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CORRESPONDENCE

Letter to the Editor

Levosimendan in End-Stage Heart Failure

I read with interest Dr. O'Connor's editorial in the April issue of *JACC: Heart Failure* (1) on the publication of the REVIVE (Randomized Evaluation of Intravenous Levosimendan Efficacy) trial results by Packer et al. (2) on levosimendan for acute heart failure. The tantalizing signal of symptomatic relief is somewhat tempered by the increased incidence of hypotension, arrhythmias, and perhaps death with levosimendan. However, a key unanswered question is whether the optimal patient group was targeted. To paraphrase an aphorism in Systems Improvement, every *drug* is perfectly designed to achieve the results that we observe (3). We cannot change how the drug works, but we can determine who we use the drug on. In Singapore, although heart transplantation and left ventricular assist devices are successfully performed, the vast majority of end-stage heart failure patients are unable to access these advanced therapies because of a dearth of available organs and the extremely high cost of left ventricular assist devices. Nothing in the standard armamentarium can significantly reduce the total burden of recurrent rehospitalizations that this group of patients is sentenced to before death provides a merciful release. However, we have observed the salutary effect of levosimendan in reducing rehospitalizations in our small cohort of patients with end-stage heart failure and no other options (4). This is an area that should be studied further.

On a minor typographical point regarding Figure 1 in the paper by Packer et al. (2), may I suggest that, for harmony with the text, the statement "51 received placebo in REVIVE 1" in the first box on the left should read "49 received placebo in REVIVE 1."

I congratulate *JACC: Heart Failure* for bringing the detailed results of this important study into the public domain, and I suggest that in bringing closure to the REVIVE trial, this publication will revive interest in this unique inodilator.

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