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Session Title : Kidney Transplantation Special Session

Session Topic : Structure and Function of Organ Procurement Organization for Deceased Kidney Transplantation in Asia

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## **Differences Between OPO Structures and Roles and Their Advantages and Disadvantages: (US vs Spain vs Australia)**

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Structures of organ donation aim to maximize the availability of available organs for transplantation recognizing the detrimental consequences of prolonged waiting times for patients with end-stage-organ failure. Pillars of organ procurement organizations are based on justice, fairness, utility, efficiency, and transparency. Organ donation processes differ by countries and geographic regions. Components driving differences include historical, geographic, cultural, religious and political aspects while being driven by available resources. The success of organ donation is in general measured by donation rates/million population(pmp), conversion rates, and organs procured and utilized per donor. Systems are in general based on either an opt-in or an opt-out structure. The opt-in approach requires donors or their family to consent to donation while the opt-out structure assumes that consent is provided unless documented otherwise. While most deceased donors have been diagnosed as brain dead, there has been a significant increase of donors after cardiac death. Most recent developments have shown the implementation of differing organ perfusions/preservation techniques and some countries have started to establish organ procurement centers. Those approaches have allowed assessing and improving the quality and viability of organs. Spain, the United States, and Australia represent very effective organ procurement structures with a long tradition and geographic, historical, and cultural specificities. Spain has traditionally had the highest organ donation rates pmp with a high utilization of older organs and donors after cardiac death. The United States has continuously increased transplantation rates and has initiated new organ allocation systems with a most recent approach of a continuous distribution. The system also considers optimizing outcomes. Australia considers regional and national allocation mechanisms with an optimized longevity of organs based on clinical assessment. Ensuring optimized outcomes

is based on clinical discretion.

**Keywords:** Organ procurement, organ allocation, geographic regions, organ donation