

Association of Habitual Dietary Fibre Intake with Gastrointestinal Symptoms in an Irritable Bowel Syndrome Cohort

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Session 3A - IBD, Shed 6, Rooms 1 & 2, November 27, 2019, 3:30 PM - 5:00 PM

Introduction: Diet may trigger symptoms in patients with functional gastrointestinal disorders (FGID). Dietary fibre supplementation is controversially recommended for the management of FGID. We aimed to explore differences in dietary fibre intake and gastrointestinal symptoms in New Zealanders with and without a FGID.

Method: The Christchurch-IBS-Cohort-to-investigate-Mechanisms-For-gut-Relief-and-improved-Transit (COMFORT) is an observational case control study examining IBS aetiology. Participants prospectively completed a concomitant food and gastrointestinal symptoms diary over three days. Severity of gastrointestinal symptoms and mood disorders were assessed using the Structured-Assessment-of-Gastrointestinal-Symptoms (SAGIS), the Patient-Reported-Outcomes-Measurement-Information-System (PROMIS) and the Hospital-Anxiety-and-Depression-Scale (HADS). Ethical approval was received from the Northern A Ethics Committee (Ref 16/NTA/21).

Results: Diet diaries were completed by 292 participants (176 cases, 71.2% female). Average daily fibre intake was significantly higher in the healthy controls compared to FGID cases (23.99g, 95% CI=-2.06-0.55; 20.28g, 95% CI=-1.96-0.45; $p<0.05$). Low fibre intake (<15g per day) was associated with significantly higher depression scores ($p<0.05$). Decreased fibre intake was also associated with increased anxiety in participants with functional diarrhoea ($r^2 = -0.554$, $p=0.03$) and depression in participants with mixed-phenotype IBS ($r^2 = -0.34$, $p=0.04$). A significant negative association between fibre consumption and increased bloating in IBS participants ($r^2 = -0.19$, $p=0.04$) was also found. 50% of female and 83% male participants did not meet their recommended intake of 25g and 30g of fibre per day, respectively.

Conclusions: Patients with FGID consumed less dietary fibre than healthy controls. Higher fibre consumption was associated with decreased belly pain in the study population overall, and decreased bloating, anxiety and depression in different FGID subgroups. In the present study, increased dietary fibre is associated with fewer gastrointestinal symptoms, although these data do not prove causation. Further analysis of diet diary data and concomitant symptoms will enable greater exploration of potential dietary triggers of FGID symptoms.

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Gastroenterology is perceived as a subspecialty without a culture of peer support: Is this influencing our workforce demographics?

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Session 4B - Hepatology Papers, Shed 6, Room 4, November 28, 2019, 9:00 AM - 10:30 AM

Introduction: Gastroenterology is a growing medical subspecialty in NZ. Current applicants to advanced training are not representative of the population served (gender and cultural background). Identifying barriers to diversity amongst applicants to Gastroenterology training may help address this. The aim of this study was to identify factors influencing specialty choice amongst junior doctors, and perceptions around Gastroenterology as a subspecialty.

Methods: An online questionnaire was distributed to medical Resident Medical Officers (RMO's) in the Wellington, Auckland, Christchurch and Midlands regions between October 2018 and March 2019. Demographic data were collected. Work and training factors were rated against a 5 point Likert scale, relating to general factors influencing specialty choice, and the perception of Gastroenterology as a subspecialty. Ethical Committee approval was obtained (Auckland DHB).

Results: 145 respondents ranged in experience from PGY1 to Advanced Trainees. 57.3% were female, 65% were in relationships, 18.1% had children, and 57.3% had previous exposure to Gastroenterology. The most important factor attracting RMO's to a subspecialty was the presence of supportive peers and work culture (99.3% of respondents rating this of at least moderate importance). This was more important for parents and women. Also important were nature of patient care (99.3%), lifestyle balance (97.9%) and intellectual challenge (92.3%). Factors considered most attractive about Gastroenterology were emphasis on technical skill (72.8% agreed), remuneration (66.2%), and intellectual challenge (61.5%). Gastroenterology was not perceived to have supportive peers and culture (40.4% disagreed). Gender-congruent role models were not felt to be present (40.1% disagreed), nor was predictable working hours (35.2% disagreed). Interruption to training was perceived as detrimental to future career prospects (31.0% disagreed).

Conclusion: Junior doctors feel that Gastroenterology lacks a culture of supportive peers, which is most important when influencing specialty choice. Also the perception is that there are few female role models in Gastroenterology.

Influence of gender on career choice and advancement in gastroenterology

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Session 4A - Luminal Free Papers, Shed 6, Room 3, November 28, 2019, 9:00 AM - 10:30 AM

Women continue to be underrepresented in gastroenterology and are less likely to be promoted to leadership positions in academic centres and professional societies. Our aim was to survey New Zealand (NZ) gastroenterologists and trainees to explore gender differences and identify factors affecting career choice and career progression.

Methods: An on-line survey was distributed to all gastroenterologists and trainees who are members of the NZ Society of Gastroenterology. Responses were collated and analysed.

Results: 68 out of 122 members (56%) responded to the questionnaire. 69% of respondents were male, 31% female. Factors identified as potential deterrents for female trainees choosing gastroenterology as a career included fewer female mentors, unsupportive environment for women, lack of feeling valued and unequal participation in meetings. Academic careers were pursued by 28% of men versus 19% of women. Varying family responsibilities was the greatest gender difference likely to affect career progression. Most men had < 6 months parental leave whereas most women had >7 months leave. 75% of women take primary responsibility for childcare versus <25% for men. 54% women felt parenthood had negatively affected their career compared with 9% for men. Women also spend almost double the amount of time as men on household duties. Despite these differences, women were as productive in academic publishing and conference presentations and were equally likely to perceive themselves as leaders and hold leadership roles. Both genders agreed that flexible work schedules, recognising the needs of doctors as caregivers and more female role models would make gastroenterology more appealing as a career choice for female trainees.

Conclusions: Academic output and leadership are comparable among men and women gastroenterologists in NZ. Allowing flexible work schedules, acknowledging parenthood roles and increasing the visibility of female role models may have a positive impact on addressing gender equality.

Outcomes of non-alcoholic steatohepatitis (NASH)-related hepatocellular carcinoma(HCC) at New Zealand Liver transplant Unit(NZLTU) over last 2 decades

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Session 4B - Hepatology Papers, Shed 6, Room 4, November 28, 2019, 9:00 AM - 10:30 AM

Introduction: Due to the current obesity and diabetes epidemics and effective therapies for HBV and HCV, NASH will soon become the leading cause of HCC globally. Patients with NASH without cirrhosis are at risk for HCC, because of persistently elevated proinflammatory cytokines and insulin levels and changes in the gut microbiota. This current study describes the outcomes of patients with NASH-related HCC and evaluates the benefits of HCC surveillance in this population.

Methods: All NASH-related HCC cases referred to NZLTU between 1999 and 2019 were included. Data on demographics, screening status, hepatitis B serology, treatment and survival were collected. Cirrhosis status was determined by clinical, laboratory, radiological features, or histologic criteria (biopsy, resection or explant).

