Introduction To Transplant

The Preferred Renal Replacement Therapy for Kidney Disease

Carolyn Jarvis
BCT Donor Outreach Coordinator
Vancouver General Hospital Transplant Social Worker
Objectives

• Learn about kidney transplant as a treatment option
• Understand benefits and risks related to kidney transplant
• Review the referral and assessment process
• Discuss ways to begin living donor outreach
Transplant Options

• **Living Donor Transplant**
  • Direct donation
  • Kidney paired exchange program (KPD)

• **Deceased Donor Transplant**
  • Must have started dialysis
  • Standard BC wait list 2-8 years
  • National Highly Sensitized Program (HSP)
BC - Kidney Transplant Track Record

• The first kidney transplant performed in BC was in 1968

• **Transplant Activity BC:**
  
  2016 – 175 Deceased Donor, 95 Living Donor
  
  2017 – (September 1st) 163 Deceased Donor, 61 Living Donor

• On average a kidney transplant lasts many years, average is twelve to fifteen years

• First year **graft** survival rate is 98-100%

• Five year **graft** survival rate is 80-90%
Living Donor Transplant Recommended Over Deceased Donor Transplant

Benefits of Living Donor Transplants:

**Success Rates:**
- Better outcomes, less chance of rejection
- Graft function lasts longer than deceased donor transplant
- Greater longevity for patient, survival years
- Better overall health
- Best outcomes for “higher risk” population (elderly, obese)

**Other Benefits:**
- Surgery can be planned and timing optimized for patients
- Allows transplant before dialysis
- Prolonged wait times are avoided
Transplant Preferred Over Dialysis

• Less cardiovascular risks
• Patients live longer with transplants, better long term survival than patients on dialysis
• Increased quality of life, less disruptions to family, work, social aspects of life
• Pre-emptive transplant allows for one less transition for patients
Increased Patient Survival With Less Time on Dialysis

Fig. 1. Relationship between time on dialysis (x axis) and patient survival after renal transplantation. The number of patients in each group is according to their duration on dialysis: 0 year, $N = 29$; 1 year, $N = 205$; 2 years, $N = 137$; 3 years, $N = 45$; $\geq$ 4 years, $N = 46$. 

Cosio F et al KI 1998 ; 53:767
Diagnosis of CKD

Transplant

Progressive CKD

Dialysis

Transitions
Referral Process

- Referrals made by your Nephrologist
- GFR is 20-25
- Your Nephrologist continues to act as the primary caregiver
- A transplant referral does not place you on the waitlist
- The Transplant Team assesses your suitability for transplant
Referral Process For Transplant

- Transplant program receives a completed referral from referring program or physician
- Additional tests/consults may be requested by the transplant program
- **Patients prioritized to be seen in clinic when:**
  - You have possibility of a living donor
  - Are identified as highly sensitized, (high level of antibodies), and can be considered for the highly sensitized program
  - Is predicted to be within two years of a deceased donor transplant
Assessment Process

• Initial work-up (most completed as part of referral)

• Cancer screening: Pap smear/ Mammogram/PSA/FIT

• Dental exam

• Other (depends on health concerns)
General Considerations for Eligibility

• Medical history
• Weight, heart and lung disease, diabetes, infections, cancer, liver disease, parathyroid and bone health, circulatory problems, mental health
• Social circumstances
• Age and frailty
• Motivation for transplant
Absolute Contraindications to Transplant

- Active malignancy
- Severe Respiratory conditions or severe Ischemic heart disease
- Severe Peripheral Vascular disease
- Severe cognitive impairment
- Addictions
- Difficulty managing medical routine
The Approval Process

• All information is reviewed by the entire team, you will be...
  - Approve
  - Declined
  - Asked to do further testing

• Time to transplant will depend on donor options and blood type
Approved for Transplant...Now What?

• **Pre-dialysis**
  - Live donor transplant when nearing dialysis (GFR 15 or less)
  - Deceased donor waitlist once on dialysis
  - Can proceed quickly if living donor approved

• **Already on dialysis**
  - Deceased donor waitlist
  - Live donor transplant when living donor approved
Waiting List for Deceased Donation

- 4 blood types, each blood type has its own list
- Waiting time for transplant dependent on
  - dialysis start date
  - blood type
  - immunologic profile (antibodies)
  - age matching
Surgery

- Your kidneys are almost always left in place
- Transplanted kidney placed low in the abdomen
- Surgery takes 3-4 hours, hospital stay 5-7 days
What are Some of the Risks?

Risks of transplant procedure:

• bleeding, infection, blood clot
• Patients with multiple medical issues may experience more complications
• Kidney may be slow to start working
• On rare occasions the kidney may not work at all
Anti-Rejection Medications

• Suppress the immune system
• May cause side effects, (gastro-intestinal upset, increased blood sugar)
• Increase risk of infections and some cancers
• Must be taken as long as you have the transplant
• Provided free of cost to the patient
• Supplementary drugs are not covered
Graft Rejection

• Acute rejection
  – Immune system attacks the new kidney
  – Occurs in 10-15% of patients in the 1st year
  – Responds well to treatment
  – Does not mean you lose the kidney

• Chronic rejection
  – Slow, progressive decrease of graft function
  – Reasons are less well understood
Post Transplant Clinic Follow-up

- Vancouver General Hospital/St Paul’s Hospital
- Twice a week for the first month
- Then once a week for 2 months
- Frequency of visits decreases over time
- Blood work, doctor and a nurse assessment on each visit
- Social work support is also available
Pre-Emptive Living Donor Transplant

