

# Enrolled Nurse Study Day September 2023

Bowel Screening Programme under  
hospital setting

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Hutt Hospital

# Bowel Screening Programme - Hutt Hospital staff

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Endoscopy nurses

Surgeons

Administration staff

# Population screening -WHO

- ▶ The condition should be an important health problem.
- ▶ There should be a treatment for the condition.
- ▶ Facilities for diagnosis and treatment should be available.
- ▶ There should be a latent stage of the disease.
- ▶ There should be a test or examination for the condition.
- ▶ The test should be acceptable to the population.
- ▶ The natural history of the disease should be adequately understood.
- ▶ There should be an agreed policy on whom to treat.
- ▶ The total cost of finding a case should be economically balanced in relation to medical expenditure as a whole.
- ▶ Case-finding should be a continuous process, not just a "once and for all" project.

# The bowel screening pilot in NZ



- ▶ Pilot programme started in Waitemata DHB
- ▶ Started 2012, extended 2015 and completed end 2017
- ▶ Age range from 50-74 years - men and women (approx. 136,000 people)
- ▶ Faecal Immunochemical test (FIT) for haemoglobin
- ▶ People invited every 2 years
- ▶ Three screening rounds have been completed and evaluated

# Pilot key findings

Participation	55-60%	
FIT positive rate	5-7.5%	
For those who went to Colonoscopy		
• Cancer rate	4.3%	
• Adenoma rate	56%	
• Advanced adenoma rate	24%	
Cancer stage	<b>Round 1</b> 1 45% 2 25% 3 22 % 4 8%	<b>Round 3</b> 73% 9% 9% 9%
<ul style="list-style-type: none"> <li>• That a high quality screening programme could be introduced in New Zealand and bring significant health benefits</li> <li>• Allowed modelling and planning information to inform the roll out</li> </ul>		

# Since then....

- ▶ Significant increase in number of colonoscopy
- ▶ Variable compliance with waiting time targets
- ▶ Improved understanding of polyps including Sessile Serated polyps
- ▶ Improved treatments including polypectomy technique
- ▶ Development of MDMs

# National Bowel Screening Programme

- ▶ National Programme could be safely introduced in New Zealand
- ▶ Free programme to detect bowel cancer at an early stage
- ▶ High probability national programme will reduce deaths
- ▶ Highly cost effective and brings health benefits
- ▶ Eligible people - men and women - are invited every two years
- ▶ Age range 60-74 years
- ▶ Automatic invitation from a population register - no registration required
- ▶ National programme rolling out progressively from 2017

# Key Elements of the Programme

- ▶ Population register
- ▶ Invitation based
- ▶ Participants self sample at home
- ▶ National Co-ordination Centre (NCC) advised negative results
- ▶ GPs notified when negative/positive results at refer for colonoscopy at their local DHB.

# Roles of the Bowel Screening Programme

- ▶ Ministry of Health
- ▶ Co-ordination Centre
- ▶ Primary Care/ GP
- ▶ Initial Lab testing
- ▶ DHB
- ▶ Histology
- ▶ Radiology
- ▶ Surgical Services / Faster Cancer Treatment
- ▶ Community groups / Maori and Pacific providers

