

4th September 2018

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Dear colleague,

Re: Changes to BNP testing service for heart failure

The UHNM Biochemistry Laboratory will be switching from measurement of B-type natriuretic peptide (BNP) to **N-terminal proBNP** (NT-proBNP) in **October 2018**.

GPs will be familiar with requesting BNP in patients with suspected heart failure in accordance with NICE Guidance (*CG108 Chronic heart failure in adults: management, August 2010*). Although this assay performs well, the UHNM Biochemistry Laboratory is aware that results are affected by sample haemolysis. A recent audit showed that between January and April 2018, 10 % of GP BNP requests were rejected because of haemolysis. The current BNP assay also requires an additional EDTA sample (purple top) to be taken. We are conscious that patients have required multiple blood draws before they can be referred for specialist investigations, leading to potential delays in diagnosis and treatment.

NT-proBNP is produced via the same atrial stretch mechanisms as BNP, and is also recommended by NICE as a marker of heart failure. However, measurement of NT-proBNP is not significantly affected by sample haemolysis and can be performed on the same sample as other routine Biochemistry requests, such as U&E, LFTs and thyroid screening.

Please note that the NT-proBNP assay has different reference ranges to the standard BNP assay:

- Patients with NT-proBNP concentration >2000 pg/mL should be referred urgently to have transthoracic Doppler 2D echocardiography and specialist assessment **within 2 weeks**
- Patients with NT-proBNP concentration between 400 and 2000 mg/mL should be referred to have transthoracic Doppler 2D echocardiography and specialist assessment **within 6 weeks**
- An NT-ProBNP concentration < 400 pg/mL in an untreated patient makes a diagnosis of heart failure **unlikely**

Results will be supported by an interpretive comment, but if further discussion is required, please contact myself or the Duty Biochemist (01782 674 265).

Yours faithfully,

Ceri Parfitt

Senior Clinical Scientist