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### Are you interested in becoming a Stool Donor ?

The CDD stool Donor program allows you to positively impact the lives of others. If you are aged between 16-60 years, have no pre-existing medical condition and live or work locally to Five Dock you may be eligible. Start your application by completing our online questionnaire:

<https://centrefordigestivediseases.com/cdd-donor-2/>

Prof. Thomas J Borody  
MBBS  
BSc(Med),PhD,MD,DSc,FRA  
CP, FACP, FRCGP, AGAF,  
FRSN, FACGE, MAICD  
Provider No. 0203859B

Dr. Antony Wettstein  
MBBS(Hons), FRACP  
Provider No. 065080DA

Dr. Simon Benstock  
MBBS, BSc(Med), FRACP  
Provider No. 215156AA

Dr. Arti Rattan  
MBBS, MD, FRACP  
Provider No. 404044XK

Dr. Gaurav Agrawal  
MBBS, MRCP, FRACGP  
Provider No. 4327952H

Prof. Robert L Clancy (AM)  
MBBS(Hons), BSc(Med),  
PhD, DSc, FRACP, FRCPA,  
FRSN  
Provider No. 029209EH

Dr. Jeffrey Tu  
MBBS, FRACP  
Provider No. 487306CY

Dr. Justine Mill  
MBBS, BMedSci(Hons),  
FRACP  
Provider No. 275249KY

Assoc. Prof. Matt Rickard  
MBBS Hons(Syd),  
Mmed(ClinEpl),  
DipPaed(NSW), FRACS  
Provider No. 200939DT

Prof Shan Rajendra  
BAO, MBCh, LCRP&S,  
MSC, MCRP, MD, FRCP,  
FRACP

## *From the Director*

Dear Friends of CDD,

This year is such an important year for CDD as the centre turns 40 years. My vision for the centre over the years has never wavered. After spending time in the Solomon Islands as doctor and dentist then the Mayo Clinic, I came back to Australia with a similar goals and opened the doors to my humble gastroenterology practice with the aim to better the lives of Australians. Over the years the centre expanded to include a dedicated research department aimed at investigating new and ground- breaking treatments for conditions wherein conventional therapies are ineffective. We have also added a devoted therapeutics department which acts as the 'first response team' to urgent queries and concerns of patients. From our Centre the cure for peptic ulcer disease was born, changing hundreds of thousands of lives worldwide for the better in the process.

As I reflect back on our time and efforts, it's amazing to think that therapies that have a worldwide impact came from such humble beginnings in a small suburb here in Sydney. Looking forward, we will not slow down as we continue to pursue to be at the forefront of research and be the leading experts in many chronic conditions both in the gastrointestinal field and outside of it.

I invite you all to join us on this new adventure of ours

Yours sincerely  
Prof Thomas Borody



We are excited to announce our new

## Centre Manager

**Julie Simmons**

Julie Simmons has taken over the reins as Centre manager at our Centre for Digestive Diseases. A veterinarian, experienced business owner and a solid background in law, Julie has amassed a unique set of skills that will no doubt be invaluable as she guides CDD into the future.

22 years of professional experience including leading Vitramed, a medical devices company for the last 17 years from its conception, growth and eventual strategic sale, Julie is excited to bring her expertise in corporate governance, staff management, product development and registration to CDD.

Julie has over the years been an active presence in the Centre, engaging in research collaborations that help in the registration of many of Vitramed's products.

