For the adult recipients of a graft it is imperative that they do everything possible to reduce incidence and severity of cardiovascular disease. It is well known that most of the immunosuppressive medications aggravate the risk factors to arteriosclerosis (diabetes, hypertension and high cholesterol). Athena Savvidou expands on this most important issue. It is a real tragedy for a transplant patient to succumb to cardiovascular disease with a perfect functioning graft.

Infections in general are more frequent in the immune suppressed patient but urinary tract infections are particularly common and often relatively asymptomatic. Nomandla Madala and Priyesh Mody highlight this problem and advise about prevention, diagnosis and treatment.

We have had several living donor/recipient pair stories recorded in Transplant News over the years. Each has their own special tale to tell but to get to that point may be a difficult road to travel. For the recipient of course, there are huge advantages to receiving a graft from a living donor. The excellent quality of the graft from a living donor gives the transplanted organ an extended lifespan compared with that of a deceased donor transplant. Alexia Michaelides, Netcare transplant co-ordinator in the Western/ Eastern Cape, tells us how to “start that conversation” to initiate the process.

The teenage years are a difficult time for all, but are even more so for the transplant patient. Poor adherence to medication regimens is frequent, often with devastating consequences. Wendy Spearman and Mignon McCulloch highlight this issue and advise parent, patient and healthcare worker how best to manage this trying time.

Kim Crymble reviews the transplant activity statistics for the last decade in South Africa. This does not make for happy reading with generally fewer transplants being performed than ten years ago. The slight increase in living donation is an excellent recent trend which is most heartening. The Organ Donor Foundation are thanked for sharing their statistics with us.

Lastly, Nick Barclay, a kidney transplant recipient from Cape Town, John Buckels, a transplant surgeon and Bruce McDowell, father of a deceased donor (his daughter) record in conversation their wonderful journey of courage in crewing on one of the yachts on the Clipper Round the World Yacht Race to raise awareness of organ donation and transplantation.

This is the last issue that I serve as Editor for Transplant News. It has been a real privilege and pleasure to be associated with Transplant News as a reader, contributor and for the last 5 years as Editor. I do hope that Transplant News continues from strength to strength providing interest, information and entertainment to an ever growing ‘transplant family’ readership. May I express personal thanks and appreciation to the Editorial Board of Ann Lake Publications, Ann Lake, Jane Gouveia and Helen Gonçalves for their professionalism and patience. Also to my co-Editor, Russell Britz, for his leadership of solid organ transplantation and the pioneering work he has done over the last decade in extending the accessibility and opportunity of receiving a transplant to an ever burgeoning number of our citizens, who suffer organ failure. Lastly, I must join with all of us in thanking Astellas for ‘rescuing’ Transplant News and supporting us these last 5 years.

The views expressed by the editor or authors in this newsletter do not necessarily reflect those of the sponsors and publishers.

The South African Transplant Society Website: www.sats.org.za
Cardiovascular complications are a major cause of death in transplant recipients and account for 50-60% of patient mortality after kidney transplantation and 22% after liver transplantation. Cardiovascular death is the third leading cause of death in heart transplant recipients. The longer the transplant recipient survival rate, the greater the risk of cardiovascular mortality.

**Risk factors** for cardiovascular disease (CVD) include those found in the general population such as:
- Hypertension
- Diabetes mellitus
- Hyperlipidemia (elevated serum cholesterol)
- Cigarette smoking
- Male sex
- Increasing age

The **transplantation-specific risk factors** for CVD include:
- Acute rejection episodes
- Chronic rejection
- The use of transplant medication
- Graft failure.

**Hypertension (high blood pressure)**
More than 60% of renal recipients and more than 90% of extrarenal transplant recipients become hypertensive after transplantation. The **most common causes** of post transplant hypertension include:
- Transplant medication such as corticosteroids and cyclosporine
- Excess weight gain
- Acute rejection
- Chronic allograft nephropathy
- Transplant renal artery stenosis
- Recurrent or de novo glomerulonephritis.

The **management** of hypertension includes:
- Treatment of specific causes of hypertension
- Correcting associated cardiovascular risk factors
- Assessing target organ damage (brain, eye, heart, kidney and peripheral arterial system)
- Lifestyle changes
- Pharmacotherapy to achieve optimal blood pressure goals.

