Heart failure’s high morbidity and mortality are well known, but the health impact of its high out-of-pocket cost is only beginning to be appreciated. Most heart failure costs are spread across health plan members and taxpayers (e.g., inpatient care) but a substantial portion is borne by the patient. These out-of-pocket costs include both insurance premiums and, increasingly, medication costs.\(^1\) It was estimated that in 2018, 1 in 7 families in the US with a family member with heart failure spent more than 20% of their income on their care.\(^1\) For low-income families, this ratio was 1 in 4.\(^1\)

The term *financial toxicity* is often used to describe the medical impact of financial distress. Such toxicity can take the form of avoiding or delaying care, including lack of adherence to medications, as well as psychological distress. Based on data from the National Health Interview Survey from 2017, over 137 million Americans (56%) reported some form of financial toxicity due to medical care.\(^2\)

Further insight into the impact of financial toxicity from heart failure is provided by Yu and colleagues.\(^3\) The authors\(^3\) explored the association of perceived financial toxicity with mortality, readmission, and health status for 3386 patients with heart failure from 52 hospitals participating in the China Patient Centered Evaluative Assessment of Cardiac Events Prospective-Heart Failure study. Each patient was classified as having severe, moderate, or little perceived economic burden based on their stated ability to afford medical care over the prior 12 months. Although only 38 respondents (1.1%) lacked health insurance, 404 (11.9%) had severe economic burden and 2021 (59.7%) had moderate economic burden.\(^3\) This finding demonstrates that despite China’s policy of universal basic health coverage, there is substantial underinsurance and out-of-pocket expenses.

Yu and colleagues\(^3\) found associations of perceived economic burden with worse mortality, readmission, and health status in unadjusted analyses. By 1 year, 129 individuals with little economic burden (13.4%) had died compared with 383 individuals (18.9%) with moderate and 112 individuals (27.7%) with severe economic burden.\(^3\) An association of heart failure severity with economic burden was noted for laboratory (higher B-type natriuretic peptide levels) or clinician findings (higher New York Heart Association Class). There was less use of angiotensin-converting enzyme inhibitors or angiotensin receptor blockers and β-blockers at discharge despite lower left ventricular ejection fraction in those with high economic burden, which may be due in part to lower blood pressure and inability to tolerate these medications. Worse health with greater financial burden was also evident from responses to the Kansas City Cardiomyopathy Questionnaire (KCCQ), a heart failure–specific, patient-reported outcome. Those with severe burden had a KCCQ score that was 11.3 points lower than those with minimal burden; a KCCQ change of 5 points is considered clinically meaningful to an individual patient.\(^3\)

The cross-sectional nature of the analysis makes it difficult to be certain of the direction of causality for economic burden and outcome. Did worse health lead to economic burden, the reverse, or was causality bidirectional? Since we do not know what came first (the worse health or economic burden) there remains uncertainty about the magnitude of health effects caused by economic burden. Fortunately, the authors\(^3\) provide additional data indicating that financial toxicity is associated with worse heart failure outcomes. They report that 261 individuals with severe perceived economic burden (64.6%) reported avoiding health care due to cost in the prior year compared with only 44 individuals (4.6%) with little economic burden.\(^3\)

One marker of financial toxicity is medical debt, which could not be measured by Yu et al,\(^3\) but likely contributed to perceived economic burden in the study. Medical debt in the US has been slowly decreasing (through 2020) but at a slower rate than the decline in overall debt such that average
medical debt is now greater than nonmedical debt. The change in debt over time has been highly variable across states, with medical debt actually rising in states that are not expanding Medicaid. US Gallop polls have also found a stable to slightly decreasing fraction of individuals stating they have put off treatment due to the high cost of medical care (through 2021). However, in 2022, those putting off treatment increased to 46% (from between 26% to 38%). This avoidance of health care due to cost was not just for elective procedures; a reported 70% of the delayed care was for a very or somewhat serious condition. One can envision a vicious feedback loop between worsening financial burden and worsening health, ultimately leading to either death or a hospitalization.

What can be done? One solution is to change cost-sharing policies, which have increasingly shifted the cost of medications to patients. The degree of cost-sharing by the patient is typically linked to the price of the medication when it should be linked (inversely) to benefit and value. Heart failure care is unusual given the large number of life-prolonging therapies proven effective in randomized clinical trials, which are also a reasonable value for society in terms of cost per improvement in survival and quality of life. Such therapies, typically Class I recommendations in clinical guidelines, should be provided without patient copays. Patient cost-sharing should be reserved for medications where the benefit of therapy is small, uncertain, or does not justify the price (ie, low value).

The authors raise the concerning possibility that prescribing life-prolonging medications can create financial toxicity that may actually worsen health. Those who treat heart failure are already concerned about their patients’ ability to pay for the many guideline-recommended medications they prescribe. Now they must consider that their prescriptions may contribute to financial toxicity, potentially negating the benefit of treatment.

There remains much to learn regarding financial toxicity. Prospective studies are needed that examine outcomes for those with stable heart failure who have a change in economic burden. However, thanks in part to the study by Yu et al we know with high probability that high out-of-pocket cost is associated with worse heart failure outcomes. Fortunately, this is a toxin for which we have an antidote.