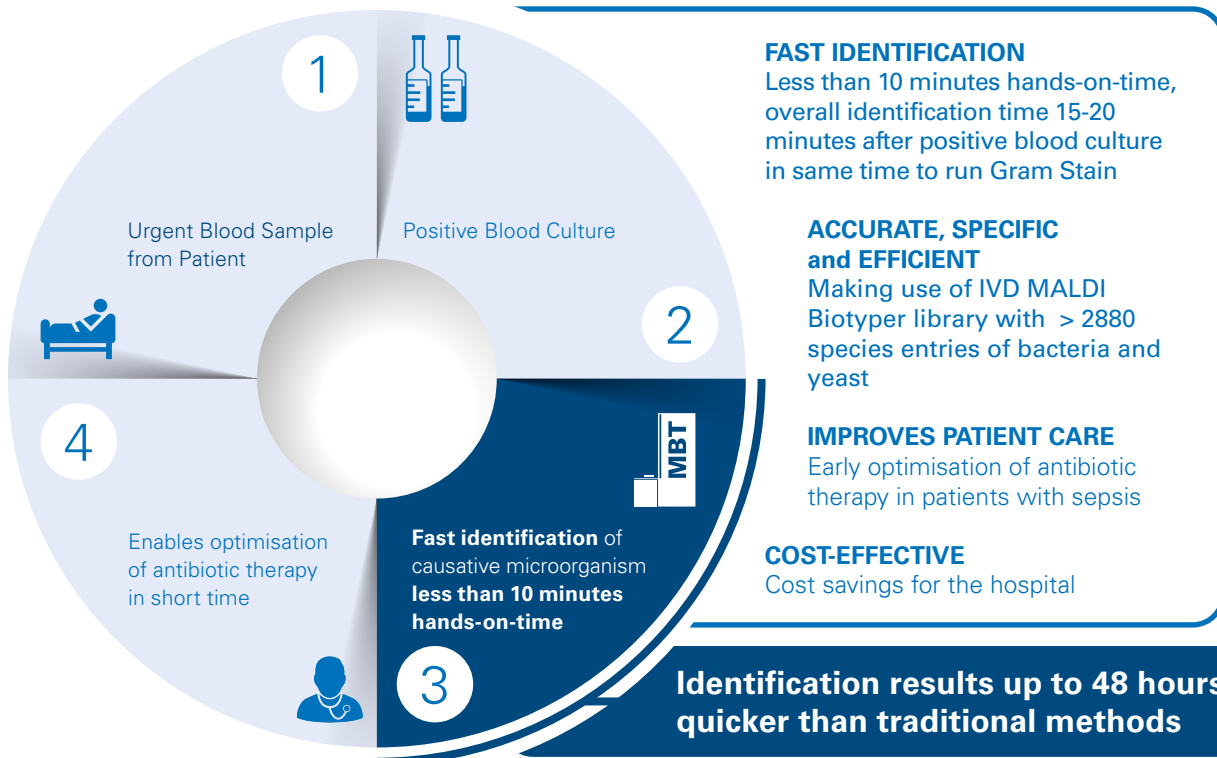
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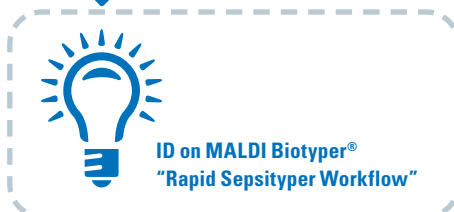
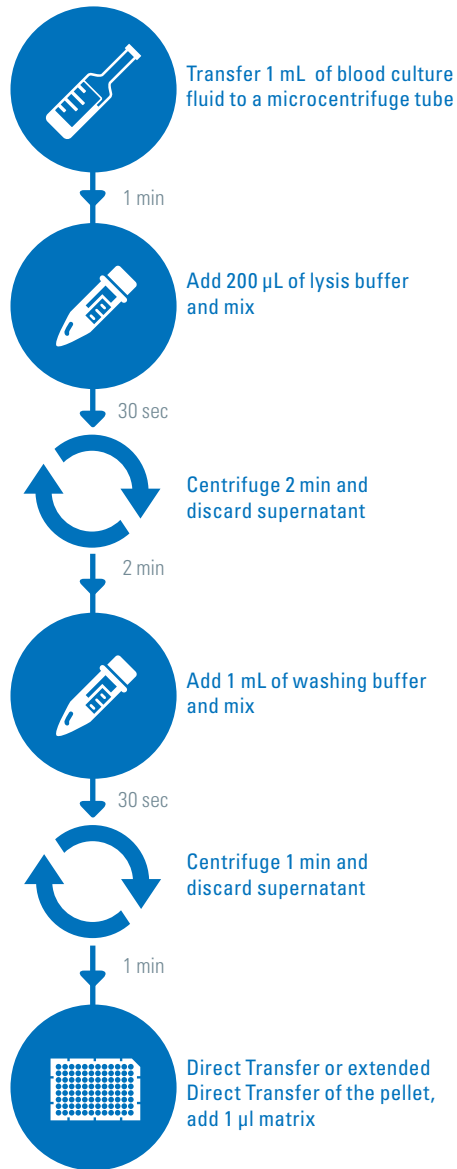


Early identification and appropriate treatment of sepsis has tremendous benefits for patient outcomes and healthcare economy.

Using the Sepsityper identification workflow reduces the turnaround time provided by traditional positive blood culture identification workflows by up to 48 hours. Identification results can therefore be reported significantly more quickly to ICU consultants compared to traditional methods.



