



St. Michael Hospital Transplant Clinic Welcomes Ontario Health Leadership

Dana Whitham
Senior Clinical Program Director

Our Kidney and Metabolism program recently welcomed leaders from Ontario Health Trillium Gift of Life (TGLN) to our Kidney Transplant Clinic. This visit was a chance for us to show how dedicated we are to giving our patients the best care possible. We credited the exceptional team work both internally and with our community partners as an enabler to providing high quality care to our patients. We wanted to share with all of you, some of the content that was highlighted to Ontario Health Trillium Gift of Life during the visit.

Our program started back in 1969, and since then, we've always been finding new and better ways to support patients along the journey to a kidney transplant. In 2011, we made history as the first in North America to use a safe method for transplants between people with incompatible blood types. More recently, in 2023, we broke records by giving a kidney to the oldest person ever to receive one, at 87 years old. These achievements show how committed

In this issue...

- St. Michael's Transplant Clinic Welcomes Ontario Health Leadership
- From the Editor's Desk
- Does a Native Kidney Need Removal before Transplantation?
- Angelo Raffaele Caputo Legacy
- Post-Transplant Erythrocytosis
- Protein Needs After Kidney Transplant
- Food Safety After Kidney Transplant
- Fibre Essentials for Managing Constipation and Diarrhea Post-Kidney Transplant
- 2023 Record Year for Kidney Transplant
- Field Trip to the HLA Lab
- April is Organ and Tissue Donation Awareness Month
- True or False?
- Welcome & Congratulations
- New Website

Continued on page 2

From The Editor's Desk

Dr. Ramesh Prasad

Welcome to the Spring/Summer 2024 issue of Transplant Digest. Published twice yearly in the spring and fall, our publication continues to be popular among patients, their friends and family, and health care providers at other hospitals. While we continue to print a limited number of paper copies that can be picked up in the Transplant Clinic, all previous issues dating back to 2006 are available online through the St. Michael's website. Please contact us if you require any assistance in locating prior copies for printing or for storing on your hard drives.

In this issue of Transplant Digest, we cover topics such as native nephrectomy, post-transplant erythrocytosis, food safety, protein intake, and fibre intake. We have a report about our staff's visit to the HLA lab, where all the cross-matching to bring together donors and recipient is done. We celebrate the life of Angelo Caputo, a kidney transplant recipient who left us recently, and the singular accomplishment of Walter Tauro, who entered the Guinness Book of World Records as the world's oldest kidney transplant recipient at the time of surgery. As always, please contact us if you wish to submit a letter, short story, article, or picture for potential inclusion in forthcoming issues. Until we meet again, enjoy the warm weather!

cont'd from page 1

we are to pushing the limits of what medicine can do, all while keeping our patients' health and quality of life front and center.

Our success is built on helping and empowering people. Our team of nurses and doctors along with our Registered Dietitian, Pharmacist and Social Worker support patients through every part of their journey. We offer classes to teach patients how to stay healthy while waiting for a transplant and provide guidance to those who have recently had a transplant. Our goal is to give patients the knowledge and tools they need to live well.

We have a special approach called "people transplanting people" because we know our patients come from all walks of life. Many face challenges with finances, access to health coverage, or having disabilities. We make sure our care is personalized and compassionate, welcoming patients from all over the province and kidney donors from around the world.

Continued on page 3

Contact Information

Dr. Ramesh Prasad – Editor

Meriam Jayoma-Austria, RN, BScN, C.Neph.C-
Newsletter Coordinator

Please send your comments or suggestions of topics for future publication to:

meriam.jayoma@unityhealth.to

St. Michael's Hospital Kidney Transplant Program

(across the hospital)

61 Queen Street East, 9th Floor

Toronto, Ontario, M5C 2T2

Phone: 416-865-3665

Disclaimer Note:

Views presented in this newsletter are those of the writers and do not necessarily reflect those of St. Michael's Hospital or the University of Toronto. Subject matter should not be construed as specific medical advice and may not be relevant. For all questions related to your health please contact your health care provider.

Does a Native Kidney Need Removal before Transplantation?

Dr. Ramesh Prasad

A common question we receive is whether one or both of your own kidneys (or "native" kidneys) need to be removed before a kidney transplant operation can be performed. The idea is that since these kidneys are not working anyway, why not just take them out at the time of being transplanted with a new kidney?