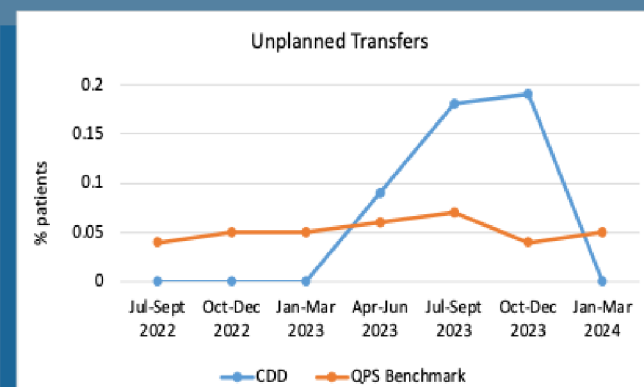
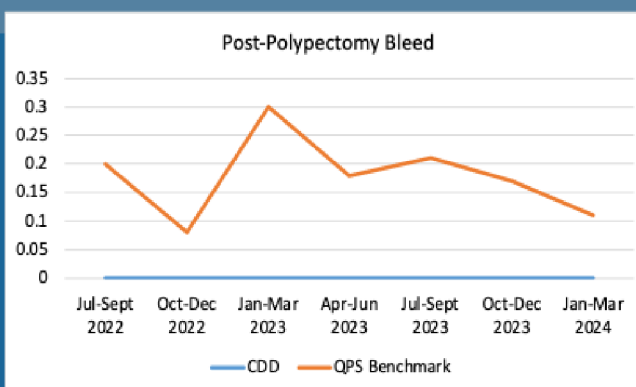
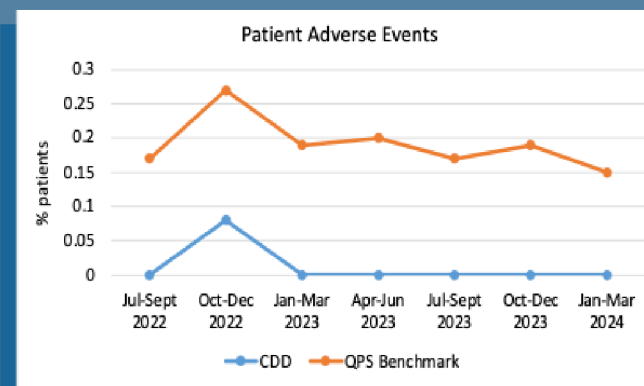
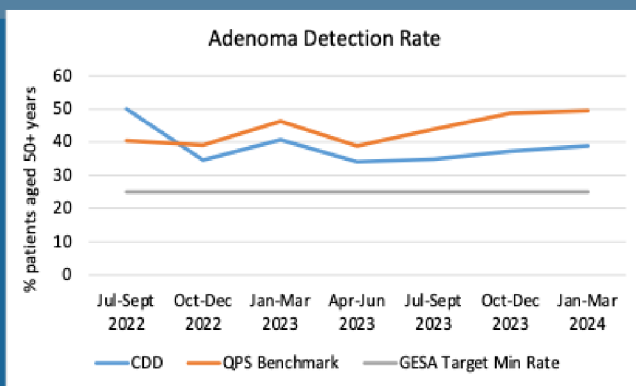
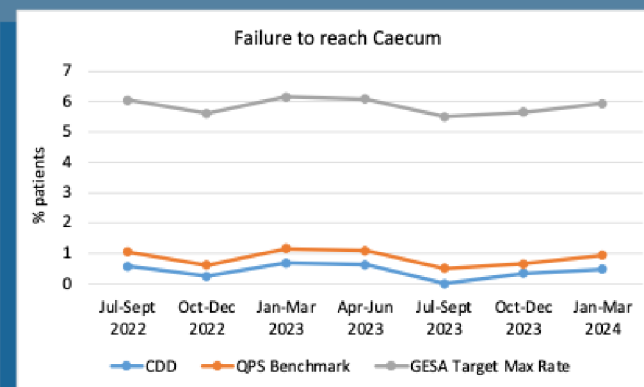
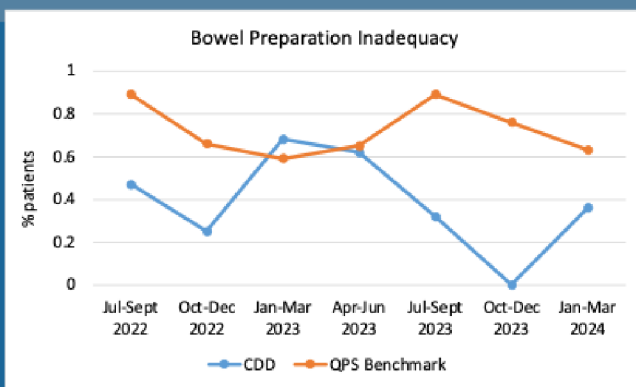
In addition, Julie is a graduate of the Australian institute of Company Directors offering exceptional contribution into ethical business practices and effective board management.

On a personal note, Prof Borody is excited for Julie to join CDD in an official capacity and look forward to CDD's new adventures under Julie's tutelage. Please give her a warm welcome and she is always open for a friendly chat!