Fast and easy workflow



Successful identification of the microorganisms only 15-20 minutes after a positive blood culture alert, together with the considerably faster "Rapid Sepsityper Workflow", justify the implementation of the Sepsityper® solution in the laboratory routine. Recent improvements (2019) in the kit design and formulation have resulted in an easier handling of slimy clots (e.g. *Bacteroides fragilis*), leading to a higher identification success rate.



If no ID:
Standard extraction,
spot 1 μ L extract to the
MALDI target, add 1 μ L matrix



**ID on MALDI Biotyper®
"Full Sepsityper Workflow"**

Clinical impact of fast workflow

The IVD MALDI Biotyper in combination with the MBT Sepsityper IVD Kit shortens the identification time after positive blood culture by up to 48 hours, by eliminating the time consuming step of culturing the microorganisms and by fast identification using MALDI-TOF mass spectrometry.

In combination with antibiotic stewardship programs, this rapid identification allows a much faster optimisation of antibiotic therapy in patients with sepsis, compared to conventional workflows.

Early results, which physicians can act upon to manage blood stream infections, enforce the fight against resistance, and improve patient outcomes.

Morning Batching

Standard Positive Blood Culture Workflow



Result ID next Day

Sepsityper



Result ID

ICU informed

Actionable Result: 75% of treatments can change

Ward Rounds

Sepsityper results communicated to ICU **during** ward round

9 am

10 am

11 am

12 am



Dr. Alexia Verroken, University Hospital Saint-Luc, Brussels, Belgium

"Reducing turn-around-times of positive blood cultures with MALDI-TOF MS ID accelerated prescription of targeted antimicrobial treatment thereby potentially improving the patients' clinical outcome."



**Mr. Martin McGill, MSc, Lead specialist in Microbiology,
University Hospital Crosshouse, Scotland**

“Blood cultures are far more important to patients than other samples. In the case of a positive blood culture, time is freed up for the Sepsityper Kit, all staff are fully trained and provided protected time to run the Sepsityper test without interruptions. Fast identification helps our biomedical scientists focus on important samples and move only clinically significant samples to AST.”

Afternoon Batching



Result ID next Day



Result ID

ICU informed

Actionable Result: 75% of treatments can change

Sepsityper results communicated to treating physician

1 pm

2 pm

3 pm

4 pm

5 pm



Using the MBT Sepsityper IVD Kit eliminates the time consuming step of subculturing the microorganisms before identification.



Easy sample preparation steps, which can be performed on batches of positive blood cultures, take less than 10 minutes hands-on time - this small time investment may have an influence on patient outcome.

Benefits of using MBT Sepsityper

- + Improving patient management
- + Saving time to result, allowing
 - Earlier de-escalation and / or administration of targeted antimicrobial treatment
 - Reducing length of hospital stay and associated costs
- + Early detection of blood culture contaminations
 - Avoids performing unnecessary antibiotic susceptibility testing
- + Early detection of alert organisms
 - Improving hospital hygiene
- + Early identification allows more efficient communication between microbiologists and treating physicians

= *Benefits for the entire hospital*



Ms. Rushana A. Hussain, Section Manager Microbiology Dept., Royal Bolton Hospital Foundation Trust, England

"The implementation of Sepsityper has resulted in a positive impact on the direct management and treatment for patients. Although it is difficult to calculate all the savings across the patient pathway, the data clearly show that there are significant financial benefits being achieved by the reduced length of hospitalisation and reduction in antibiotics."

Bruker's MBT Sepsityper solution is performed in conjunction with the Bruker MALDI Biotyper IVD Microbial Identification system saving both time and money when compared to traditional biochemical tests, whilst providing highly secure species level identifications.

Improving patient outcomes



**Mr. Martin McGill, MSc, Lead specialist in Microbiology,
University Hospital Crosshouse, Scotland**

“Sepsityper stopped patient being incorrectly discharged.”

*Female, 28, post Caesarian section, wound red and slightly inflamed, positive anaerobic blood cultures bottle, no organisms seen – Sepsityper identified *Fusobacterium nucleatum*.*

Benefits of using Sepsityper:

By the time the organism grew on a culture plate, the patient was already treated for 48 hours with clindamycin and was well enough to be discharged with her newly born baby!



Dr. Alexia Verroken, University Hospital Saint-Luc, Brussels, Belgium

“Therapy change initiated with a 24-hour time gain!”

*Pseudomonas aeruginosa was identified with Sepsityper within 2 hours after positive blood culture detection in an emergency unit patient that received cefuroxime (not covering *Pseudomonas aeruginosa*).*

Benefits of using Sepsityper:

A treatment switch to ceftazidime could be initiated with a 24-hour time gain!

Read more

Whitepaper -

Tackling the global sepsis crisis with advanced MALDI-TOF MS technology



Expert Insights -

Improving patient outcomes with rapid, reliable microbial identification and resistance testing



Expert Insights -

Reducing Time to Diagnosis of Sepsis



Order information

Part No. 1834338 | MBT Sepsityper IVD Kit

The MBT Sepsityper IVD Kit contains all reagents and consumables required for microorganism isolation from 50 positive blood culture samples.

Part No. 1834206 | MBT Compass IVD Sepsityper Module

The MBT Compass IVD Sepsityper Module allows the definition of appropriate samples as blood culture samples in the MBT Compass IVD software (Part.-No 1832771). Samples defined as blood culture samples are processed in the Sepsityper software using optimized methods and are reported with adapted score thresholds.



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Please contact your local representative for availability in your country.
Not for sale in the USA.



As of May 2021, Bruker Daltonik GmbH is now Bruker Daltonics GmbH & Co. KG.

●  **Bruker Daltonics GmbH & Co. KG**

Bremen · Germany
Phone +49 (0) 421-2205-0

info.md@bruker.com - www.bruker.com/microbiology