

The REFER (REFer for EchocaRdiogram) study: a prospective validation and health economic analysis of a clinical decision rule, NT-proBNP or their combination in the diagnosis of heart failure in primary care

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Declared competing interests of authors: FD Richard Hobbs has received grants from Roche Diagnostics outside the submitted work. The work was supported by funding from the National Institute for Health Research Efficacy and Mechanism Evaluation programme. Roche Diagnostics provided the N-terminal pro-B-type natriuretic peptide testing equipment but did not have any influence on study design, conduct or reporting.

Published April 2017

DOI: 10.3310/eme04030

Plain English summary

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Efficacy and Mechanism Evaluation 2017; Vol. 4: No. 3

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Plain English summary

Heat failure is a common problem in which the heart muscle functions less well and this results in unpleasant symptoms for patients (e.g. shortness of breath) and can shorten life. Fortunately, there are treatments available that can improve symptoms and delay the condition becoming worse, but symptoms can be vague, making diagnosis difficult. Accurate diagnosis requires referral for further investigation, which usually includes an ultrasound scan of the heart.

The aim of the REFER study was to investigate whether or not a clinical decision aid (called the MICE rule), with or without a simple blood test (called NT-proBNP), could improve the accuracy of general practitioner (GP) diagnosis of heart failure in people over the age of 55 years. The results showed that the MICE rule was not helpful in improving diagnosis but the blood test was helpful (and cost-effective) in deciding which people needed referral for a heart scan. The REFER study also indicated that the cut-off point for this blood test set by the National Institute for Health and Care Excellence (NICE) may be too high.

Patients and their carers should be reassured that this study showed that, if they go to see their GP with heart failure symptoms, the best thing for the GP to do is to carry out a blood test for NT-proBNP, which is what currently happens in the NHS. We recommend, however, that NICE considers lowering the blood test threshold level for further testing to ensure that patients with a possible diagnosis of heart failure are not missed.

Efficacy and Mechanism Evaluation

ISSN 2050-4365 (Print)

ISSN 2050-4373 (Online)

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This report

The research reported in this issue of the journal was funded by the EME programme as project number 09/160/13. The contractual start date was in July 2011. The final report began editorial review in August 2015 and was accepted for publication in July 2016. The authors have been wholly responsible for all data collection, analysis and interpretation, and for writing up their work. The EME editors and production house have tried to ensure the accuracy of the authors' report and would like to thank the reviewers for their constructive comments on the final report document. However, they do not accept liability for damages or losses arising from material published in this report.

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