# DAY SURGERY SAFETY AND QUALITY OUTCOMES REPORT May 2024

## SAFETY AND QUALITY INDICATORS

These six indicators have been selected by our Consumer Focus Group as they provide a good overview of our key clinical outcomes. These rates show better outcomes than the QPS industry benchmarks and the GESA (Gastroenterological Society of Australia) target rates apart from patient transfers in 2023. These incidents were unrelated, affected only a small number of patients and most were issues from patient's existing conditions e.g. epilepsy, AF, bleeding on admission. All have been reviewed by our Medical Advisory Committee.





## DAY SURGERY SAFETY AND QUALITY OUTCOMES REPORT May 2024

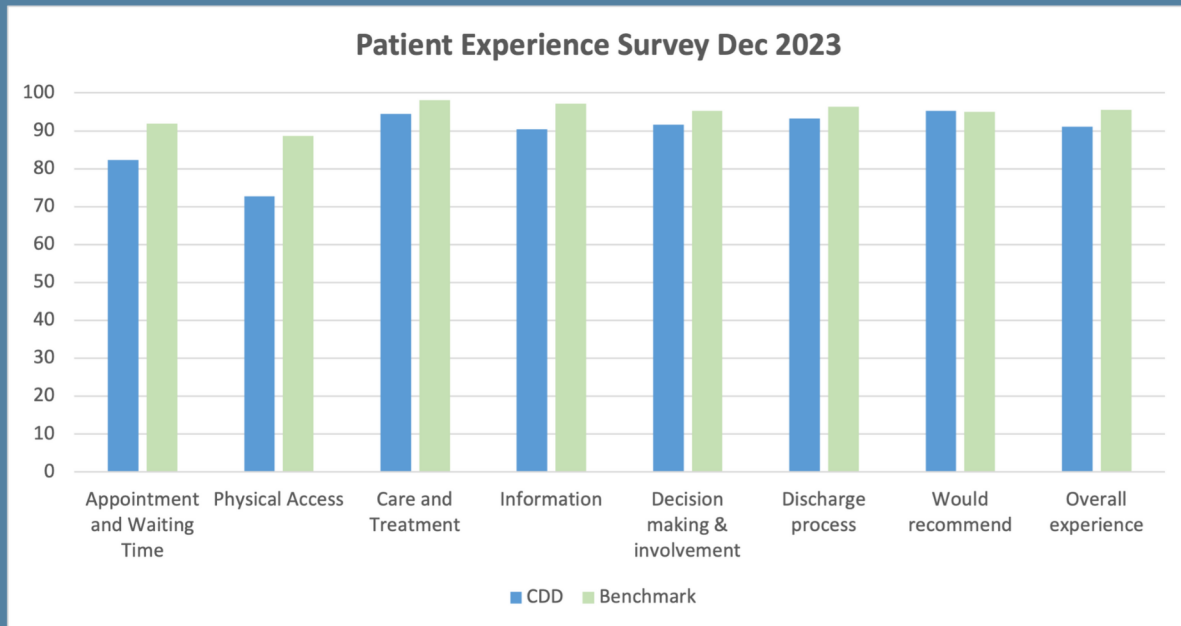
### INTERNAL AUDITS

We have a comprehensive schedule of internal audits that are completed every year. These monitor all elements of our quality management system to ensure we maintain safe, high quality patient outcomes. Here are some recent results.

Audit	CDD	QPS Benchmark
Clinical Governance Audit	98.75%	96.5%
Employee Satisfaction Survey	91.07%	84.69%
Employee Survey – net promoter score	82.35%	50.16%
Healthcare Record Audit	88.55%	95.32%
Staff Competency – Infection Control	98.54%	93.56%
Hand Hygiene Audit	97.2%	86.7%

### PATIENT EXPERIENCE SURVEY

The Patient Experience Survey completed in December 2023, shows great satisfaction in line with the industry benchmarks. The lowest scoring criteria were related to waiting time after admission for a procedure, availability of drop off areas for patients and signage inside and outside the hospital. We will be following these issues up with our consumer representatives to see how we can improve patient satisfaction.



### ARTIFICIAL INTELLIGENCE (AI) TRIAL

Our Gastroenterologists have recently been involved in trialling new Olympus AI technology colonoscopes. The AI assists the Gastroenterologist, like an extra pair of eyes, to identify polyps in the large intestine. Early detection is the key to reducing bowel cancer, as early detection means it can be treated more successfully.

