

Chairman's Report

Professor Adrian Polglase

- ◆ In our December 2001 newsletter we foreshadowed the community awareness theme of *Beating Bowel Cancer* for 2002. It has been rebadged '*Tackling Bowel Cancer*' to associate the campaign with the name of Trevor Barker a Champion AFL footballer and captain of the St Kilda Football Club who tragically died of bowel cancer at the age of 39. More information can be found later in the Newsletter.
- ◆ This year Melbourne is the host city for the Tripartite Colorectal Meeting which should attract in the order of 1000 registrants. The Tripartite Colorectal Meeting is one of the most prestigious International Colorectal Surgical meetings in the world and is made up of three international groups represented by North America, United Kingdom and Australasia. and is held every three years. Members of our Unit will be involved in the organisation of and participation in the programme.

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Laparoscopic Colon Cancer Surgery Offers Little Quality -of - Life Benefit

A recent study published in the January 16th, 2002 issue of the Journal of the American Medical Association * examined the benefits of laparoscopic vs. conventional surgery for colon cancer and found that although the patients who received laparoscopic surgery for colon cancer had a slightly shorter hospital stay and needed less post-operative pain relief while in the hospital the quality of life and certain symptoms (such as pain and nausea) during the first two months after surgery were substantially the same in both groups of patients. This suggests that laparoscopic bowel surgery for cancer may not have major advantages over conventional surgery but further research is required. The Cabrini Monash University Academic Surgical Unit is participating in an Australasian Multicentre Prospective Randomised Study of Laparoscopic vs. Conventional Surgery of Colon Cancer and is the central data collection center for Victoria.

* JAMA 2002 Jan 16;287(3):321-8

Short-term quality-of-life outcomes following laparoscopic-assisted colectomy vs open colectomy for colon cancer: a randomized trial. Weeks JC, Nelson H, Sargent D, Schroeder G; Clinical Outcomes of Surgical Therapy (COST) Study Group.

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- ◆ Through the generosity of our donors Cabrini has been able to acquire two important pieces of diagnostic equipment for detecting the site of occult bleeding in the intestine.
 - The Enteroscope: an instrument for examining the small intestine; a complimentary test to colonoscopy for the large bowel.
 - The Given Capsule Endoscopy (Pill Camera): a tiny imaging capsule which records colour video images as it glides smoothly through the digestive tract and is naturally excreted. Figure 1. The value of these diagnostic modalities will be carefully assessed in the coming months



Figure 1. A wireless endoscopy system in a capsule provides real-color images of the GI tract after the patient swallows the device.

- ◆ The Actual & Virtual Colonoscopy comparative study continues with a satisfactory "major pathology" detection rate for virtual colonoscopy although sensitivity and specificity in detection of smaller polyps may be an issue. The final results may not be known for 1-2 yrs.
- ◆ An excellent study on "Environmental Contamination of Colonoscopes" has been organised & supervised by Ms Robin Riley, Research & Practice Development Nurse, Cabrini Hospital in association with Associate Professor Chris Beanland and myself. It has demonstrated a new safe & cheaper cleaning regimen for colonoscopy. The final manuscript for publishing is almost complete.

NEW ENDOSCOPIC TOOL - WILL IT SOME DAY FIND CRC MORE EASILY

Alan L. Buchman, MD, MSPH. as printed in Ostomy International Issue 1:2002 Volume 24, No.1 pg: 12

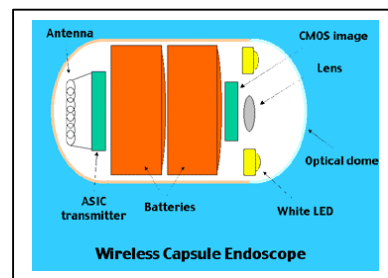
A revolutionary new endoscopic tool was approved for use in the US by the Food and Drug Administration. The "Given M2A" capsule video endoscope allows a gastroenterologist to see much of the small intestine as never before visualized. The capsule is propelled through the intestinal tract by peristalsis.

The capsule, taken orally, spends its first 30 to 60 minutes in the stomach before passing through the pylorus into the duodenum. It measures only 0.4 x 1.0 inches. The capsule contains a color camera, four light sources, a radio transmitter and batteries. With its 240 degree viewing area, the capsule can allow relatively complete viewing of the small intestine. It also magnifies the

intestine about 8 times so that vili can be seen. Along the way, the wireless capsule snaps photographs at a rate of two per second. These images are transmitted via high frequency radio waves to a lightweight data recorder worn on a belt by the patient. The images are down-loaded to a computer after the capsule's two to six hour journey through the intestine and can be then viewed as a video. During the test period the patient is free to pursue a normal routine, such as work, home activities or even shopping. Present capsule models do not allow biopsies to be take, but the next generation of capsules may permit this function.

