AUSTRALIAN Clinicalabs

BNP Testing

A Key Tool in Diagnosing Heart Failure

NEW MBS Item *Available*

New Medicare Item for BNP and NT-proBNP Testing

A significant new MBS item for the diagnosis of heart failure was introduced on 1 November 2024. This new item broadens the range of clinical situations in which BNP or NT-proBNP testing can be ordered, going beyond the existing item numbers that are limited to specific conditions or settings (see below).

- **66829:** Quantitation of BNP or NT-proBNP for the exclusion of a diagnosis of heart failure in a patient presenting in a non-hospital setting to assist in decision-making regarding the clinical necessity of an echocardiogram, where heart failure is suspected based on signs and symptoms but diagnosis is uncertain. *Applicable once in any 12-month period*.

Clinical Utility of BNP Testing

B-type natriuretic peptides (BNP) are primarily synthesised and released by the heart's ventricles in response to ventricular stretch and pressure overload, reflecting myocardial wall tension. This makes BNP an important biomarker for the diagnosis, evaluation, and management of heart failure. It is particularly useful for distinguishing heart failure from other causes of dyspnoea.

Laboratory Diagnostics

Two forms of the test are available: BNP and N-terminal proBNP (NT-proBNP). The precursor protein, ProBNP, is cleaved into BNP and the inactive NT-proBNP.

Elevated levels of BNP or NT-proBNP correlate with the severity of heart failure and may indicate the need for further diagnostic evaluation. NT-proBNP is stable for 3 days in serum and is typically analysed in central laboratories. In contrast, BNP is often used as a point-of-care test.

In our laboratories, an NT-proBNP level of less than 125 ng/L makes a diagnosis of congestive heart failure unlikely.

Additional MBS Items

Several other MBS items are available for BNP or NT-proBNP testing in the diagnosis of heart failure, each with specific restrictions:

- **66830:** Quantitation of BNP or NT-proBNP for the diagnosis of heart failure in patients presenting with dyspnoea to a hospital Emergency Department. This test is available up to six times within a 12-month period.
- **66585:** Quantification of laboratory-based BNP or NT-proBNP testing in a patient with systemic sclerosis (scleroderma) to assess the risk of pulmonary arterial hypertension, with a maximum of two tests in a 12-month period.
- **66586:** Quantification of BNP or NT-proBNP testing in a patient with diagnosed pulmonary arterial hypertension to monitor for disease progression, applicable up to four times in any 12-month period.

How to Order BNP Testing with Clinical Labs

What to Write on the Request Form:
Use the Clinical Labs general pathology request form to order NT-proBNP.

Important Clinical Notes Requirement:
In the Clinical Notes section, please specify the reasons the patient requires the test to meet Medicare eligibility criteria. *If the patient does not meet the eligibility criteria, they will receive an invoice for payment*.

Test Cost:
The test is bulk-billed, subject to Medicare eligibility criteria. *If the patient does not meet the MBS criteria or exceeds the testing allowance for each item, the test can still be ordered, but the patient will receive a bill for the test.*

About the author:

Dr David Deam

MBBS MAACB FRCPA

Lab: Clayton (Vic)
Speciality: Chemical Pathology
Areas of Interest: Endocrine function testing, protein abnormalities, laboratory automation
Phone: (03) 9538 6777
Email: david.deam@clinicallabs.com.au

Dr Deam graduated with Honours in Medicine from Monash University in 1978 and obtained his FRCPA in 1985, following postgraduate training in Biochemistry at the Royal Melbourne Hospital. After several posts in Chemical Pathology at the Royal Melbourne Hospital and the Royal Women's Hospital, he was appointed Head of Chemical Pathology at the Royal Melbourne in 1996. He joined Gribbles Pathology (now Australian Clinical Labs) in 1998. Dr Deam has played an active role in teaching scientific, nursing and medical staff at both undergraduate and postgraduate levels and has been an examiner for the Australasian Association of Clinical Biochemists as well as the Royal College of Pathologists of Australasia. Dr Deam's research interests and publications include work on thyroid function testing, various aspects of diagnostic protein measurement and the rational use of biochemical tests.

Local pathologists near you:

Dr Phoebe Stanford

MBBS FRCPA FRACP

Lab: Bella Vista (NSW)
Speciality: Chemical Pathology
Areas of Interest: Endocrinology
Phone: (02) 8887 9999
Email: phoebe.stanford@clinicallabs.com.au

Dr Stanford graduated from the University of New South Wales in 2005. She completed Basic Physician Training, followed by Advanced Training in Chemical Pathology and Endocrinology. This included undertaking a year with a focus on bone disease at St Vincent's Hospital Sydney, followed by a year of general clinical endocrine training at Prince of Wales Hospital. Dr Stanford then completed her joint training based at the Prince of Wales and Royal North Shore Hospital Laboratories. In 2019, she was awarded fellowship of both the Royal Australasian College of Physicians and The Royal College of Pathologists of Australasia. Dr Stanford then worked at Tan Tock Seng hospital laboratory in Singapore before returning to Australia to take up a Chemical Pathologist position at Australian Clinical Labs.

Dr Tony Mak

MBBS MBA FRCPA FRCPath

Lab: Osborne Park (WA)
Speciality: Chemical Pathology
Areas of Interest: Toxicology
Phone: (08) 9442 7663
Email: tony.mak@clinicallabs.com.au

Dr Tony Mak is a chemical pathologist who graduated from the medical school of the Chinese University of Hong Kong. Before migrating to Australia, Tony worked as a consultant chemical pathologist at Princess Margaret Hospital – a major acute district general hospital in Hong Kong. Tony founded, developed, and operated the highest level clinical toxicology laboratory in Hong Kong. He led his team to develop numerous useful analyses to solve many difficult clinical toxicology problems with public health implications, including Chinese medicine related poisoning, plant-related poisoning, novel psychoactive substances, slimming agents and related problems, drug adulteration and counterfeit drugs. Tony held numerous management roles in Hong Kong including Head of the Department of Pathology, Service Director (Quality and Safety) and Deputy Hospital Chief Executive. He has published more than 100 articles in international peer-reviewed academic journals and a number of books. We are excited to announce Tony's new role as Clinical Director, Chemical Pathology for Clinical Labs in WA.

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