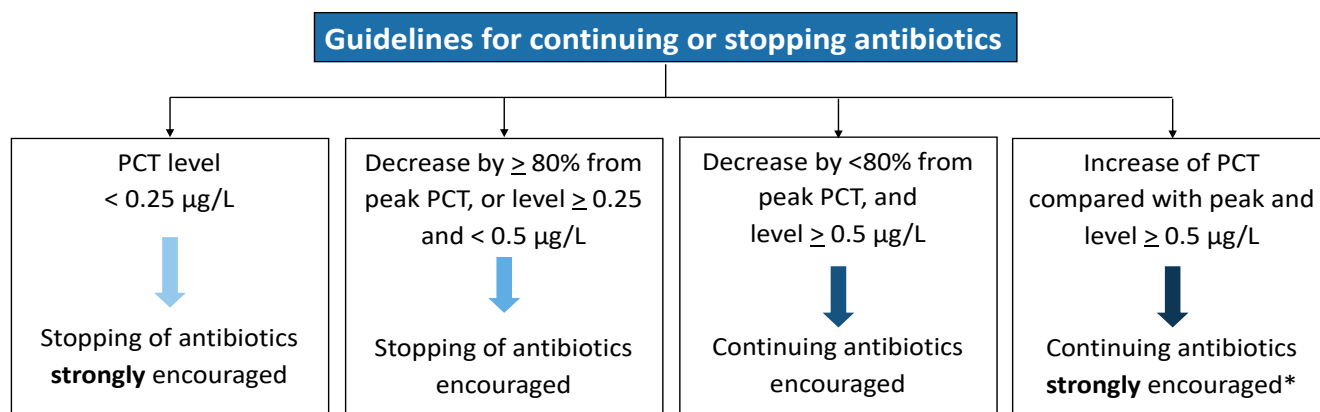


PCT-Based Treatment Algorithm



*Consider changing antibiotics

Adapted from: Bouadma L et al. *Lancet* 2010

Disclaimer: Decisions regarding antimicrobial therapy should not be based solely on procalcitonin serum concentrations.

Note: Temperature instability must have occurred >2h prior to procalcitonin level for it to be interpretable.

Causes of Falsely High or Low PCT levels

Falsely Elevated	Falsely Decreased
Newborns <48-72 hours of age	Localized infections (osteomyelitis, abscess, subacute endocarditis, empyema)
Massive stress (severe trauma, surgery, cardiac shock, burns, cardiopulmonary bypass)	Procalcitonin checked early in course of illness
Prolonged, severe cardiogenic shock or organ perfusion abnormalities	<i>Mycoplasma pneumoniae</i> or <i>Chlamydia pneumoniae</i> infection
Malaria and some fungal infections	
Systemic vasculitis and acute graft vs. host disease	
Treatment with agents that stimulate cytokines (OKT3, anti-lymphocyte globulins, alemtuzumab, IL-2, granulocyte transfusion)	
End-stage renal disease	
Paraneoplastic syndromes due to medullary thyroid and small cell lung cancer	