

# The great pandemic of 2020: A defining moment for Heart Rhythm Societies and their members

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## Abstract

The pandemic caused by SARS-CoV-2 has affected communities throughout the world. The global nature of health care disparities is exacerbated by COVID-19. Patients in Low-and Middle-Income Countries have limited health care resources and marginal support for the evaluation and treatment of cardiac rhythm disorders. Heart Rhythm Societies and their members need to advocate for increased subsidies and assistance for these patients.

## The great pandemic of 2020: A defining moment for Heart Rhythm Societies and their members

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Within the last year at the Annual Scientific Sessions of the European Heart Rhythm Association (EHRA) in Lisbon, of the Heart Rhythm Society (HRS) in San Francisco, of the Asia Pacific Heart Rhythm Society (APHRS) in Bangkok, as well as at other such organizations around the world, the usual congratulatory celebrations for each organization were a propos. As with most medical congresses, there is always true excitement for members at being together, attending cutting edge presentations and being introduced to new concepts given by emerging and known leaders in the field of cardiac electrophysiology.

One year later, there is so much stupor and sadness with the current pandemic that we are all trying to come to grips with the suddenness of unfolding events that appear out of control. The health care workers close to patients with SARS-CoV-2 have been overwhelmed by the difficult working conditions and the high mortality of very sick patients requiring hospital admission and transfer to intensive care units. Whether now or later, many or most members of Heart Rhythm Societies will be asked to evaluate patients suspected of having or having had SARS-CoV-2. The pandemic kills with predilection older individuals, most often with underlying cardiovascular diseases. Cardiac electrophysiologists have followed many of those patients; like other health care workers, they are also at risk of acquiring COVID-19.

The pandemic has not discriminated per se regions of the world, but as often the case with global illnesses, the low and middle-income countries (LMICs) could potentially suffer disproportionately (1, 2). Under the best of times, economies in LMICs are fragile and require ongoing subsidies and support from developed countries. The pandemic amplifies greatly the hardship in LMICs. The collapse of economies in developed countries without any warning, the effects of limiting worldwide travel and assistance, and the immediate

interruption of channels of support all have the potential to result in significant worsening health care from the pandemic in LMICs.

These countries are no longer afflicted by early mortality attributed to high death rates from traditional infectious diseases (3). The Bill and Melinda Gates Foundation founded in 2000, the Clinton and Bush initiatives towards eradicating HIV, the impact of Paul Farmer at Global Health (4), and many other groups or non-governmental organizations have significantly improved the lives of millions of people in LMICs. As would be expected, those same individuals are now living longer lives and, as in developed countries, acquire cardiovascular diseases requiring ever more assistance and support in their communities.

In this era of globalization, there have been significant efforts to assist populations in LMICs afflicted by rhythm disorders of the heart. In 1984, NASPE (North American Society of Pacing and Electrophysiology), the precursor organization to HRS, sponsored a two-day conference in Washington D.C. on reuse of pacemakers (5). Predominantly to respond to the growing costs of technological products in medicine, ultimately the meeting attempted to resolve the legal, ethical and technological dilemma of using refurbished pacemakers. The Food and Drugs Administration provided 8 recommendations, including that refurbished pacemakers could not be sold in the USA. The Europeans eventually pursued the same approach (6), effectively eliminating reuse of pacemakers in the Western world. However, channels to ship reused devices to LMICs had already been established, and the practice continued and has even expanded by recent efforts of World Medical Relief and HRS (7).

There are an estimated three million individuals who die yearly due to heart block. The reuse of pacemakers and defibrillators for patients in need in LMICs is not only perfectly understandable but also absolutely needed to avoid the suffering and deaths of patients who cannot even receive technology that was first made available in the West in the 1960's. The country of Congo implanted their first pacemaker in 2014. The INTER-CHF study recently reported on the growing trend for treating heart failure in LMICs, and thus the increasing need for cardiac-resynchronization therapies and defibrillators in those patients (8)

When the tsunami caused by the 2020 pandemic recedes, and we find our footing once again to schedule patients for elective ablation procedures or device implantation, we must remember that millions of sick patients with rhythm disorders and heart failure in LMICs will be left standing without support. The cancelling of elective cases in developed countries in anticipation of a surge of COVID-19 patients was not generally detrimental to our patients. Yet this disturbing period in developed countries, of waiting longer for scheduling cases, pales in comparison to patients in LMICs that never have the opportunity to be scheduled at all for a heart rhythm procedure.

While we continue to scramble to find old devices to reuse in patients in need in LMICs, there have been groups promoting unused or new devices for those patients (9, 10). We need to advocate Industry to support programs allowing teams to assist in the training of physicians in LMICs to perform not only (unused) device implantation but also to establish remote monitoring programs. The same reasoning applies to mapping and ablation of tachyarrhythmias. Programs to support low-cost Direct Oral Anticoagulants need to also be made available, to allow the World Health Organization to add those drugs to the list of essential drugs in LMICs.

As a sub-specialty of cardiology, cardiac electrophysiologists have mostly been insulated from the social causes of diseases. Our complex and very technology-driven field has attracted basic scientists, health care workers often specializing in technology and computing, as well as physicians who find comfort being day in and day out in the electrophysiology laboratory. More recently, as in other medical fields, epidemiologists and statisticians, translational scientists and others have brought the specialty of rhythm disorders to new heights. Nonetheless, a large proportion of members of Heart Rhythm Societies are clinicians, nurses and technologists who are extraordinary at providing clinical care. That perceived weakness of all of these members being too specialized to assist with those in need in LMICs is actually a strength, by being able to provide specialized resources and collaborating with organizations already in place, or by creating new relationships to support governmental and health care centers in LMICs.

Our cherished HRS, preceded by NASPE, our European experts regrouping under EHRA, the vast region of Asia-Pacific coming under APHRS, and all other electrophysiological Societies, must now take the lead in supporting major initiatives to support electrophysiological, pharmacological and device therapies in LMICs. Over the last few years, most of these organizations have included sessions on global health at their annual scientific sessions. The great pandemic of 2020 has exposed more than ever the global nature of health care and its disparities.

We must set new goals, far-reaching but entirely possible with the support of the thousands of members of each of the Heart Rhythm Societies. When we next meet at our Annual Scientific Sessions, we should rejoice in being able to once again exchange about yet newer technologies and progress in the field of rhythm disorders. But our future Scientific Sessions should also be aspirational and a mandate to make our wonderful medical specialty finally accessible to all.

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