

Waiting Time for a Deceased Donor Kidney

Blood Type	Average Wait Time in Years
A	7
O	10
B	8-12
AB	5

5.3%

http://www.srtr.org - January 5, 2017

“Old” UNOS Point System

Algorithm for organ allocation

Category	Points
HLA Antigen matching	
• 0 mismatch	• Mandatory share
• 0BDR mismatch	• 7
• 1BDR mismatch	• 5
• 2BDR mismatch	• 2
PRA	
• >80%	• 4
• <80%	• 0
Waiting Time	
	1/year (others fraction based on position on waiting list)
Pediatric	
• <11 years old	• 3
• >11 year old	• 2

The New Kidney Allocation System: What You Need to Know - Anup Patel, MD (2015 webinar)

Goals of the New Allocation System

- Increase the life years per transplant
- Increase the transplant rate
 - Highly sensitized
 - Minorities
 - Blood group B
- Reduce the discard rate

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Allocation Component Changes

- Waiting time calculation: Pre-registration dialysis time added
- Candidate classification: Estimated Post Transplant Survival Score (EPTS)
- Kidney donor classification: Replace SCD/ECD with Kidney Donor Profile Index (KDPI)
- Priority for sensitized candidates: Calculated panel reactive antibody (CPRA) sliding scale
- Blood type eligibility: A₂ and A₂B to B compatible

New Kidney Allocation System: Resources for Protocols and Processes - 2014 OPTN UNOS

Estimated Post Transplant Survival (EPTS)

Based on characteristics of the recipient :

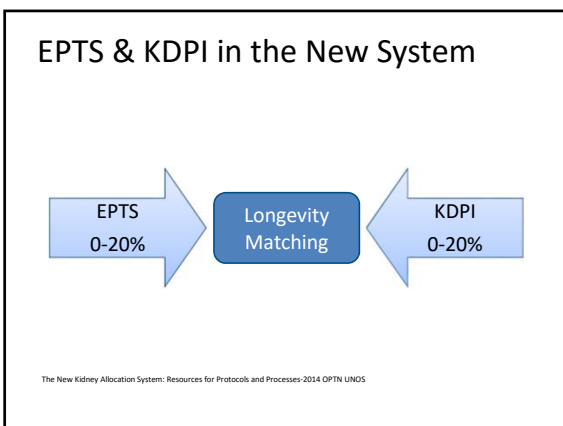
- Age
- Length of time on dialysis
- Hx of prior transplanted organ
- Current diagnosis of diabetes

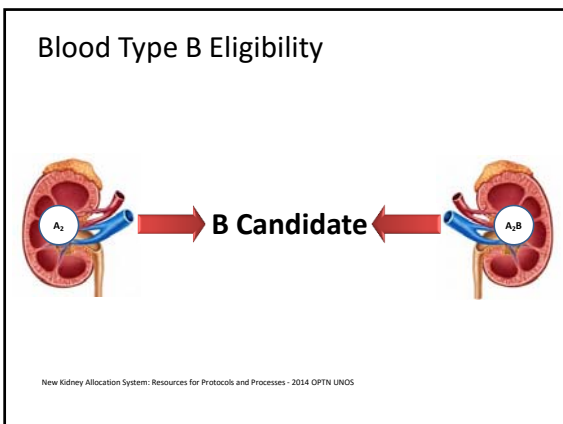
Kidney Donor Profile Index (KDPI)

Based on characteristics of the donor:

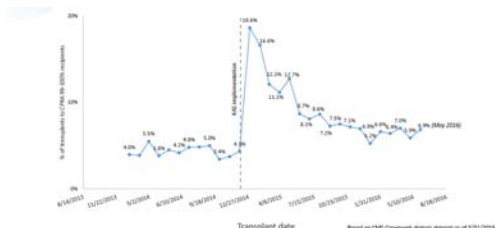
- Donor age
- Height
- Weight
- Ethnicity
- History of hypertension
- History of diabetes
- Cause of death
- Serum creatinine
- Hepatitis C virus status
- Donation after circulatory death

A screenshot of a medical form titled "All fields are required". The form contains several sections with input fields and dropdown menus. At the top, there is a warning icon and a note: "Caution: The addition of a living gift kidney from someone younger than 18 is a rare occurrence." Below this, there are fields for "Age" (with a dropdown set to "18"), "Sex" (with radio buttons for "Male" and "Female"), "Ethnicity/Race" (with a dropdown set to "White"), "History of Hypertension" (with a dropdown set to "No"), "History of Diabetes" (with a dropdown set to "Diabetic"), "Cause of Death" (with a dropdown set to "Cause of Death Unknown"), "Kidney Transplant" (with a dropdown set to "No"), "HIV Status" (with a dropdown set to "Negative"), and "Donor wants OPO Consent?" (with a dropdown set to "No"). At the bottom right, there are "Save" and "Cancel" buttons. The footer text reads "KIDNEY EPITS HDRO 1.54".





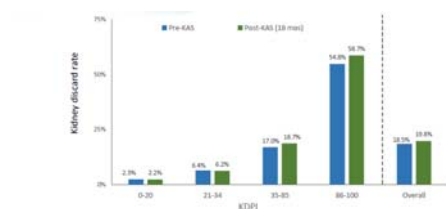
High Dialysis Time Recipient “Bolus Effect”



- After KAS, the % of patients to recipients with 10+ years of dialysis rose sharply to nearly 19%, but has tapered to about 7%

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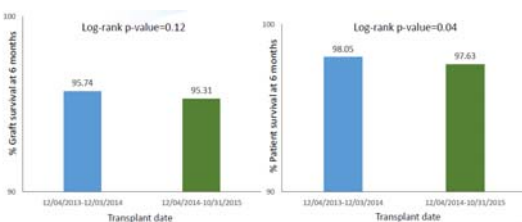
Kidney Utilization by KDPI



- Overall, the discard rate rose from 18.5% to 19.8% ($p=0.001$)
- The increase was most evident for KDPI 86-100% kidneys

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Six Month Survival

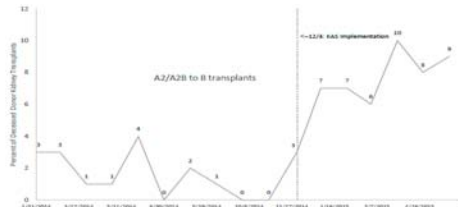


- Six month graft survival rate over 95%
- Patient survival over 97%, but slightly lower than pre-KAS ($p<0.05$)

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A2/A2B Subtype to Blood Type B Recipients

Trends



- Sharp rise in A2/A2B transplants, though counts still small

UNOS Research Department, Sept. 2015

A2/A2B Subtype to Blood Type B Recipients

Pre vs Post-KAS Summary

Metric	Pre-KAS	Post-KAS
A2/A2B Transplants	19	109
% of Transplants	0.2%	1.0%

- A2/A2B →B Transplants have increased 5-fold
- Occurred at 34 different programs

UNOS Research Department, 4/18/16