# **Unlocking the Complete Blood Count: Derivation of a Single-Panel Laboratory Test** that includes Monocyte Distribution Width to **Create a Universal Sepsis Screening Tool**

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## A Seemingly Simple Problem that Has Been Impossible to Fix



3 million cases annually 15-30% mortality rate 10% of ICU admissions

Few effective treatments (>100 failed trials)

Timely initiation of simple measures is life-saving

over decades

AT LEAST 250,000 AMERICANS DIE FROM SEPSIS EACH YEAR.

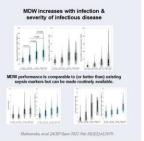


1/2 of hospital deaths

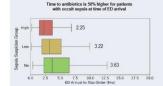
No Change in Mortality

# MDW: A Novel Marker of Sepsis with Universal **Pragmatic Screening Potential**





#### **Patients with Subtle Presentations Experience Delays to Antibiotics & Worse Outcomes**



	ICU Admission	Inpatient Mortality
High Suspicion (2 early indicators)	29.9%	11.5%
Low Suspicion (1 early indicator)	25.6%	8.8%
No Suspirion (Occult Sansis)	42.5%	13.7%

Despite a more 'reassuring appearance' at the

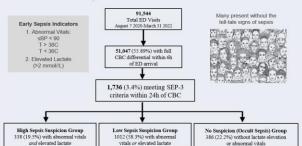
time of presentation, patients with occult sepsis

### Early Identification of Sepsis is Critically Important & Incredibly Challenging

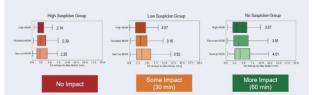




### Not all Septic Patients Look the Same



#### For Patients with Subtle Sepsis, MDW Elevation is Associated with Reduced Time to Antibiotics



(Normal MDW < 20; Elevated MDW 20-25; High MDW > 25)

Conclusion: MDW is a unique marker of sepsis that is particularly valuable for early detection of sepsis in the group of patients that are most often missed.