We collect data for each Gastroenterologist showing their Adenoma Detection Rate (ADR). Adenomas are a pre-cancerous polyp. See the first section of indicators in this report for our rates. AI technology has been shown to increase a doctor’s ADR and therefore decrease the relative risk of their patients developing colorectal cancer. Studies have shown that for every 1% increase in ADR, a patient’s risk of developing colon cancer over the next year decreases by 3%.

The trial was very successful and, at our recent Medical Advisory Committee, our Gastroenterologists supported the purchase of this technology for the Centre.

## *A day in the life of Prof Borody*

*Most of my weekdays start at 6am when I check my emails and messages as I get ready for a fun and busy day at work!*

*At 6.45am, I see my first patient for a consultation and take them through to the nursing station to get ready for their procedure/s (gastroscopy or colonoscopy or both). I commence my first procedure and hope that all is well. Afterwards I usually dictate their procedure report and see the next patient or explain results to another patient.*

*At times I am held up longer than expected in a procedure (mostly colonoscopy). If there are any abnormalities, polyps, biopsies or testing required, the procedure time is even longer. This means that my other patients are kept waiting longer than necessary but unfortunately it is the nature of the world of gastroenterology procedures!*

*I keep the pace and momentum with a sip of coffee in between seeing my patients and answering queries from my staff in other departments. A typical clinic day will be a total of 15-20 patients and approximately 20-25 procedures.*

*A lunch break is luxury I cannot afford as this will create an even longer waiting period for my patients.*

*In the afternoon, I check my emails for queries from patients who at times require a return call. The rest of the afternoon is filled with either CDD internal meetings and any external business meetings. I am grateful to the availability of "ZOOM" and "TEAMS" platforms that enables me to save travel time and meetings from the comfort of my office.*

*A good day for me finishes at 7pm. An even better day is my patients have had favourable results from their gastroscopy or colonoscopy; or their medication is working and keeping them well!*

*Above all, a great day is making one day in someone's life better than what it was yesterday, more tolerable than what it was a week ago and most of all that I can give them hope that all will be well in the future!*

## RESEARCH ... in a nutshell



Research has had a cozy start to 2024, the first half of the year has had us busy helping out our GMP laboratory as it continues to seek GMP certification for our FMT products. In the midst of that we have also been busy in our investigations into the role of intestinal biofilms and gastrointestinal diseases. We continue to seek new methods or eliminating biofilms to help with FMT implantation and achieve long lasting improvement to chronic gastrointestinal conditions.

Our official clinical trial season begins in the fourth quarter of 2024 where we hope to have HREC approved clinical trials into the following and we will be up and ready for recruitment:

- Investigation into Small bowel washout and its effect on FMT implantation
- Fruit derived treatments that help with gut dysbiosis
- Long Covid gut dysbiosis
- Investigation into low residue diet and its benefits on oral bowel washouts
- Endometriosis and associated GI symptoms
- Use of Aquanet (colonic hydrotherapy) and its benefits in chronic gut conditions

We also submitted an abstract for consideration into the annual American College of Gastroenterology Scientific meeting scheduled for October 2024 in Philadelphia. Please find below a copy of the abstract. This is an exciting observation of our existing patient population and paves the way for further investigation in this field!



**ANTIBIOTICS AND FMT CAN ACHIEVE AN ACTUAL CURE OF CROHN’S DISEASE**

*Gaurav Agrawal, Portia Murphy, Margaux Torres, Encarnita Sitchon, Teresita Tugonon, Christelle Pagonis, Amrutha Varshini, Antoinette LeBusque, Jeffrey Tu, Thomas Borody.*

Crohn’s disease (CD) is an increasing chronic inflammatory bowel disease characterized by deep ulcerations with transmural inflammation and granulomas. CD is thought have autoimmune origins and is considered incurable. Mainstream treatments focus on reducing inflammation by suppressing immune responses . However, efficacy is often suboptimal with lifelong treatment required, relapse is common and surgery necessary at times. An infectious etiology of CD was posited by Dalziel in 1913, who noted similarities with Johne’s disease<sup>1</sup> while Burrill Crohn’s team attempted to culture a TB-like infective agent.<sup>2</sup> Later, culture of a causal TB-like organism which satisfied Koch’s postulates, Chiodini identified a humanized strain of Mycobacterium avium ssp. paratuberculosis (MAP), which became the leading causal candidate of CD<sup>3</sup>. Specialized Anti-MAP treatment with rifabutin, clofazimine, clarithromycin, with other possible components and restoration of the gut microbiome using faecal microbiota transplantation (FMT) has emerged as the only treatment with a documented cure of CD. Cure of CD has recently been defined as complete absence of CD in the absence of all therapy for a minimum of 3 years<sup>2</sup>.

