

**PARAOXONASE-1 ACTIVITIES  
AND PROCALCITONIN LEVELS IN  
SEPSIS AND NON-INFECTIOUS  
SYSTEMIC INFLAMMATORY  
RESPONSE SYNDROME  
PATIENTS IN A TERTIARY  
INTENSIVE CARE UNIT**

**MOHD AFZAL ALIAS  
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# **PARAOXONASE-1 ACTIVITIES AND PROCALCITONIN LEVELS IN SEPSIS AND NON-INFECTIOUS SYSTEMIC INFLAMMATORY RESPONSE SYNDROME PATIENTS IN A TERTIARY INTENSIVE CARE UNIT**

Sepsis and septic shock remain to be a leading cause of death in the intensive care unit (ICU), including in Malaysia. Distinguishing early sepsis from non-infectious systemic inflammatory response syndrome (SIRS) may be difficult upon presentation. Thus, research has been ongoing in finding a specific and effective marker for sepsis, where paraoxonase-1 (PON1) has shown to be a promising contender. PON1 is a high density lipoprotein associated enzyme, where early researches have shown that its activities decrease as oxidative stress increases in intensity during sepsis. This study aimed to compare PON1 activities between sepsis and non-infectious SIRS patients, as well as comparing its activities in patients who ultimately survived or died as a result of their ordeal. In addition, this study looked into the diagnostic and predictive performance of PON1 for sepsis and mortality as well as the correlation between PON1 activities and a known sepsis marker, procalcitonin (PCT).

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