Your native kidneys do not need to be removed in most cases. These kidneys are still working, even if at a very low level. Many patients are still making small amounts of urine, which can be a helpful supplement to what dialysis is providing, by removing at least some waste products including potassium and extra water. Every little bit of kidney function helps! The native kidneys continue to regulate blood pressure by producing various hormones. Taking out kidneys is also a major procedure. Even though they can be removed laparoscopically, the kidneys are still quite deep and removing them is an involved process that requires a hospital stay. So when should a kidney be removed?

Polycystic kidneys sometimes enlarge to the extent that they start to compress the surrounding organs, becoming very uncomfortable because of bulging, and might even begin to compress the new transplant kidney. This compression can happen even after the transplant, since polycystic kidneys continue to enlarge. Sometimes polycystic kidneys develop stones, the cysts can be repeatedly infected, or might bleed, causing a lot of sickness. In these cases one or both kidneys can be removed before the transplant, but sometimes afterwards as well.

Other reasons to remove native kidneys include recurrent pyelonephritis (kidney infections), cancer in one or both kidneys, and very

severe hypertension (but only as a last resort). Often the patient is very involved in the decision making process. Please speak with your dialysis nephrologist (if before the transplant) or the Transplant Clinic after the transplant, if you are considering having a native kidney removed.

continued from page 2

Looking forward, we're committed to making things even better for our patients. We want to make our evaluation process before a transplant smoother and introduce an organization wide electronic patient record which will improve access to health information for patients and providers. Patients can easily view their medical history and test results through secure portals. We're also excited to launch a new website and more educational resources to give our patients the support they need at every stage. Visit our website, www.kidney.to.

During the visit, our guests got to meet important people from our Unity Health team, like Dr. Tom Parker (Chief Medical Officer), Dr. Ramesh Prasad (Medical Director of Transplant), Dr. Jeff Zaltzman (Medical Director of Kidney and Metabolism) and Dr. Ken Pace (Division Head for Urology). They also met the staff who work directly with patients and deliver great care to all. Rebecca Cooper, Vice President of TGLN, Dr. Darin Trealeven, Medical Transplant lead for TGLN, Esti Heale, Director Renal Services, and Karen Fleming, Director Transplant Services joined us from Ontario Health.

This visit highlighted how working together with others and sharing our goals can make a big difference. With great leaders at Trillium Gift of Life and our hardworking transplant team, we're making things better for kidney transplant patients.

Angelo Raffaele Caputo Legacy

Galo Meliton, RN, C Neph (C)
Senior Chief News Correspondent

Angelo Caputo was a kidney transplant recipient who was followed in our Program. He had an endearing personality that touched everyone he met. His wife Gwen kindly agreed to share with us her thoughts about his life and his legacy.



Angelo was born on June 4th, 1979, the "Year of the Child". When he was five months old, it was discovered that the ureter from his right kidney to the bladder was blocked. He had surgery to correct this, but due to scar tissue, there were always other issues, such as bladder and kidney infections. His life revolved between North York General and Sick Kids Hospital.

At the age of 19, Angelo was diagnosed with diabetes. At 30 years old he was told that his kidneys were failing and he needed to start dialysis right away, and that he needed a kidney transplant. Despite his diagnosis and disease complications, Angelo embraced life and did his best to live life to the fullest. He loved to travel, spending time at the cottage and going to good restaurants. He looked forward to his annual trip to Manitoulin Island to do some fishing. He was always happy and his smile was so contagious.

On August 16th of 2014, he married Gwen who was more than willing to donate a kidney to him but unfortunately, they were not compatible. On June 4, 2015, after five years of dialysis, Angelo received a call from the transplant team that they had a kidney for him from the paired exchange program. On August 18, 2015 Angelo received his kidney and at the same time Gwen gave hers to someone else.

The transplant brought a renewed sense of life to Angelo. Demonstrating compassion



and dedication, Angelo coordinated with his family and friends a mission to spread hope and giving back.

