

# Early Sepsis Prediction

## Prediction Model Input Features

Temperature	Heart Rate	Blood Pressure
Respiratory Rate	White Blood Cell Count (WBC)	Oxygen Saturation (SpO2)
Lactate Level	Urine Output	Consciousness Level (GCS)

## ROC Curve Performance

AUC-ROC	0.89
Sensitivity	85%
Specificity	87%
Positive Predictive Value (PPV)	82%

## Clinical Impact

Early Detection	4-6 hours
Mortality Reduction	15%
ICU Stay Reduction	2.3 days
Time to Antibiotics	1 hr faster

Alert System

- 🔔 Real-time risk score calculation
- 🔔 Automatic high-risk patient alerts
- 🔔 Mobile push notifications for healthcare staff