**Hyperlipidaemia (high cholesterol)**
Hyperlipidaemia following transplantation is multifactorial. Corticosteroids and cyclosporine increase serum cholesterol levels. Severe hypercholesterolaemia and hypertriglyceridaemia are more frequent with sirolimus (to a lesser extent with tacrolimus), and reach maximum levels after about two months of treatment.

**Coronary Heart Disease**
Coronary heart disease (CHD) appears to present 20 years prematurely in renal transplant recipients compared with the general population. Risk assessment for coronary heart disease in transplant recipients requires not only recognition of symptomatic CHD (angina, congestive heart failure, arrhythmia and syncope) but also evaluation of asymptomatic patients who have acquired individual risk factors for CHD.

**Diabetes Mellitus (DM)**
The new onset of DM, post transplantation is associated with higher rates of cardiovascular disease and infections. Its development is related to increasing recipient age (> 40 years), obesity, the use of corticosteroids and calcineurin inhibitors, the presence of hepatitis C infection and ethnicity. Management begins with pre-transplantation screening and risk assessment. Adjustments in the immunosuppressive regimens may be required.

**Chronic Kidney Disease**
Transplant recipients with an increased serum creatinine level (particularly higher than 200μmol/l) have a significantly higher risk of adverse cardiovascular events.

**Peripheral arterial occlusive disease**
It is particularly common in the presence of diabetes mellitus, older age recipients, smoking and male gender. Symptoms of claudication and diminished pulses in the limbs are classic findings.

**Cerebrovascular disease (“stroke”)**
Clinical screening of subtle symptoms and signs of carotid artery occlusive disease should be part of the annual examination. CHD and carotid artery occlusive disease are strongly predictive of one another.

**Hyperhomocysteinaemia**
Elevations of homocysteine are a significant and independent risk factor for CVD. Two thirds of renal transplant recipients have hyperhomocysteinaemia. Treating deficiencies of folate, B6 and B12, may improve elevated levels of homocysteine.

**Therapy**
Treatment of hypertension, hyperlipidaemia and diabetes is important in all patients but there is an added sense of urgency in post-transplant patients since they can have devastating effects on graft survival and cardiovascular events. In addition to the specific pharmacotherapy, it is important to make several lifestyle changes:
- Smoking cessation
- Salt restriction
- Weight reduction in obese patients
- Dietary modifications
- Exercise

**Conclusion**
Early recognition, prompt diagnosis and optimal treatment of the above risk factors, may reduce the incidence of premature cardiovascular disease. It is important to treat patients aggressively until an immunosuppression regimen that is devoid of dyslipidaemic and hypertensive effects has been developed. Improving cardiovascular health in transplant recipients will presumably help extend both patient and graft survival.
Urinary tract infection (UTI) is usually caused by bacteria and less commonly, yeasts infecting any part of the urinary system:

- Urethra (urine tube out of bladder)
- Bladder
- Ureter (urine tube from kidney to bladder)
- Kidney

Urinary tract infections (UTIs) are mainly caused by bacteria and, less commonly, yeasts.

How common is UTI?

Transplant recipients may experience UTI within the first 3 months post-transplant. Thereafter and in subsequent years after transplantation, UTI progressively becomes less frequent. Despite many advances in surgical technique and anti-rejection (immunosuppressive) medications, UTIs still occur commonly.

Why are UTIs common in transplant recipients?

Some of the reasons UTIs occur more frequently in transplant recipients than in the general population are:

1. High doses of immunosuppressive medications, especially in the first few months post-transplant. The medications dampen the immune system to allow acceptance of the graft but also reduce the ability to fight infections hence UTIs occur.
2. Insertion of a urine catheter into the bladder for prolonged periods.
3. UTIs may also result from some complications of the kidney transplant procedure, such as urine leaks, blood clots and lymphoceles.
4. Reflux of urine from the bladder into the transplant kidney (Specialised X-rays or scans are required to confirm reflux)
5. Obstruction to urine flow at any level of the urinary system from:
   - Stones
   - Prostate enlargement (in males)
   - Any other cause of stricture or narrowing of the ureter or urethra
6. Uncontrolled diabetes
7. UTI may result from disease of the old urinary system (e.g. cysts in old (native) kidneys may become infected)

How is the diagnosis of UTI established?