We have previously reported ‘prolonged profound remission’<sup>4</sup> and now report 4 patients with initially severe and complicated CD, who achieved cure using a combination of Anti-MAP then FMT. The patients, treated between 1996-2017 are now on no treatment for CD ranging from 3-12 years with follow up colonoscopies and calprotectin as recent as 2023. Some patients’ follow ups have not been as recent as they no longer required ongoing treatment and have longer time periods between follow-ups.

**Table 1. Patient Treatment and response summary**

Initials	Year diagnosed	Anti-MAP Treatment Date	Anti-MAP Medications	FMT Date	1 <sup>st</sup> Clear Colonoscopy	Most Recent Clear Colonoscopy	Normal Calprotectin Results	Normal Histological Results	Number of Years in Remission	Number of Years Cured	Current Crohn’s Disease Therapy
BS	1996	1996 – 1999	Rifabutin, Clofazimine, Clarithromycin	2002	2003	2015	Unknown	1996 - 2015	12	12	None
RB	2011	2013 – 2014	Rifabutin, Clofazimine, Clarithromycin, Ciproxin	2014	2013	2016	Unknown	Unknown	3	3	None
PV	1988	2013 – 2018	Rifabutin, Imuran	2000	2013	2021	2017 – 2023	2013 - 2021	8	3	None
SF	2008	2010 – 2016	Rifabutin, Clofazimine, Clarithromycin	2012	2016	2022	2017 - 2021	2018 - 2022	6	5	None

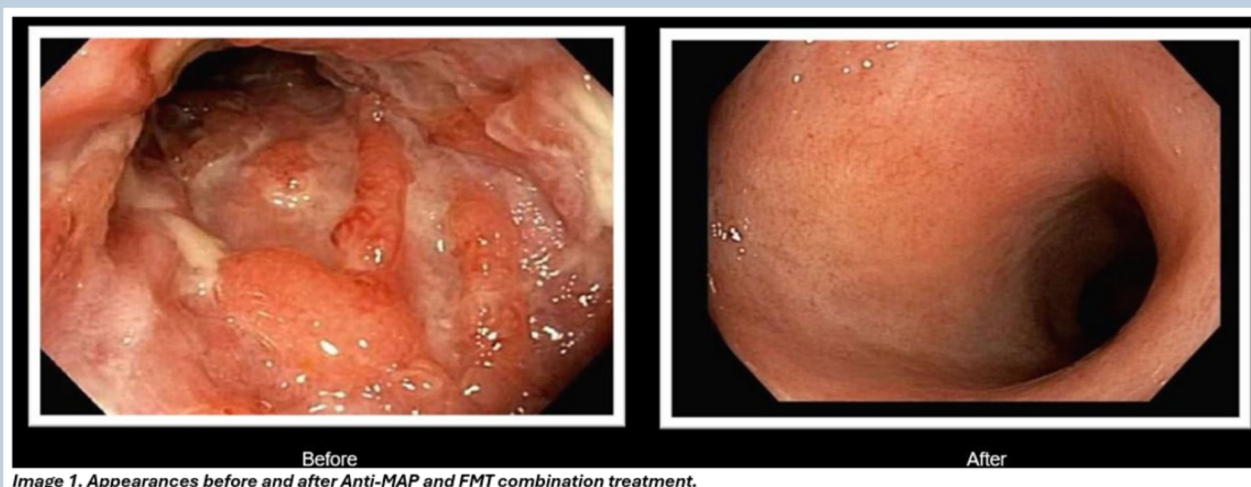


Image 1. Appearances before and after Anti-MAP and FMT combination treatment.