Results: 204 patients with NASH-related HCC were identified: median age 71 years, 78% male, 67% European and 21% Maori. 82% were obese (BMI >30 kg/m²), 80% were on treatments for diabetes, 78% for hypertension, 66% for hyperlipidaemia. 13% had resolved HBV infection. 19% cases were detected through regular HCC surveillance, the remainder after onset of symptoms. Of surveillance-detected NASH-HCC cases, 68% received curative therapy (transplant, resection or ablation) compared to 20% of symptomatic cases ($p < 0.01$). Survival was higher in patients with surveillance-detected HCC compared to symptomatic cases (94% vs. 44% at 1 year; 27% vs. 7% at 5 years; $p < 0.0001$). 69 % of NASH-HCC cases were cirrhotic (20% on histology; 15% radiology; 34% clinical and radiology). Survival was similar in cirrhotic patients compared to noncirrhotic cases (57% vs. 59% at 1 year; 12% vs. 16% at 5 years; $p = 0.67$)

Conclusion: NASH-HCC has increased dramatically during the study period. Poor outcomes reflect lower rate of screening uptake and curative therapy in cirrhotic patients and absence of surveillance in non-cirrhotic cases. Identified risk factor for HCC includes male gender, metabolic syndrome and positive anti-HBc.

Outcomes of liver transplantation for non-alcoholic steatohepatitis (NASH) at New Zealand liver Transplant unit (NZLTU) over last 20 years

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Session 4B - Hepatology Papers, Shed 6, Room 4, November 28, 2019, 9:00 AM - 10:30 AM

Introduction: Non-alcoholic steatohepatitis (NASH) is the most rapidly growing indication for liver transplantation globally and is anticipated to become the leading cause in New Zealand within the next decade. This trend reflects both the epidemics of obesity and diabetes and the decreasing rate of end-stage chronic viral hepatitis due to widespread access to safe and effective antiviral therapy.

Methods: All NASH cases underwent liver transplantation at New Zealand Liver Transplant Unit (NZLTU) between 1999 and 2019 were included. Data on demographics, metabolic risk factors and survival were collected.

Results: 43 patients underwent liver transplantation for NASH during the study period, two thirds were performed for decompensated liver cirrhosis (DLC) and one third for hepatocellular carcinoma(HCC) .Patients were predominantly male 70% and European 84% with a median age of 58 years .84% were obese, 60% were diabetics, 49% were hypertensive, and 14% had dyslipidaemia.

Annual number of liver transplants for NASH increased from 12 patients in the first decade (1999-2008) compared to 31 patients in the second decade (2009-2019), an increment by 250%

32.5 % (N=14) patients had treated rejection post-transplantation, all were steroid responsive apart from one severe late rejection requiring antithymocyte globulin infusion.

Three patients died in the early post-operative period. Out of 9 late deaths, three died of renal failure, and one of recurrent DLC, one of non-HCC solid organ cancer. Overall survival was 90% at 5 years and 60% at 10 years

Conclusion: The annual number of liver transplants for NASH increased significantly during the study period. NASH population had inferior 10-year survival post-transplant (60%) compared to viral hepatitis group (80%) at NZLTU secondary to late deaths related to complications of metabolic syndrome (45%). Management of metabolic complications following transplantation for NASH will be a major challenge for NZLTU and referring centres in the future.

Is duodenal biopsy always necessary in adults with a high titre of Anti-tissue transglutaminase (TTG) antibodies?

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Session 4A - Luminal Free Papers, Shed 6, Room 3, November 28, 2019, 9:00 AM - 10:30 AM

Background: The duodenal biopsy sparing algorithm for coeliac disease (CD) in adult population is not well established like the paediatric population. Avoiding duodenal biopsy in adults is controversial with some studies suggesting an anti-tissue transglutaminase antibody (Anti-TTG IgA) level > 150 U/L would be sufficient for a diagnosis of CD in the subset of patients without co-existing upper gastrointestinal (UGI) pathologies.

Aim: This study aimed to find a cut-off value of anti-TTG IgA titres in the Counties Manukau District Health Board (CMDHB) adult population (>16 years) in the diagnosis of CD without the need for undertaking duodenal biopsy.

Methods: Retrospective analysis was undertaken of all new positive serology tests (Anti TTG IgA > 15U/l) on gluten diet who underwent a gastroscopy between 2013 and 2018. The relationship between titres and disease was determined by the linear model function, whereas sensitivity and specificity were assessed by receiver operator curve (ROC).

Results: We analysed 144 adults' patients with a median age of 48.5 (IQR 32- 61). Patients were predominantly females 89 (61.8%), Europeans 84(58.3%), Asian 32(22.2%) and Maori and Polynesians 27 (19%). The diagnosis of CD was confirmed histologically in 86 (60%) patients [68(59.7%)patients met Marsh 3 criteria, 18(20.9%) Marsh 1 or 2]. An Anti-TTG IgA of > 150 U/L was 100% specific for the diagnosis of CD. We found no significant difference between TTG IgA titres among different ages, races or between genders.

Conclusion: Coeliac serology using TTG IgA with titres of 10 x above normal value is an excellent predictor of CD irrespective of age, gender and ethnicity. It is reasonable to consider averting the duodenal biopsy in patients younger than 50 years with Anti TTG-IgA >10 x above normal value and without additional red flag clinical symptoms.

Point of Care and Persistence in Community Hep C Practice

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Session 4C - Nurse Papers - 1st Time Presenters, Shed 6, Rooms 1 & 2, November 28, 2019, 9:00 AM - 10:30 AM

The Midland Community hep C service has been running for 2 years. It was set up alongside three other specific regional hep C services in NZ. This is in response to NZ joining the WHO hep C elimination programme which aims for worldwide elimination of hep C by 2030.

A key part of elimination in NZ is identifying people who don't know they have hep C but have been exposed at some point in their life. In response to this, we at Midland have instigated Point of Care (POC) testing across the region in various community settings known to encounter people that may be at risk, including a specific project within the Probation service in Hamilton.

To help us identify which POC area is most successful we have collected data which includes venue type, year of birth, gender, ethnicity and POC result from across the region.

The data collected shows the most successful areas of testing plus key demographics of gender, ethnicity, age and identification of the hep C antibody. We have completed 903 tests and found 37 positive patients. This is a rate of 4%. Of the venues we are using for testing, Needle Exchanges (23%) and Opioid Substitution Treatment Pharmacies (31%) have identified the most patients. Of those patients found to be positive,

5% Maori

5% NZ European

6% Male

3% Female.

The most common age group for positives patients is 40 to 49 years old compared to the expected 50 to 59 years. We are still collecting information and would like to look at final figures based on 1000 tests.

We conclude that POC testing is a very useful tool to identifying hep C positive patients in venues where there is an increased risk of hep C infection such as needle exchange and OST pharmacies.

Dietary management of irritable bowel syndrome in older adults – does a low FODMAP diet help manage IBS in an older population?

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Session 4A - Luminal Free Papers, Shed 6, Room 3, November 28, 2019, 9:00 AM - 10:30 AM

Introduction: The low Fermentable Oligosaccharide, Disaccharide, Monosaccharide And Polyol (FODMAP) diet has been extensively researched for managing irritable bowel syndrome (IBS) in under 65 year olds. This pilot intervention study aims to investigate the effectiveness, impact on psychological outcomes, nutritional status and the acceptability of the low FODMAP diet in older adults.

