

Kidney vs. Liver: Where are We Really with Allocation in Kidney Transplantation?

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Kidney Allocation Review
Subcommittee





Different Allocation Factors

Liver

- Wait list mortality is high
- MELD (Serum creatinine, Bilirubin, INR)
- Waiting time for tie-breakers



Kidney

- Sensitization more important
- Immunologic outcomes very different--HLA
- Spectrum of donor kidneys
- Spectrum of recipients



Liver vs. Kidney Similarities

- Allocate based on objective candidate factors
- Allow comparison of access to transplant for similar types of patients
- Ex MELD of 30





Charge

- Thorough review of national kidney allocation system
- Purpose
 - Follow lead provided for liver & lung allocation
 - Provide for open, inclusive input & participation
- Assess relevant factors pre-, peri-, & post-transplant
 - Are changes warranted?
 - If so, what are these changes, & what objectives are being sought?





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Process: Mass Mailing for Input

Broad solicitation of input & participation

- Request for public comment, focusing on the following questions:
 - What is the overall objective(s) of the kidney allocation system?
 - What are the benefits of the objective(s)?
 - What is already working with the existing kidney allocation system?
 - What makes it work?
 - How can we improve the existing system to move closer to achieving the overall objectives of the system?





Process:

Focused Public Hearings

- Expert “testimony” & open discussion regarding specific issues in kidney allocation & opportunities for assessment and/or improvement
- Hearing topics included:
 - January 2005: Review of Current Allocation System, Scope of ESRD, Ethics Issues
 - February 2005: Barriers to Access Issues, OPO Issues, Introduction to New Allocation Systems
 - March 2005: Histocompatibility Issues, Patient Issues, Minority Issues
 - April 2005: Specific Biologic Issues, General Committee Deliberations
 - May 2005: Kidney Allocation Systems of Other Countries, General Committee Deliberations





360° Review Areas of Concern

- Inequity in Access to the Waiting List—outside allocation, but a persistent problem
- Donor Service Area performance—improvements will take pressure off allocation system
- Allocation System





Major Current Issues

- **Allocation of scarce resource means that some candidates may never receive a transplant**
- **Especially true for blood group O and B recipients (5 year wait) and for some areas of the US**





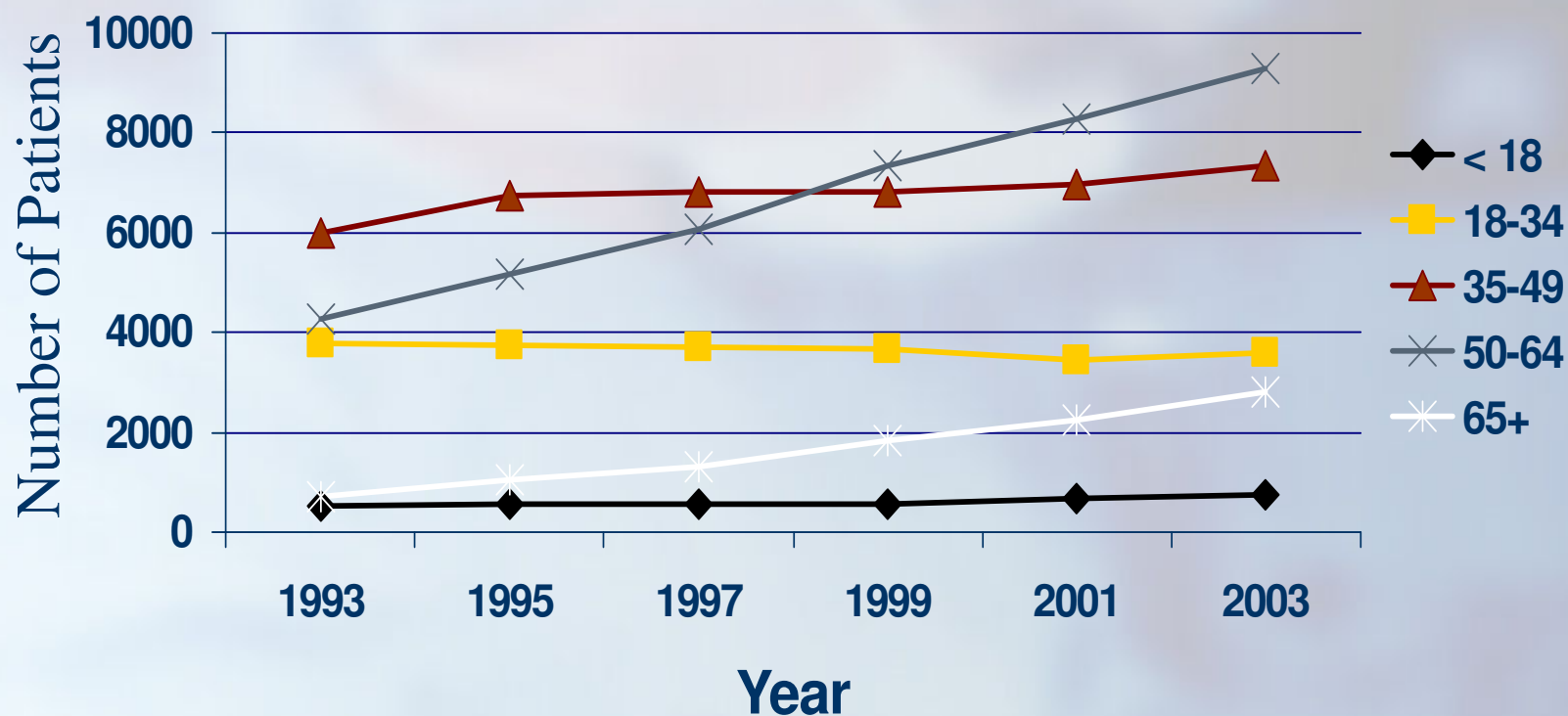
The Waiting List

- **Candidates listed have doubled over the past ten years (now >60,000)**
- **Growth has been in candidates >50 years of age**