# Bowel screening in Hutt Valley

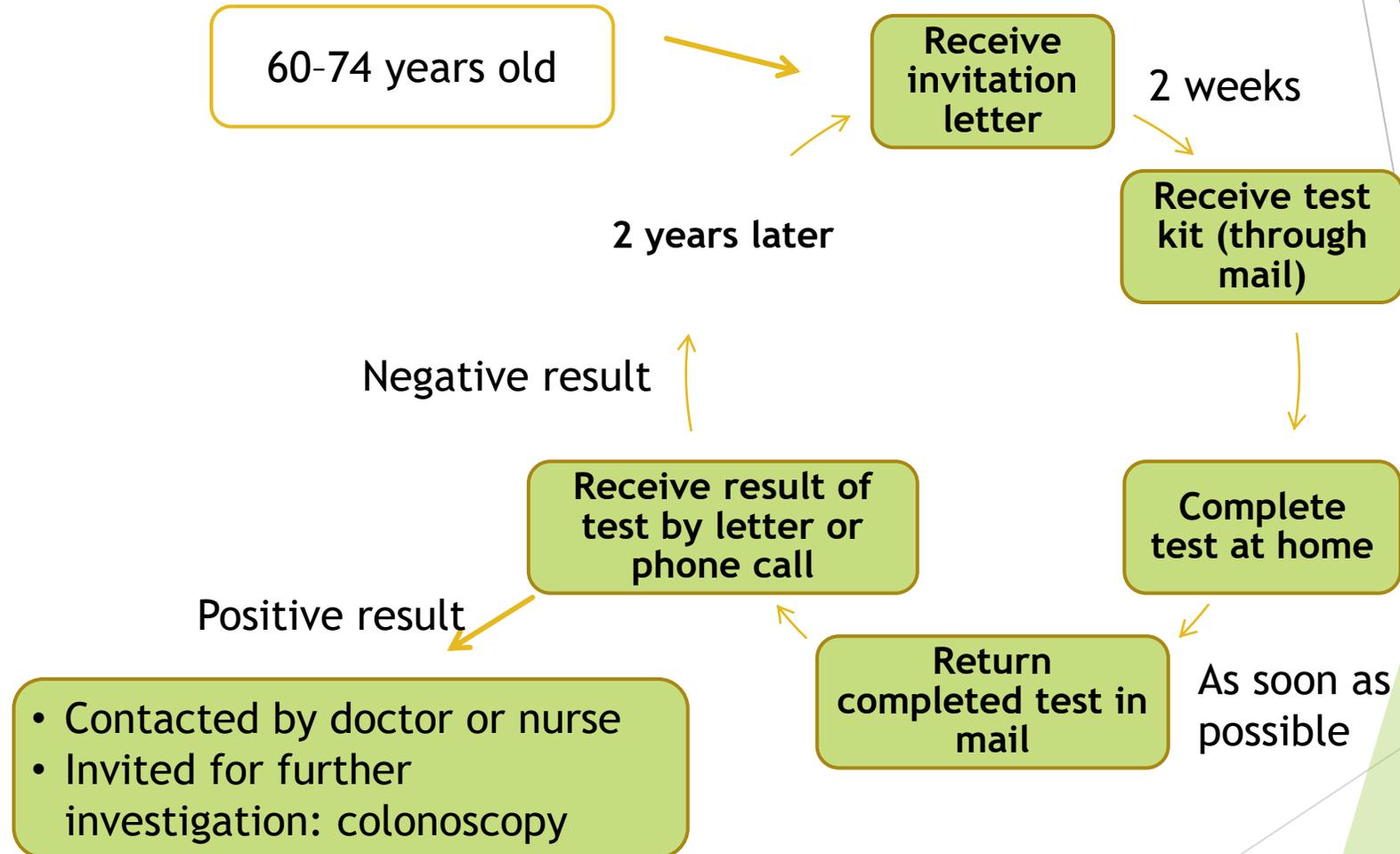
Hutt Valley DHB and Wairarapa DHB started screening as part of the free National Bowel Screening Programme from July 2017.

The first test kits were sent out from August 2017.