Angelo organized charitable initiatives to feed the homeless in downtown Toronto and Os-hawa preparing, cooking, and providing them food and clothing as well. On January 30th, 2016 he started hosting a Dinner and Dance Fundraising event towards supporting the excellent work done by the renowned St. Michael's Hospital, specifically their remarkable Kidney Transplant Program which provides aid to those suffering kidney disease and other related health issues and raised \$15,460.00. On April 1st, 2017, Angelo hosted the 2nd Fundraising event and raised \$17,685.00. On September 28th, 2019 Angelo hosted the 3rd Fundraising event and raised \$14,600.

On May 4th, 2023 Angelo passed away suddenly and unexpectedly. The St Michael's Kidney Transplant Program received \$8,700 monetary donations from his family and friends in lieu of flowers at his funeral and most recently, in honor of his memory, Affiliated Force Inc which Angelo co-owned, donated \$ 12,120 to the same Program. To date, with Angelo's efforts, we have donated an impressive amount of \$68,565 for this noble cause. Angelo's kindness lives on charitable acts such as these and his legacy will continue.

Angelo's family wish to thank Dr. Stewart, Dr. Prasad, Dr. Zaltzman, Galo, and the entire kidney transplant team for being part of Angelo's journey.

Post-Transplant Erythrocytosis

Dr. Ramesh Prasad



Many patients with kidney disease are anemic. It is often a struggle to maintain the hemoglobin within an acceptable range for dialysis patients. Medications are often needed to boost the hemoglobin. Even after a kidney transplant, many patients do not have a normal hemoglobin. Patients struggle with low energy and fatigue, feeling cold even in warm weather, and added complications to other medical illnesses like heart disease. Part of the reason for this anemia is the anti-rejection medications, but other conditions such as occult blood loss, untreated high parathyroid hormone, and chronic illnesses continue to operate. Patients often receive a hormone called erythropoietin in some form to treat the anemia.

However, there are a few patients who have extremely high hemoglobin levels after a kidney transplant! The hemoglobin may be so high, well above the range seen in healthy people, that there is the risk of blood clotting because it is so viscous. Patients may look dark and ruddy, may complain of headaches, and notice themselves at the time of laboratory testing that their blood seems unusually thick. In the meantime the kidney transplant itself is working fine. Although uncommon, this condition called

post-transplant erythrocytosis (PTE) warrants medical attention. Too much of a good thing can be bad!

The usual reason for PTE relates to the effect of the anti-rejection medication. In some transplant patients, calcineurin inhibitors will inhibit the normal substances the body produces to reduce erythropoietin in the body. The body's metabolism after all is all about checks and balances, and these inhibitors of excess erythropoietin production are suppressed. On rare occasions, kidney cancer can cause PTE.

It is important to provide regular blood work after your transplant because PTE can develop silently. It is very important to adequately hydrate. Medications such as ACE inhibitors or angiotensin II receptor blockers are usually started, while monitoring the blood pressure. A full ultrasound of the abdomen may be ordered. Patients may be asked to come to the hospital for blood removal, so that the hemoglobin can be brought down to a safe level.

If you have any concerns about your hemoglobin level, which is part of your complete blood count, please contact the Transplant Clinic.

Food Safety After Kidney Transplant

Emily Campbell, RD CDE MScFN
Registered Dietitian

After kidney transplant, nutrition recommendations change and you are encouraged to eat a variety of nutritious foods. However, certain foods interact with your medications or can make you sick after transplant.

It is important to avoid consuming **grapefruit and pomelo** as well as fruit juices or extracts that contain these fruits as they interact with your transplant medications.

Some foods can make you sick after kidney transplant and should always be avoided. These foods include:

- Foods that contain added probiotics including yogurt (e.g. Activia) or kefir. When you are immune compromised these "good" bacteria from probiotic foods can move "bad" bacteria throughout the body and cause you to develop an infection. Traditional, Greek, and Skyr yogurt are safe.
- Star fruit can have harmful and toxic effect on those with kidney disease as well as after kidney transplant. Your kidney may not be able to get rid of substances found in star fruit, which can cause hiccups, confusion, seizures and even death in serious cases.
- Non-dried deli meats such as bologna, turkey, roast beef, or hot dogs. If you choose to consume these foods they need to be heated until steaming hot or cooked to 74°C (165°F) for hot dogs to ensure foods are safe to eat.
- Unpasteurized dairy products or soft cheese that are mold ripened such as brie, camembert, Havarti or blue cheese can make you sick. Cheese such as cheddar, mozzarella, parmesan, cottage or cream cheese are safe to consume.

