

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