When can heart failure treatment be stopped safely? – Authors' reply

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We thank Jennifer Thibodeau and Mark Drazner for their comments. As experienced clinicians, it is probable they have cared for patients with dilated cardiomyopathy who have made a full symptomatic recovery with apparent normalisation of cardiac function. Such patients frequently ask whether heart failure treatments can be stopped. What should we tell such patients? We do not think that anecdotes are the optimal basis for advising on treatment. Data from randomised trials provide objective evidence of risk and facilitate shared decision making. Some patients will prefer to avoid the chance of recurrence at all costs, but others might prefer to take a calculated risk, especially if carefully monitored for early evidence of relapse.

Previous observational studies did not use strict criteria to define recovery before withdrawing treatment for dilated cardiomyopathy.[1, 2] For instance, Waagstein and colleagues[1] withdrew beta-blockers from 24 patients with a mean left ventricular ejection fraction of 41% and end-diastolic dimension of 65 mm, of whom 17 had persisting symptoms of heart failure. Plasma concentrations of natriuretic peptides were not reported.[1] Similar issues affect other observational studies.[2]

In TRED-HF,[3] all patients had several robust markers of recovery. We did not contemplate withdrawing therapy from patients with ongoing evidence of heart failure or a reduced ejection fraction. The safety of participants was of paramount importance. All were made aware of the risk of recurrent heart failure and the need for intensive monitoring. Our protocol was approved by the National Research Ethics Committee, the Medicine Healthcare and Products Regulatory Agency, the Institutional Oversight Committee, and the charitable funding body, and received positive feedback and support from patient advisory groups. Multiple steps, outlined in the manuscript, were taken to minimise the risk to participants.

We agree with Tina Ha and colleagues that some patients with dilated cardiomyopathy and improved left ventricular function have alternative indications for heart failure therapies. However, in our trial, at baseline, all patients were in sinus rhythm and normotensive. The only patient with diabetes had no evidence of nephropathy. No indication for therapy exists in patients with preserved left ventricular ejection fraction who carry a truncating variant in *TTN* or who have a family history of dilated cardiomyopathy. Studies suggest that left ventricular ejection fraction might recover in up to 40% of patients with dilated cardiomyopathy.[4, 5] Younger patients, who are more likely to recover, have a low prevalence of comorbidities that might otherwise preclude withdrawing therapy. Therefore, although we agree that recovery, without alternative indications for therapy, occurs in a minority of patients with dilated cardiomyopathy, it is not rare.

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