1. The following symptoms may suggest UTI:
   - Lower abdominal pain, usually over the bladder.
   - Burning sensation on urination.
   - Increased desire to urinate associated with increased frequency of urination.
   - Blood in the urine.
   - Pain over the transplant kidney, suggesting the infection has spread to the graft.

- Sometimes symptoms progress to severe infection with fever and chills as well as associated nausea and vomiting.
- Sometimes transplant recipients may not have any symptoms and UTI will be suspected from abnormalities noted in their routine urine and blood tests.
2. The abnormalities that may indicate UTI are:
   - Urine dipstick positive for protein, pus cells, blood and/or nitrates.
   - Rising creatinine blood levels may suggest that infection has spread to the graft.
3. To confirm the diagnosis and to identify the offending organism:
   - An early morning, clean mid-stream urine sample must be sent for microscopy and culture. Identifying the organism will ensure that the required specific antibiotic is prescribed.

What is the treatment and what complications can result from UTI?

A broad-spectrum antibiotic is often prescribed when UTI is initially suspected. Once the offending organism has been identified from the urine results, treatment is then changed to the specific antibiotic.

Graft dysfunction can result from UTI spreading to involve the transplant kidney. Also UTIs tend to recur following a conventional course of antibiotics, which necessitates that a longer course of antibiotics be given in transplant recipients.

Can recipients reduce the risk of getting UTI?

Some steps that transplant recipients can take to help reduce the chances of having UTI are listed here. Recipients must:

- Drink plenty of fluids to ensure an adequate urine output.
- Urinate frequently and avoid holding urine in the bladder for long periods.
- Empty the bladder completely when urinating or attempt double voiding (i.e. urinating a second time a few minutes after bladder emptying).
- Always wipe from the front backwards after passing stool (for females).
- Ensure that urine dipstick tests are done regularly on clinic visits.
- Ask about their results and establish if they need antibiotic treatment, if their urine specimen was sent for culture.
- Adhere to the prescribed immunosuppressive medication doses. Currently smaller doses are used to reduce the risk of infection but at the same time, prevent graft rejection.

For some patients a regular night-time antibiotic dose may be prescribed, e.g. those with stents inserted or structural defects in the urinary tract.
How to talk about living kidney donation –
Starting the conversation

Alexia Michaelides
Regional Transplant Manager
Nelcare
Western/Eastern Cape

Once you have been told you need a kidney transplant and you discover how long the waiting lists are, it is easy to become overwhelmed with despair. Your recipient co-ordinator will ask you if you have a living donor. The big problem is: How do you approach your family and friends? How do you start this conversation?

Bringing up the subject of living donation isn't easy. You may not feel comfortable asking someone to donate a kidney. Or perhaps you think family and friends would start the conversation themselves if they wanted to help. Perhaps you also may not know what it really means to get a kidney from a living donor, or you may have questions and concerns about the process.

It's a good idea to learn as much as you can from the beginning. The earlier you communicate your need to potential donors, the better for everyone.

Understanding living donation

Studies have shown that living kidney donors can expect to live a normal life span with no long-term health consequences. Because the donor's health is extremely important, each candidate is screened very carefully. The benefits for you are as follows:

- You can avoid long delays on the waiting list, so you are more likely to be in better health when you receive the kidney.
- A living donor's kidney may be healthier than one received from a deceased donor.
- Getting a pre-emptive transplant (before dialysis is required) can be better for your transplant success.
- The surgery can be scheduled for a time when both you and the donor are in the best possible condition.

The donation procedure itself can be done in just a few hours and the donor can usually return to his or her normal life in a matter of weeks.

Finding a good match

Although there is a higher likelihood that a blood relative will be compatible with you, a friend or unrelated living donor may be a compatible match as well. You may find it helpful to sort out in your own mind whom you would feel most comfortable with as your donor. However, don’t rule anyone out. Anyone who is willing can and should talk to your transplant co-ordinator about eligibility.

