

Rhode Island Hospital The Miriam Hospital

Memorandum

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TO:

Rhode Island Hospital, The Miriam Hospital and Newport Hospital Medical Staff, House Staff Officers, Nursing Managers, and Lifespan

Laboratory Outreach Clients

FROM:

Ricky Darnell Grisson, II MD, MBA, MPH.

Director, Clinical Chemistry Services

Lifespan Laboratories

DATE:

May 24, 2024

SUBJECT:

New Critical Values and Rule Out Myocardial Infarction Protocol

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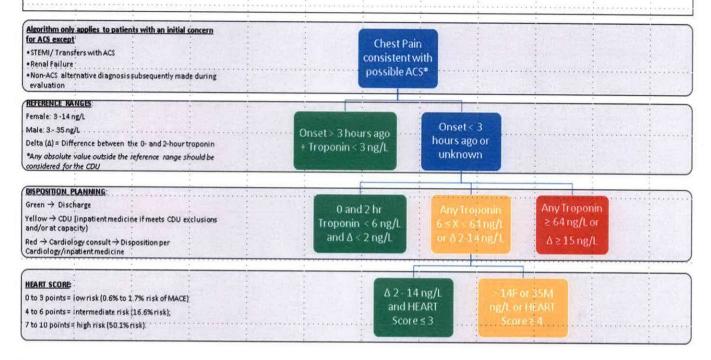
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Effective May 29, 2024, Lifespan Clinical Chemistry Laboratory will move over to Abbott Alinity Chemistry and Immunoassay systems for a significant number of the in-house tests. This move to Abbott Diagnostics systems represents an improvement in system standardization, testing quality, resulting turnaround time and operational and cost efficiency. In accordance with clinical laboratory standards surrounding such a cross-over, the following critical values have been updated.

TEST NAME	Old Critical Levels	New Critical Levels
Acetaminophen	>150 ug/mL	>175 ug/mL
Ammonia	>100 umol/L	>80 umol/L
Bicarbonate	<11 & >45 mEq/L	<9 & >42 mEq/L
Phenytoin	>30 ug/mL	>31 ug/mL
Ethanol	>400 mg/dL	>360 mg/dL
GENTT (trough)	>5 ug/mL	>3.9 ug/mL
GENTP (peak)	>12 ug/mL	>9.3 ug/mL
GENT (random)	>12 ug/mL	>9.3 ug/mL
Glucose	<40 & >450 mg/dL	<40 & >500 mg/dL
Neonatal bilirubin	>14.9 mg/dL	>14.1 mg/dL
Total Protein	<4.0 & >12.0 g/dL	<3.9 & >12.6 g/dL
Vancomycin (trough)	>20 ug/mL	>25 ug/mL
Vancomycin (peak)	>80 ug/mL	>45 ug/mL
Vancomycin (random)	>80 ug/mL	>30 ug/mL

Furthermore, the high sensitivity troponin is being transferred from Beckman Coulter and Siemens systems to our new Abbott clinical chemistry systems for RIH,TMH and NH. Consequently, the new, independently established protocol for evaluating myocardial infarction is as follows in the figure below. This algorithm was independently established, as published in Boeddinghaus J., et al. Clinical Chemistry. 62:3,494-504 (2016).

RIH, TMH, NH High Sensitivity 0- and 2-Hour Troponin Chest Pain Algorithm



For questions, comments or concerns, please do not hesitate to contact the Clinical Chemistry Laboratory: Ricky Grisson, II MD, MPH (793-4298), Deb Smeal (444-5217), Ean Larson (793-2526), Kraig Ruth (845-1104) or Kim Paiva (793-4237).