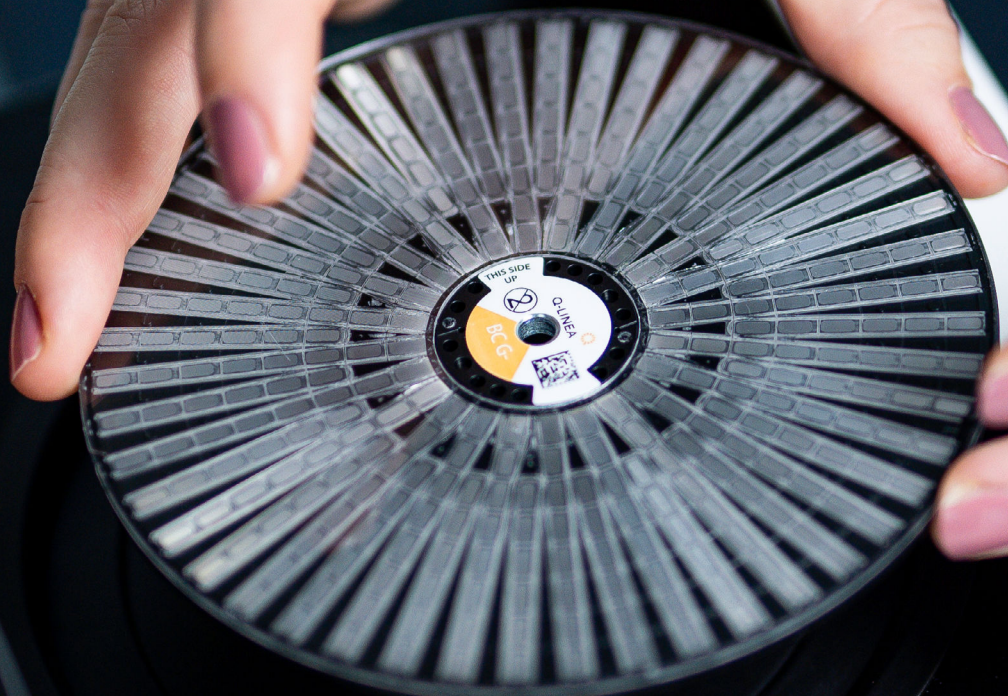

AS^Tar[®]

– designed to save lifetimes



Rapid AST Results Directly from Positive Blood Cultures

ASTar is a fully-automated system for rapid antimicrobial susceptibility testing (AST). ASTar cuts the time to clinically-actionable results and shortens time to optimal treatment to hours instead of days.

Early information on bacterial pathogens and their antimicrobial susceptibility is of key importance for managing sepsis patients. Within approximately six hours, ASTar delivers true minimum inhibitory concentration (MIC) results directly from positive blood cultures. The AST Disc has over 330 chambers available for antimicrobials, allowing optimal targeted therapy of antimicrobials and potential antimicrobial expansion. ASTar also combines high throughput with a user-friendly interface and load-and-go operation.

