

Memorandum

TO: Rhode Island Hospital, The Miriam Hospital and Newport Hospital Medical Staff, House Staff Officers, Nursing Managers, and Brown University Health Laboratory Outreach Clients

FROM: Adina Badea, Ph.D.
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Brown University Health Laboratories

DATE: July 14, 2025

SUBJECT: Changes to Magnesium Reporting Units

Effective July 22nd, the Brown University Health Clinical Chemistry Laboratory will change reporting units for Magnesium testing, from mEq/L to mg/dL. This change is a coordinated effort with BUH Pharmacy, which will implement an electrolyte repletion protocol updated with the new units. These efforts reflect an alignment in practice with peer institutions.

There is a 1.2 conversion factor from mEq/L to mg/dL. As a result, the reportable ranges will change as follows:

	mEq/L (old)	mg/dL (new)
Reportable range	0.5 – 7.9	0.6 – 9.5
Reference range	1.3 – 1.9	1.6– 2.3
Critical Low	0.6	0.7
Critical High	2.4	2.9

To help with this transition, the Chemistry Laboratory will display all Magnesium results with the following note, for the first two months post implementation:

Please note the units changed to mg/dL on 7/22/25. To convert results prior to 7/22/25 (in mEq/L) to current units for trending purposes, please multiply the old result by 1.2 e.g. 1 mEq/L = 1.2 mg/dL. All adjustments to reference ranges and critical value thresholds have been made.

For questions, comments, or concerns, please do not hesitate to contact the Clinical Chemistry Laboratory: Adina Badea, Ph.D. (444-8390), Syed Latif, Ph.D. (793-2724), Deb Smeal (444-5217), Ean Larson (793-2526), Kraig Ruth (845-1104) or Kim Paiva (793-4237).