

Polish Heart Journal

The Official Peer-reviewed Journal of the Polish Cardiac Society since 1957

Online first

This is a provisional PDF only. Copyedited and fully formatted version will be made available soon

ISSN 0022-9032 e-ISSN 1897-4279

Heart Failure Heart Team — time to act... now

Authors: Michał Zembala, Tomasz Hryniewiecki, Krystian Wita, Zbigniew Kalarus, Mariusz

Gasior, Marian Zembala

Article type: Letter to the Editor

Received: September 22, 2021

Accepted: October 5, 2021

Published online: October 6, 2021

This article is available in open access under Creative Common Attribution-Non-Commercial-No Derivatives 4.0 International (CC BY-NC-ND 4.0) license, allowing to download articles and share them with others as long as they credit the authors and the publisher, but without permission to change them in any way or use them commercially.

Heart Failure Heart Team — time to act... now

Michał Zembala¹, Tomasz Hryniewiecki², Krystian Wita³, Zbigniew Kalarus¹, Mariusz Gąsior¹, Marian Zembala¹

¹Silesian Center for Heart Diseases, Zabrze, Poland

²Cardinal Stefan Wyszyński National Institute of Cardiology, Warsaw, Poland

³Leszek Giec Upper-Silesian Medical Centre of the Silesian Medical University in Katowice, Poland

TO THE EDITOR

The world has changed. Not only due to COVID-19 pandemic and enormous challenges it brought along, but also due to clear evidence that postponement means... failure. Heart failure.

This year, European Society of Cardiology in cooperation with Heart Failure Association (HFA) of the ESC released an updated guidelines for the diagnosis and treatment of acute and chronic heart failure. While previously published document deepened our knowledge in modern pharmacology the 2021 update focuses more on timely action. Experts move away from lengthy and (over-) complicated algorithms and point our attention and therapeutic decisions towards more simplified, patient-focused approach. The goal is simple: to diagnose and treat myocardial dysfunction as soon as possible to prevent patients from developing end-stage heart failure, which remain not only difficult to target therapeutically, but more over — has enormous impact on healthcare, so severely struck by ongoing pandemic.

Heart failure affects nowadays almost 65 million people worldwide and this number is expected to increase with sustained poor prognosis of advanced heart failure patients despite continuous advances in medical management [1]. Heart Transplantation (HTx) holds its strong position as the cornerstone of advanced therapy for heart failure. It is the ultimate replacement of the failing organ, offering one-year survival of 90% and median survival of 12.5 years with exceptionally good quality of life. Yet, long organ waiting time, superbly distressing for individuals placed on elective list, has dreadful effects as substantial percent of them expire while waiting. Poland is fortunate in this regard, as number heart transplantations has visibly increased over the past 4 years from an average of 90–80 to 140–150 cases per annum. Much more is to be improved in terms of early

morbidity and mortality, which is undoubtedly related to preoperative state of the receipent – often referred to HTx late, in poor clinical condition. The same principles apply for mechanical circulatory support (MCS). Recently published outcomes of large-volume, multicenter clinical trials revealed phenomenal safety profile in contemporary, long-term left ventricular assist devices (LVADs) which are now recommended for broader patient population, at early stages of the disease. Technological breakthroughs will continue, with wireless charging and connectivity not far on the horizon. Yet... perception of unattainability of these therapeutic solutions so often dominates our talks and discussions. Assist devices are on-the-shelf, ready to use products frequently covered with dust in OR storage. The devices are mobilized when barely alive patient is finally rushed to the Transplant Center after weeks of ineffective peripheral mechanical support and maximally up-titrated vasoactive and inotropic medications. ESC screams out loud in justpublished guidelines – Don't wait! Time is of the essence! Team up with centers of excellence, create, run and maintain heart failure meetings often where true experts in heart failure review and decide on how to proceed with patient diagnosed with heart failure. It is now up to heart team decision when and how to treat mitral insufficiency (clip vs surgery), revascularize myocardium (PCI vs CABG), implant intravascular or subcutaneous ICD, propose durable or temporary mechanical circulatory support or enlist patient for heart transplantation. Countless patients frequently fly back to cardiology departments due to exacerbation of myocardial dysfunction and are not offered treatment which is in a hand's reach. Or the opposite — are offered half-way solutions which are thrown away as the heart is excised during transplantation couple of weeks later. We need to come together as one true heart team: surgeons, cardiologists, anesthesiologist, intensivists supported by of social workers, nurses, physiotherapists... as the disease is overly complex and requires collaborative and convergent approach.

