

Pulsatile Perfusion from Procurement to Delivery at Accepting Centers



ORGANIZATION:

Kentucky Organ Donor Affiliates, Inc.

An OPO serving 120 counties in Kentucky, 4 counties in Southern Indiana, 2 counties in West Virginia.



TEAM:

David Dwyer - Transplant Center Liaison

Brian Roe - Chief Clinical Officer

Jennifer Daniel - Organ Operations Director



IMPACT GOAL:

Reduce Kidney Discards.



PROJECT BACKGROUND:

One of the main methods OPOs and the Transplant Centers around the country have partnered together on is the utilization of pulsatile perfusion of recovered kidneys to increase utilization and survival rate.

Organ Recovery Systems noted in the NEJM that their LifePort Kidney Pump significantly improves 1-year and 3-year graft survival for all types of deceased donor kidneys when compared with static cold storage. Studies have shown that pulsatile perfusion compared to cold storage can prevent the risk of delayed graft function (DGF) by greater than 50%.

As kidneys can survive at least 36 to 48 hours after they are recovered there is a great importance to utilize pulsatile perfusion to increase their viability compared to cold storage.



PROBLEM:

One inherent problem is at some point the kidney must be removed from the kidney pump, in order to be placed in a cooler/shipping container to be flown to the allocated transplant center.

Kidneys could spend at least 24 hours if not longer in a static state not being perfused. This leads to a lot of recovered kidneys being *turned down* by transplant centers and not being utilized which unfortunately results in a precious wasted gift for the recipient.

This is further compounded by other demographics surrounding the donors such as age and other morbidity issues such as hypertension, diabetes, etc.



STRATEGY:

Utilize pulsatile perfusion as soon as kidneys are recovered and continue this perfusion all the way until it is received at the accepting transplant center.

Kidney is constantly being perfused and eliminates almost all cold time.



INTENDED RESULTS:

Project has the potential to drastically increase the number of kidneys that are ultimately accepted and transplanted, thus greatly increasing the pool of available transplantable kidneys across the country.

FOR MORE INFORMATION,

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