This shows the combination of anti-MAP and FMT can achieve a cure. However, at this stage the numbers are low, treatments are varied according to the individual, and so refinements of therapy are required for more patients to be cured. Further large-scale studies are required to determine a standard treatment of care to achieve cured status in a greater proportion of treated patients. An accurate diagnostic test of MAP is essential with the capability for antibiotic sensitivities. Together with the success of this antibacterial treatment seen here, the question of the aetiology of CD with a potential bacterial or microbial imbalance component becomes prominent.

**This study shows for the first time that a cure for Crohn's is possible.**

*References:*

1. Dalziel TK. Chronic Interstitial Enteritis. *Br Med J.* 1913;2(2756):1068-1070. <http://www.jstor.org/stable/25307529>
2. Borody TJ, Dolai S, Gunaratne AW, Clancy RL. Targeting the microbiome in Crohn's disease. *Expert Rev Clin Immunol.* 2022;18(9):873-877. doi:10.1080/1744666X.2022.2093186
3. Van Kruiningen HJ, Chiodini RJ, Thayer WR, Coutu JA, Merkal RS, Runnels PL. Experimental disease in infant goats induced by a Mycobacterium isolated from a patient with Crohn's disease. A preliminary report. *Dig Dis Sci.* 1986;31(12):1351-1360. doi:10.1007/BF01299814
4. Agrawal G, Clancy A, Huynh R, Borody T. Profound remission in Crohn's disease requiring no further treatment for 3-23 years: a case series. *Gut Pathog.* 2020;12(1). doi:10.1186/s13099-020-00355-8

## From the Therapeutics Department



### Aquanet Colonic washout FACTS sheet

#### ***What is a colonic washout?***

Colonic washout sometimes referred to colonic irrigation or colon hydrotherapy is a procedure involving flushing out the colon with fluids to remove debris and waste. Colonic washout was first practiced in Egyptian times and differs from an enema washout. An enema washout involves delivering a small amount of fluid through the rectum where it is held for a short period of time and removed. In contrast a colonic irrigation involves the delivery of a large volume of fluid to the rectum using a tube and the colon is 'washed out'.

#### ***What is Aquanet?***

Aquanet is a colonic irrigation machine used to perform colonic washout.

#### ***How does it work?***

Soapy water is introduced into the bowel via a small tube inserted into the rectum. The large bowel (colon) is slowly filled with the soapy water solution and then emptied using the aquanet system. This procedure is repeated multiple times until the colon has been cleansed of all debris. The colon then undergoes a final rinsing phase to remove any soapy residue.

#### ***What conditions can you use Aquanet for?***

Here at the CDD, Aquanet colonic washout is used as a preparatory procedure before their colonoscopy and their FMT infusions. This is to ensure that the colon is prepped well to receive the FMT product. We also offer this therapy for patients with chronic constipation or as per indicated by their physician.

#### ***What are the benefits ?***

Provided that the colonic washout is successful, a patient may benefit from a better visibility of colon during the colonoscopy. In addition, Aquanet may help in eliminating the gut biofilm and prepare the colon for receiving FMT infusion.

## From the Therapeutics Department



### Aquanet Colonic washout FACTS sheet

#### ***Is it safe?***

Colonic washouts are performed in clinic conditions and this procedure is generally tolerated well. However some people with pre-existing medical conditions or have recently undergone bowel surgery may carry additional risks and hence it may not be advised. Patients with a pre-existing allergy to potassium based soaps or glycerin may need to discuss this procedure with their physician.

The Aquanet colonic washout is designed to flush out the colon, hence some side effects can occur and include : abdominal discomfort, nausea, vomiting, bloating and diarrhoea, urgency, headache and imbalanced electrolytes. These side effects will generally cease once the procedure is completed.

Sometimes this procedure may not be successful and patients may need to undergo an enema washout prior to their colonoscopy.

#### ***How long does it take?***

This procedure takes approximately 45 minutes to an hour.

#### ***How do I book a colonic washout?***

Please contact the reception to book an appointment with one of our physicians or to speak with Joanna our therapeutics department



# THE CDD *Always Improving*

## **BORODY FOUNDATION**

We have set up the Borody Foundation which will focus on supporting research and new therapies that focus on treatment and prevention of many diseases. The Foundation will also have a strong charity arm that will give back support to the community and raise awareness for the many chronic diseases impacting Australians and the world's population daily. Stay tuned for more details!

