

Heart failure: A call to action for community pharmacists

Part 2: how heart failure is diagnosed

In our previous article we looked at how community pharmacists can spot the symptoms of heart failure and support their local GP with both diagnosis and monitoring cases in the community.

In the next two articles we will look at how heart failure is diagnosed and treated in primary care. With hospital admissions for heart failure set to rise by 50 percent in the next 25 years, this foundational knowledge is vitally important for community pharmacists.¹

Not only can you play a pivotal role in supporting primary care practitioners, you can also take advantage of providing future services offered to ease the burden of heart failure on the NHS.

How is heart failure diagnosed?

Where heart failure is suspected, a patient should be referred to their GP who will arrange an NT-proBNP test. These simple tests measure the level of natriuretic peptides in the blood, a biological marker for the severity of heart disease.

An NT-proBNP level above 2000-ng/litre needs to be urgently referred for specialist assessment and an urgent referral for imaging of the heart using echocardiography is required within two weeks. There are many multifactorial causes that may interfere with the NT-proBNP level though. If someone is in atrial fibrillation, for example, their BNP level will be increased, delivering a false high. Similarly, if an individual has a high BMI, or is older, a false low may be returned.

Those patients with a level between 400ng/litre and 2000ng/litre should be referred within six weeks.²

However, based on both the presentation of symptoms, the patient's medical history and any comorbidities, clinicians can make a holistic risk assessment when deciding how quickly to refer.

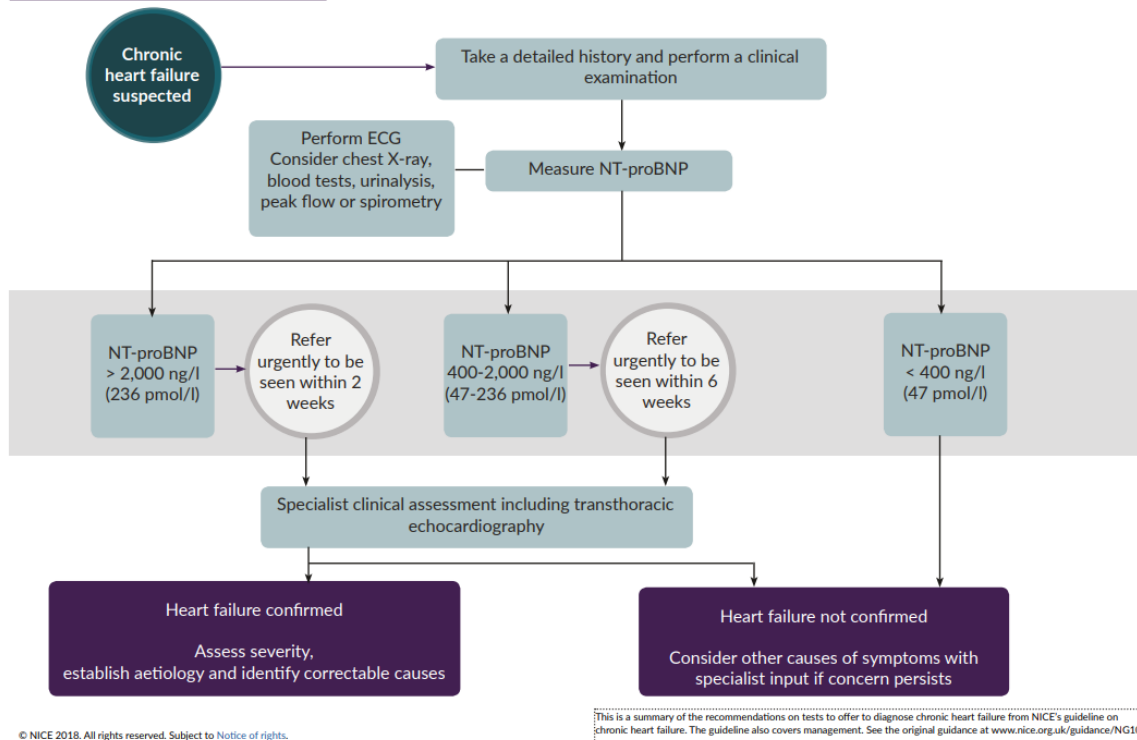
¹ NICE. Chronic heart failure: Management of chronic heart failure in adults in primary and secondary care. August 2010.

² NICE, Diagnosing Heart Failure in adults guidelines, 12.4 (2018).

A level below 400ng/litre makes heart failure less likely but does not necessarily rule it out. You should consider other causes of breathlessness before ruling out heart failure.

Chronic heart failure: diagnosis

NICE National Institute for Health and Care Excellence



Source: NICE: <https://www.nice.org.uk/guidance/ng106/resources/chronic-heart-failure-diagnosis-visual-summary-pdf-6663137726>

It's worth noting that, while the NICE guidance indicates a clear referral process, local guidance and Standard Operating Procedure may vary by Trust.

Referring a patient following a positive NT-proBNP test

Once a raised NT-proBNP test is returned, your GP will refer the patient for a specialist assessment including an echocardiogram. This is a specialist service that takes place at a hospital or community diagnostic centre and is used to confirm a suspected case of heart failure.

Access to echocardiography services can vary depending on your area. Some surgeries may have access to community echocardiography clinics while others may require a patient to be referred to a nearby hospital. Work with your GP to understand the referral pathway and how you can assist while the patient is waiting for their referral.

Heart failure and ejection fraction

There are three main treatment classifications of heart failure related to ejection fraction (EF), a measurement of the percentage of blood leaving the heart each time it contracts, including:

- HF with reduced ejection fraction (HFrEF) classified as LVEF $\leq 40\%$.
- HF with mildly reduced ejection fraction (HFmrEF) classified as LVEF 41-49%.
- HF with preserved ejection fraction (HFpEF) classified as LVEF $\geq 50\%$.

HFrEF and HFmrEF tend to represent a weak heart e.g., post heart attack, and HFpEF represents a stiff heart which struggles to fill appropriately.

Communicating and monitoring with a referred patient

You may have patients that have been referred to a specialist for suspected heart failure and this can be a distressing experience. These patients may come to speak to you so it's important to reassure them they are on course to receive the best possible care.

While a patient is waiting for a referral, you should encourage them to closely monitor and report any worsening symptoms. You should signpost them to charities offering information and support, such as:

- British Heart Foundation
 - <https://www.bhf.org.uk/information-support/conditions/heart-failure> (here they will find a downloadable heart failure personal record)
 - The BHF Heart Helpline (Monday to Friday, 9am to 5pm) run by cardiac nurses <https://www.bhf.org.uk/information-support/heart-helpline>
- Pumping Marvellous <https://pumpingmarvellous.org/heart-failure-guide/>
- Cardiomyopathy UK if the patient is diagnosed with cardiomyopathy <https://www.cardiomyopathy.org>

*Alliance for Heart Failure
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The Alliance for Heart Failure is a coalition of charities, patient groups, professional bodies and corporate members for the purpose of raising the profile of heart failure in Government, the NHS and the media.

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