GLMS GP CME
BOWEL CANCER

17 June 2019

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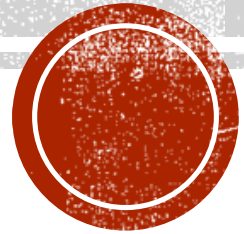


OUTLINE

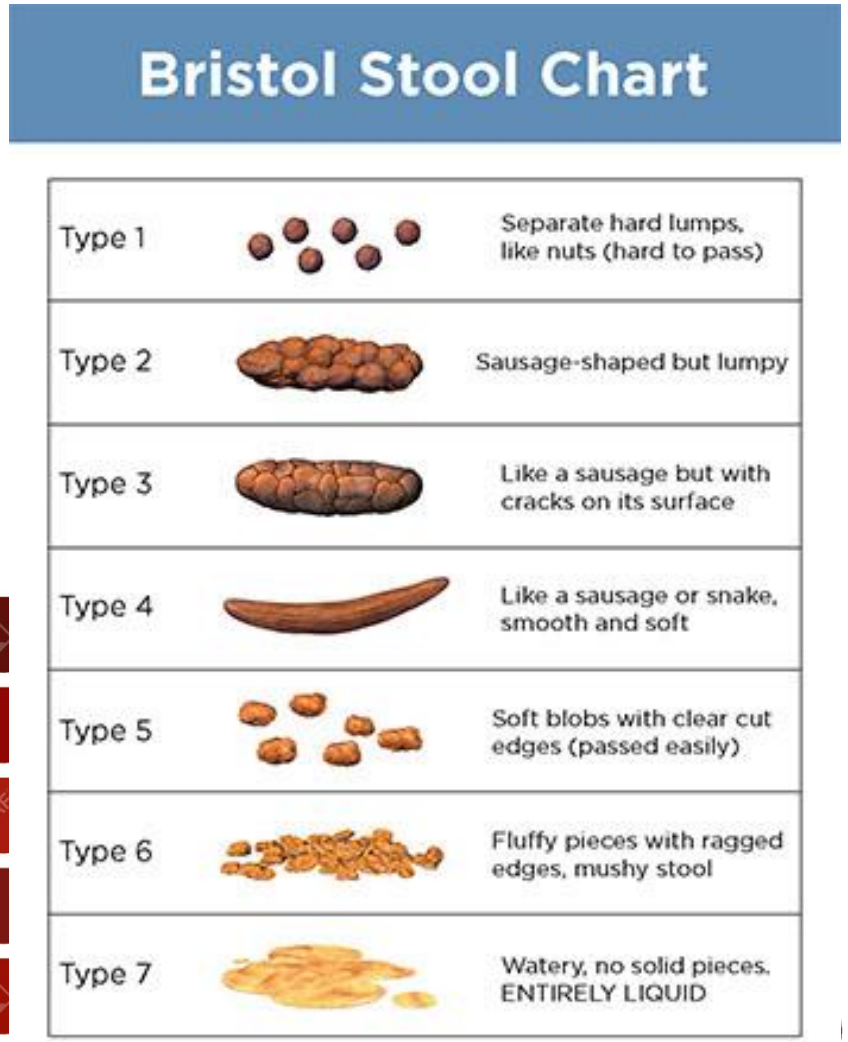
- 2 cases
- Bowel cancer symptoms
- Bowel cancer risk
- Bowel cancer screening
- Colonic polyps surveillance
- Questions and discussions

CASE 1

- 62 year old male
- 3 months history of change of bowel habit
- Mild Left sided discomfort
- PR bleed
- Trying to lose weight, lost 10kg in 1 month
- Sister has CRC at age 59

- Hb130, ferritin 25

- Change of bowel habit
  - FROM what TO what?
- Abdominal pain
  - where, when, what, how
- PR bleed
  - Where, when, what
- Weight loss?
  - when does it become significant?
    - 5% unintentional weight loss over 6 months
- What is his risk?
- What to do?

