Upcoming Changes to the Kidney Allocation System

Information for Referring Providers

This document provides important information about upcoming changes to the kidney allocation system.

1. What is the Kidney Allocation System?

United Network for Organ Sharing (UNOS) manages the nation’s transplant system under a contract with the federal government. One of the responsibilities they have is to create and define organ sharing policies that make the best use of donated organs. The kidney allocation system is the process used to determine which patients get offered the donated kidneys.

2. How does the new Kidney Allocation System compare to the current system?

The current/old system is based on a score that considers four items:

1. Age: patients less than 18 years old receive points (Same in new system)
2. Antigen/DNA matching: patients with higher matches receive more points (Same in new system)
3. Antibody/PRA levels: levels greater than 80% receive more points (Sliding points scale in new system)
4. Waiting time on the list: waiting time starts when a patient is added to the list, but only if they are on dialysis or if GFR is at 20 mL/min or less (Major change in new system)

The new system, expected to start December 4, 2014, is based on the following:

1. Kidney Donor Profile Index (KDPI) score
   a. Score ranges from 0-100% (lower is better)
   b. Replaces current “extended criteria donor” definition
   c. Calculated based on ten factors about the donor’s health/history
2. Estimated Post Transplant Survival (EPTS)
   a. Score ranges from 0-100% (lower is better)
   b. Score given to each recipient on the waiting list
   c. Calculated based on four factors to help determine better organ matching for long-term success
   d. Donor kidneys with a KDPI score of 20% or lower will first be offered to adult candidates with EPTS scores of 20% or lower, nationally.
3. Candidates with PRA (antibody levels) of 100%, 99%, and 98% will be given increased priority using a points system for sharing regionally and nationally.
4. Waiting time will be granted for dialysis start dates prior to being active on the waiting list. However, any time a candidate has with a GFR of 20 mL/min or less prior to listing will not be counted.
5. Pediatric priority will be given to all donor KDPI scores of 35% or lower.
3. **What is the KDPI score?**

The Kidney Donor Profile Index (KDPI) is a measure that uses ten points of information about a donor, including: age, height, weight, ethnicity, history of high blood pressure, history of diabetes, cause of death, kidney function, hepatitis C status and donation after cardiac death versus donation after brain death.

This score indicates how long the kidney is likely to function and will range between 0 and 100. Lower KDPI scores likely represent better quality kidneys. The graph below shows that a deceased donor kidney with KDPI of 0-20% is expected to function, on average, nearly 11 and a half years after transplant compared to 9 years for kidneys with KDPI of 21-85%. The best option is always a living donor.

![Figure 1: Estimated Graft Half Lives (years)](image)

4. **What is the EPTS score?**

The Estimated Post Transplant Survival (EPTS) score is a measure assigned to all candidates on the waiting list and is based on four factors:

- Age
- Length of time on dialysis
- Prior transplant of any organ
- Diabetes

This score helps match a kidney with the patient who has the best chance of retaining that kidney for the longest amount of time. Donor kidneys with a KDPI score of 20% or lower will first be offered to adult candidates with EPTS scores of 20% or lower, nationally.
5. **What is the benefit of the KDPI and EPTS scoring system?**

The new matching system was developed because:

- There is a higher than necessary number of discarded kidneys
- It is very difficult to match kidney to patients who have high antibody levels (PRA)
- Kidneys are not lasting as long as expected
- There is a high rate of patients who need a re-transplant

Using the new system, people who are expected to need a kidney for a longer time will be more frequently matched with kidneys that should function longer. Groups of people who are hard to match based on their immune sensitivity will get additional priority. Many people will not see a major change as the waiting time is still the major factor in matching.

6. **Now that waiting time includes all pre-registration dialysis time, is there any need for early referral?**

Early referral and listing are still the best practice under the new allocation system, since patients with a shorter duration on dialysis prior to transplant tend to have better outcomes. While waiting time is now being calculated to include pre-registration dialysis time, the GFR criterion remains the same. Patients can accrue waiting time points based on this criterion alone. Like the current allocation system, the new system prioritizes zero HLA-ABDR mismatches and patients who are listed early will have access to any such offers, even prior to accumulating significant time on dialysis. It’s also important to remember that candidates must be listed prior to their 18th birthday in order to receive pediatric priority.

7. **If a patient is already on the list when the new system goes into effect, how will they be affected?**

The new system has been carefully created to help people who need more access to kidney offers without significantly affecting the needs of others. If a patient is already listed, they do not need to be re-evaluated or re-listed. If a candidate has dialysis time prior to when they were added to the waiting list, this time will automatically be added to the total wait time.

8. **How does the waiting time work if a patient is on more than one waiting list?**

Primary waiting time transfers will still be permissible in the new system. If a candidate began to accrue waiting time based on a GFR/CrCl value of 20ml/min prior to starting dialysis, they can transfer their waiting time to establish the primary transplant center (the center they have been listed at the longest). If a candidate began to accrue waiting time based on start of dialysis, then the waiting time will be the same at each center (assuming that each center enters the same dialysis start date).

9. **How will this affect the average waiting time for my patient’s blood type?**

At this time, we do not know how overall waiting times will be affected. Experts think that the changes will not affect waiting times for a majority of the people on the waiting list. They anticipate that people with high antibody levels (98-100%) will have better access to a kidney, as will people who are expected to have more life years.