• **Benefits of Pre-Emptive Living Donor Transplant:**
  • Decreased rejection rates
  • Fewer potential sensitization events because dialysis has been eliminated
  • Reduced cardiovascular issues
  • Reduced hospitalization rates
  • Longer survival years, better overall health

• When a patient begins RRT, or transitions from one modality of care to another, there is a dramatic decline in QOL measures

  Kimmel PL KI 2001; 59:1599
  Watnick S et al AJKD 2003; 41: 105
Kidney Donors- Getting Started

• Self initiated program
• Contact the clinic to start the process
• Donors are screened for the ability to undergo surgery and live with one kidney
• Process is confidential
• Donors are not obligated to complete assessment
After Kidney Donation

• Remaining kidney will increase function to approximately 75% of pre-donation level
• Risk of progressing to ESRD is 30 in 10,000; within 15 years after donation
• Pregnancy is generally safe but there is a higher risk of Preeclampsia (11% vs 5%)
• Donors must have access to health care, preferably a GP
• Annual medical exams with family physician
  - BP, FBS, urine ACR, Creatinine
  - results copied to Transplant Centre
• Transplant team consults as needed
Donor Outreach

• Range of responses from complete discomfort to completely comfortable
• Some recipients are comfortable to begin outreach right away
• Some discomfort about outreach based on emotional concerns
• Practical reasons primary concern
• Donor outreach is a personal process involving the heart (emotions) and relationships
Reaching out to Potential Kidney Donors

- It’s a difficult discussion to have due to:
  - Uneasiness about the magnitude of the request
  - Lack of knowledge about donation
  - Fear for donor’s health after donation
  - Concern about relationship with donor post transplant
  - Uncertainty about how to ask/bring up the subject
  - Concern about impacting donor’s finances and responsibilities
  - Ethnicity/cultural beliefs
Important Things to Know to Help Overcome The Barriers

- Donors often offer to donate
- Donors often say donation is a natural fit for them
- Donors often need basic information about transplant in order to begin the process
- Reassuring donors about your relationship with them can free them to explore donation confidentially and without pressure
Practical Barriers

• Concern for the donor’s finances
• Concern about disrupting donor’s employment
• Concern about impacting the donor’s responsibilities and obligations

• Donors can often access private benefits, employment insurance
• LODERP program
• More employers recognize kidney donation as a legitimate medical reason to be off work
• Often family and friends assist with transportation, household chores and child care
• Pre-emptive transplant allows for planning and organization
Helpful Information

- Donors are thoroughly screened
- Donors can live healthy lives with one kidney
- Individuals are free to explore donation without obligation

- Recipients are thoroughly screened
- KPD programs provide more options
- Goal is to protect donor health and improve recipient health
Donor Pools

- **Who are potential donors:**
  - Family, friends, coworkers, neighbours, people from church
  - Consider all your social groups, connections, clubs/organizations and associations that you are a part of
  - Out of country, out of Province
  - Donors do not have to be blood relatives or same blood type
  - Don’t screen out potential donors yourselves
  - Start outreach with people who have relationship/connection to you
  - Donor pool is often greater than what think
  - Multiple donors can be screened at one time
Kidney Paired Exchange (KPD) Program

- A National program managed by Canadian Blood Services
- For pairs where direct donation is not possible because of:
  - Incompatible blood type
  - Immunological incompatible (positive cross match or donor specific antibodies)
- Allows matches to be found throughout the country
- You receive a living donor transplant even though your own donor can’t donate directly to you
The Kidney Paired Donation (KPD) Program

- Donor and recipient pairs are entered into secure database
- Matches are identified 3 times per year
- Transplant chains are created and surgeries are scheduled within three to five days of each other
- Timing is more difficult to predict
- Donor may need to travel to an alternate transplant centre
How to Raise the Subject with Potential Donors

- Keep families and friends informed of medical situation
- Appoint a spokesperson to get the word out
- Have support network attend medical appointments to create opportunities to discuss live donation
- Invite donors to contact the Transplant Clinic at VGH to receive further information
- Use technology/social media such as email, Facebook, blogs
Topics to Include

• Current medical situation
• Transplant is recommended over dialysis
• Waiting time for deceased donor transplant
• Basic information about donation
• Invite potential donors to discuss transplant with the recipient or spokesperson
• Assure donors they can inquire about the process confidentially
• Provide the pre transplant clinic contact information
Tips For The Letter Or Email

• Keep it factual, state the need
• Address it to a group, in general
• Reach out to social circles first
• Reassure donors who can’t step forward
• Let donors know they can explore donation confidentially
Keys To Donor Outreach Success

- Provide regular updates to family and friends
- Understand finding a donor can take a while
- Trust the process and medical teams
- Focus on the positives of their efforts
Resources

• **BC Transplant**
  • [www.transplant.bc.ca](http://www.transplant.bc.ca)
  • Videos/resources and tools on donor outreach

• **BC Kidney Foundation**
  • [www.kidney.bc.ca](http://www.kidney.bc.ca)
  • Information on reimbursement (LODERP)
  • Donor Mentorship Program
CONTACT INFORMATION

Vancouver General Hospital
ph: 604 875-5182/ 1-855-875-5182
kidneydonornurse@vch.ca

St. Paul’s Hospital
ph: 604 806 9027/ 1-877-922-9822
recipientnurse@providencehealth.bc.ca
donornurse@providencehealth.bc.ca