Each transplant centre has its own criteria for donors and will evaluate the prospective donor based upon all available medical information. Rest assured! The donor’s safety is the strongest concern of the transplant team!

Many people have mixed feelings about accepting a kidney from an adult son or daughter. If doing so is an option, consider how you would respond if it were your mother or father. Would you want to donate? Adult children may freely offer because they have seen how the disease has impacted their parent’s quality of life and want to help. The good news for you is that you don’t need to worry about who would be an eligible candidate. Once someone has confirmed their interest in becoming a donor, the next step is to talk with the transplant team. This initial screening can often be done by phone. The donor candidate will then have blood samples drawn. If he or she is compatible with you, the donor will complete a medical evaluation.

Communicating your need

There are many reasons why people may not start a conversation with you or express interest directly. They may be waiting for you to bring up donation, or may assume you have already found a donor. It is also possible they have a personal health issue they don’t want to talk about. You may find it helpful to provide a potential donor with written information they can read after your discussion using material obtained from your transplant centre or from your own research. Think about the situation from a potential donor’s point of view. How might they best receive the information? Would it be more effective for you to talk generally about your disease and treatment options, to ask directly, or to use a combination of both? You may find that different communication strategies will work better with different people and help make sure they don’t feel pressured. Potential donors may not give you an answer right away. Give them time to process the information and think carefully about their decision.

Taking the next step

You may prefer speaking one-on-one with someone about your disease and living donation. Talk to your transplant co-ordinator about helping you set up a meeting with family and friends who can help you present basic information and start the conversation. This method can help you feel confident that information is shared and is accurate. It is also helpful to have a member of the transplant team available to answer questions.

Or perhaps, you may prefer mailing a letter or sending an email to selected family, friends and acquaintances, explaining why your doctor recommends living kidney donation.
Perhaps find an “ambassador”, like a close friend, who may be looking for ways to get involved and might be willing to talk to others on your behalf. Don’t be afraid to ask people you trust for their help.

Finding the right words
This can be the most difficult of them all. Choosing your words will depend a lot on the relationship and comfort level with your potential donor.

“ Asking for a kidney donation is very difficult. I know this conversation is awkward for both of us.”

“My doctors recommend living donation transplant as the best treatment option for me. I hope you will consider being evaluated and possibly donating.”

“I want you to have time to think about this. I don’t expect an answer straight away.”

“I don’t want you to feel pressured, so I will not bring this up again. It is your choice if or when we discuss this topic further.”

“It is ok to say no. I won’t feel offended or hurt if you choose not to pursue kidney donation. I understand the sacrifice involved and recognise that saying no, does not mean you don’t care about me.”

Remember, donating a kidney is a difficult decision and the donor may say no for reasons that have nothing to do with his or her feelings about you. Reassure them that there is no obligation and that his or her decision will in no way affect your relationship in a negative manner.

What happens next?
If a potential donor has expressed interest in donating a kidney, ask him or her to contact your transplant co-ordinator. This phone call can begin the donor screening process. Keep in mind that donors are screened very carefully, and that their health information is also confidential. The evaluation process is very thorough and takes time, so be patient! You may follow up with your transplant co-ordinator if you have questions at any stage in the process. They may even suggest that you talk further with your prospective donor.

For some people, waiting for a kidney through the waiting list may be the only option. However, for others, living donation is a possibility worth exploring.

Transplantation and the teenager

Adolescence can be a stormy time for normal children, but even more so for teenage transplant recipients. In addition to coping with the usual issues of autonomy, peer pressure with regard to alcohol, recreational drugs and sex, the teenager has to cope with the side-effects of immunosuppression (e.g. weight gain and Cushingoid features – ‘moon facies’, excessive body fat and stretch marks - associated with steroid medication), regular medical monitoring and strict adherence to drug regimen. Non-adherence is often their only way to express autonomy.

Worldwide, non-adherence is the major cause of graft loss or rejection in adolescent transplant recipients: 17% liver, 30% cardiac, 42% renal.

These adolescent issues often occur at the time when they are being transferred from a paediatric to an adult unit. Many of these teenagers may not be emotionally ready for the transition process.