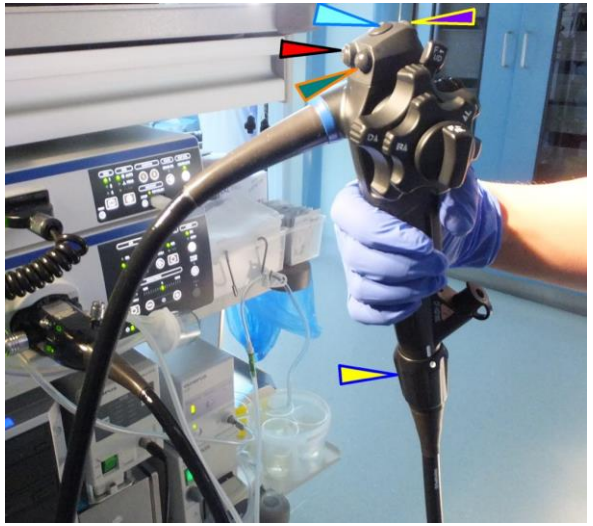


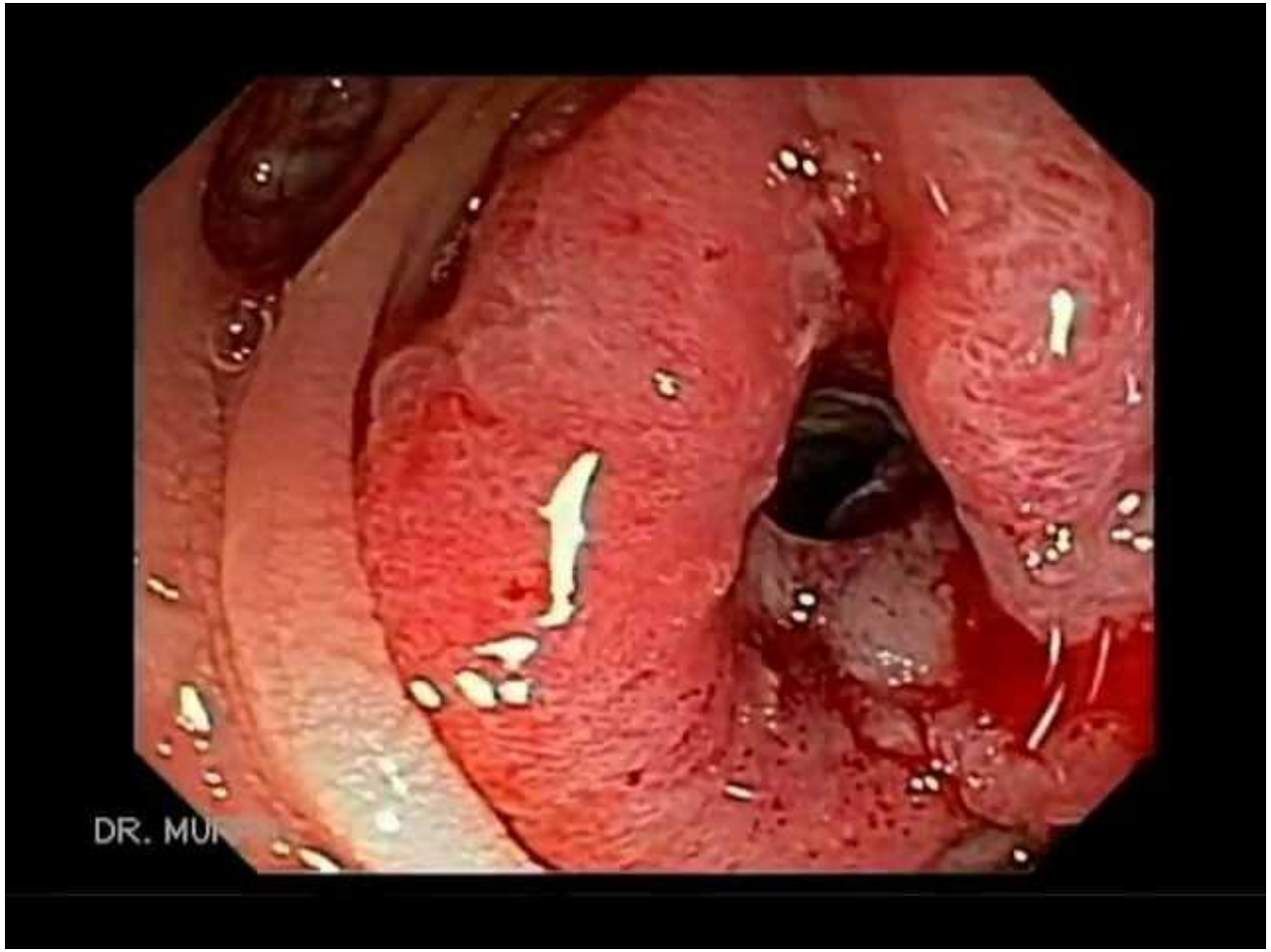
CHANGES OF BOWEL HABIT> 6 WEEKS

- Coeliac Disease
- Inflammatory bowel disease
- Microscopic colitis
- Pancreatic insufficiency
- Pelvic floor dysfunction
- Post cholecystectomy diarrhoea/Bile acid diarrhoea
- Irritable bowel syndrome: diarrhoea dominant, over flow diarrhoea
- Malignancy

INVESTIGATIONS

- Bloods: FBC, U+E, ferritin, CRP, coeliac serology, LFTs
- Faecal test: M/C/S, faecal steatocrit, faecal elastase, faecal calprotectin
  - ? FOB, ? FIT
- Gastroscopy
- Colonoscopy

