Discussion

We have shown that a telephone intervention programme was effective in reducing the primary end point, mainly owing to a reduction in admissions for worsening heart failure. The number of heart failure patients who needed to be called in a year to prevent one admission for worsening heart failure was 16. In addition, all cause and cardiovascular admissions were significantly decreased and quality of life was greater at the end of the study in the intervention group.

This is the first multicentre randomised trial including more than 1500 patients followed for more than a year. Previous studies have shown a reduction in all cause and heart failure admissions in highly selected populations, with short follow-up, and by applying complex interventions.³⁻¹⁰ In contrast, our study found similar results using a simple programme in a large, non-selected population of outpatients with heart failure, in very different clinical settings. The reported effect was additive to drug treatment, considering that most patients received optimal heart failure treatment prescribed by cardiologists.

Although we consider that the observed benefit is a direct consequence of the intervention, other explanations should be explored. Firstly, the end points may have been misclassified. To deal with this potential bias, we created an independent and blinded endpoint committee. Moreover, we did not notice a shift from heart failure admissions to other cause admissions, because the overall admissions also fell significantly. Secondly, owing to the open design of the trial, it might be argued that the benefit was a result of a deliberate intensification of medical follow-up or drug treatment in the intervention group. However, the number of total medical visits was similar in both groups and the drug treatment prescribed by physicians did not differ.

Conclusion

Although multidisciplinary and complex strategies might provide greater advantage, the results of our simple intervention were similar to those of other reported combined strategies and at a reasonable cost.

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What is already known on this topic

Multidisciplinary management programmes in post-admission patients with heart failure have suggested a reduction in hospital admissions and costs

This evidence, however, comes from small trials, at single university centres, applying complex strategies to selected high risk populations

What this study adds

In this large scale multicentre trial, a telephone intervention by nurses reduced readmissions for worsening heart failure

A simple and centralised intervention is feasible and effective in heart failure outpatients with different risks in diverse clinical settings and geographical locations

Dohme, which had no participation in the design, conduction, data management, or the preparation of the manuscript. All researchers were independent of the funders.

Competing interests: None declared.

Ethical approval: The ethics committee at each centre approved the study protocol.

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A case of mouth in foot disease

An elderly man was admitted to our hospital after being found wandering the streets disorientated. He was found to have had a myocardial infarction and was soon on our ward and making a good recovery. He continued to have some disorientation with reduced cognition and low mood. Progress was steady, however, until one day he developed a notable limp while walking on the ward. He moved his legs freely enough but clearly limped on the right leg.

Neurological examination was unremarkable, as was muscle and joint examination; there was no tenderness or swelling present. Radiographs of his hips and pelvis seemed normal, but

the limp persisted. The day of discharge was looming, and the team was increasingly uncomfortable with the prospect of the patient leaving with the cause of his limp still undiagnosed.

On his last day in hospital the consultant sat down with him and asked him straight: "Why do you have a limp?" The man looked at the consultant and then calmly bent down, removed his right shoe, and lifted out his top set of dentures and placed them gently on his table. The limp was immediately cured.

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