

# Decoding the Host Response to Infection

Clinicians must make decisions in the face of diagnostic uncertainty. We are working to change that.

## SEPSIS

A life-threatening syndrome caused by a dysregulated host response to infection

A global healthcare crisis affecting over 48 million people each year

A treatable condition when diagnosed early

### TRIAGE

8:32 AM

- Vital signs in triage do not meet SIRS criteria
- Standard lab work is collected and sent to lab

Temperature:

37.5°C

Pulse: 103

Blood Pressure:

105/80

Respiratory

Rate: 19

39-year-old female patient heads to the emergency room with chief complaint of pain on her right side.



### SUSPECT

9:46 AM

- Blood sample collected for CBC-Diff
- Urine sample collected
- Automatic reflex to additional tests

Patient worsens and is transferred to the intensive care unit.

Sepsis suspected.

#### HEMATOLOGY

↑ ELEVATED WBC

↑ ELEVATED MDW

#### URINALYSIS

↑ ELEVATED WBC

↑ ELEVATED Bacterial Count

### DIAGNOSE

11:03 AM

- Further testing is performed
- Automatic reflex to additional tests

Patient started on broad spectrum antibiotic—ceftriaxone.

#### CHEMISTRY & IMMUNOASSAY

↑ ELEVATED Lactic Acid

↑ ELEVATED CRP

↑ ELEVATED PCT

↑ ELEVATED IL-6

### CONFIRM

- Microbial analysis identifies ESβL-producing *E. coli*
- Patient switched to meropenem

Patient's condition improves and she is moved to noncritical care unit.

Patient is discharged home within a few days.

#### MICROBIOLOGY

Pathogen Identified as an ESβL-producing *E. coli*.

Innovations to help clinicians decode the immune response for improved diagnostic uncertainty and antimicrobial stewardship.

Now is the time to **SUSPECT**, **DIAGNOSE**, and **CONFIRM** sepsis with the help of Beckman Coulter solutions in your laboratory.

[Learn More](#)



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2024-13402

