

LETTER TO THE EDITOR

USE OF REFURBISHED PACEMAKERS: NEED OF A DEVELOPING COUNTRY

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Dear Editor,

Cardiovascular diseases have contributed to mortality rate worldwide including low to middle-income countries.¹ According to a study conducted in Karachi, 6% of cardiovascular patients have arrhythmias, with complete heart blockage present in 33% of patients admitted in hospitals.²

An integrated approach to the management of arrhythmias, beside medications includes a wide range of device-based therapies like implantable cardioverter defibrillators (ICDs), cardiac resynchronization therapy (CRT), implantable monitors, ventricular assist devices (VADs).

The practice of refurbishment of cardiac pacemakers' dates back to 1979.³ Since then, there has been growing evidence that reused heart pacemakers are beneficial and cost effective. In South Asia, India has successfully reported reused Cardioverter-Defibrillators having 3 or more years of viable life, safe and effective after proper sterilization techniques with minimum complications observed.⁴

However, infection is considered most dread impediment, a meta-analysis shows that reuse of pacemakers is associated with infection rate of 1.97% and device malfunction rate of 0.68%.⁵

Despite its beneficial support, FDA disapproves its use in USA but there is no prohibition for its processing and sterilization to other countries on humanitarian grounds. However, refurbishment of pacemakers requires well-equipped medical and cardiology health care centres and hospitals. The pacemaker needs to be extracted after consent from the deceased. Then after thorough cleaning and sterilization; useful pacemakers can be packed and relabelled for the use of underprivileged patients.⁶

Legal and ethical issues have been an area of concern, which would influence the decision to its use. Therefore, sufficient planning and management is required at every step with proper allocation of

funds and resources. Steps need to be taken by government and health care system to ensure its availability for the underprivileged. Evaluation of legal considerations needs to be taken into account to provide guidelines and strict protocols for medical personals or any individual involved at any level of the chain.

In developing countries like Pakistan, many of the patients cannot afford implantable devices due to financial constraints. Therefore, the idea of utilizing refurbished cardiac pacemakers will be a bliss for thousands of patients who cannot afford pacemaker implants and improve their quality of life for rest of the years they live.

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J Ayub Med Coll Abbottabad 2016;28(1):212

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