ThermoFisher SCIENTIFIC

Help optimize treatment decisions for infections

With the combined strength of PCT and MR-proADM

thermo scientific

Patients in the ED with (suspected) infection

Likelihood of a bacterial cause of infection[1-5]

B·R·A·H·M·S PCT™			
<0.1 µg/L	<0.25 µg/L	≥0.25 µg/L	≥0.5 µg/L
Highly unlikely	Unlikely	Likely	Highly likely
	Consider need for antibiotics and possible causes for non-infectious PCT elevation		

Risk for disease progression independent of aetiology[8-11]

B·R·A·H·M·S MR-proADM™			
<0.55 nmol/L	≤0.87 nmol/L	>0.87 nmol/L	>1.50 nmol/L
Healthy	Low risk	Medium risk	High risk
	Safe discharge possible	Hospital admission recommended	Consider disposition to a higher level of care

The PCT and MR-proADM reference ranges are a valuable aid for the clinician but they should always be interpreted in context of the patient's clinical condition. PCT concentrations in blood are elevated in clinically relevant bacterial infections and continue to rise with the increasing severity of the disease. However, as an expression of individually different immune responses and different clinical situations, the same focus of infection may be associated with varying individual elevations in PCT concentrations. Antibiotic treatment should be started/continued on suspicion of infection, particularly in high-risk patients.

Patients in the ICU with (suspected) sepsis

Monitor effectiveness of antibiotic therapy[5-7]

B·R·A·H·M·S PCT™

<0.5 µg/L	OR	Decline from peak PCT ≥80%

Good response to antimicrobial treatment

Safe de-escalation or discontinuation of antibiotics possible

Early warning sign for disease progression[10-12]

B·R·A·H·M·S MR-proADM™

<2.25 nmol/L	Increasing value OR Failure to decrease
Reduced risk	Elevated risk
Lower level of care possible	Consider therapy escalation

An increase in MR-proADM concentration indicates a (pathophysiological) disturbance in the microcirculation and elevation of endothelial permeability and may recognize early (pending) organ dysfunction. MR-proADM can be used as an aid in conjunction with clinical evaluation and other laboratory findings to assess early the risk for progression to a more severe disease condition.
For more information consult the instructions for use of the B·R·A·H·M·S PCT sensitive KRYPTOR™ (HN-CUS-3467 R24.1) and B·R·A·H·M·S MR-proADM KRYPTOR (HN-CUS-3366 R19).

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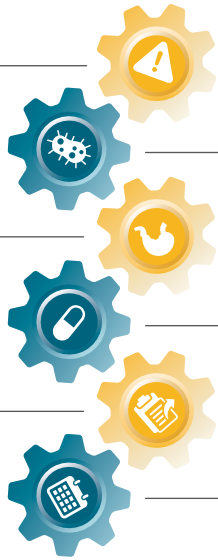
PCT and MR-proADM can help improve patient outcomes by aiding in ...



early identification of disease severity independent of aetiologogy.[8-11]

identification/ verification of a clinically suspected bacterial infection.[1-5]

early prediction of disease progression to guide early therapeutic interventions or organ support.[8-12]

decision whether to treat with antibiotics.[5-7]

safe and reliable inpatient and outpatient treatment decision.[9,2]

decisions on patient's individual duration of antibiotic treatment.[5-7]

References: 1. Meisner M. Procalcitonin – Biochemistry and Clinical Diagnosis. Bremen 2010. **2.** Mueller et al., Crit Care Med 2000; 28(4): 977-983. **3.** Harbarth et al., Am J Respir Crit Care Med 2001; 164(3): 396-402. **4.** Brunkhorst et al., Int Care Med 2000; 26: S148-152. **5.** Schuetz et al., CCLM 2019; 57(9): 1308-1318. **6.** de Jong et al., Lancet Infect Dis 2016; 3099: 1-9. **7.** Schuetz et al., BMC Med 2011; 9: 107. **8.** Saeed et al., Crit Care 2019; 23(1): 40. **9.** Gonzalez-del Castillo et al., Eur J Intern Med 2021; 88: 10-113. **10.** Gregoriano et al., CCLM 2021; 59(5): 995-1005 **11.** Guadiana-Romualda, Int J Infect Dis 2021; 111:211. **12.** Elke et al. 2018; Crit Care 22 (1): 79.

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