

Procalcitonin (PCT)

Introduction:

Procalcitonin is a soluble protein liberated in to the circulation by many types of cells in response to severe systemic inflammation, in particularly by bacterial infection. Biochemically, it is the pro hormone of calcitonin, with different biological function from that of calcitonin. The level of Procalcitonin in the blood can increase significantly in systemic bacterial infections and sepsis.

Indications:

- ✓ Diagnosis of bacteremia and septicemia in adults and children (including neonates)
- ✓ Diagnosis of bacterial infection in neutropenic patients
- ✓ Diagnosis, risk stratification, and monitoring of septic shock
- ✓ Monitoring of therapeutic response to antibacterial therapy

Patient preparation:

- ✓ Not required.

Investigation Request:

- ✓ Written on an **Immunoassay Request Form**
- ✓ The attending **Consultant's Signature** is mandatory.

Sample Collection:

- ✓ 2 mL of blood into a plain tube.
- ✓ Send the sample to Department of Chemical Pathology between 8.00 am to 3.00 pm.
- ✓ Inform the Chemical Pathology laboratory EXT: 348/119

Interpretation:

PCT level	Interpretation
<0.5 ng/mL	Local bacterial infection is possible
0.5 – 1.99 ng/mL	Bacterial infection is possible
2 – 9.99 ng/mL	Bacterial infection
>= 10 ng/mL	Severe bacterial infection / sepsis

Dr.B.K.T.P. Dayanath,
Consultant Chemical Pathologist,
Head of the Department of Pathology, CNTH – Ragama.