Methods: Participants were recruited after colonoscopy for chronic diarrhoea with no known cause found. Participants followed the low FODMAP diet for six weeks after receiving written and verbal education from a dietitian. The Hospital Anxiety and Depression scale (HADS), a structured assessment of gastrointestinal symptoms (SAGIS), and a four-day food diary were completed before and after the low FODMAP diet. An acceptability evaluation was completed after the intervention. Paired t-tests were used to assess change in outcomes. Ethical approval was obtained from the University of Otago Human Ethics Committee (H17/068).

Results: Twenty older adults, mean age 76 years, were recruited. Adherence to the low FODMAP diet was acceptable; FODMAP intake reduced by 17g ($p < 0.001$) during the intervention and no clinically significant changes in macro- or micronutrient intakes were observed. Clinically significant improvements in diarrhoea between base line and follow up (mean difference 5.8 $p < 0.001$) and pain (mean difference 2.9 $p < 0.001$) were observed. There were significant reductions between base line and follow up in anxiety (2.1, df18, $p < 0.05$) and depression (3.1, df 18, $p < 0.01$) scores but changes were not clinically significant. Nineteen (95%) participants completed an acceptability evaluation; 19 reported easily understanding the dietary education but 9/16 (57%) thought it would be difficult to follow without verbal instruction.

Conclusion: The low FODMAP diet is clinically effective for an older population and can be delivered without jeopardising nutritional intake and may offer improvements in psychological outcomes. Older adults preferred verbal instruction alongside verbally written information.

Patients' experience - What more can endoscopy nurses do?

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Session 4C - Nurse Papers - 1st Time Presenters, Shed 6, Rooms 1 & 2, November 28, 2019, 9:00 AM - 10:30 AM

Introduction: It's a never-ending question what endoscopy nurses can do to improve patients' satisfaction and the quality of the care that patients receive. Study shows that patients feel what matters them most for the quality of care they receive can be different from that of what nurses think. Despite that most patients reported positive experience of the endoscopy procedures, some issues are addressed, which can indicate room for improvement for nurses' practice.

Methods: Recommended nursing interventions are searched based on the eight factors that are strongly associated with patients' satisfaction towards endoscopy experience and therapeutic relationship between patients and nurses from a systemic review (Ware, 2017). Those include preprocedural anxiety, pain, technical skill, provision of information, long waiting time, personal manner of health professionals and communication. Database is searched for up-to-date evidence-based practice for the above factors.

Results: Patients report anxiety and pain management and information provision as the top three main factors accounting for satisfaction of endoscopic procedures. This is different from nurses' perception that good personal manner would be the top factor that contributes to patients' satisfaction. The difference in those perception could indicate neglected patients' needs, which indicates a necessity for more emphasis on those factors. Recommended nursing interventions are assembled based on those eight themes.

Conclusion: Due to the different perceptions of satisfaction of endoscopic procedure, pain and anxiety management and information provision should be emphasised for patients' having endoscopic procedures. Endoscopy nurses should also continue contributing to patients' satisfaction of their endoscopy experience by providing effective communication and good personal manner, managing long waits and others including increasing technical skills.

Reference:

The therapeutic relationship between nurse and patient in the endoscopy setting
Ware, D. (2017). The therapeutic relationship between nurse and patient in the endoscopy setting: a literature review. *Gastrointestinal Nursing*, 15(10), 34–44. <https://doi-org.ezproxy.auckland.ac.nz/10.12968/gasn.2017.15.10.34>

The Dawn of Paediatric Services at MacMurray Centre

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Session 4C - Nurse Papers - 1st Time Presenters, Shed 6, Rooms 1 & 2, November 28, 2019, 9:00 AM - 10:30 AM

Introduction: New Zealand has an increasing prevalence of paediatric gastroenterological conditions especially IBD and Coeliac Disease. There are limited paediatric services in the public health system nationwide, with only two centres available in Auckland and Christchurch. As a result, MacMurray Centre has developed a new paediatric service to meet this growing demand. This poster aims to illustrate the processes, challenges and potential growth in setting up a paediatric gastroenterology service over the past two years.

Method: A retrospective audit of paediatric admissions to MacMurray Centre from April 2017 - August 2019, using chart review.

Results: The paediatric service at MacMurray was developed in phases. In April 2017, the MacMurray Centre appointed a paediatric gastroenterologist and clinics commenced. Initially services were provided for older children that met set criteria. Paediatric experienced nurses and anaesthetists were employed to assist with the service. Current staff underwent specialised paediatric training and ACLS upskilling. So far, MacMurray centre has provided gastroscopy and colonoscopy procedures for 134 children, aged between 2 to 16 years of age. This has shown timely diagnosis of multiple gastrointestinal conditions.

Conclusion: Since the commencement of our new paediatric service, numerous gastrointestinal conditions such as IBD and Coeliac disease have been diagnosed, which in return confirms the importance of starting this service. Nurses have gained substantial knowledge and experience in caring for paediatric patients, boosting their confidence with the provision of care throughout the peri-procedural journey. This has allowed MacMurray Centre to offer new therapeutic services such as anal manometry and the Fussy Eater Multidisciplinary Clinic to a greater age range of children. In introducing these services, MacMurray has placed itself in the forefront of paediatric gastroenterology services in the private healthcare sector in New Zealand.

5 Year Post-endoscopy Missed colorectal cancer (CRC) rates - Single center experience.

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Session 4A - Luminal Free Papers, Shed 6, Room 3, November 28, 2019, 9:00 AM - 10:30 AM

Introduction: Missed CRC rates are a key performance indicator of high quality endoscopy. A UK study (2001-2008) reviewing National Cancer Data found an 8.5% post endoscopy CRC rate. This study established our 5 year Missed CRC rate.

Methods: Retrospective study, utilizing HVDHB CRC database, identified patients diagnosed with CRC between June 2014 and June 2019. Cases where colonoscopy was performed within 5 years prior to CRC diagnosis were reviewed. Patient age, entry into surveillance (as per 2011 Ministry of Health Guidance), timing of diagnosis relative to planned surveillance, tumor location and histology were recorded.

Interval CRC is diagnosed after negative screening colonoscopy and before scheduled surveillance.

Post Colonoscopy CRC is diagnosed within 5 years of negative colonoscopy where no surveillance was planned.

Exclusion criteria; prior surveillance elsewhere, appendiceal or anal cancer.

Missed CRC rate = number Missed CRC / Total number CRC over 5 years.

This audit was exempt from ethics review per the HEDC SOP.

Results: 334 cases CRC. 66 excluded; prior surveillance elsewhere(59), appendiceal cancer(4), anal cancer(3). n=268.

