

Systematic review and modelling of the cost-effectiveness of cardiac magnetic resonance imaging compared with current existing testing pathways in ischaemic cardiomyopathy

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Plain English summary

Testing pathways in ischaemic cardiomyopathy

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More than 700,000 patients over the age of 45 years in the UK have heart failure (HF) (a poorly functioning heart causing shortness of breath and inability to exercise). When assessing these patients the challenge is to identify those with narrow arteries of the heart who will benefit from having the blood supply restored. Cardiac magnetic resonance imaging (CMR) can be used as an alternative to other imaging tests to assess if heart muscle is likely to benefit from restored blood supply.

This review looked at the evidence from clinical trials of the accuracy of CMR to identify those patients with HF likely to benefit from surgery or balloon and stent treatment. Twenty-four studies on CMR showed that CMR is an accurate way to look for this. These results were compared with the results for other imaging tests that can also be used. The results were then used in a computer model to assess if the use of CMR in these patients would be good value for money, that is, is it cost-effective compared with the other tests. All the methods of testing were good value for money. In the model some assumptions had to be made and, depending on these, it was either best to test patients using one method of CMR, contrast enhanced (CE) CMR or to treat all patients regardless of the imaging test results. More research is required to help make this type of study easier to perform and the results more robust.

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