Novel guidelines provide patient-centered approach with simplified triage algorithm in which patients suffering from HF are directed to centers of excellence in advanced heart failure (AHFC), managed in local cardiology service with clinical re-evaluation every 3–6 months or offered palliative care option. The realms of end-stage heart failure management model seen before often revealed delayed referral where multiorgan failure has already been or finished developing. Again, our national efforts to create a network of primary and specialized ambulatory care and out-patient clinics collaborating with centers of excellence seem to precede ESC's guidelines. The concept of "Krajowa Sieć Kardiologiczna" (or National Cardiology and Cardiac Surgery Network) answers

what European Experts advocate for — a broad range, accessible network of centers focused on the profound diagnosis and treatment of the disease in its early and advanced stages. Yet, concentration of expertise and experience justifies extraordinary spending only if outcomes and quality are routinely measured and evaluated (structure, process, and outcome measure) by independent agencies or committees.

This year's ESC/EACTS heart failure and valvular guidelines are one of the best published. Not because they collect the most valuable and accurate clinical and experimental data, not because they review and judge the power of registries and trials, not because they emphasize the concept of a true heart team, but because they concentrate on the patient.

REFERENCES

- 1. Groenewegen A, Rutten FH, Mosterd A, et al. Epidemiology of heart failure. Eur J Heart Fail. 2020; 22(8): 1342–1356, doi: 10.1002/ejhf.1858, indexed in Pubmed: 32483830.
- Goldstein DJ, Meyns B, Xie R, et al. Third Annual Report From the ISHLT Mechanically Assisted Circulatory Support Registry: A comparison of centrifugal and axial continuousflow left ventricular assist devices. J Heart Lung Transplant. 2019; 38(4): 352–363, doi: 10.1016/j.healun.2019.02.004, indexed in Pubmed: 30945637.
- 3. Molina EJ, Shah P, Kiernan MS, et al. The Society of Thoracic Surgeons Intermacs 2020 Annual Report. Ann Thorac Surg. 2021; 111(3): 778–792, doi: 10.1016/j.athoracsur.2020.12.038, indexed in Pubmed: 33465365.
- 4. McDonagh TA, Metra M, Adamo M, et al. 2021 ESC Guidelines for the diagnosis and treatment of acute and chronic heart failure. Eur Heart J. 2021; 42(36): 3599–3726, doi: 10.1093/eurheartj/ehab368, indexed in Pubmed: 34447992.
- 5. Potapov EV, Antonides C, Crespo-Leiro MG, et al. 2019 EACTS Expert Consensus on long-term mechanical circulatory support. Eur J Cardiothorac Surg. 2019; 56(2): 230–270, doi: 10.1093/ejcts/ezz098, indexed in Pubmed: 31100109.
- 6. Biełka A, Kalinowski M, Pacholewicz J, et al. Short- and long-term outcomes of continuous-flow left ventricular assist device therapy in 79 patients with end-stage heart failure. Pol Arch Intern Med. 2020; 130(7-8): 589–597, doi: 10.20452/pamw.15362, indexed in Pubmed: 32420709.

- 7. Ponikowski P, Voors AA, Anker SD, et al. 2016 ESC Guidelines for the diagnosis and treatment of acute and chronic heart failure: The Task Force for the diagnosis and treatment of acute and chronic heart failure of the European Society of Cardiology (ESC)Developed with the special contribution of the Heart Failure Association (HFA) of the ESC. Eur Heart J. 2016; 37(27): 2129–2200, doi: 10.1093/eurheartj/ehw128, indexed in Pubmed: 27206819.
- 8. Stevenson LW, Pagani FD, Young JB, et al. INTERMACS profiles of advanced heart failure: the current picture. J Heart Lung Transplant. 2009; 28(6): 535–541, doi: 10.1016/j.healun.2009.02.015, indexed in Pubmed: 19481012.