- Raw foods such as raw or under cooked eggs, meat, fish, shellfish, pâté or meat spreads should be avoided. All foods should be cooked to a [safe internal temperature](#) by using a digital food thermometer.

To reduce the risk of food borne illness after kidney transplant, it is important to follow safe food handling and cooking practices. You can follow the four food safety steps: clean, separate, cook and chill.

Clean

Wash your hands before preparing and eating food with soap and water for at least 20 seconds. Be sure to wash your hands after you touch raw meat, poultry, fish, seafood or eggs, after you touch the garbage, your hair, your phone or your pet and after you use the washroom or change a diaper.

Be sure to clean the kitchen with dish soap and a clean dishcloth. Then sanitize the kitchen. This includes countertops, cutting boards, sink and faucet, digital food thermometer and utensils such as can openers, knives, spatulas, tongs.

Keep your vegetables and fruit clean by rinsing under water. Scrub firm produce like cantaloupes and potatoes with a clean vegetable brush under cool running water.

Separate

This means don't cross contaminate from raw food with cooked food. Keep raw meat, poultry, fish, seafood and eggs separate from cooked and ready-to-eat food because they may be contaminated with microorganisms that could cause foodborne illness. Here are some tips to

help you 'separate' to avoid cross contamination in your kitchen:

- Don't rinse raw poultry or meat since rinsing spreads bacteria around the sink, countertops, faucets, nearby dishes, the wall, the cupboards and anywhere the water spray lands or anywhere your contaminated hands touch.
- Use different colored cutting boards, for example, use a red cutting board for raw meat and green cutting board for washed produce. If you only have one cutting board, knife or platter, just be sure to wash and sanitize them between uses.
- Wash cutting boards after using them with raw meat, poultry, fish and seafood and before reusing it for washed produce or cooked food.

Cook

Cooking foods properly is one of the best ways to make sure that it is safe to eat. Check that your food has reached a [safe internal temperature](#) by using a digital food thermometer.

Keep hot food hot at or above 60°C (140°F) before serving. Remember, bacteria grow rapidly when food is allowed to sit in the 'danger zone' which is between 4°C (40°F) and 60°C (140°F).

Leftovers also need to be reheated properly and that means to an internal temperature of 74°C (165°F).

Chill

It's important to keep cold food cold, so that your food never reaches the temperature danger zone which is between 4°C (40°F) to 60°C (140°F). The danger zone is where bacteria can grow quickly and cause foodborne illness.

When you are grocery shopping plan to buy refrigerated and frozen food last. Go directly home, do not take your food with you on other errands.

When you get home, put away groceries that belong in the fridge and freezer right away. Make sure your refrigerator is set at 4°C (40°F) or lower and your freezer at -18°C (0°F) or lower.

If you have [leftovers](#), put them away within 2 hours, or sooner if they are in a warm environment. Throw away any food left out at room temperature for more than two hours. Don't ever rely on your nose, eyes or taste buds to judge the safety of food because you can't tell if food is contaminated by its smell, look or taste. Follow safe food storage guidance in the [storing leftovers](#) chart to help save money and decrease food waste.

For more information on food safety for people with a weakened immune system, visit this Health Canada resource (<https://shorturl.at/X9nA5>).



Fibre Essentials for Managing Constipation and Diarrhea Post-Kidney Transplant

Khymila Quan-Vie
Clinical Dietetics Student
Reviewed by Emily Campbell RD CDE MScFN

After a kidney transplant, some individuals may experience changes in their bowels like constipation and/or diarrhea. This change can be due to medications, changes in diet, reduced physical activity, and potential changes in the body's response to fluids.

Fibre plays a major role in our diet when it comes to constipation and diarrhea management. To best help with these issues, we first need to understand the difference between soluble and insoluble fibre, how they work and different food sources.

Type of Fibre	Description	Function
Soluble Fibre	Dissolves in water, forming a gel-like substance	Slows digestion, helps control blood sugar levels, and can lower cholesterol.
Insoluble Fibre	Does not dissolve in water and remains intact.	Adds bulk to the stool, promotes regular bowel movements, and helps prevent constipation.

Constipation Management

Constipation refers to infrequent or difficult bowel movements and can occur because of low fibre intake, low fluid intake, stress and anxiety, lack of exercise, ignoring the urge to go to the washroom, some medications and medical conditions. Having a bowel movement every 1 to 2 days is a good goal.

