

Antimicrobial Susceptibility Testing FAQs

What is Antimicrobial Susceptibility Testing (AST)?

- AST is the process of culturing a patient sample and introducing any resulting pathogens to known concentrations of antibiotics.

What does AST actually show me? Don't you use PCR?

- PCR and AST will show you the entire picture. PCR indicates the presence of pathogenic DNA and ABX markers. This suggests to you WHAT NOT to prescribe.
- AST allows viable pathogens to grow and be treated with known concentrations of relevant antibiotics. This suggests to you WHAT to prescribe.

What is the turnaround time for AST?

- Phase one is culturing. This is taking the actual patient sample and allowing any viable pathogen to grow on agar plates. We must see clear isolation amongst colony types.
 - Per clinical guides¹, culturing for isolation takes typically 16-24 hours, sometimes longer depending on species or if isolation did not occur.
- Phase two is AST. This is taking the specific pathogen from the patient and introducing it to known concentrations of relevant antibiotics. Once complete, you can see which antibiotics are resistant, intermediate, or susceptible and at what concentration.
 - Per clinic guides¹, AST takes typically 24 hours or longer depending on species and controls.

¹ = Clinical Laboratory Standards Institute; Infectious Diseases Society of America