Patients Entering Waiting List by Year: 1993 - 2003





Important Points

- Declining Transplant Rates of Patients with longer post-transplant life-expectancy
- Increase in the number of patients with shortened post-transplant life-expectancy
- Waiting times too long for all patients
- Wait list mortality high for seniors





Important Points to Consider

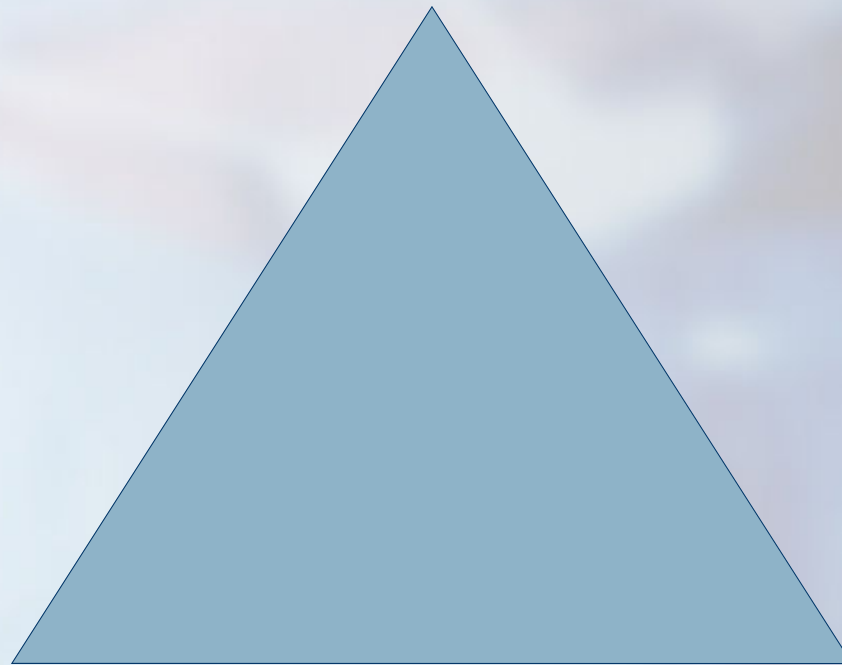
- Ex. 19 y/o 0-MM kidney allocated to a 69 y/o diabetic recipient
- 62 y/o blood group AB kidney allocated to a 25 y/o otherwise healthy recipient
- Waiting time of >5 years for a 68 year old diabetic





Three Sides to Allocation

Justice



Utility

Efficiency






Different Goals of Allocation

Liver—minimize wait-list mortality

Kidney

- **Utility**—post-transplant patient and graft survival
- **Justice**—equitable access to transplantation
- **Efficiency**—decrease wastage and cold ischemia time





A significantly different allocation system is likely

- Simple—as possible
- Patient driven
- Preserve patient autonomy
- Balance justice, utility and efficiency



What Current Priorities to Keep?

Retain High Priority

- Previous living donors
- Children
- Sensitized patients

Changed or Diminished Priority

- Waiting time as the major “rank” factor
- 0-MM sharing for non-sensitized candidates
- Paybacks
- HLA matching

Increased Emphasis

- Net Benefit = patient survival with transplant vs dialysis





New Concepts: Net Benefit

- Benefit of transplant vs remaining on dialysis
- Endpoint patient survival
- Points=Patient survival years with transplant minus patient survival without transplant
- ex. 35 y/o diabetic:
 - 21years – 5 years =16



Comparison of Mortality in All Patients on Dialysis, Patients on Dialysis Awaiting Transplantation, and Recipients of a First Cadaveric Transplant

**RA Wolfe, VB Ashby, EL Milford, AO Ojo,
RE Ettenger, LYC Agodoa, PJ Held, FK Port**

New England Journal of Medicine, 1999; 341 (23): 1725-30





New Concepts

- Incorporate “net benefit” for KP candidates
- A2 donors to B recipients nationwide
- “Acceptable mismatch”





Sensitized Patients

Current

- Local “ROP trays”
- Most crossmatches positive
- Inefficient
- Few patients transplanted

Proposed

- Identify “acceptable mismatches”
- Offer kidneys only with a high likelihood of a negative final crossmatch





Possible Schema

- **Pediatric system**
 - ?likely to remain intact
- **ECD system for EC Recipients**
 - Primarily by waiting time
 - Allow sicker patients to have cardiac evaluation, etc near time of transplant
 - Allows for a list of patients who are likely to accept an ECD kidney
 - Shorter wait time for patients who cannot survive long waiting times



Standard Criteria Donors

- SCD Point System
 - Net Benefit Points
 - Sensitization Points
 - HLA points
 - Waiting time points





Standard Criteria Donors

■ SCD Point System	
■ Net Benefit Points	16
■ Sensitization Points	0
■ HLA points	4
■ Waiting time points	<u>4</u>
	24





Goal of Kidney Allocation

**To improve the lives of patients with
ESRD by assuring the just and
optimal use of deceased donor
kidneys**





Where are We Really with Allocation in Kidney Transplantation?

Finished:

- 360 Review
- “Straw Man” Draft of New System

To Do:

- Modeling using KPSAM
- Assess the “Straw Man” in detail
- More data
- Public Input





Proposed Timeline

Summer/Fall 2005

- Modeling by SRTR
- ?Open Hearing to bring interested constituencies together to consider actual proposal
- Further testing and refining

Winter

- Public comment
- KP Committee consideration

3/06

- Possible Presentation to OPTN/UNOS Board of Directors