	Number patients	Mean interval since prior colonoscopy (Months)	Mean age at CRC Diagnosis (Years)	Tumour location		Notable histology
Post Colonoscopy CRC	6	28.5 (Range 5-52)	76.8 (Range 65-87)	Transverse	3	
				Rectosigmoid	2	
				Ascending	1	
				Caecum	0	
Interval CRC; Polyp Surveillance	3	25.6 (Range 14-40)	74 (Range 71-78)	Transverse	2	2/3 possible serrated polyposis syndrome (SPS). 4 CRC, 1 synchronous
				Rectosigmoid	0	
				Ascending	1	
				Caecum	1	
Interval CRC; Post-CRC Surveillance	2	45.5 (Range 40-51)	73.5 (Range 71-76)	Transverse	1	1/2 possible SPS. 3 CRC, 1 synchronous
				Rectosigmoid	0	
				Ascending	2	
				Caecum	0	

11 Missed CRC/268 Total CRC = **Missed CRC rate 4.1%**

Conclusion: Achieving key performance indicators and appropriate surveillance reduce the risk of missed CRC. Our 4.1% 5 year rate falls within the UK target of <5%.

From bottom to top! NDHB Endoscopy progress report

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Session 4C - Nurse Papers - 1st Time Presenters, Shed 6, Rooms 1 & 2, November 28, 2019, 9:00 AM - 10:30 AM

Introduction: Northland DHB traditionally remained in bottom of the MoH targets in endoscopy timeliness. The endoscopy service was fragmented, in multiple different locations, each with differing processes and eligibility criteria. Waitlist staff reported an inability to manage the workload.

Methods: A multi-faceted approach to solve the problem.

Implementing a quality improvement framework was a key element to recognising issues as well as constraints within the service. At the completion of a process map an issues register was established. Data review was essential to determine the current “state of play”, [July 2018 P1 79%, P2 17%, P3 56%](#).

An increase in resourcing was pivotal to turning the service around. An extra Waitlist Clerk FTE, appointment of a Specialty Clinical Nurse (SCN) and later a Charge Nurse Manager sought to address both clerical and clinical needs. Outsourcing for a short time was necessary to clear the “backlog”; this was done via private facilities. Twilight and weekend lists were also utilised.

Co-locating the team enabled morning huddles to set priorities and problem solve. Developing a new reporting tool, acuity based, became the Waitlist Clerks working tool as well as developing a Desktop file. Business rules and processes were established.

A review of DNAs revealed the need to address unique issues associated with northlands demographic and this has become one of the key areas for the SCN role. A suspend process was also established in recognition of people not currently fit for care.

ProVation was introduced in July 2019 to streamline the clinical process and help monitor GRS (Global Rating Scale).

Results: July 2019
[P1 93%, P2 55%, P3 98%](#)

Conclusion: A multi-faceted approach was crucial in solving the problem recognised by the Northland DHB to reduce waitlist timeframe and improve quality in endoscopy service.

De Novo Malignancy after Liver Transplantation: Incidence and Mortality.

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Session 4B - Hepatology Papers, Shed 6, Room 4, November 28, 2019, 9:00 AM - 10:30 AM

Introduction: Liver transplant (LT) recipients are at increased risk of developing de novo malignancy post-transplant (skin and non-skin). De novo malignancy is an important cause of morbidity and mortality among LT patients. Previous studies have reported incidence rates of 4% to 11.9%, with survival rates of 53 to 57% at 5 years.

Method: We used data on all transplant recipients in the NZLTU who subsequently developed de novo malignancy post-LT. These data are submitted to the Australian and New Zealand Liver Transplant Registry (ANZLTR) every 3-6 months. We reviewed basic demographics, distribution of skin and non-skin cancers, 1-year and 5-year mortality after diagnosis of de novo malignancy.

Results: Of 807 liver transplant recipients, 47 non-skin and 140 skin malignancies were identified. Incidence of de novo non-skin malignancies: 5.82%; combined incidence (skin and non-skin): 23.2%. Mean age at cancer diagnosis was 59.1 years. Mean year post LT to cancer diagnosis was 6.52 years.

1-year mortality after diagnosis of malignancy was 51.06% while mortality increased to 66% at 5 year. The distribution of non-skin and skin malignancies are reported in table 1.

Conclusion: De novo malignancy in liver transplant recipients is a major cause of mortality. It is important that liver transplant recipients are diligently screened.

Table 1. Distribution of cancers

Non-skin	47
Haematological	8
Solid	39
Breast	2
Gastrointestinal	15
Genitourinary	4
Lung/bronchial	7
Oropharyngeal	4
Sarcoma	3
Thyroid	1
Other	3
Skin	140
Bowen's disease	3
BCC	39
SCC	96
Melanoma	2

Graft-Versus-Host-Disease after Liver Transplantation: A Diagnostic Challenge

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Session 4B - Hepatology Papers, Shed 6, Room 4, November 28, 2019, 9:00 AM - 10:30 AM

Background: Graft-Versus-Host-Disease (GVHD) after liver transplantation (LT) is an infrequent complication which carries poor prognosis, and very high 3-month mortality. GVHD after LT poses major diagnostic challenges and treatment dilemmas, with very limited data.

Case Presentation: We report a 65-year-old Caucasian male who underwent orthotopic liver transplant in July 2018 for alpha-1-antitrypsin deficiency. He had uneventful post-operative recovery with no rejection and was discharged from hospital post-transplant with routine immunosuppression.

Two months post-transplant patient presented with profuse watery diarrhea and diffuse maculopapular body rash (Mycophenolate stopped). Colonic histology showed CMV inclusions and patient was commenced on valganciclovir treatment with improvement of diarrhoea. Patient continued to be troubled by pruritic skin rash, with no clear aetiology identified despite thorough review of medication history. Graft function remained normal during this period.

Four months after transplant, patient was hospitalised with neutropenic sepsis. Neutropenia improved with the administration of G-CSF and reduction in Valganciclovir. Sepsis responded with appropriate antibiotics. Skin biopsy was performed for ongoing rash which showed intense destruction of the epidermis with heavy lymphocytic infiltration. T-cell chimerism studies showed presence of donor T lymphocyte macrochimerism (63%). Patient was subsequently diagnosed with GVHD-LT, characterised by colitis, skin rash and cytopenia.

After extensive review of the literature, patient was commenced on high dose steroids (60mg/day) combined with Basiliximab (20mg/week) for treatment of GVHD-LT. Serial T-lymphocyte chimerism studies have shown steady improvement (38%). Colitis and skin rash resolved. Due to recurrent pseudomonal sinusitis and CMV retinitis., the patient's maintenance immunosuppression has required frequent titration. He remains clinically stable.

Conclusion: GVHD is a rare complication of liver transplantation and usually rapidly fatal. Diagnostic criteria includes demonstration of absence of infective process, and presence of donor T-lymphocyte macrochimerism. Novel immunomodulatory agents such as Interleukin-2 antagonist and TNF- α inhibitors may achieve disease remission although long-term outcomes are unknown.

Identifying and treating patients with chronic hepatitis C lost to follow up

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Session 4C - Nurse Papers - 1st Time Presenters, Shed 6, Rooms 1 & 2, November 28, 2019, 9:00 AM - 10:30 AM

Background: Screening strategies to identify the undiagnosed will contribute to accomplishing the World Health Organisation goal to eliminate hepatitis C (HCV) as a public threat by 2030. However, many patients previously diagnosed with HCV have been lost to follow up whilst awaiting pan-genotypic direct acting antivirals (DAAs) and remain untreated. A nurse-led virtual clinic was developed to identify these patients and offer treatment.

