**Abstract: P325**

Heart transplantation: novel strategies and the expansion of the organ pool

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On behalf: University of West Attica

Topic(s):
Public Health and Health Economics - Other

Citation:

Funding Acknowledgements:
None

**Introduction:** Given the vast organ shortage, the prolonged waiting time, and the high mortality among those awaiting transplantation, strategies to expand the donor pool have attracted a great deal of attention, in recent years.

In the era of population – aging, as waiting time for heart transplant recipients increase, non-standard donor hearts are increasingly being used for higher risk recipients and critically ill patients.

At the same time, there are about 540,000 patients who are infected with HIV in Western Europe and in 2016, 33,860 cases of hepatitis C were reported in 29 EU/EEA Member States, corresponding to a crude rate of 7.4 cases per 100,000 population. Hence that, novel strategies to adapt to this changing scenario, inclusive of the use of organs from HIV+/HCV patients are being explored.

**Purpose:** The aim of the present study is two-fold. Firstly, it attempts to identify and describe the extended donors’ criteria and the alternate recipient list for heart transplantation. Secondly, it purports to explore the perspective of an "Increased – Risk Donors module", and to finally determine its impact on expanding the organ pool.

**Methods:** A review of literature was conducted, which included the latest articles and published research (2016-2019) in international scientific databases (PubMed, ScienceDirect, CDC, Medscape, WHO, ECDC).

**Results:** At first, some studies have shown that the alternation of the recipient’s list criteria appears to be successful in offering transplantation to patients (older patients, ?IV+, HCV) who would not normally be eligible for this life-saving procedure.

At the same time, several studies reported that "High Risk Donor" (HRD) status does not significantly affect recipient outcomes after Orthotopic Heart Transplantation (OHT) and that the increased use of HRD grafts could augment donor pool and decrease the mortality associated with long waiting list.

According to a recent study, the aggressive utilization of CDC HRD hearts will help treat the growing number of patients awaiting heart transplantation.

Also, in 2017 an American heart team universally agreed that the risk benefit/ratio of cardiac transplantation using HCV Ab+/NAT donors was not materially different from that using donors who met standard Public Health Services (PHS) increased risk criteria.

Additionally, it has been mentioned that the infectious risks in such circumstances are probably smaller than those associated with expanded criteria.

**Conclusions:** The profound scarcity of organ supply highlights the need to expand the donor pool. Though, no single study is definitive, they cumulatively suggest that the acceptance of HRD heart allografts and the alternation of the recipient list may help treat the growing number of patients awaiting heart transplantation.
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