Strategies that are useful at improving adherence and facilitating transfer to adult transplant units include:
1. Actively involving the teenager in decision-making.
2. Often seeing them individually in the clinic before the combined interview with the parent or caregiver.
3. Discussing issues of sexuality, recreational drugs and alcohol as well as medication adherence.

This is often best dealt with in workshops which involve social workers and psychologists as facilitators.
4. Discussing appropriate contraception and the potential risks of pregnancy.
5. Teenagers who have had a chronic illness since childhood have often missed out on schooling. It is important to assess their scholastic abilities so that appropriate education can be planned.
6. Planning transfer to adult units
   • Assessing emotional readiness
   • Transition workshops to facilitate independence
   • Identifying successful “transitionees” to act as role models
   • Identifying a “champion” on the adult side to act as a liaison person and familiar face

In order for teenage transplant to reach their full potential, it is important for us as medical caregivers to actively pursue a holistic approach to their management.

Adolescence can be a stormy time for normal children, but even more so for teenage transplant recipients.
As we embark on a new year, it is hard to believe the year 2011 has flown by. It is quite amazing too that we celebrate not only another decade of Transplant in our country but also how privileged and fortunate we are to have Transplant News available for all our patients with information related to pre- and post-transplant care.

We need to say a Big Thank You to all at Astellas for their support always in ensuring that this very informative publication is available to many as possible and read with great interest in many waiting rooms countrywide while our patients wait for their scheduled appointments.

I was asked to review the Transplant activities in our beautiful country South Africa for the last decade and in order to do this I must first thank the Organ Donor Foundation for sharing the information required to review this decade of Transplant activity.

The last decade in our Transplant World has had some exciting new developments and a few heart-aching moments along the way. The core establishment of Health Professionals is fairly stable within all regions and we welcome Bloemfontein’s Private sector Transplant Team who joined forces for the benefit of all in the Region from 2008. Klerksdorp and Polokwane too have staff in these regions to assist with the identification of potential organ donors as well as to assist the provincially-based patients to have access to transplantation.

Johannesburg saw the birth of the Wits Donald Gordon Transplant Centre in 2004 and we are proud of the achievements obtained with the only Liver Programme based outside the Mother City to offer Liver Transplants to the community. The other specialised programme base at Wits Donald Gordon Medical centre is the combined kidney pancreas programme. Milpark Hospital has the largest Lung Transplant programme in the country as well as being a Heart and Kidney transplant centre.

KZN saw the opening of Ethekwini Heart Hospital as well as the Albert Luthuli state-of-the-art healthcare facility which hopes to offer transplant procedures to the KZN community.

Cape Town remains at the forefront of Heart Transplantation as well as assistance therapy with the use of the sophisticated Berlin Heart to help critical patients while we wait for suitable human hearts for transplantation. The HIV +ve donor to HIV +ve recipient kidney programme is showing brilliant survival outcomes with good renal function so we are proud to be associated as a country jointly working together to ensure ongoing success of this deserving programme.

We do need to be ever mindful that lives are saved or enriched because we have Organ Donors whose families identify a Hero factor and they consent or carry out the wishes expressed in life to grant a gift of life to others.

This is their final gesture in the ebb of life. Death we all know is so final but for those of us privileged to work with donor families and recipients, we know that there is a comfort to be taken, that from death there is life for another.

We also need to pay tribute to the living donors as those who see the need to enhance the life of another despite possible pain and discomfort. The majority of these donors are driven by the need to help and improve the lives of someone they love maybe their children, their siblings, their spouses or even their friends.

I will revise the transplant stats per region over the period 2000 till 2010 and then look at combined results for the same period.

The Red line shows corneal grafts transplanted in 2002 being the best year with 1150 Cornea transplants performed with a dismal amount of only 178 performed in 2010 this is an almost 90% decline in donation of corneas since 2002.
What a privilege and an honour to have had Dave as the Chairperson of the Gauteng Kidney Association, someone with such commitment and integrity. Dave held this position since 1995, which was shortly after he had a kidney transplant. He has truly been an inspiration to all of us with his ever positive outlook on life and the commitment he showed to everyone needing his invaluable input and guidance. In spite of the many work responsibilities and the many health challenges Dave had to overcome, he never ever wavered in making himself available. Dave has left his mark on our lives and especially the many renal patients whom the GKA assists financially, of which he played a large and vital role in making this possible. He will be sorely missed. Heartfelt condolences to his wife Fiona and children Nicola and Robin.