Method: The Counties Manukau Health (CMH) HCV database was used to identify patients lost to follow-up who had not received successful treatment. Telephone call and a follow up letter with a copy to their registered general practitioner were attempted for all patients. Patients residing in CMH area with cirrhosis, treatment experience or complex health needs were offered follow up in secondary care clinic. All others were provided with information on accessing treatment through primary care services. Patients not residing within CMH area were referred to their local provider. Electronic medical record review of CMH area patients was carried out to determine treatment uptake.

Results: 135 untreated patients lost to follow up were identified and contact attempted through the virtual clinic (59% male, median age 53y, 48% genotype 1, 16% cirrhotic). 36 patients were offered secondary care clinic follow up, 58 patients were referred to primary care and 41 patients were out of area and referred locally. To date 35/94 CMH area patients have started treatment with DAAs (22 secondary care, 13 primary care). Results of treatment are awaited.

Conclusion: Implementation of a nurse-led virtual clinic can identify and increase treatment uptake in this previously neglected group. Much work needs to be done to identify, contact and support these patients through treatment.

Entecavir Resistance

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Session 4B - Hepatology Papers, Shed 6, Room 4, November 28, 2019, 9:00 AM - 10:30 AM

Introduction: Entecavir is an orally administered cyclopentyl guanosine analogue approved for the treatment of chronic hepatitis B. Entecavir monotherapy is associated with a low rate of resistance in nucleoside-naïve patients (1% after 5 years of treatment), but a high rate in lamivudine-refractory patients (50% after 5 years). Our aim was to investigate the unusually high numbers of observed possible primary entecavir resistance in our diverse population.

Methods: All 593 patients who had received, or are currently receiving entecavir were entered into our Excel spreadsheet. Data were collected from electronic health records for documented previous antiviral therapies, duration of treatment, ethnicity, age and e-antigen status. 38 patients had no clinical data available for over 2 years and were therefore excluded, leaving 555 patients in total.

Results: 13 patients (2.3%) were deemed to have entecavir resistance, and 9 (1.6%) were nucleoside-naïve (8 different nationalities, 6 male, 5 e-antigen positive, median age starting entecavir 49 years and median duration 6 years). 6 (1.1%) nucleoside-naïve patients had confirmatory resistance testing, while 3 patients were changed to tenofovir disoproxil on clinical grounds.

Conclusions: Entecavir remains a potent antiviral agent in patients with chronic hepatitis B, but results from our audit suggest a higher rate of primary entecavir resistance compared to the reported literature. Non-compliance or sub-optimal administration of entecavir was seen in many patients throughout our cohort which could lead to higher rates of resistance. Our cohort had 37 different nationalities, with prior antiviral therapy sometimes difficult to definitively exclude. Careful medication history is required when assessing patients for the first time, to enable the successful long term suppression of their hepatitis B viral load.

Timing Of Colonoscopy: It Ain't Easy!

Dr Uddaka Wijesinghe¹, Dr Cameron Schauer¹

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Session 4A - Luminal Free Papers, Shed 6, Room 3, November 28, 2019, 9:00 AM - 10:30 AM

Introduction: Providing timely colonoscopy has been raised as a significant issue both internationally and within New Zealand specifically. Accurate and appropriate triaging of colonoscopy is crucial to ensure prompt diagnosis but also appropriate provision and distribution of resources.

Methods: We conducted a prospective, case controlled study of all cases of symptomatic CRC diagnosed at Middlemore Hospital in 2018, matched by age, gender and ethnicity to patients referred for diagnostic colonoscopy who were not diagnosed with CRC. Auckland Regional Grading Criteria utilized by grading consultants denotes urgency as P1: urgent colonoscopy within 2 weeks; P2: colonoscopy within 6 weeks. Cases were also performed as an inpatient. Data was gathered from both the online grading system and paper referrals. Ethics was approved locally and nationally (HDEC:18/STH/89), ACTRN12618001283268.

Results: 177 patients were diagnosed with CRC and were matched 1:2. 31% of patients diagnosed with CRC referred for colonoscopy were graded as P1, compared to 13% of controls, Odds Ratio (OR) 4.26, [95% CI 2.0,9.3], $p=0.0002$. 33% of patients diagnosed with CRC were graded as P2, compared to 59% in matched controls OR 0.23, [95% CI 0.11,0.51], $p=0.0002$. In both cohorts, 28% had inpatient investigations. 13 (7%) of CRC patients were initially diagnosed by another means. In the CRC cohort, P1 cases were done in a median of 11 days and P2 completed in a median of 50 days. 27% of CRC was already metastatic at presentation.

Conclusion: Appropriate triaging of referrals for colonoscopy remains a significant challenge. Further research into improving this practice, particularly review of utilisation of inpatient colonoscopy may be important.

Sneaking up from behind! Colorectal Cancer In Those Less Than The Screening Age.

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Session 4A - Luminal Free Papers, Shed 6, Room 3, November 28, 2019, 9:00 AM - 10:30 AM

Introduction: Colorectal cancer (CRC) continues to represent a large a health burden both in New Zealand (NZ) and the world. There has been recent implementation of CRC screening in South Auckland from age 60-74, however age of commencement of screening is controversial. We aimed to discover the number of patients and the characteristics of symptomatic patients diagnosed with CRC under 60 years old, compared to those older than 60.

Methods: We conducted a prospective study of all cases of symptomatic CRC diagnosed at Middlemore Hospital in 2018, with detailed data on demographics, presentation, diagnosis treatment and outcomes collected from referrals and patient consultation documents. Ethics was approved locally and nationally (HDEC:18/STH/89).

Results: 177 patients were diagnosed with CRC. 29% were diagnosed under the age of 60. The mean age at diagnosis in this cohort was 50. 48% were NZ European, and 29% Māori or Pacifica, compared with 61% and 14% in those >60 ($p=0.01$). Iron deficiency anaemia was present in 27% <60 compared to 48% >60 years old ($p<0.01$). Patients <60 and >60 waited on average 122 days and 144 days prior to initial presentation to a doctor with their symptoms respectively. In those <60, 64% of cases were diagnosed via urgent colonoscopy (inpatient or graded to be completed within 2 weeks), compared to 80% in those >60 ($p=0.02$). At time of diagnosis, 38% were already metastatic in the <60 cohort, compared to 22% >60 years old ($p=0.02$). Although the rates of surgery in both cohorts was similar at 62% and 65% respectively ($p=0.7$), more additional chemotherapy was received in the younger cohort, 70% compared to 35%, $p<0.01$.

Conclusion: A significant proportion of CRC in South Auckland is diagnosed in patients younger than 60. These patients have different presenting features, method to diagnosis and more aggressive disease.

Planning your sTOOL

Mrs Donna Howe¹

¹Northland District Health Board, Whangarei, New Zealand

Session 4C - Nurse Papers - 1st Time Presenters, Shed 6, Rooms 1 & 2, November 28, 2019, 9:00 AM - 10:30 AM

Background: Historically the population living with inflammatory bowel disease in Northland were treated by primary, general medicine and surgical service to meet the needs of Northland's population (170,560 in 2016) with an estimated 752 people with IBD.

