DIAGNOSTIC LABORATORY SERVICES, INC.

Technical Memorandum

TO: Physicians, Clinical Staff and Clients

From: Wesley J. Kim, M.D. DLS Medical Director
Ana Ortega-Lopez, M.D. QMC Lab Director
Amy Powers, MD PSC Lab Director QMC Wahiawa Lab Director

Date: January, 14, 2026

Subject: Update to Coagulation reference ranges

Beginning January 19, 2026 for QMC-West Oahu and January 26, 2026 for QMC-Manamana, DLS will change its methodology/manufacturer and assay for measuring B-Type Natriuretic peptide (BNP).

BNP is a member of the family of natriuretic peptides. It is synthesized and released in the blood in response to conditions that cause ventricular stretch and volume overload. Natriuretic peptides are well established for use in the diagnosis or exclusion of heart failure and are included in standard of care guidelines for both the ACC/AHA and ESC.

Prepro BNP is synthesized in the cardiac myocyte and is then processed to a proBNP precursor molecule. This proBNP is subsequently cleaved to form the physiologically active BNP molecule and the inert degradation fragment NT-proBNP. Both are released in circulation in a 1:1 ratio and both can be detected and measured in peripheral blood, aiding in the diagnosis, prognosis and assessment of severity for heart failure. There is a difference in the biological half-life, with BNP being approximately 20 minutes and NT-proBNP being 60 to 120 minutes.

DLS currently uses the ROCHE NT-proBNP assay (all sites) as well as the Abbott Architect BNP assay (Queens Manamana only). DLS will be switching to the Beckman Coulter BNP assay (all sites) and the Beckman Coulter NT-proBNP assay (Manamana lab only). This difference is based on the available menu of the instruments that are being put into place at the various locations.

BNP and NT-proBNP are different molecules, and due to differences between manufacturing methodologies and instrumentation, the reference ranges will be different after the transition.

The current ROCHE NT-proBNP assay has two ranges based on age (< 125 pg/mL for patients under age 75, and < 450 pg/mL for patients 75 years or older). The current Abbott Architect BNP assay is < 100 pg/mL.

The new Beckman Coulter BNP assay performs similar to Abbott and is set at </= to 100 pg/mL. The new Beckman Coulter NT-proBNP assay (Queens Manamana only) uses a universal cutoff

of < 300 pg/mL for a negative test result. This test must be performed within two hours if not aliquoted. Most ED samples are not aliquoted unless send-out testing is ordered.

If you have any questions, please call DLS client services at (808) 589-5131 or Dr. Wesley Kim at (808) 589-5131.