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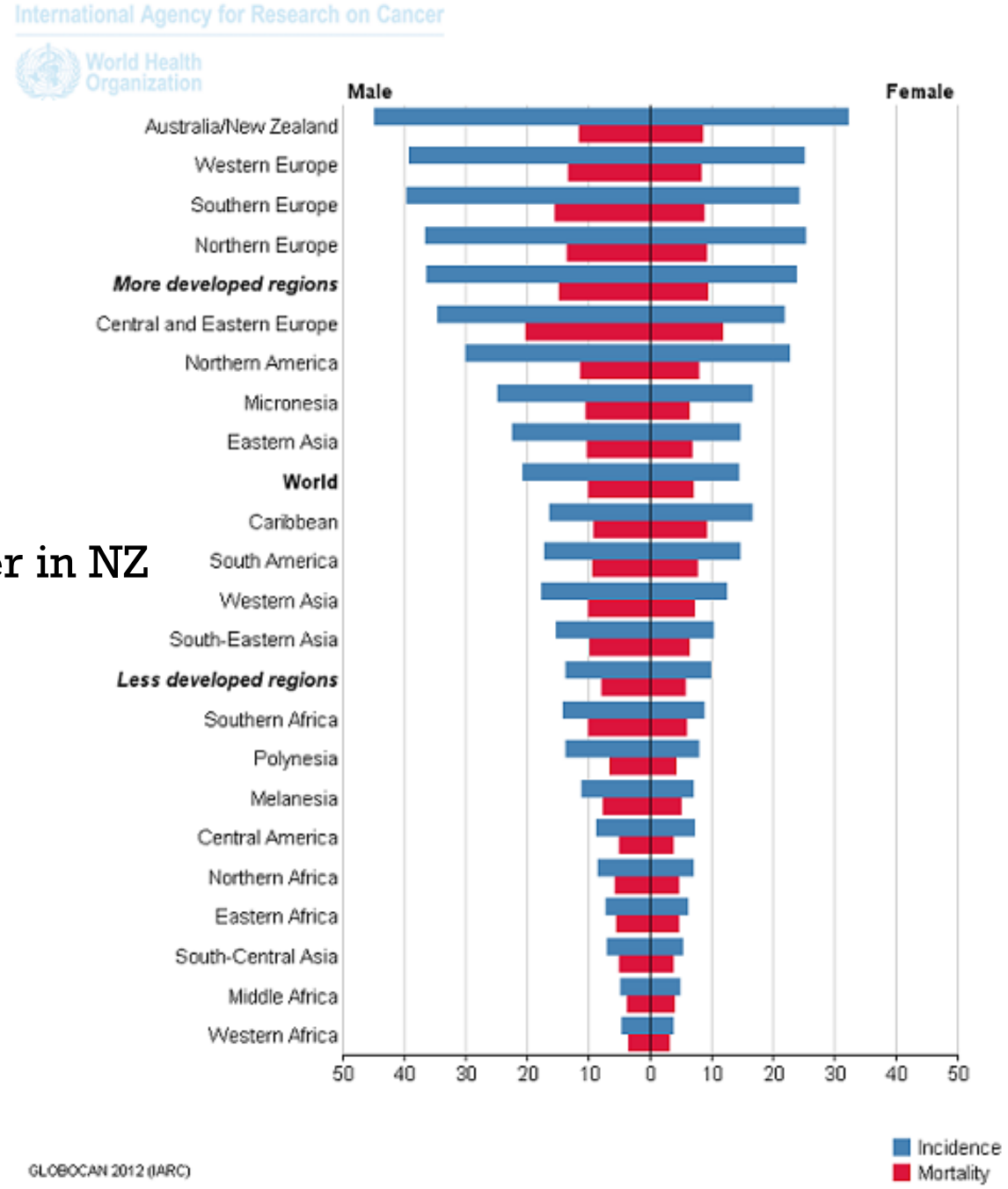
BOWEL CANCER

- NZ: 3081 per year, 1200 died from it
- M: 1607, F 1474 41.1/100000 (M:46.3 F:36.5)
- Second most common cancer in NZ
- Second most common cause of death from cancer in NZ
  - 14% of all cancer registrations
  - 15% of all deaths from cancer.



SYMPTOMS

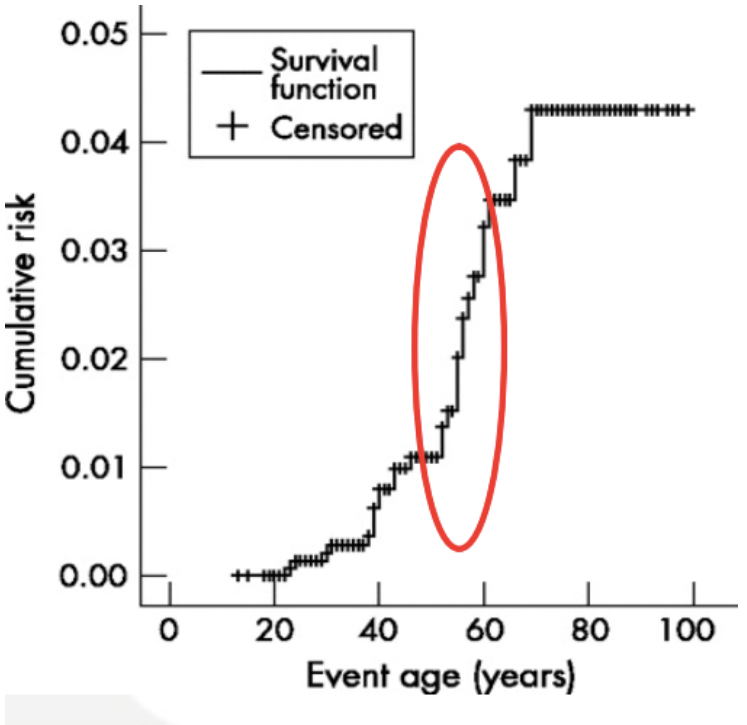
- Asymptomatic
- Change of bowel habit
- Change of stool consistency
- Abdominal pain
- Incomplete emptying
- PR bleed
- Abdominal mass
- Loss of appetite
- Unexplained unintentional weight loss
- Unexplained fatigue

