



# Technical Bulletin

## Procalcitonin Now Available in Guam

**TO:** Medical Staff and Clients

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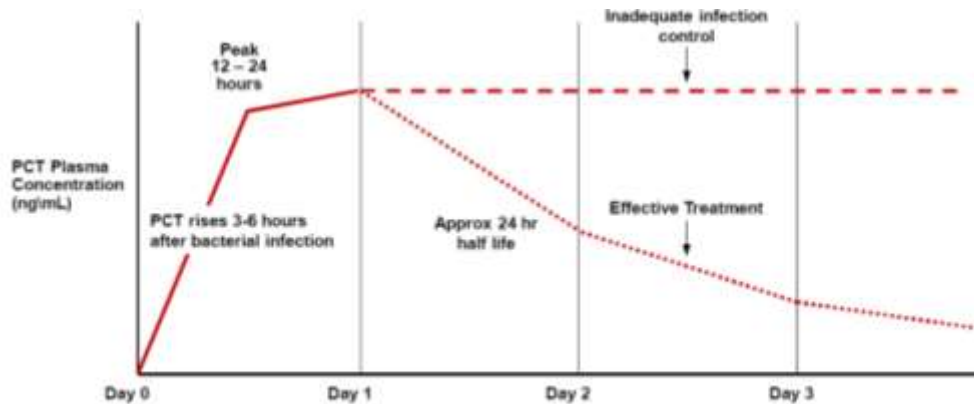
Dr. Arthur Loerzel, MD  
Medical Director, Guam/Saipan DLS

**DATE:** December 10, 2019

**SUBJECT:** Local testing for procalcitonin is available in Guam beginning December 17, 2019

Procalcitonin is secreted by many different cell types in response to inflammatory stimulation. An increase in the serum concentration of procalcitonin (PCT) is a good biomarker for serious bacterial infection or sepsis. DLS is pleased to announce the availability of this test on Guam.

Healthy people have PCT concentrations below 0.05ng/ml. A PCT concentration of  $\geq 0.1$  ng/mL most likely indicates a clinically relevant bacterial infection and a PCT value of  $> 0.5$  ng/mL is a likely indicator that the patient may be at a higher risk for developing severe sepsis or septic shock. Plasma PCT rises quickly during a serious bacterial infection, and has a fairly consistent 24 hour half-life once patients are on effective therapy (Figure). There is no elevation from viral infections.



Shalhoub PJ et al. *Emerg. Crit Care Med* (1998) 24: 888-892  
Caspero P. et al. *J. Of Intensive Care and Anesthesiol* (1996) 7: 5

PCT can be elevated for non-bacterial conditions such as newborns, polytrauma, burns, major surgery, prolonged circulatory failure, pro-inflammatory treatment (OKT3, Injection Therapy, TNF $\alpha$ , IL-2, anti-lymphocyte globulins), certain cancers (medullary C-cell cancers of the thyroid, pulmonary small-cell carcinoma, and bronchial carcinoma, malaria, and certain fungal infections (candidemia), renal failure (higher PCT baselines).

| Test Name     | Order Code | Specimen Requirement                      | Specimen Rejection  | CPT   |
|---------------|------------|---|---|-------|
| Procalcitonin | 16008      | Lithium Heparin PST (Green), Serum in SST | Hemolyzed, icteric, lipemic, contaminated, specimen older than stability limits | 84145 |

Should you have any questions, please call the laboratory at 646-5770.

**Diagnostic Laboratory Services Inc.**

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