There were concerns about unmet need including delayed diagnosis, recurrent GP presentations and poor therapeutic treatment monitoring. This coincided with the report "Reducing the growing burden of Inflammatory Bowel Disease in New Zealand" (Kahui, Snively, Terment, 2017) being released. This identified that patient needs were poorly understood by both National and DHB strategists and planners. The report concluded that the current model of care was **reactive**, inadequate, inconsistent and inequitable.

Solution:

A multi-disciplinary team was progressively developed:

- 2016 First specialist gastroenterologist appointed
- 2017 Proposal for an IBD Clinical Nurse Specialist submitted to the CEO of NDHB
- 2018 Second gastroenterologist appointed
CNS IBD 0.5 FTE appointed

The team identified that as a developing service, they had an opportunity to build a **proactive** service. They identified the need for a database as an active working tool to:

- Assist with patient monitoring
- Collect demographic and disease related data
- Enable planning for future needs

The team looked at what is used elsewhere (literature search, national CNS network, national/international databases, specialists, patients). We used plan, do, study, act cycles to develop and refine a database to meet patient and service needs. This was done with support from improvement coaches within the DHB. A key question was what do we need and how will we use the information to support patient care (critical analysis).

We promoted the new service through presentations both within the DHB and General practice.

Result: Inflammatory biomarker monitoring and colitis surveillance is now routine.

Patients previously lost to follow up were identified / referred to speciality service.

The team has shared access/ ability to input / update data.

Visible patient management has identified disease patterns, improved treatment options / support working towards equity of outcomes.

References:

Kahui, S., Snively, S., & Terment, M. (2017) *Reducing the growing burden of inflammatory bowel disease in New Zealand* retrieved from https://issuu.com/crohnsandcolitisnz/docs/271017_master_formatted_bod_report

The development and validation of a self-management skills assessment tool for children with Inflammatory Bowel Disease: the IBD-Skills Tasks and Abilities Record (IBD-STAR).

Mrs Angharad Vernon-Roberts¹, Professor Chris Frampton¹, Professor Richard Geary¹, Professor Andrew Day¹

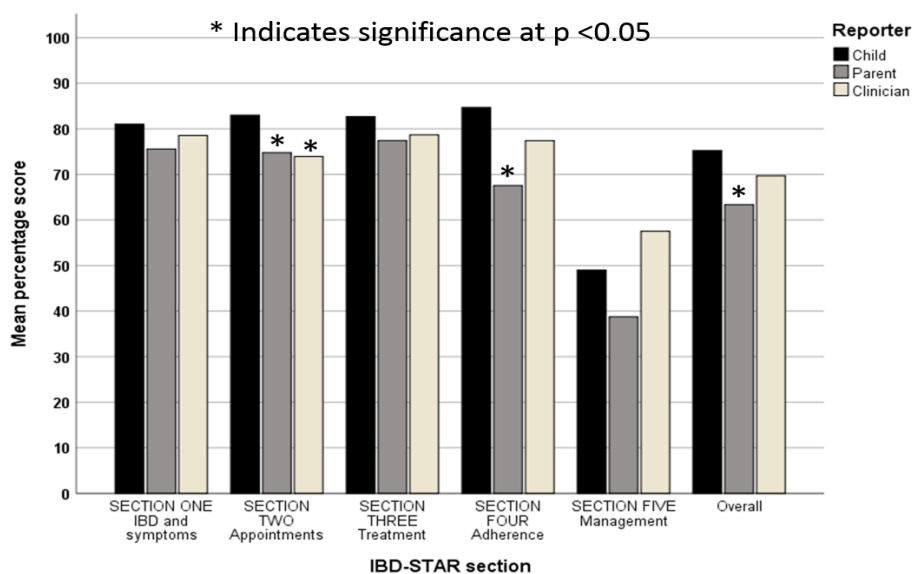
¹University Of Otago (Christchurch), Christchurch, New Zealand

Session 5A - Free Papers, Shed 6, Room 3, November 28, 2019, 11:00 AM - 12:15 PM

Introduction: For children with Inflammatory Bowel Disease (IBD), the development of self-management (SM) skills should begin prior to the transition process to achieve better disease outcomes. SM skills should be routinely measured, and an assessment tool was developed to measure allocation of responsibility for SM skills: the IBD-Skills Tasks and Abilities Record (IBD-STAR).

Methods: The study aim was to assess the validity and reliability of IBD-STAR using data source triangulation. Children aged ten years and over with IBD (and one parent) were recruited from Christchurch Hospital, New Zealand. Children completed IBD-STAR, and the parent and clinician rated the child's SM skills using corresponding visual analogue scales (VAS). Children and parents completed qualitative questions to cross-validate the IBD-STAR responses.

Results: Twenty five children participated, mean age fourteen years (SD 1.7, range 10.8 to 16.9). Fourteen (56%) were male, twenty-one (84%) had Crohn's Disease. The mean IBD-STAR score was 27.1 (SD 5.7), equal to a score of 75%. The mean score was associated with increasing age ($p = 0.017$), but no other independent variable. Children's IBD-STAR scores were compared with the parent and clinician VAS score (Figure 1)



Cross-validation questions were in agreement with IBD-STAR items for 85% of children's responses and 78% of parents. Reliability (Cronbach's alpha) was high at 0.844.

Conclusion: IBD-STAR can produce accurate SM skills reports from children that are closely aligned with their clinician assessment, but underestimated by parents. Further testing is required to establish generalisability. IBD-STAR may help identify children at risk of sub-optimal health autonomy who could benefit from additional support.

Comparison of Risk Scoring Systems in Hospitalised Patients that Develop Upper Gastrointestinal Bleeding

Dr Thomas Mules¹, Dr Catherine Stedman¹, Dr Steven Ding¹, Dr Michael Burt¹, Dr Richard Gearry¹, Dr Teresa Chalmers-Watson¹, Dr James Flavey¹, Dr Bruce Chapman¹, Dr Murray Barclay¹, Dr Gary Lim¹, Dr Jeffrey Ngu¹

¹Canterbury DHB, Christchurch, New Zealand

Session 5A - Free Papers, Shed 6, Room 3, November 28, 2019, 11:00 AM - 12:15 PM

Introduction: Hospitalised patients that develop upper gastrointestinal bleeding (UGIB) have different patient characteristics, aetiology and worse outcome than patients presenting to hospital with UGIB. The utility of risk scoring systems has not been validated in this patient group. This study aims to compare the utility of different risk scores in hospitalised patients that develop UGIB.

Methods: Consecutive hospitalised patients that developed UGIB in Canterbury, New Zealand, between June 2015 and February 2019 were included. Patients with onset of UGIB less than 24 hours from the time of admission were excluded. UGIB risk scores (Glasgow Blatchford, AIM65, ABC, full Rockall, admission Rockall and PNED scores) were calculated and their abilities in predicting predefined clinical endpoints: 30 day mortality and need for endoscopic intervention were examined.

Results: A total of 229 patients were included. The median age was 74 years (range 31-94), 63% of patients were male, and the median duration from hospitalisation to onset of bleeding was 5 days (range 1-71). Forty-six (20%) required endoscopic intervention and 35 (15%) died within 30 days. The ABC score accurately predicted 30 day mortality (AUROC 0.85), compared with PNED score (0.80), full Rockall score (0.75), Glasgow Blatchford score (0.71), and AIM65 score (0.70). The need for endoscopic intervention was not accurately predicted by the Glasgow Blatchford score (AUROC 0.76), ABC score (0.68), AIM65 score (0.61), or admission Rockall score (0.58). No patients with a Glasgow Blatchford score of 1 or less required endoscopic intervention or died within 30 days of bleeding onset.