RED FLAGS

- PR bleed
- Unintentional weight loss
  - 5% of body weight or 4.5kg over 6 months
- Change of bowel habit- diarrhoea, thinning of the stool > constipation
- Severe unremitting symptoms
- Iron deficiency anaemia without apparent cause

HIGH RISK FACTORS: SOMETHING YOU CAN'T CHANGE

- Getting older. Especially above age 50
- Personal history of colorectal polyps or colon cancer
- Personal history of IBD, especially >8 years
- Family history of colon polyps or colon cancer
  - First degree relative <55
- Genetics <5%: FAP, Lynch, SSPS



HIGH RISK FACTORS: SOMETHING YOU CAN CHANGE

- Overweight/Obese
  - Especially larger waistline
  - Obesity BMI >29 RR 1.45
- Smoking: Cigarette smoking RR 1.18
- Diabetes: RR 1.38
- Physical inability
- Diet: BBQ meat, processed meat
  - 17% increase risk if > 100g red meat/day
  - 18% increased risk if >50g processed meat
- Heavy alcohol use: 4 drinks/day, RR 1.21

FAMILY HISTORY

Category 1. Individuals with a slight increase in risk of colorectal cancer

Individuals with a slight increase in risk of colorectal cancer due to family history.

- One first-degree relative with colorectal cancer diagnosed over the age of 55 years.

No specific surveillance recommendations are made for this group at this time given the slight increase in risk, the uncertainty regarding the age at which this additional risk is expressed and the concern regarding the appropriateness of colonoscopy as a surveillance procedure in this group.	NZGG 2004	✓

Category 2. Individuals with a moderate increase in risk of colorectal cancer

Individuals with a moderately increased risk of colorectal cancer have one or more of the following:

- one first-degree relative with colorectal cancer diagnosed under the age of 55 years
- two first-degree relatives on the same side of the family with colorectal cancer diagnosed at any age.

Offer colonoscopy every 5 years from the age of 50 years (or from an age 10 years before the earliest age at which colorectal cancer was diagnosed in the family, whichever comes first).	NZGG 2004	C

Category 3. Individuals with a potentially high risk of colorectal cancer

Individuals with a potentially high risk of risk of colorectal cancer have one or more of the following:

- a family history of familial adenomatous polyposis (FAP), hereditary non-polyposis colorectal cancer or other familial colorectal cancer syndromes
- one first-degree relative plus two or more first- or second-degree relatives all on the same side of the family with a diagnosis of colorectal cancer at any age
- two first-degree relatives, or one first-degree relative plus one or more second degree-relatives, all on the same side of the family with a diagnosis of colorectal cancer and one such relative:
  - was diagnosed with colorectal cancer under the age of 55 years or
  - developed multiple bowel cancers, or
  - developed an extracolonic tumour suggestive of hereditary non-polyposis colorectal cancer (ie, endometrial, ovarian, stomach, small bowel, renal pelvis, pancreas or brain)
- at least one first- or second-degree family member diagnosed with colorectal cancer in association with multiple bowel polyps
- a personal history or one first-degree relative with colorectal cancer diagnosed under the age of 50, particularly where colorectal tumour immunohistochemistry has revealed loss of protein expression for one of the mismatch repair genes (MLH1, MSH2, MSH6 and PMS2)
- a personal history or one first-degree relative with multiple colonic polyps.

Refer to: • a cancer genetic service or the New Zealand Familial Gastrointestinal Cancer Registry • a bowel cancer specialist to plan appropriate surveillance and management.	NZGG 2011	✓

BOWEL CANCER SCREENING

- Pilot study in Waitemata DHB
- Roll out national wide: Counties (East and South) and Waitemata (north and west)
  - Auckland: later this year?
- 60 to 74 years old, every 2 year
- Eligible for publically funded healthcare
- NHI database
- Invites sent with kit
- Patients posts completed test back
- GP refers for colonoscopy if positive
- BSP nurses call patients if no referral or no GP

EXCLUSION CRITERIA

- Those who have had a colonoscopy in the last 5 years
- Those on a bowel polyp or bowel cancer surveillance program
- Those who have had or are being treated for bowel cancer
- Those who have had their bowel removed
- Those who have IBD
- Those who are awaiting other bowel investigations
- Those who are medically inappropriate
- Those who are not ‘average’ risk