Here are some strategies to help minimize constipation:

- Eat enough fibre every day. Increase the fibre in your diet slowly with the foods below.
- Eat regular meals and snacks throughout the day. This keeps food moving through your bowels.
- Eat the whole vegetable and fruit (instead of juice). Include the skin or peel when possible.
- Make sure to drink as much fluid as you are allowed to drink.
- Increase your physical activity.
- Train your bowels by using the bathroom at about the same time each day. Don't ignore the urge to have a bowel movement.

These are some kidney-friendly foods that can help with constipation:

Fruits and Vegetables	Apples/applesauce, blackberries, blueberries, pear, pineapple, prune (2/day) raspberries, strawberries Broccoli, cabbage, cauliflower, carrots, collard greens, corn, eggplant, peas, string or wax beans, zucchini
Breads and Cereals	All Bran or Bran Buds, barley, bulgur, brown rice, whole grain products (like bread), Shredded Wheat, Wheatabix,
Protein foods	Beans, nuts, seeds, tofu

Diarrhea Management

Frequent loose or watery stools are what make diarrhea different compared to constipation, and if left unmanaged, it can lead to discomfort and dehydration. Diarrhea can be due to infections (bacterial, viral, or parasitic), certain medications, food intolerances or allergies, digestive disorders, and stress.

Here are some strategies to help minimize diarrhea:

- Drink as much fluid as you are allowed to drink.
- Include foods with fibre from the table below.
- Avoid irritants like caffeine, alcohol, spicy foods, and highly seasoned and greasy foods.
- Choose smaller more frequent meals. Try to eat something every 3 to 4 hours.
- Wash your hands thoroughly after using the bathroom and before handling food to prevent the spread of infections that can cause diarrhea.
- If diarrhea is a side effect of medications, consult with your transplant team to discuss potential adjustments or alternative medications.

The following foods may be better tolerated when experiencing diarrhea:

Fruits and Vegetables	Applesauce, apples, apricot, bananas, cantaloupe, canned fruit, grapes, mango, nectarine, orange/clementine, peaches, pineapple, watermelon Carrots, cucumber, eggplant, lettuce, mushrooms, peppers, pumpkin, string or wax beans, squash, zucchini
Breads and Cereals	Cream of wheat, oatmeal, white or sourdough or gluten-free bread/crackers/rice/pasta
Protein foods	Lactose-free dairy products like cheese (especially low fat) or yogurt, eggs, lean fish, beef, pork, skinless poultry

If you have questions about foods to include when managing your constipation or diarrhea ask to speak with your renal dietitian.



2023 Record year for Kidney Transplant Program

Galo Meliton, RN, C Neph (C)
Senior Chief News Correspondent

Below is an email from Dr. Prasad, Medical Director of the Kidney Transplant Program at St. Michael's Hospital to the Program staff highlighting our Program's success in 2023. Congratulations go to all involved!

Dear Colleagues,

2023 was a milestone year for the Kidney Transplant Program. Thanks to each and every one of you, we performed a record number of 146 transplants (117 DD, 29 LD) in 2023. We also transplanted the world's oldest recipient (age 87), had a patient exceed 51 years with his transplant, and have experienced markedly improved efficiencies in post-transplant clinic flow, resumed roadshows to our referring sites, and we are actively planning for our Nursing and Allied Health Transplant Symposium later this year. Transplant Digest is in its 18th year of publication! Our transplant success rates continue to exceed the national average.

Our pre- and post-transplant clinics continue to be a model of good patient care and data management. Patients are very appreciative of all your efforts; I get regular feedback in this regard. Patients are enjoying our new clinical space. We continue to engage in cutting edge research, and your management efforts during the COVID era have been emulated by other programs.

Thank you for everything that you do.

Warm regards,

Ramesh

Field Trip to the HLA Lab: A Successful Learning Experience

Galo Meliton, RN, C Neph (C)
Senior Chief News Correspondent



Donor Specific Antibody (DSA), Panel Reactive Antibody (PRA), and Cross Matching: these are just some of the testing terms that we hear about in our daily work activities but are not quite familiar with how exactly they are done at the HLA (Human Leukocyte Antigen) Lab, otherwise known as the Histocompatibility Lab located at the Toronto General Hospital (TGH)/University Health Network (UHN).

