



Procalcitonin (PCT)

Responsible use of antibiotics in older adult patients

B·R·A·H·M·S PCT-aided stewardship can help to reduce diagnostic uncertainty and improve antibiotic decisions

Timely recognition of infection in the older adult patient is challenging

Immunosenescence¹



Higher rates of antibiotic-related adverse events²



Frailty and high burden of comorbidities³



Atypical clinical presentation of infection⁴



Higher vulnerability to systemic infections⁵



Atypical kinetics of inflammatory biomarkers⁶



Higher hospitalization and mortality rate⁷



Shorter window of opportunity



Early identification of the infection and timely therapeutic management is crucial to the outcome⁸⁻⁹

A valuable tool to improve antibiotic decision making

Thermo Scientific™ B·R·A·H·M·S PCT™ is the only assay proven to be useful for antibiotic stewardship in the older adult patient



PCT helps to early exclude severe bacterial infection in the elderly

with a high negative predictive value (NPV 95-98% to rule out bloodstream infection), reducing unnecessary use of antibiotics¹⁰⁻¹¹



PCT helps to differentiate bacterial etiology of respiratory infection from other causes in patients

presenting with:

- Sepsis suspicion¹²
- CAP suspicion¹³
- AECOPD¹⁴
- Acute Heart Failure¹⁵

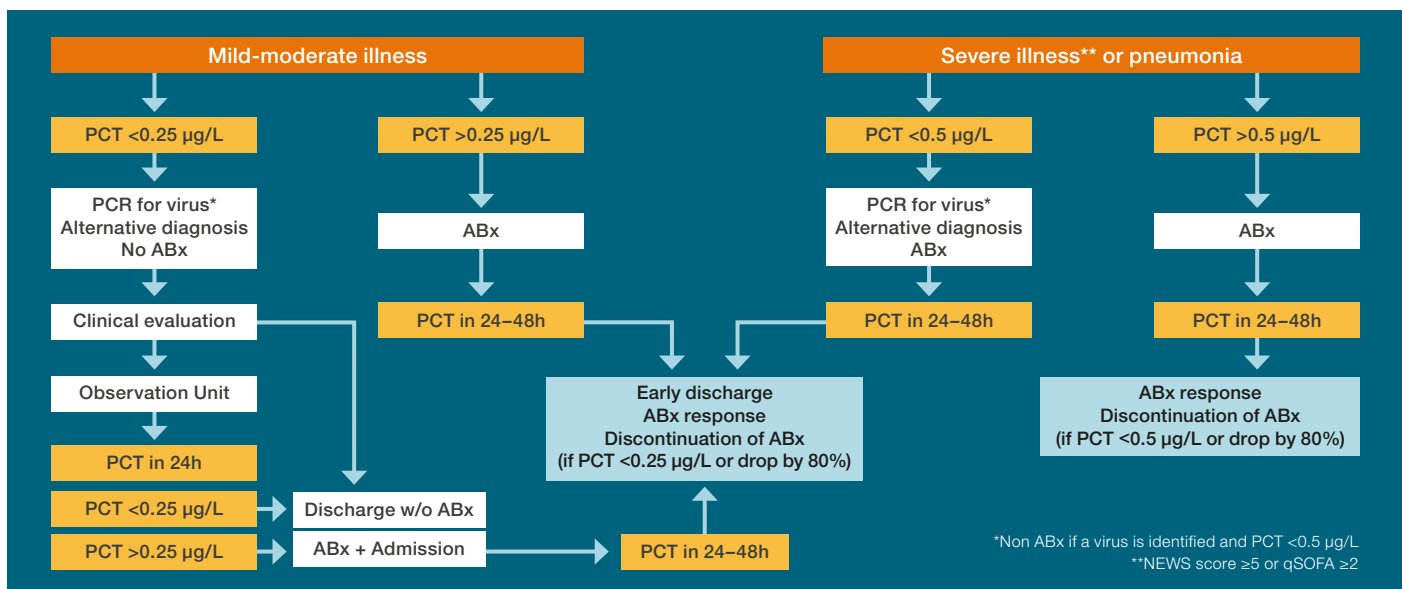


PCT-aided antibiotic stewardship helps to safely reduce antibiotic exposure in the elderly by 2 days

with no negative impact on outcome and mortality¹⁶⁻¹⁷

PCT algorithm recommended by clinical experts for use in elderly patients with mild or severe respiratory infection¹⁸

A multi-disciplinary group of clinical experts from geriatrics, infectious diseases, emergency and intensive care medicine have proposed an algorithm for optimal use of PCT to improve clinical decision making and to reduce unnecessary antibiotic exposure in elderly patients¹⁸



The PCT algorithm mentioned depicts the information from the quoted opinion paper. It reflects the opinion of the authors and not necessarily that of Thermo Fisher Scientific.

CAP Community-Acquired Pneumonia AECOPD Acute Exacerbations of Chronic Obstructive Pulmonary Disease ABx Antibiotics

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Clinical Diagnostics

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