

Test Update

Procalcitonin Changes

UVM Health

On 12/10/2025, ordering guidance and resulting for procalcitonin (PCT) will be updated at all UVMH locations. These updates are in collaboration with our UVMH Infectious Disease clinician colleagues and the UVM Infectious Disease Practice Committee. The primary focus of this work is to provide evidence-based guidance supporting PCT ordering for antibiotic de-escalation in patients with diagnostic uncertainty around lower respiratory tract infection. The order code, test name, specimen requirements, and billing will remain unchanged.

Test Information:

Orderable to be Updated	Epic Code	Atlas Code	Mayo Access ID
Procalcitonin	LAB3309	PROCAL	FAH5931

What is Changing:

- Order guidance in EPIC when placing PCT orders. In line with the updated UVMHC Greenbook PCT Algorithm (pages 130-131), when placing a PCT order in EPIC, a new highlighted “**Process Instructions**” section appears.

Process Instructions:

PCT should be ordered when there is diagnostic uncertainty regarding the potential for lower respiratory tract infection. PCT can be elevated from noninfectious etiologies. It is recommended NOT to check PCT if the patient has one or more of the following:

- Shock (anaphylaxis, septic, hemorrhagic, or cardiogenic)
- Cardiac Arrest
- Chronic kidney disease
- Immunomodulatory agents (rituximab, T-cell antibodies, alemtuzumab, interleukin 2, granulocyte transfusions)
- Certain neoplasms (medullary thyroid cancer, neuroendocrine tumors)
- Severe liver disease
- Trauma
- Pancreatitis
- Surgery
- Intracranial hemorrhage
- Burn injuries
- Ischemic stroke

Also, note that the Greenbook PCT Algorithm is hyperlinked at the bottom of the order composer. It can also be viewed on the following webpage: https://www.medialab.com/documentcontrol/doc_b_browsemanuals.aspx?oid=131899827&o=44bd5395ee2358c24e8baf&iniframe=yes&fromz=yes#

- The PCT value defined as being abnormal has been decreased from ≥ 0.50 ng/mL to **>0.25 ng/mL**. In addition, comments will be attached to all results providing direction for subsequent PCT monitoring and appropriate antibiotic therapy for both critically ill and not critically ill patients.



University of
Vermont Health

UVM Medical Center

Pathology & Laboratory Medicine

Location

111 Colchester Ave.
Burlington, VT 05401

Lab Customer Service

802-847-5121
800-991-2799

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- For patients with values ≤ 0.25 ng/mL the following will be appended:

Comment

Not critically ill patients: Hold antibiotics, recheck PCT in 24 hours. If this is 2nd PCT in 24 hours, then no antibiotics.

Critically ill patients: Continue empiric antibiotic therapy, recheck PCT in 24 hours. If this is 2nd PCT in 24 hours, then stop antibiotics.

- For patients with values > 0.25 ng/mL the following will be appended:

Comment

Not critically ill patients: Treat for CAP per guidelines, no further PCT checks.

Critically ill patients: Continue antibiotics (if ongoing diagnostic uncertainty) and recheck PCT in 24 hours. If this is 2nd PCT in 24 hours, patient is clinically improving, and PCT decreased by 80% from peak, then stop antibiotics.

For questions or concerns about this change please reach out to the Medical Director of Clinical Chemistry, Dr. Clayton Wilburn (clayton.wilburn@uvmhealth.org).

References:

- 1) Chambliss AB, Patel K, et al. AACC Guidance Document on the Clinical Use of Procalcitonin. JALM. 2023; 8(3): 598-634.
- 2) Rhee C. Using Procalcitonin to Guide Antibiotic Therapy. Open Forum Infect Dis. 2016 Dec 7;4(1): ofw249.



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