Although the capsule often passes

into the colon while the videotaping continues, the batteries run out before passage through the colon is complete, therefore the capsule does not replace traditional colonoscopy for colon cancer screening or other purposes.



Actual size 0.4" x 1.0"

"Tackling Bowel Cancer"

**an initiative of the Cabrini Monash University Academic Surgical Unit,
St Kilda Football Club and the Trevor Barker Foundation**

Australia has one of the highest incidences of bowel cancer in the world and it now is the most commonly diagnosed new cancer in Australia. Over 10,000 new cases are diagnosed in Australians each year and almost half succumb to the disease annually. This is more than twice the number of people who die of breast cancer and three times the number who die in road traffic accidents. It is non-discriminatory affecting males and females equally and although most cases occur over the age of 40, adults of any age can contract the disease.

many lives can be saved

The tragedy is that we have the capacity to diagnose the disease at an early stage and can even prevent it with the potential to save lives. Community education is vital and therefore for this reason a focus of the Academic Surgical Unit in 2002 & beyond will be to help educate Australians about the major risk of bowel cancer and possible preventative measures through a public awareness campaign aimed at "Tackling Bowel Cancer". This theme acknowledges the great tackling strength of Trevor Barker, former captain of the St Kilda Football Club who died of the disease at age 39 & emphasises that any adult is at risk (although most cases develop after the age of 50).

The aims of "Tackling Bowel Cancer" are

- ◆ To demystify bowel cancer & to increase awareness of bowel cancer as a major public health issue.
- ◆ To improve awareness of the environmental & genetic factors which influence the development of bowel cancer.
- ◆ To improve awareness of the symptoms & signs of bowel cancer.
- ◆ To improve awareness and attitudes on detection, investigation and treatment of bowel cancer.
- ◆ To promote support for bowel cancer research

To "Kick" things off planning is underway with St Kilda Football Club to dedicate a football match honouring Trevor Barker and to highlight and demystify the disease.

MEDICAL STUDENTS

Final year medical students from Monash University commenced their "Selective" rotations at Cabrini in March.

The Selectives are a new innovation in the University medicine curriculum providing students with the opportunity to focus their final year studies in an area of interest and to gain valuable experience working in a clinical setting as a "junior intern" better preparing them for their 1st postgraduate year as doctors.

At Cabrini the medical students are participating in the Selectives of Medicine, Surgery, ICU/Cardiology and Oncology/Palliative Care. A maximum of 4 students per Selective are rotating a six week programme.

In addition to the time spent on the ward under the supervision of the consultant or registrar the students are expected to follow their patients through their various tests and treatments. At the completion of their 6-week rotation they are required to present a detailed case analysis with a focus on 'evidenced based' medical care.

CLINICAL RESEARCH UPDATE

Polyp Prevention Trial

RANDOMISED CONTROLLED TRIAL OF
THE COX II INHIBITOR REFOCOXIB
(Vioxx®) IN PATIENTS WITH COLON
POLYPS

Cabrini Hospital is participating in a promising
3- year international research study to see if a drug
called Vioxx® will help prevent certain types of polyps
forming within the bowel.

Vioxx® has been approved for the relief of signs and
symptoms of osteoarthritis and the management of
acute pain in adults. It has long been recognised that
similar medication can reduce the number & size of
polyps in the bowel but the absolute benefit and correct
dosage to avoid complications is yet to be determined.

Genetic Mutations associated with Colorectal Cancer

MSI project

Most patients develop colorectal cancer beyond 50 years of
age. A range of genetic events may predispose a younger
person to develop the disease at an earlier age.

The frequency of some of the known genetic mutations and
their relationship to age and clinical outcome is unknown in
the Victorian population.

This project, under the supervision of Mr Paul McMurrick,
will examine a genetic marker (MSI) in the tumours of young
patients with colorectal cancer and correlate these with
surgical and clinical outcomes which may determine if
chemotherapy can be more selectively recommended.

Websites of Interest

www.cancer.alliance.com.au

http://cancer.gov/cancer_information/cancer_type/colon_and_rectal

<http://www.nccra.org/>

<http://www.accv.org.au/>

Dietary Protectors that Decrease Colon Cancer Risk By Donna L. Weihorn, R.D., M.S.
as printed in Ostomy International Issue 1:2002 Volume 24, No.1 pg: 12

Factor - Possible Effects

Physical Activity - Exercise promotes movement of intestinal contents, limiting time of exposure to cancer-causing substances

- Physical activity helps prevent obesity

Vegetables and Fruits - Vegetables and fruits provide fiber and key cancer fighting nutrients, antioxidants and phytochemicals

Vegetables and Fruits rich in Lutein - Lutein protects against cell mutation and has immune enhancing properties. Lutein rich foods include spinach, dark greens, broccoli, tomatoes, carrots and oranges.