Since we have a lot of new staff on board, yours truly arranged for two groups of our staff to go on field trips at the lab to learn from their team. Was it ever an eye opener!

The overarching goal was to learn from their team how each laboratory testing are done in determining safety of the kidney transplant from an immunological perspective. The key question being: does the potential kidney re-

cipient have pre- formed antibodies against the potential kidney donor?

After a quick lunch at the Eaton's Centre, we then trekked over to the lab. We were graciously greeted by their 3 Medical Directors, Dr. Jinguo Wang, Dr. Lenka Allan, and Dr. Jeffrey Kiernan. The latter two showed us the physical aspect of the lab as well as how the several tests they perform are done. Dr. Wang then spent a good hour explaining the theoretical aspect of the tests. He even gave us a quiz! Fessing up here, it was my idea :). The quiz was very helpful as it provided us a quick review of what he just heard and learned.

A huge thanks go to Drs. Wang, Lenka, and Kiernan, and the entire team at the HLA Lab. Their hospitality was next to none. This was quite a successful learning experience!

April is Organ and Tissue Donation Awareness Month

Kathryn Salvatore, RN

Our transplant team members were proud to participate in Green Shirt Day, to honour Logan Boulet, who you may recall was one of players that saved six lives through organ donation after the Humbolt Broncos bus tragedy in 2018. Our team showed support by wearing green, and joining together in this movement for Life.

Although 90% percent of Canadians are in support of organ donation, only 32% have registered their wishes. One organ donor has the potential to save up to 8 lives, and enhance the lives up to 75 people through tissue donation. As a part of Organ and Tissue Donation awareness week the living donor team liaised with the Trillium Gift of Life Network coordinator to hold a successful registration drive in the Peter Gilligan Tower lobby. It only takes a couple of minutes to register. Please consider encouraging your loves ones and family members to discuss their wishes, and anyone interested in donating can register at **beadonor.ca**.



Mr. Tauro, the world's oldest kidney transplant recipient, presenting a copy of his Guinness world record certificate to Dr. Prasad.

True or False?

Please indicate if the following statements are TRUE or FALSE.

1. St. Michael's Hospital performs over 100 kidney transplants each year.

True or False

2. More organs come from living donors than from deceased donors.

True or False

3. Extended criteria donor kidneys refer to organs that come from older donors.

True or False

4. Extended criteria donor kidneys are usually offered to younger recipients.

True or False

5. Organs are routinely shared within the province of Ontario.

True or False

6. If you donate a kidney, you are at higher risk for kidney failure yourself.

True or False

7. Pediatric patients are prioritized to receive a kidney transplant.

True or False

8. Transplant waiting lists are slowly getting shorter.

True or False

9. The date you are placed on the transplant waiting list is the start of your waiting time for a transplant.

True or False

10. You are not allowed to receive more than one kidney transplant in your lifetime.

True or False

Answers:
1. TRUE, 2. FALSE, 3. TRUE, 4. FALSE, 5. TRUE,
6. FALSE, 7. TRUE, 8. TRUE, 9. FALSE, 10. FALSE

Welcome and Congratulations

By: Dr. Ann Young and Dr. Darren Yuen

This upcoming academic year, we are excited to welcome Dr. Abdul Hamid Aboghanem and Dr. Raheel Ahmed to the transplant team. The SMH Kidney Transplant Fellowship is a one-year comprehensive program for highly qualified physicians who have completed their core Nephrology training and are seeking advanced training in kidney transplant. We offer trainees exposure to all aspects of clinical transplant care, from the pre-transplant evaluation, peri-transplant activity, and post-transplant management.

These fellowship opportunities are made possible thanks to generous support from Astellas Pharma Canada and Paladin Labs Inc. Their partnership with our educational program plays a significant role in supporting the next generation of transplant nephrologists in their academic and career pursuits.



Congratulations to our very own kidney transplant nephrologist, Dr. Darren Yuen, together with Dr. Eno Hysi, for being recognized by the hospital for their research on kidney fibrosis.



New Website for Unity Health Toronto's Kidney and Metabolism Program:



For patients this includes information on waiting for a transplant, living donation, and information about life after transplant. They can also access resources, learn about research initiatives and stay up to date with events.