## **STREAMLINED IRON INFUSIONS**

Iron infusion services are often time consuming and expensive and present with some potential adverse effects. Here at CDD, we have streamlined our iron infusion service with an optimised consultation and review with our gastroenterologists who will also determine if patients require further gastrointestinal investigations such as gastroscopy, colonoscopy or small bowel capsule endoscopy.

In addition, patients undergoing iron infusions are given intravenous hydrocortisone in order to minimise adverse effects and are monitored post infusion for a minimum of 30 minutes. This service is a cost effective procedure that will hopefully be able to cater to the increasing number of our population requiring supplementary iron due to iron deficiency

## **GP INFORMATION EVENING**

CDD has long been at the forefront of medical therapies and research. In the advent of the COVID pandemic, numerous CDD events have been put on pause as we adhere to strict regulations. We are excited to announce that our GP information evening will be resuming this year. This is a wonderful opportunity for CDD to showcase our treatment to our existing and new GPs. This is also an exciting chance to be able to open our centre and show our GPs the improvements that we have been making here at CDD as well as inform you of any of our new treatments and upcoming research. Any interested referring doctors who would like to attend our GP evening, please contact our centre!

## **OVERSEAS PATIENT FMT PROGRAM**

CDD has recently revamped our FMT program access for our overseas patients. The FMT program has been redesigned to be a better streamlined process allowing more efficient contact and communication between our FMT nurses and doctors. The new FMT overseas program is also now a clearer linear treatment regimen and includes holistic approach incorporating dietetics support. For more information please speak with one of our doctors!

# The CDD turns 40 years!



The Centre for Digestive Diseases is turning 40 this year! For the last 40 years CDD has been helping improve patients' lives and providing a positive impact on the community.

In 1984, Five Dock saw the opening of an innovative Endoscopy day hospital with Prof Borody and a team of 7 staff. Over the last 40 years, the staff have grown tenfold and CDD now boasts a staff of 70 with a busy clinic and dedicated research and therapeutics departments and a laboratory for FMT product manufacture seeking GMP licensing.

Throughout the years, Prof Borody and his team have developed numerous novel therapies for chronic gastrointestinal diseases and conditions, notably our H .pylori treatment which eliminated peptic ulcer disease and Faecal Microbiota Transplantation or FMT, an innovative therapy that uses healthy donor stool to help improve and cure C. difficile infections. FMT also has many applications outside of the gastrointestinal field as we continue to explore the gut microbiome and its effect on the body. This October, we invite all staff, old and new to celebrate with us as we toast the next 40 years! To our patients, referring doctors and the community, we thank you for your never ending support and we are honoured in your trust in our team always!



## Spotlight on

# Dr Arti Rattan



### ***How did you get your start in this career field?***

As a General Medicine Specialist from India, I had to further train in Australia for another 6 years to become a Gastroenterologist. For further train in Australia for another 6 years to become a Gastroenterologist. For further specialisation and Fellowship I had to move my family from Adelaide to Lismore, Sydney to Cambridge and back to Sydney.

On reflection, it is only my passion and unwavering support of my family that I could live a nomadic life during that tough period and achieve extensive clinical experience needed in this field.

### ***What appealed to you about this position and led to you to join the team?***

This is a world class centre for holistic GI care, be it prevention of cancer, inflammatory bowel disease or management of other Digestive issues.

### ***How do you typically manage your time and prioritise tasks?***

Prioritisation depends on the needs of the patient to give the best care to my patients. I ensure their requirements are met in a timely manner. Being a doctor and a mother of 2 young boys I meticulously work to a set time table. Every minute is precious for me so I ensure I am on time at work so that I can be on time at home to resume my parental duty.

### ***What is your favourite part of your job?***

I am passionate about helping people live a healthy life. The most satisfying part of my job is when I am able to treat a patient and tell them that they don't need to see me again





***Who or what inspires you to do your best?***

My father is my inspiration. He sacrificed from time to time for a best possible education for me. He reminds me almost every day that I have a duty for humanity.

***Describe your ideal work environment***

Passionate and supportive team working together while having fun

***What hobby or activity do you wish you had more time for?***

I would love to meditate more

***What causes are you passionate about?***

Prevention of bowel cancer

***How would your close friends describe you?***

Caring, disciplined and someone you can rely on

***What's your go-to morning beverage?***

Jasmine tea and Oolong tea combo!