- Study found 17% lower risk of colon cancer in groups who ate foods rich in lutein (Amer.J.Clin. Nutrition Feb. 2000)

Soy - Soy flour inhibits colon cancer in animal studies.

- Subjects with history of colon cancer had less cancer cell growth on a diet with soy added. The theory is that soy may be able to delay onset of colon cancer and give more cancer-free years.

Legumes, Beans and Nuts - Phytochemicals in nuts (specifically almonds) were found to protect against colon cancer in animal studies.

- Legumes, dried beans, fava beans and nuts provide cancer fighting phytochemicals, vitamins, minerals and fiber.

Fiber - Fiber provides bulk, which speeds contents through the colon.

- Fiber binds bile acids so they can't harm the colon.
- Fiber provides "food" for beneficial bacteria, which promote anticancer compounds.
- Garlic and Onions - Garlic inhibits growth of colon cancer cells in culture.
- High consumption of garlic decreases colorectal cancer (Am.J.Clin.Nutri. 10/2000)

Olive Oil and Fish Oil - Olive oils are rich in polyphenols, flavonoids and squalenes. These phytochemicals have been shown to slow growth of colon, lung and skin cancer in animals.

- Olive oil protects against colon cancer by influencing metabolism of the gut.
- Olive oil decreases formation of bile acids in GI tract.
- Study found that rats fed on olive oil or fish oil supplemented diet had a lower risk of colon cancer than those supplemented with safflower oil (Gut 1/2000)

Flax Seed - Flax seeds are high in fiber and contain an oil that converts to omega 3-fat.

- Source of plant lignins which may inhibit cancer growth.

Folate (folic acid) - Protects against damage to DNA.

Folate rich foods include dark green leafy vegetables, cabbage family vegetables,, oranges, legumes & beans, whole grains.

Calcium and Dairy Foods - Calcium binds bile acids to prevent bile acids from irritating the colon.

- Calcium supplements decrease reoccurrence of colon polyps.
- Consume 2 - 3 non-fat dairy servings per day.

Fluids - Fluids promote movement of bowel contents.

Tea - Polyphenolic compounds in tea reduce cancer risk.

- Tea inhibits colon carcinogens.

Coffee - Coffee accelerates the rate the colon expels wastes.

Aspirin - Aspirin may cut colon cancer risk (1 tablet/day)

- Salicylates are found in many fruits.

Fructooligo-saccharides - A carbohydrate found in fruits and vegetables. Also available as a supplement.

- Encourages growth of "good bacteria" in the GI tract which may decrease colon cancer risk.

Factors that INCREASE risk of colon cancer

Obesity - Persons who are obese (especially those with increased waist circumference) are at increased risk for colon cancer (J.NCI, 7/7/99)

- Colon cancer may be related to excess calories, insulin overstimulation from carbohydrates and physical inactivity.

Red Meat - Meat may not be digested as completely as other foods, so more potentially cancerous by-products could make their way to the colon. Releases sulfur upon digestion, which may promote cancerous changes.

- Cancer-causing compounds may be produced when meat is burnt, blackened or overcooked.

Alcohol - Alcohol interferes with folate absorption and a deficiency can cause damage to DNA.

- Risk of colon cancer is significantly higher if regular alcohol intake is coupled with a low-folate diet.
- There may be less risk with wine.

Certain Carbohydrates - Diets loaded with carbohydrates-rich foods, with a high glycemic index that over stimulates insulin, may trigger growth of cancer cells in colon. High sugar foods crowd out more nutritious foods.

- Persons with elevated blood sugar (even non-diabetic) are at increased risk of colon cancer (J.NCI 7/7/99)

Fat - Diets high in fat increase risk of colon cancer although some fats (olive oil and fish oil) are protective.

- High fat diets stimulate excessive bile acids which irritate the bowel and stimulate tumor growth.
- High fat diets lead to obesity which increases cancer risk.

Note: When evaluating research finds, be aware that the development of colorectal cancer takes decades, and diet interventions of just a few years may not be long enough to make a difference.