Conclusions: This study has shown the ABC score predicts mortality with high accuracy (AUROC 0.85) in hospitalised patients that develop UGIB. As the ABC score is also accurate in patients presenting to hospital with UGIB¹, it can now be used by clinicians for all patients with UGIB.

References:

Laursen SB, Oakland K, Laine L, et al. ABC Score: A new risk score that accurately predicts mortality in acute upper and lower gastrointestinal bleeding. Accepted for publication BMJ Gut

Peroral Endoscopic Myotomy (POEM) can be a safe and effective treatment for achalasia in the elderly: A single unit tertiary experience

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¹CCDHB, Wellington, New Zealand

Session 5A - Free Papers, Shed 6, Room 3, November 28, 2019, 11:00 AM - 12:15 PM

Introduction: Achalasia causes progressively debilitating symptoms and can occur at any age. POEM has been established as a safe and effective treatment for this disorder however there is a paucity of data on the use of POEM in the elderly. This retrospective analysis aims to present outcomes in patients over the age of 80 years who have had a POEM and compare outcomes with all patients who have had a POEM performed in our unit.

Methods: All POEM procedures performed at CCDHB were included in this retrospective analysis. Data collected included age, previous interventions, pre- and post- myotomy Eckardt score, complication rates, operative times and length of hospital stay.

Results: 26 POEMs have been performed since it started in CCDHB. 4 patients (15.4%) over 80 years of age have had a POEM with the oldest patient being 91. Results are as follows:

	Age <80	Age>80
Mean pre-myotomy Eckardt score	7.9	6.75
Mean post-myotomy Eckardt score	0.5	0
Prior intervention	32%	50%
Mean length of stay (nights)	1.68	1.5
Mean operative time (mins)	50.00	40.25
30 day complication rate (no,%)	2 (9%) – two patients had chest drains inserted for leak concerns	0 (0%)

Conclusion: In our experience POEM is a safe and effective intervention for achalasia in the elderly. No complications were experienced in the over 80 group however two patients required chest drains for a presumed leak in the under 80 group. Based on our analysis POEM should be considered in all patients with achalasia irrespective of age if they can tolerate a general anaesthetic and would tolerate a chest drain. Elderly patients were more likely to have had an alternative intervention trialled for their achalasia which may contribute to a delayed definitive intervention.

Endoscopic ultrasound-guided fine needle core biopsy obviates the need for rapid on-site evaluation in histological diagnosis of solid lesions

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Session 5A - Free Papers, Shed 6, Room 3, November 28, 2019, 11:00 AM - 12:15 PM

Background and objectives: Endoscopic ultrasound-guided fine needle aspiration (EUS-FNA) of solid lesions with rapid on-site evaluation (ROSE) by a cytopathologist is the current gold-standard. The development of fine needle core biopsy (FNB) device technology may obviate the need for this resource intensive cytopathologist-dependent assessment.

Methods: A single-centre retrospective cohort review of a prospective database in the use of a new endoscopic ultrasound-guided fine needle core biopsy (EUS-FNB) device (22G, Acquire, Boston Scientific) in patients undergoing evaluation of solid lesions (June 2017-Aug 2019). We assessed the adequacy of tissue sample, utility of immunohistochemistry and accuracy of diagnosis.

Results: One hundred and fifteen patients [60 female and 55 male patients (median age 66, range 16-86)] underwent EUS-FNB of solid lesions with 117 biopsy locations. Lesions included solid pancreatic masses (n=69), lymphadenopathy (n=18), mediastinum (n=7), liver (n=7), gallbladder (n=7), gastric (n=1), duodenal (n=3), bile duct (n=4), urothelial (n=1) and adrenal gland (n=1). The median lesion size was 36 mm (range 8-80 mm), the median number of passes per target lesion was 2.9 (range 1-8). One hundred and thirteen out of 117 (96.6 %) cases achieved adequate histological core samples. Two out of 115 (1.73%) patients underwent repeat EUS-FNB biopsy with the same needle. Adequate histology was achieved in both samples. Ninety out of 115 (78.2%) biopsies were malignant, and of those 68/90 (75.5%) biopsies had immunohistochemistry performed. There were 21 (18%) benign lesions and 10/21 (47.61%) had immunohistochemistry. Malignant histology included adenocarcinoma 64 (71.1%), lymphoma 5 (5.6%), neuroendocrine tumour 5 (5.6%), lung cancer 4 (4.4%) other cancer 12 (13.3%).

Conclusions: This new EUS-fine needle core biopsy device provides an adequate histological core sample in 96.6% and repeat biopsy was required in <2%. Tissue samples facilitated immunohistochemistry and improved histological diagnostic certainty. On account of this review we have discontinued routine ROSE assessment as part of the procedure requirement in our institution.

Colorectal Cancer But Not As You Know It: a Prospective Case Control Study Of Risk Factors, Symptoms and Signs.

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Session 5A - Free Papers, Shed 6, Room 3, November 28, 2019, 11:00 AM - 12:15 PM

Introduction: Colorectal cancer (CRC) may present with a heterogenous spectrum of illness. Comparative data on risk factors, signs and symptoms of patients with CRC in New Zealand does not exist. These data are vital to inform and assist both referring primary care physicians and then subsequently triaging colonoscopy resources.

Methods: We conducted a prospective, case controlled study comparing risk factors, symptoms and signs of all CRC diagnosed at Middlemore Hospital in 2018. These factors were recorded from referrals and patient consultation documents. Conditional logistic regression was carried out, stratified 1:2 matched by age, gender and ethnicity to patients referred for diagnostic colonoscopy who were not diagnosed with CRC. Ethics was approved locally and nationally (HDEC:18/STH/89), ACTRN12618001283268.

Results: 177 patients were diagnosed with CRC and were matched 1:2. 54% were male, 57% NZ European, 15% Asian, 11% Pasifika, 8% Māori. The mean age was 67. No traditional risk factors were predictive of CRC including smoking, excess alcohol, Body Mass Index (mean 28kg/m²), CRC family history under or over 55 years old and Inflammatory Bowel Disease. The most common presenting and discriminatory symptom in the CRC patients compared to the control group was haematochezia (40% vs 26%, OR 2.83, 95% CI [1.74,4.59] p<0.001). Melaena, change in bowel habit, weight loss and symptomatic iron deficiency were non-discriminatory. The strongest sign of CRC was a palpable mass (OR 7.80, 95% CI [2.56,23.77] p<0.001) followed by iron deficiency anaemia (OR 3.25, 95% CI [1.44,7.34] p=0.004). 27% of CRC was already metastatic at presentation. 49% of the controls were diagnosed with either diverticulosis or haemorrhoids.

Conclusions: CRC presenting In South Auckland often presents insidiously and lack many of the traditional symptoms, signs and risk factors used to discriminate gastrointestinal illnesses. Both patients and doctors must be made aware of these findings.

Is there a difference in the incidence of colonic neoplasia in patients screened via a governmental screening program and in age equivalent patients who have FIT testing outside that program?

