

Test changes

Test name: Procalcitonin

Test #: 8558/LAB8558

Notification date: January 15, 2019

Effective date: January 22, 2019

EXPLANATION

On January 22nd, Allina Health Laboratory (AHL) will change the platform on which the Procalcitonin (8558/LAB8558) assay is performed.

DETAILS

Effective January 22nd, AHL will begin performing the Procalcitonin assay using a Chemiluminescent microparticle immunoassay (CMIA) methodology. Additional changes are as detailed below.

	Current	NEW
Processing	Spin	Spin and separate
Container	Plasma separator (PST) or serum separator (SST) tube	Plasma separator (PST), serum separator (SST) or AHL false bottom plasma/serum transport tube.
Transport/stability	Refrigerated—2 days Frozen—6 months	Refrigerated (preferred): 48 hours when removed from the clot or gel Ambient: 8 hours on the clot or gel 24 hours when removed from the clot or gel Frozen: 15 days
Methodology	Enzyme immunoassay sandwich method with fluorescent detection (ELFA)	Chemiluminescent microparticle immunoassay (CMIA)

<p>Result Interpretation</p>	<ol style="list-style-type: none"> 1. PCN < 0.5 ng/mL: Systemic infection (sepsis) not likely; localized infection possible 2. PCN > 0.5 - < 2 ng/mL: Systemic infection possible but consider other causes for elevation 3. PCN > 2 - < 10 ng/mL: Systemic infection likely (unless other causes known) 4. PCN > 10 ng/mL: Marked systemic inflammatory response: usually sepsis/septic shock. <p>Note: PCN levels may be elevated (unrelated to systemic bacterial infection) due to trauma, surgery, severe burns, cardiogenic shock, in neonates and associated with malarial or invasive fungal infections.</p>	<p>Initial assessment of lower respiratory tract infection:</p> <table border="0"> <thead> <tr> <th style="text-align: left;"><u>Results</u></th> <th style="text-align: left;"><u>Interpretation</u></th> </tr> </thead> <tbody> <tr> <td><0.1 ng/mL</td> <td>Antibiotics strongly discouraged.*</td> </tr> <tr> <td>0.1 – 0.25 ng/mL</td> <td>Antibiotics discouraged. *</td> </tr> <tr> <td>0.26 – 0.50 ng/mL</td> <td>Antibiotics encouraged. **</td> </tr> <tr> <td>>0.50 ng/mL</td> <td>Antibiotics strongly encouraged. **</td> </tr> </tbody> </table> <p>*If suspicion of infection high, clinically unstable, or immunosuppressed: initiate antibiotics. Repeat PCT testing in 6-24 hours.</p> <p>**Repeat PCT testing every 1-2 days while on antibiotics to assess response to therapy.</p> <p>Initial assessment of severe sepsis risk:</p> <table border="0"> <thead> <tr> <th style="text-align: left;"><u>Results</u></th> <th style="text-align: left;"><u>Interpretation</u></th> </tr> </thead> <tbody> <tr> <td>< 0.5 ng/mL</td> <td>Associated with a low risk for progression to severe sepsis/septic shock.</td> </tr> <tr> <td>> 2.0 ng/mL</td> <td>Associated with a high risk for progression to severe sepsis/septic shock.</td> </tr> </tbody> </table> <p>Note: PCT levels below 0.5 ng/mL do not exclude an infection, because localized infections may also be associated with such low levels. If the PCT measurement is done very early after the systemic infection process has started (usually <6 hours), these values may still be low. PCT levels between 0.5 ng/mL and 2.0 ng/mL should be interpreted in the context of the specific clinical background and conditions of the individual patient. It is recommended to re-test PCT within 6-24 hours if any concentrations <2.0</p>	<u>Results</u>	<u>Interpretation</u>	<0.1 ng/mL	Antibiotics strongly discouraged.*	0.1 – 0.25 ng/mL	Antibiotics discouraged. *	0.26 – 0.50 ng/mL	Antibiotics encouraged. **	>0.50 ng/mL	Antibiotics strongly encouraged. **	<u>Results</u>	<u>Interpretation</u>	< 0.5 ng/mL	Associated with a low risk for progression to severe sepsis/septic shock.	> 2.0 ng/mL	Associated with a high risk for progression to severe sepsis/septic shock.
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