POSITIVES

- For every 1000 people who complete a bowel screening test, about 50 will be positive. Of those, about 35 will be found to have polyps and on average 3 or 4 will have bowel cancer
- Approx 5% of tests done are +ve
- GP referral (ideally)
- BSP nurse reviews notes, calls patient to pre-admit / troubleshoot and explain bowel prep
- Complex patients are reviewed by clinical lead/endoscopy lead
- Many more phone calls by BSP nurses reminding / reassuring / explaining
- Colonoscopy / CTC

CMDHB

- Higher number of kits being sent out than expected (MOH miscalculation)
- 50% need interpreters
- Participation rates as expected for 6 months into the programme
  - 50% overall, Pacific 30%, Maori 45%
- Higher polyp and cancer rate than expected:
  - 10% of colonoscopies have cancer (7%)
  - 92% of colonoscopies have histology (70%)

RESULTS SO FAR..

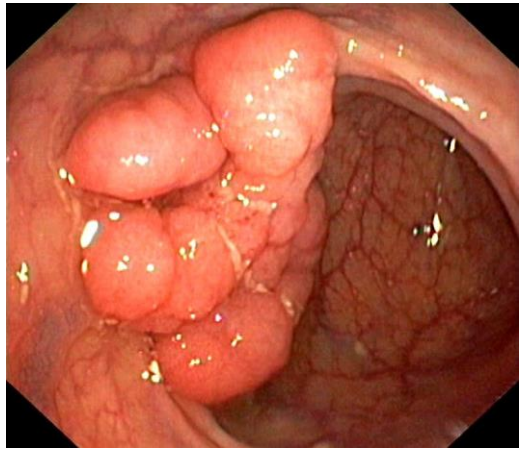
- 51% participation (target 60%)
- 425 COL, 20 CTC
- 38 cancers
- >20 referrals to Familial GI clinic
- 33/38 have had "treatment", others cooking
- 3 readmissions – 2 x minor bleeds, 1 x ?perf
- 5 CTCs need COL
- Stage shift – more stage 1 than usual

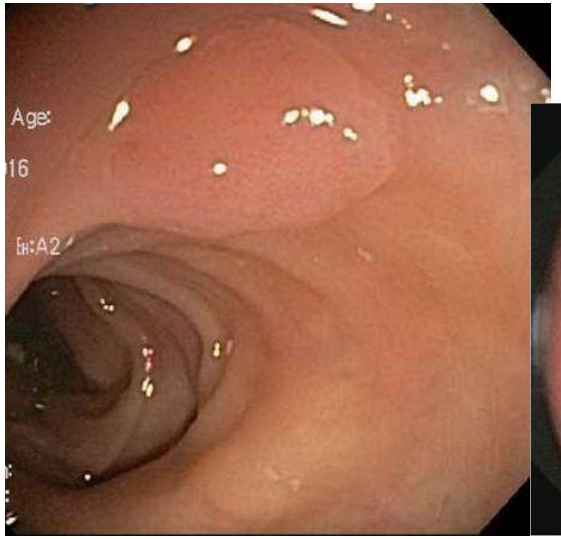
Stage	Pilot	CMDHB
1	9.6%	39%
2	20.9%	13%
3	9.4%	26%
4	23.6%	7%
unknown	27% ++	10%

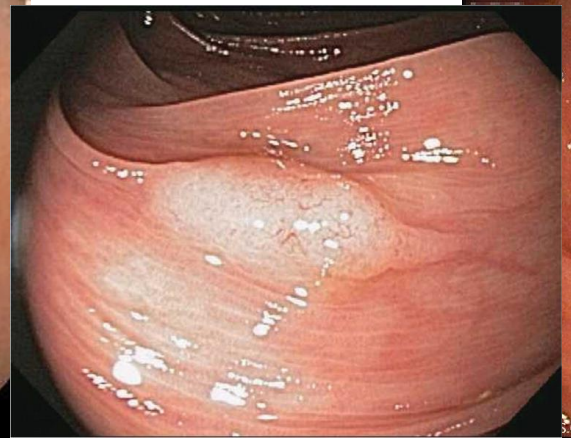
LOOKING FORWARD..

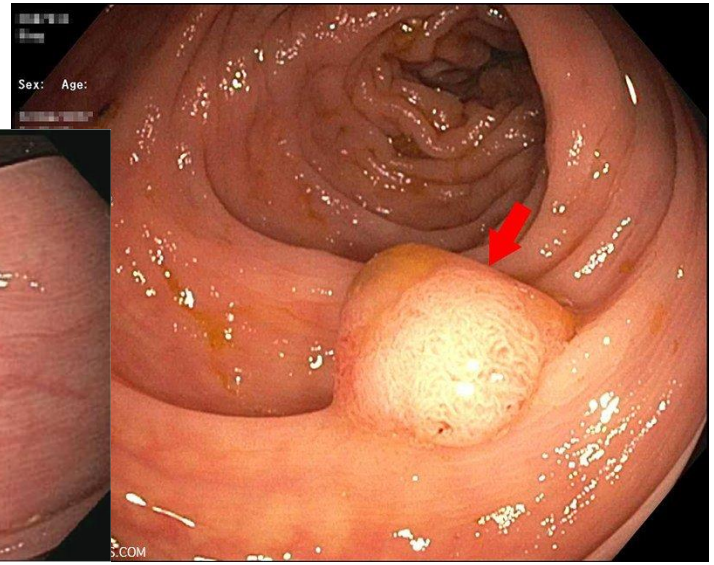
- Improving participation
  - Awareness
  - Alternative drop offs for kits
  - Instructions included in kits in languages other than English
  - Letters to non-participators on their GP's letterhead
- Age range
  - Planned lowering of age range to 50 for Maaori (awaiting written announcement from MOH)