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Session 6B - Polyps, Shed 6, Room 4, November 28, 2019, 1:45 PM - 3:15 PM

Introduction: Faecal immunochemical testing (FIT) is being used in the New Zealand Bowel Cancer Screening Program, being rolled out through 2021. In Australia, the similar roll out of a comprehensive screening program through 2020, the National Bowel Cancer Screening Program (NBCSP), has been accompanied by a parallel increase in non-program FIT testing. When positive, these community initiated (CI) FITs, present a dilemma for providers in regards to the appropriateness and triaging of colonoscopies for these patients.

Methods: To answer this question, we performed a descriptive observational study of a large patient cohort who have been assessed by a direct access colonoscopy service. Patients with a positive FIT result were triaged to colonoscopic examination equally regardless of the route by which they came to their FIT result. Following ethics approval, we analysed 2365 patients who were FIT positive and underwent a complete, screening colonoscopy through our service. There were 1233 CI and 1132 NBCSP patients, their results were recorded prospectively using the clinical categories endorsed by the GESA and the CSSANZ.

Results: Demographic features in the two groups were similar and are similar to the NZ population who will undergo screening. There is no statistical difference in the rates of pathology between CI and NBCSP patients in any neoplasia category except high risk sessile adenomas. Crucially there was no statistical difference in the detection rate for adenocarcinoma between the CI group (3.97%) and the NBCSP group (2.65%), 99% confidence interval for the difference (-.65% to 3.3%, $p=0.0938$).

Conclusions: This study demonstrates that as pathology detection rates are similar, providers of colonoscopy services in NZ should endeavour to manage FIT positive patients equally regardless of the route by which they came to their result. It also demonstrates that a large proportion of the population may undergo screening for CRC outside of the government program.

Sarcopenia is a poor prognostic marker following curative resection for hepatocellular carcinoma – a single centre experience

Dr Cositha Santhakumar¹, Associate Professor Adam Bartlett^{1,2}, Associate Professor Lindsay Plank², Dr Cameron Wells², Dr Lily Wu², Professor Edward Gane¹, Professor John McCall^{1,2}

¹Liver Transplant Unit, Auckland City Hospital, Grafton, New Zealand, ²Department of General Surgery, Auckland City Hospital, Grafton, New Zealand

Session 7A - Chronic Liver Disease, Shed 6, Rooms 1 & 2, November 28, 2019, 3:45 PM - 5:15 PM

Introduction: Sarcopenia is a surrogate marker of frailty and is common in cirrhosis. Although sarcopenia is associated with poor outcomes following liver transplantation, its prognostic significance following hepatectomy for hepatocellular carcinoma (HCC) is less well known. We evaluated the prevalence and prognostic impact of sarcopenia in a large cohort of patients undergoing resection for HCC.

Methods: Data were collected retrospectively on consecutive patients undergoing hepatectomy for HCC between June 1998 until December 2014 at Auckland City Hospital. The skeletal muscle index was calculated using the total skeletal muscle area at the third lumbar vertebrae on preoperative computed tomography or magnetic resonance imaging. The clinicopathological and surgical characteristics of sarcopenic and non-sarcopenic groups were compared and outcomes including overall survival and recurrence-free survival were assessed.

Results: Of the 147 patients, 40 were sarcopenic (27%). Sarcopenia correlated significantly ($p < 0.01$) with older age and larger tumour size. At a median follow up of 5.9 years, sarcopenia was a predictor of worse overall survival ($p < 0.01$) (Figure 1), liver cancer-specific survival ($p = 0.02$) and recurrence-free survival ($p < 0.01$). Median survival times after resection for sarcopenic and non-sarcopenic patients were 5.4 and 10.5 years, respectively. Recurrence-free survival rates at 5 years were 25.6% and 43.8% respectively. Sarcopenia was an independent predictor of survival on multivariate analysis.

Conclusion: Sarcopenia predicted worse overall and recurrence-free survival in patients undergoing hepatectomy for HCC. In the preoperative assessment, sarcopenia may provide an objective marker of the patient's general health, facilitating the implementation of strategies to optimise muscle mass, thereby improving patient outcomes.

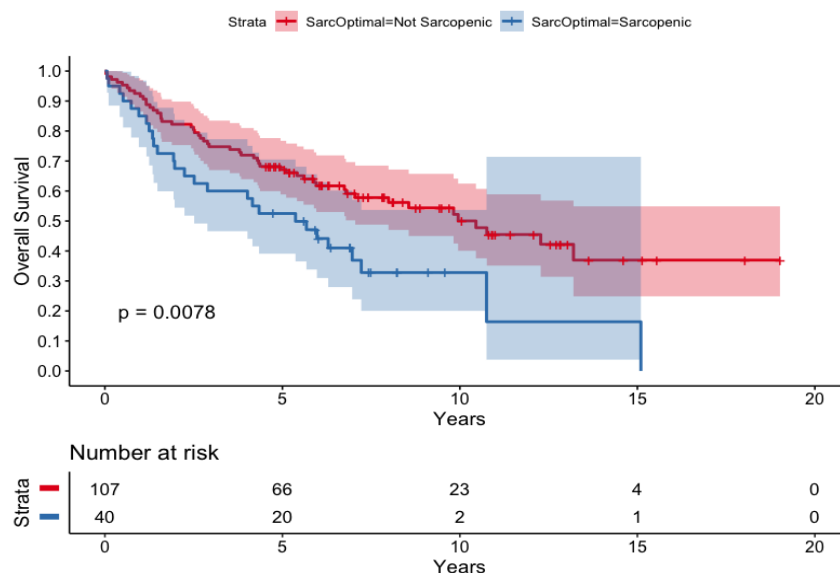


Figure 1. Overall survival following hepatectomy for HCC in patients with and without sarcopenia

White Diet Study

Are we starving our patients for too long before their colonoscopy?

Mrs Karen Tickelpenny¹

¹*Bowen Hospital Endoscopy, Wellington, New Zealand*

Session 8C - Nurse Cases, Shed 6, Room 4, November 29, 2019, 9:00 AM - 10:30 AM

Aims: Patient's pre colonoscopy frequently arrive feeling agitated, grumpy and "starving" following their bowel preparation.

This observational study of adult patients undergoing elective colonoscopy aims to evaluate the effect of allowing patients to eat a low residue 'white' diet up until the time of their first prep.

Method: Patients received a pre-procedure phone call. They were asked to participate in a randomised blind trial with information around the trial and eating regime explained. Two patients declined and followed usual clear fluid protocols. Patients were supplied with two packs of Moviprep and Diet instructions. They were asked to document the food eaten the day prior and the times they had stopped eating.

Prep efficacy was assessed by the endoscopist prior to notification of prep regime.

The study began 1st week in March 2019. By the end of August 2019 over 100 patients had followed the White diet regime with favourable results.

Conclusion: The quality of the bowel prep has not proved to be inferior to patients who have been prepared with the clear fluid diet.

Study will be completed in October and results will be available at Conference.

Reference: The White Diet is preferred, better tolerated, and non-inferior to a clear-fluid diet for bowel preparation: A randomized controlled trial - Dr Joshua Butt - 2016 - Journal of Gastroenterology and Hepatology