Key features

Phenotypic AST

- Directly from positive blood cultures
- True MIC results in ~ 6 hours

Fully-automated analysis

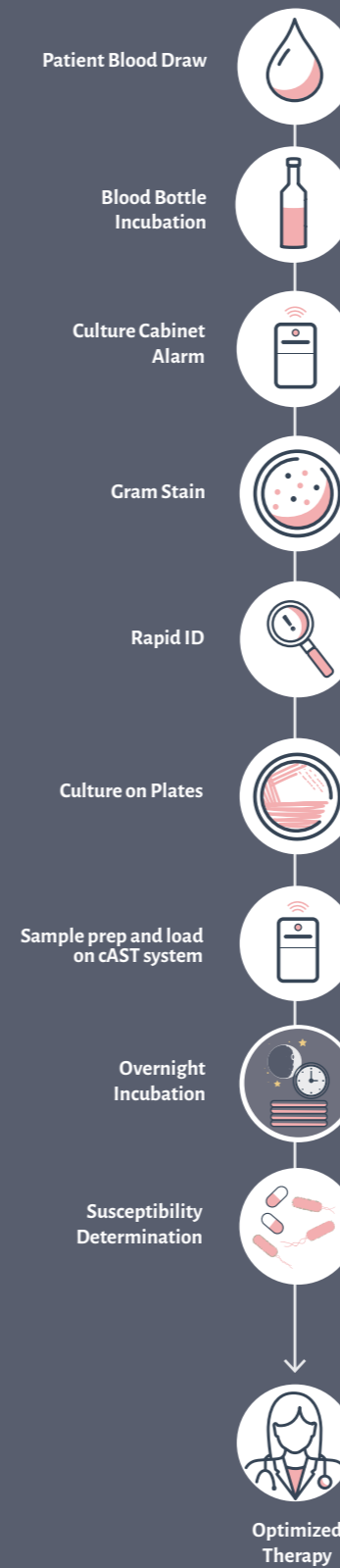
- 12 samples analyzed simultaneously, random-access
- Load-and-go workflow, less than 2 min hands-on time

Broad ranges

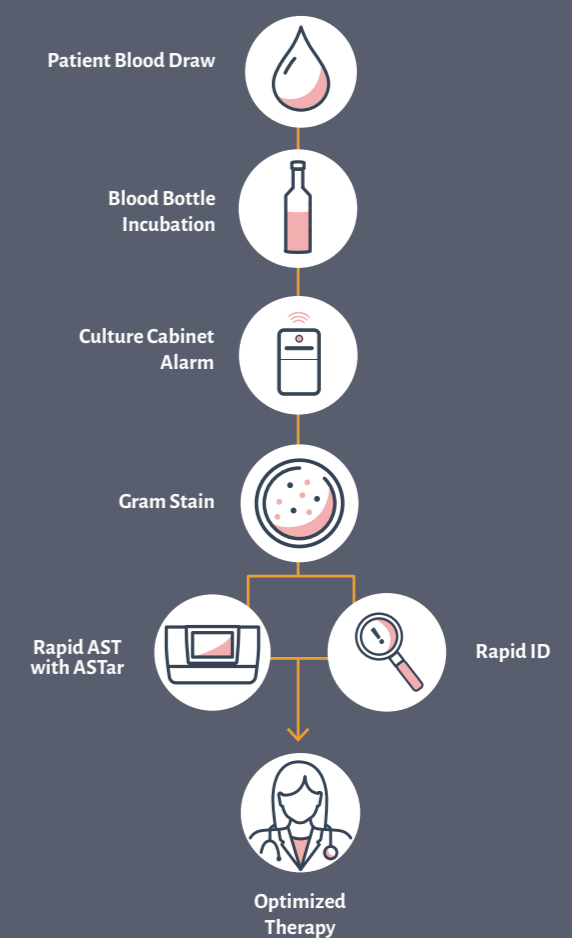
- 7–11 two-fold dilutions of each antimicrobial in panel



Traditional workflow



ASTar workflow

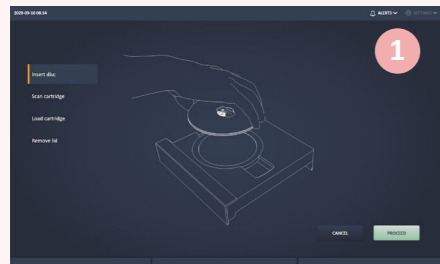


ASTar meets your needs for rapid AST

Several approaches for rapid pathogen identification (ID), e.g. molecular techniques and MALDI-TOF mass spectrometry, are available today. Our phenotypic AST solution can be combined with any of these rapid ID technologies. The AST run can be started independently of pathogen ID. Input of pathogen ID is only needed to create the final MIC results report.