CLINICAL RESEARCH ACTIVITIES 2002

The Cabrini Monash University Academic Surgical Unit remains committed to clinical research and the focus of research activities is principally on "*Tackling Bowel Cancer*" and the investigation of bowel disorders

CURRENT ACTIVITIES INCLUDE:

ALCCaS TRIAL: Australasian clinical study comparing laparoscopic and conventional open surgical treatments of colorectal cancer in adults. PJ McMurrick, AL Polglase

LOCAL RECURRENCE AFTER CURATIVE SURGERY FOR CARCINOMA OF THE RECTUM:
AL Polglase, A Tremayne, P Bhathal

THE MELBOURNE ASHKENAZI BOWEL CANCER STUDY STAGE II: Expansion of the trial in collaboration with The Peter MacCallum Cancer Institute to establish genetic testing at Cabrini. H Debinski, AL Polglase

RANDOMISED CONTROLLED TRIAL OF THE COX II INHIBITOR REFOCOXIB (Vioxx®) IN PATIENTS WITH COLON POLYPS. International study to assess whether bowel cancer can be prevented by regular intake of a COX II inhibitor. F Macrae, AL Polglase, P McMurrick, C Farmer, R Wale, I Jones, W Johnson, P Grossberg

HELICOBACTER PYLORI INCIDENCE IN PATIENTS WITH POST ANAESTHETIC NAUSEA:
S Woods, J Clooney

GIVEN® DIAGNOSTIC IMAGING SYSTEM IN OBSCURE GASTROINTESTINAL BLEEDING:
H Debinski, C Farmer, J Hooper

ENTEROSCOPE STUDY: Prospective study to evaluate the accuracy of the Enteroscope. H Debinski, C Farmer, J Hooper, A Polglase

VIRTUAL COLONOSCOPY: Prospective study to explore the diagnostic accuracy of CT Colonography
A Little, AL Polglase, A Laviopierre, G Lawler, J Cameron, M Schneider-Kolsky, J Clooney

MICROSATELLITE INSTABILITY PROJECT (MSI): Genetic determinants of outcome in colorectal cancer in patients under the age of 50 years H Debinski, PJ McMurrick, AL Polglase

A MULTICENTRE TRIAL TO ESTABLISH SHELF LIFE FOR STERILISED FLEXIBLE ENDOSCOPES: R Riley, C Beanland, H Bos, A Polglase

For further information regarding clinical trials please contact our Research Nurse,
Jody Clooney on 9508 1651

UNIT ACTIVITIES 2002

PUBLICATIONS 2002

MANUSCRIPTS: SUBMITTED 2002

Colorectal Cancer Predisposes Younger Men to Prostate Cancer. ANZ Journal of Surgery. A Moot, A Polglase, G Giles, OM Garson, V Thursfield, D Gunter.

Transanal Endoscopic Microsurgery (TEM): the first 50 cases. ANZ Journal of Surgery C Farmer, R Wale, J Winnett, I Cunningham, P Grossberg, A Polglase

MANUSCRIPTS: IN PREPARATION

Cancer of the colon: Outcomes of patients with colon cancer in a series of 210 patients treated by one surgeon. A Polglase, A Tremayne, P Bhathal

Local recurrence after curative surgery with blunt dissection for carcinoma of the middle and lower thirds of the rectum. A Polglase, A Tremayne, P Bhathal, P McMurrick

Environmental Contamination of Colonoscopes. R Riley, C Beanland, A Polglase

PUBLICATIONS: IN THE PRESS

Polglase, A.L. Colorectal Cancer. *E-MIMS Disease Index* (electronic format) Nov 2001

Woods SDS & Reisner GS. Ureteral Stenting Via An Ileal Conduit Using A Gastroscope. *The Journal of Urology*. July 2002

*Information on Cabrini Monash University Academic Surgical Unit can be located
at the website:*

www.med.monash.edu.au/surgery/cabrini

UNIT ACTIVITIES 2002

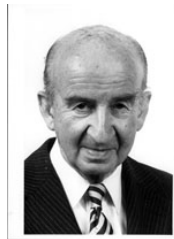
POSTER PRESENTATIONS 2002

Sensitivity and Specificity for Adenomas and Cancers of a Quantifiable Immunochemical Occult Blood Test with Simplified Fecal Sampling. Young GP, St John J, Cole, SR, Sinatra M, Bielecki B, Bennett J, Warren S, Macrae FA, **Polglase A.** Digestive Diseases Week San Francisco , California, May 2002

FORTHCOMING EVENTS 2002

July 7th The Tackling Bowel Cancer Football Match
St Kilda vs. Kangaroos

October 12th The Sir Edward Hughes Memorial Clinical Research Prize in Surgery 2002.



*Sir Edward Hughes was Professor of Surgery Monash University
and Consultant Surgeon at Cabrini Hospital*



MONASH
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