# Love your GUT!

Courtesy of Julia Levy from Eating Well Photo by  
<https://www.eatingwell.com/recipe/7873236/vegan-lentil-soup/>

## Vegan Mediterranean Lentil Soup



Active Time:  
20 mins.

Total Time:  
1 hr.

Servings:  
6

**Nutrition Profile:**

Nut-Free Dairy-Free Soy-Free High-Fiber Vegan Vegetarian  
 Egg-Free Gluten-Free

- 2 tablespoons extra-virgin olive oil
  - 1 ½ cups chopped yellow onions
  - 1 cup chopped carrots
  - 3 cloves garlic, minced
  - 2 tablespoons no-salt-added tomato paste
  - 4 cups reduced-sodium vegetable broth
  - 1 cup water
  - 1 (15 ounce) can no-salt-added cannellini beans, rinsed
  - 1 cup mixed dry lentils (brown, green and black)
  - ½ cup chopped sun-dried tomatoes in oil, drained
  - ¾ teaspoon salt
  - ½ teaspoon ground pepper
  - 1 tablespoon chopped fresh dill, plus more for garnish
  - 1 ½ teaspoons red-wine vinegar
- Heat oil in a large, heavy pot over medium heat. Add onions and carrots; cook, stirring occasionally, until softened, 3 to 4 minutes. Add garlic and cook, stirring constantly, until fragrant, about 1 minute. Add tomato paste and cook, stirring constantly, until the mixture is evenly coated, about 1 minute.
  - Stir in broth, water, cannellini beans, lentils, sun-dried tomatoes, salt and pepper. Bring to a boil over medium-high heat; reduce heat to medium-low to maintain a simmer. Cover and simmer until the lentils are tender, 30 to 40 minutes.
  - Remove from heat and stir in dill and vinegar. Garnish with additional dill, if desired, and serve.

# ElementGold



Although a balanced diet of fresh whole foods is ideal, sometimes digestive issues mean specially formulated foods such as **elemental foods** can be helpful. Elemental foods provide nutrition in a very broken-down form allowing for rapid absorption and allowing for formulations of low trigger ingredients for sensitive digestive systems.

Elemental diets are used as treatments for Crohn's Disease and SIBO and are useful in many situations where problems chewing, swallowing or digesting are putting people at a nutrition risk.

## ElementGold Plus<sup>+</sup>

*Elemental Diet PLUS Whole Protein*

ElementGold Plus<sup>+</sup> is an elemental food with added high-purity whole protein. It is mixed with water, some oil as a fat source (and suitable sweetener added to the unsweetened versions for taste) to create a nutritionally balanced and tasty shake.

- A 325 mL serve contains around 2100 KJ.
- Highest quality ingredients have been selected to minimise the triggering of sensitive digestive systems.
- Contains whole protein, amino acids, carbohydrate, vitamins and minerals in a blend suitable as the sole source of nutrition (*for up to 3 weeks when used under the direction of a medical professional*).
- Available in sweetened and unsweetened versions with very high purity whey protein isolate or in an unsweetened vegan version utilising protein extracted from rice.
- Unsweetened versions are certified Low FODMAP by Monash Low FODMAP.

## ElementGold PREP SUPPORT

ElementGold Prep Support is a *low-residue* meal replacement, formulated to provide nutrition whilst undergoing a bowel preparation regime, prior to a colonoscopy. In certain situations it functions as an alternative to 'clear fluid' foods.

The low-residue elemental nature of **ElementGold Prep Support** helps the bowel prep clear the colon, which is essential for a successful colonoscopy. In addition it provides a balance of vitamins, minerals, carbohydrate and protein to help with hunger and to help maintain electrolyte levels.

The 400g tub provides powder for 4 x 1550 KJ vanilla shakes that are pre-sweetened with stevia for taste.

For more information about ElementGold Plus+ or ElementGold Prep Support, including stockists, contact ElementGold:

[ElementGold.com.au](http://ElementGold.com.au)

[info@elementgold.com.au](mailto:info@elementgold.com.au)

1300 702 500





# CDD GP Evening

**Come along to hear the latest news!**

**Learn more about the Centre and the different treatments offered by our doctors!**

**REGISTER YOUR INTEREST AT [Reception@cdd.com.au](mailto:Reception@cdd.com.au)**