Please contact June Giovannoni on Tel: (011) 462-0510/704-0797 or Cell: 084-583 7528 if you feel you will be able to assist by filling this huge gap left by Dave on the GKA Committee.

European flags fly high for organ donation. Let’s strive to fly the South African flag higher.

The Gauteng Kidney Association

OBITUARY
David Gordon Seed
18 May 1956 – 26 October 2011

Some good news
Although the number of community-acquired donor kidneys from deceased donors is decreasing, the number of living donors appears to be on an upward trend. The Heart Transplant Programme at GSH and Christiaan Barnard Memorial has been more active recently especially at Groote Schuur Hospital.

Corneas can be donated as a deceased donation i.e. after the heart has stopped beating yet the decline in donation is very visible.

The solid organs transplanted have been fairly stable with not much growth in the last 6 years. 2002 was the best year in the 10 year series. Last year the total number of solid organs transplants amounted only to 338 for the entire country.

We need to be ever grateful for every transplant performed as this has highlighted the giving of life to another but we also need to be challenged by the facts that many will die waiting for an organ. We should be encouraging all members of our community to be aware of the concept of organ donation. We need to challenge, at all levels, our present and future generations so that education programmes can be instituted. Starting social awareness programmes within our schools and primary health care clinics is especially important so that as a proudly rainbow nation, our society can learn to embrace organ donation as the positive act of kindness as a parting gift from this life onto another.
Clipper Round the World Yacht Race - 2011/12
Transplant team crew members compete to spread the message of the gift of life

It's the only race in the world where taxi drivers rub shoulders with chief executives, vicars mix with housewives, students work alongside bankers, nurses work with vets and doctors team up with rugby players. It's an experience that changes people's lives and while the crew members may be amateur, the sea does not distinguish between Olympians or novices. If the Southern Ocean, the Pacific or the South Atlantic decides to throw down its gauntlet, the Clipper crews need to be ready to face exactly the same challenges as those experienced by the professional racer.

The race track is 40,000 miles long and it takes eleven months to complete the circumnavigation. The race is divided into a series of eight legs and crews can decide to race one of them, select a combination of legs or sign up to become an around the world crew member and complete the full circumnavigation.

This year, Nick Barclay, kidney transplant recipient from Cape Town, has joined the crew of the Edinburgh Inspiring Capital as part of a “Transplant Ambassadors” team to raise awareness of organ donation and organ transplantation.

On the 3rd November 2011, Nick and two other crew members of the Edinburgh Inspiring Capital who are members of the relay team of transplant patients, surgeons and specialist nursing staff, met with a Geraldton, Australia resident who is playing his part in spreading the organ donation message within his own community.

Bruce McDowell, whose daughter was killed in a motorbike accident three years ago, has been doing his part to ensure the people of and visitors to the City of Greater Geraldton know how important organ donation is and the difference it can make to a desperately ill person's life.

Nick Barclay is now racing around the world on a 68-foot yacht, something he couldn't even have contemplated a few years ago. John Buckels has just retired as a surgeon specialising in liver transplants and David Talbot is part of the transplant surgery team in Newcastle. They have both completed the race across the Southern Ocean and will hand the transplant ambassadors' relay baton to consultant surgeon, Alex Heaton, a kidney specialist.

Clipper Race: John, how important is it for you to make contact with transplant organisations around the world?

John: It’s very important, but it’s particularly important to meet people like Bruce who’s got an important story to tell. If we didn’t have organ donors we couldn’t have transplantation and you can’t get away from the fact that transplantation is the greatest gift of all – it’s the gift of life.

Clipper Race: Bruce, tell us your story.

Bruce: I’m a member of a donor family. My daughter passed away roughly three years ago and she became a donor so consequently that’s made myself and my wife members of a donor family, which we cherish. We think it’s a very important thing to do and we’re really very honoured to be in that role.

Clipper Race: You’d had a chance to talk to your daughter before she passed away about her wishes for what might happen to her organs if she were to die...

Source: www.clipperroundtheworld.com/index.php/race-news?item=396