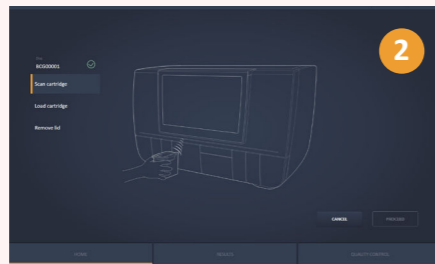
Three Simple Steps for Complete MIC Results

ASTar simplifies the analysis workflow: less than 2 minutes hands-on time is all that's needed. Simply transfer 1 ml of positive blood culture to the sample preparation Cartridge. Choose the AST Disc and load. Scan and load the Cartridge and tap the START RUN icon on the touch screen to start the run. Pathogen ID can be entered before, during or after the run to generate true MIC results.



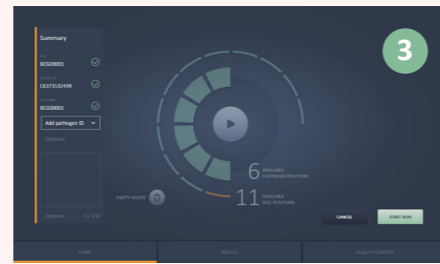
Load AST Disc

The AST Disc allows automated time-lapse imaging of bacterial population growth in wells containing different concentrations of antimicrobial agents.



Scan and load Cartridge

The sample preparation Cartridge automatically isolates bacterial cells from the sample matrix and adjusts the concentration for a controlled inoculation to the AST Disc.



Tap START RUN

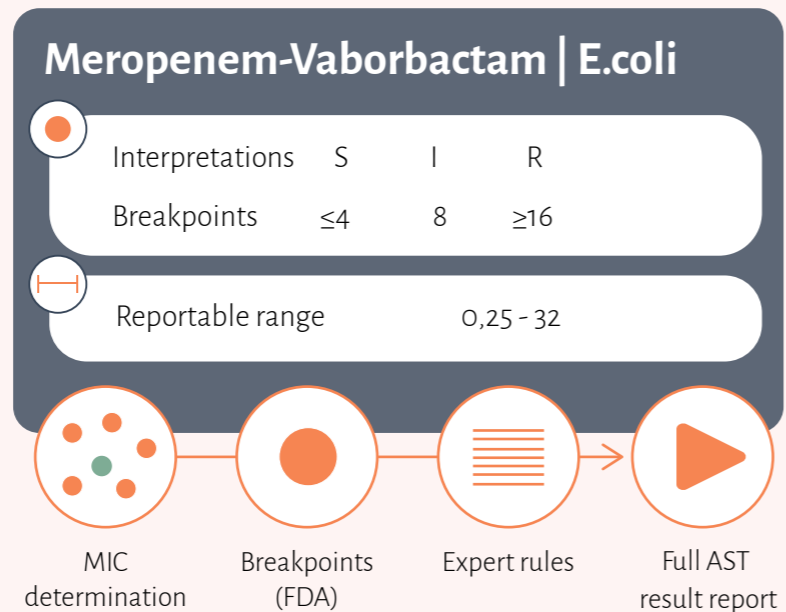
Proprietary algorithms translate visual information into MIC values. Based on antimicrobial breakpoints, MIC values are interpreted as S, I, or R.

ASTar results

ASTar result reports deliver MIC values and “Susceptible” (S), “Susceptible, Intermediate” (I), and “Resistant” (R) categorization. SIR categorizations are generated using FDA clinical breakpoints and are regularly updated following official breakpoint revisions.

Data points are on-panel and never extrapolated.

Optimal use of antibiotics leads to improved care quality and preservation of antibiotic efficacy for future patients.



ASTar - the Essentials

The Cartridge & Frozen insert



The Cartridge is a mini-lab that contains all reagents and disposable articles needed for sample preparation, concentration determination, dilution, and growth medium adaptation.

