Memorandum

To :	All Clinical Users
c.c :	
From :	Dr Graham Lee Consultant Clinical Biochemist/ Department of Clinical Biochemistry & Diagnostic Endocrinology Mater Misericordiae University Hospital (MMUH) and Cappagh National Orthopaedic Hospital, Dublin Midland Regional Hospital, Mullingar Helen Corrigan Chief Medical Scientist, Clinical Chemistry Dept. MRH, Mullingar
Date :	27nd January 2020
Subject :	Re: Reflex Testing

Dear Colleagues,
Our laboratory incorporates the practice of reflex testing, which is an automated process used to generate additional testing appropriate to the initial investigations and test results[1]. Examples include the reflex testing of magnesium in the context of hypokalaemia and hypocalcaemia, which may identify co-existing hypomagnesaemia or reflexing for Sodium analysis by "Direct ISE", to help exclude pseudohyponatraemia in the presence of high lipid/protein.

All such algorithm-based testing can add value to the test result by improving diagnosis (e.g. time, cause, accuracy) and can negate the need for repeat venepuncture and testing.

Reflex testing for Sex Hormone Binding Globulin (SHBG) e.g. when Total Testosterone (TT) is low in males or raised in females, can also help improve evaluation of androgen status. **From 1st February 2020,** any requests for SHBG will only be processed (reflex tested) depending on the results of initial Testosterone analysis. Following any SHBG analysis (external laboratory), an estimation of bioavailable testosterone (Androgen) will subsequently be reported as the **Free Androgen Index** (Females, Ref. Range: 0-4%) or **Free Testosterone** (Males, Ref range 0.13-0.53 nmol/L). Such estimates should be used preferentially to total testosterone alone for assessing androgen status.

If you wish to discuss this process further or require further advice and support please contact the names listed below.

Yours Sincerely,

Dr Graham Lee: glee@mater.ie, Telephone: 0353 01 8034983
Helen Corrigan: Helen.horrigan@HSE.IE Telephone: Tel: 00 353 44 9394328
Clinical Chemistry Dept., MRH, Mullingar 044 9394328

[1]Reflex and reflective testing: efficiency and effectiveness of adding on laboratory tests. Ann Clin Biochem 2010;47:223 – 7.