COLONIC POLYPS









- Polyps are visible protrusions that can develop on the mucosal surface of the colon or rectum, and consist of benign neoplastic tissue derived from glandular epithelium and show varying degrees of dysplasia.
- Polyps are present in 30% of people aged over 60 years
- Most carcinomas are thought to arise from adenomatous polyps or sessile serrated polyps.

- Type: hyperplastic, adenoma (Tubular adenoma, tubulovillous adenoma), sessile serrated polyps

- Polyps are present in 30% of people aged over 60 years.
- They are also more common in people with inherited syndromes, who are at increased risk of developing colorectal cancer.

- The risk of colorectal cancer increases with the size and number of polyps.

- South Auckland study 2010
  - 762 colonoscopy, 40-59 age. Polyps were found in 213 (643)Europeans (33.1%) but 35 (149) Māori (23.5%; p=0.029)
  - Amongst patients with adenomas, the percentage showing high risk features was not significantly different (European 39.3%, Māori 38.5%; p=1.0)

Low risk:

- one or two adenomas smaller than 10 mm.

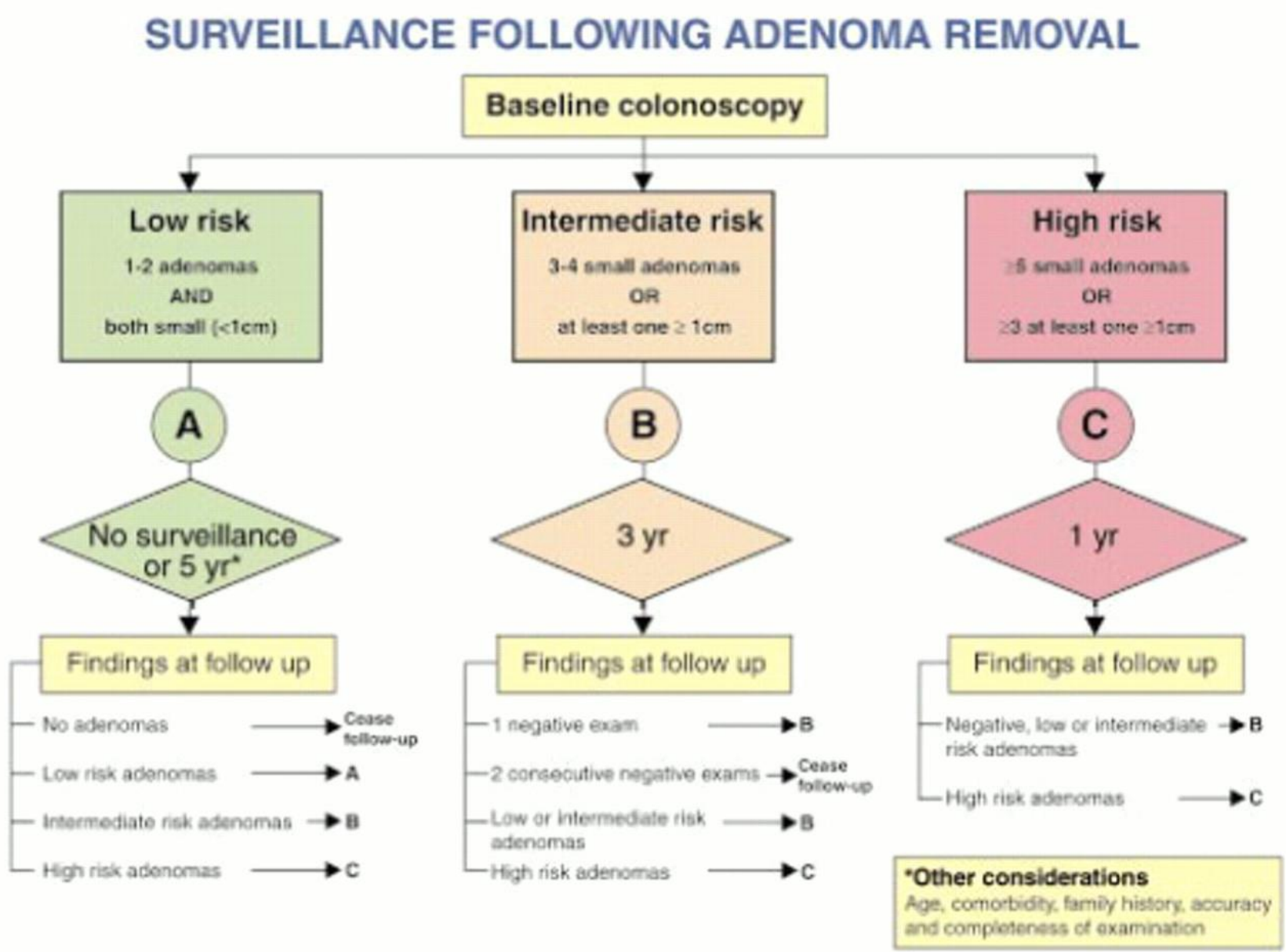
Intermediate risk:

- three or four adenomas smaller than 10 mm or
- one or two adenomas if one is 10 mm or larger
- histological polyps with villous features*
- polyps with high grade dysplasia*.