- Contains pre-deposited reagents.
- Generates controlled inoculum for AST.
- A Frozen insert is added to the Cartridge before use.
- Has barcodes for identifying and linking the Cartridge and patient sample.
- Cartridge stored at room temperature, frozen insert stored at 5 °F to -13 °F (-15°C to -25°C).

The Disc

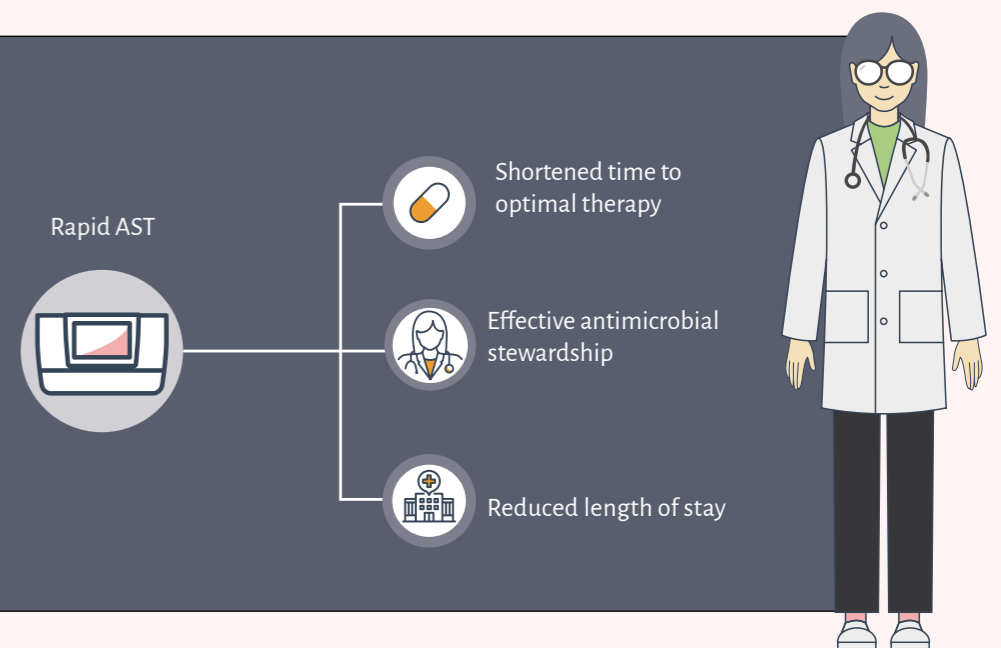


The AST Disc is used for AST and concentration determination.

- The AST Disc contains more than 330 culturing chambers pre-filled with antimicrobials in various concentration ranges, as well as chambers for growth controls, and chambers used to determine bacterial concentration for inoculum preparation.
- Contains a unique barcode for identification and linking to each respective sample preparation Cartridge and patient.
- Stored at room temperature.

Health economic impact of rapid AST

All these components of ASTar come together to form a comprehensive rapid AST system that, when strategically integrated into critical points of healthcare, could potentially enhance patient care and reduce costs, aligning with the core goals of healthcare policies and clinical decision-making¹⁻³.



References:

1. J. H. Kim et al. Clin Microbiol Infect 27, 69-75 (2021). PMID: 32272171.
2. V. Anton-Vazquez, C. Suarez, T. Planche. J Antimicrob Chemother 77, 771-781 (2022). PMID: 34928343
3. K. Ehren et al. Clin Infect Dis 70, 1285-1293 (2020). PMID: 31094414.

Save lifetimes

Q-linea's rapid AST system, ASTar[®], accelerates and simplifies the time-sensitive workflows faced during the treatment of patients with bloodstream infections and sepsis. Hospitals use ASTar to vastly reduce the time to optimal antimicrobial therapies and ensure that patients receive the correct treatments sooner — when time matters most. We are helping to create sustainable healthcare, now and in the future, and safeguard the effectiveness of antibiotics for generations to come.

Q-linea is headquartered in Uppsala, Sweden and has regional offices in Italy and the USA, with partnerships worldwide.



www.qlinea.com

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