High risk:

- five or more adenomas smaller than 10 mm or
- three or more adenomas if one is 10 mm or larger.

* This was not part of the NICE recommendations but has beer
Zealand experts

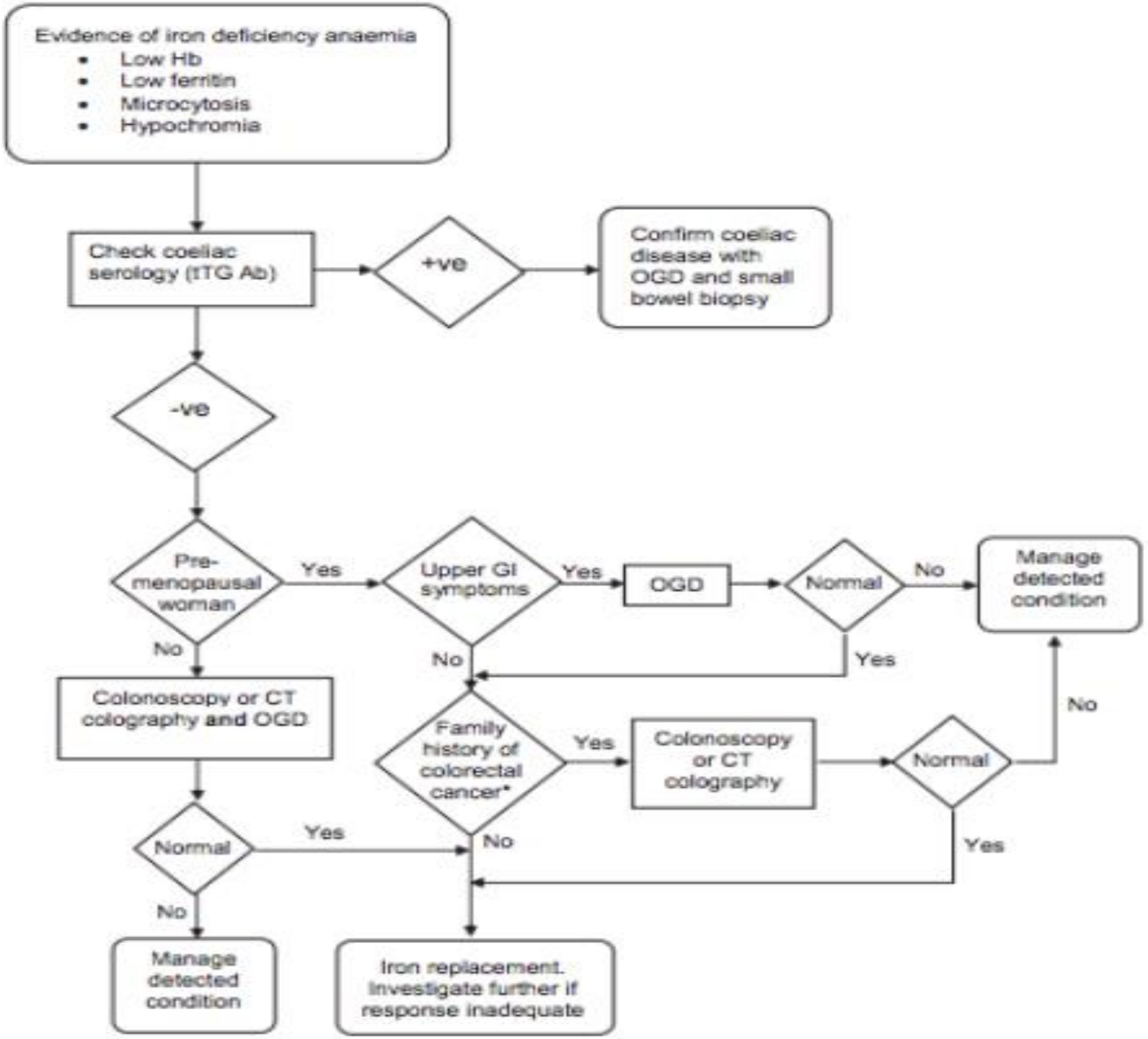


CASE 2

- 25 year old woman
- 6 months history of fresh PR bleed
- No abdominal pain, weight loss or reduced appetite

- Usually fit and well
- Hb70, ferritin <6

Occult GI blood loss		Malabsorption		Non-GI loss	
Common		Common		Common	
• Aspirn/NSAID	10-15%	• Coeliac disease.	6%	• Mensturation.	30%
• Colon cancer	10%	• Gastrectomy	<5%	• Blood donation.	5%
• Gastric cancer.	5%	• H. Pylori	<5%		
• Benign gastric ulcer.	5%				
• Angiodysplasia	5%				
Uncommon		Uncommon		Uncommon	
• Oesophagitis	2-4%	• Gut resection.	<1%	• Haematuria	1%
• Oesophageal cancer.	1-2%	• Bacterial overgrowth.	<1%	• Epistaxis	1%
• GAVE	1-2%				
• Small bowel tumour.	1-2%				
• Cameron ulcers in hiatus.	<1%				
• Ampullary cancer	<1%				


Evidence of iron deficiency anaemia
Low Hb
Low ferritin
Microcytosis
Hypochromia
Check coeliac serology (tTG Ab)
+ve
Confirm coeliac disease with OGD and small bowel biopsy
-ve
Pre-menopausal woman
Yes
Upper GI symptoms
Yes
OGD
Normal
No
Manage detected condition
No
Yes
No
Colonoscopy or CT colography and OGD
Family history of colorectal cancer*
Yes
Colonoscopy or CT colography
Normal
No
Normal
Yes
No
Yes
No
Manage detected condition
Iron replacement. Investigate further if response inadequate

ENDOSCOPY IN PREGNANCY

- Not well-studied
- Risky
- Foetus is particularly sensitive to maternal hypoxia and hypotension
- Justified when it is clear that failure to perform the procedure could expose the mother/or foetus to greater risk
- IF it has to be done, defer to 2nd trimester

- Risk vs Benefit
  - Teratogensis
  - Premature labour

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SAFETY OF MEDICATIONS USED IN ENDOSCOPY

Category	Description
A	Well studied. Not increase risk
B	Animal study shows no harm. Not enough human study. *Or* Animal study shows harm. Human study shows failed to show risk
C	Animal study shows harm. No human study
D	Human study show harm

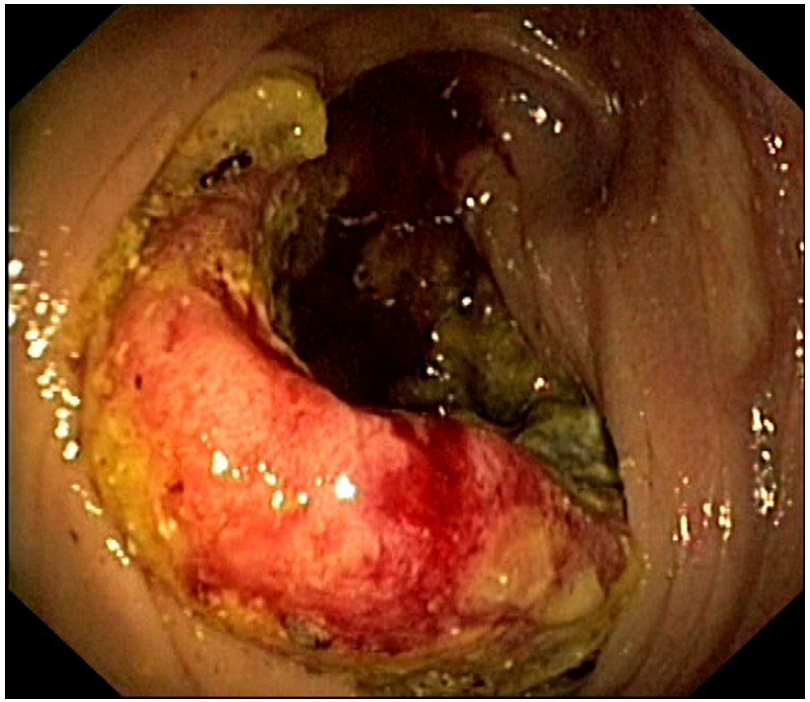
Lidocaine	**B**
Fentanyl	**C**
Midazolam	**D**
Naloxone	**B**
Flumazenil	**C**
Propofol	**B**
Bowel prep **- Sodium phosphate** **-polyethylene glycol**	**C or X**

GENERAL PRINCIPLES FOR ENDOSCOPY IN PREGNANCY

- Every procedure requires a pre-operative consultation with an obstetrician
- Strong indication!!!
- Talk to the patient!
- Defer to second trimester if possible
- Use Category B drugs if possible
- Minimize procedure time
- Contraindicated in placental abruption, imminent delivery, ruptured membrane or uncontrolled eclampsia

CASE CONTINUE...

- Proceed to have flexible sigmoidoscopy on the same day
- Seen by surgeon 1 day after flexible sigmoidoscopy
- Staging: not CT. but chest xray and Abdominal MRI
- Day 6: Spontaneous miscarriage day6
- Day 6: CT: no distant metastasis
- Day 18: Anterior resection
- Post resection chemotherapy.
- Moving to Tauranga



Thank you

Questions?

Cases for discussion?