Our first colonoscopy was performed on 6<sup>th</sup> September 2017

Our first bowel cancer diagnosed on 20<sup>th</sup> September 2017

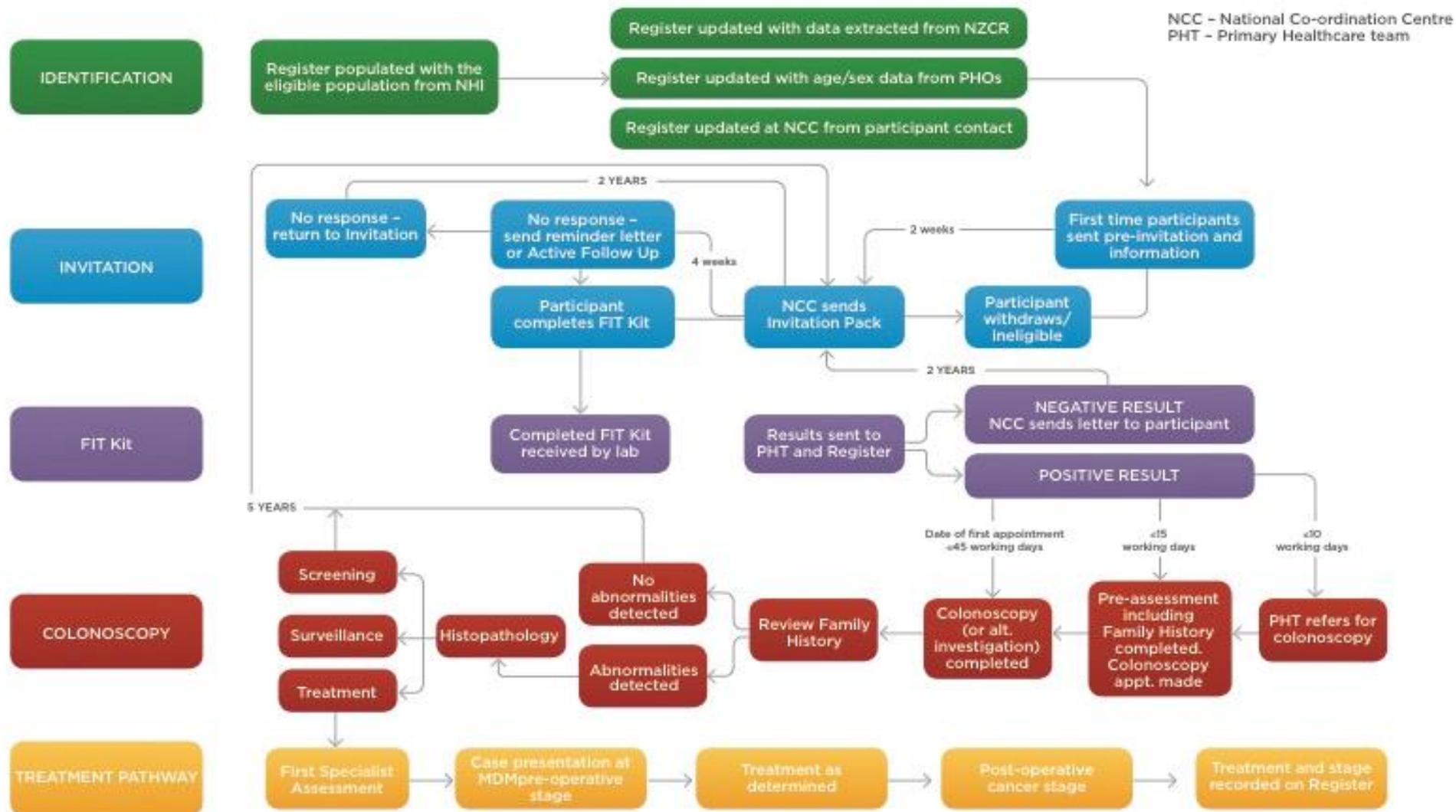
# Participant pathway



# The Bowel Screening Pathway



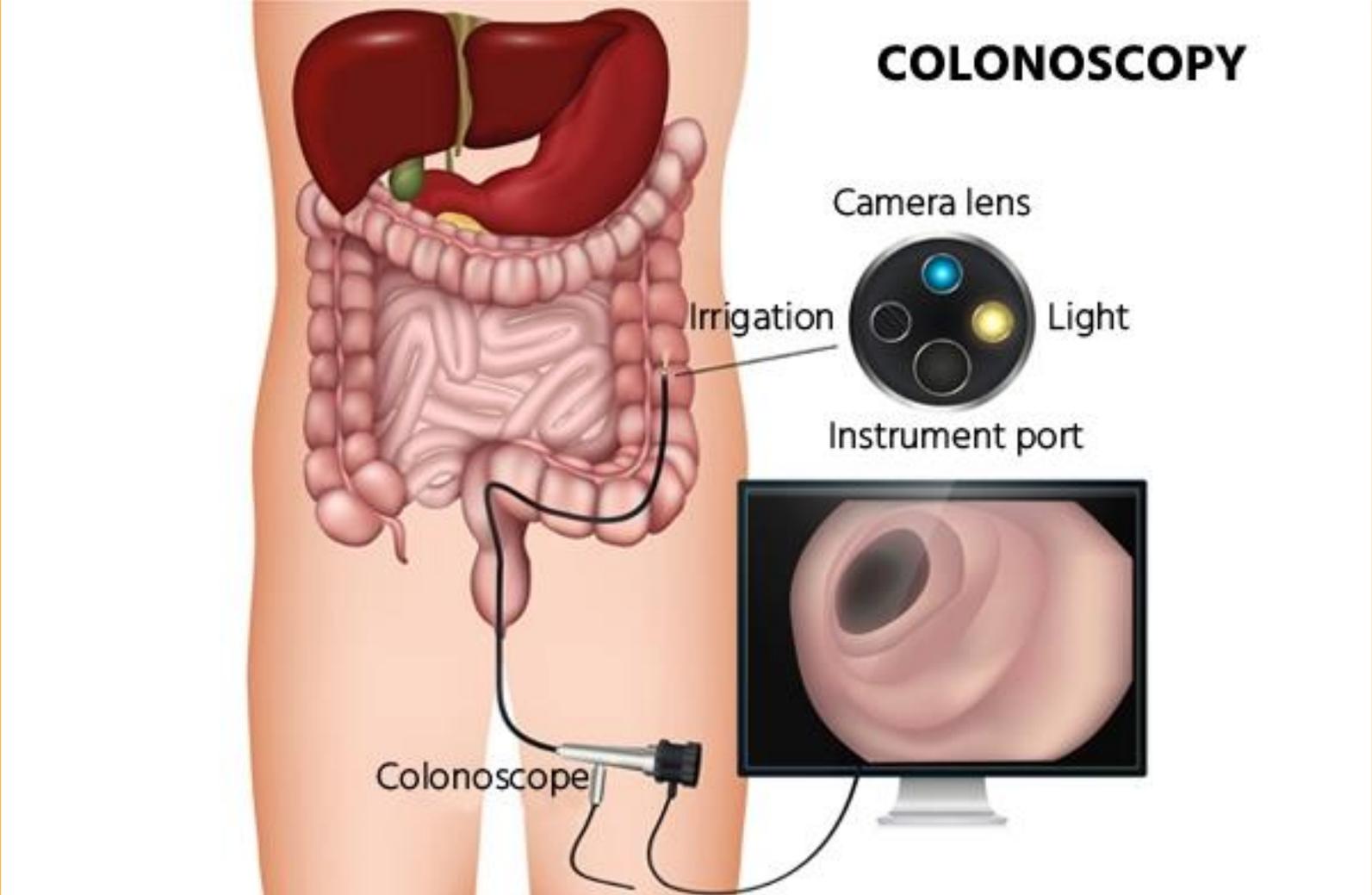
National Bowel Screening Programme



# Bowel Preparation / Procedure



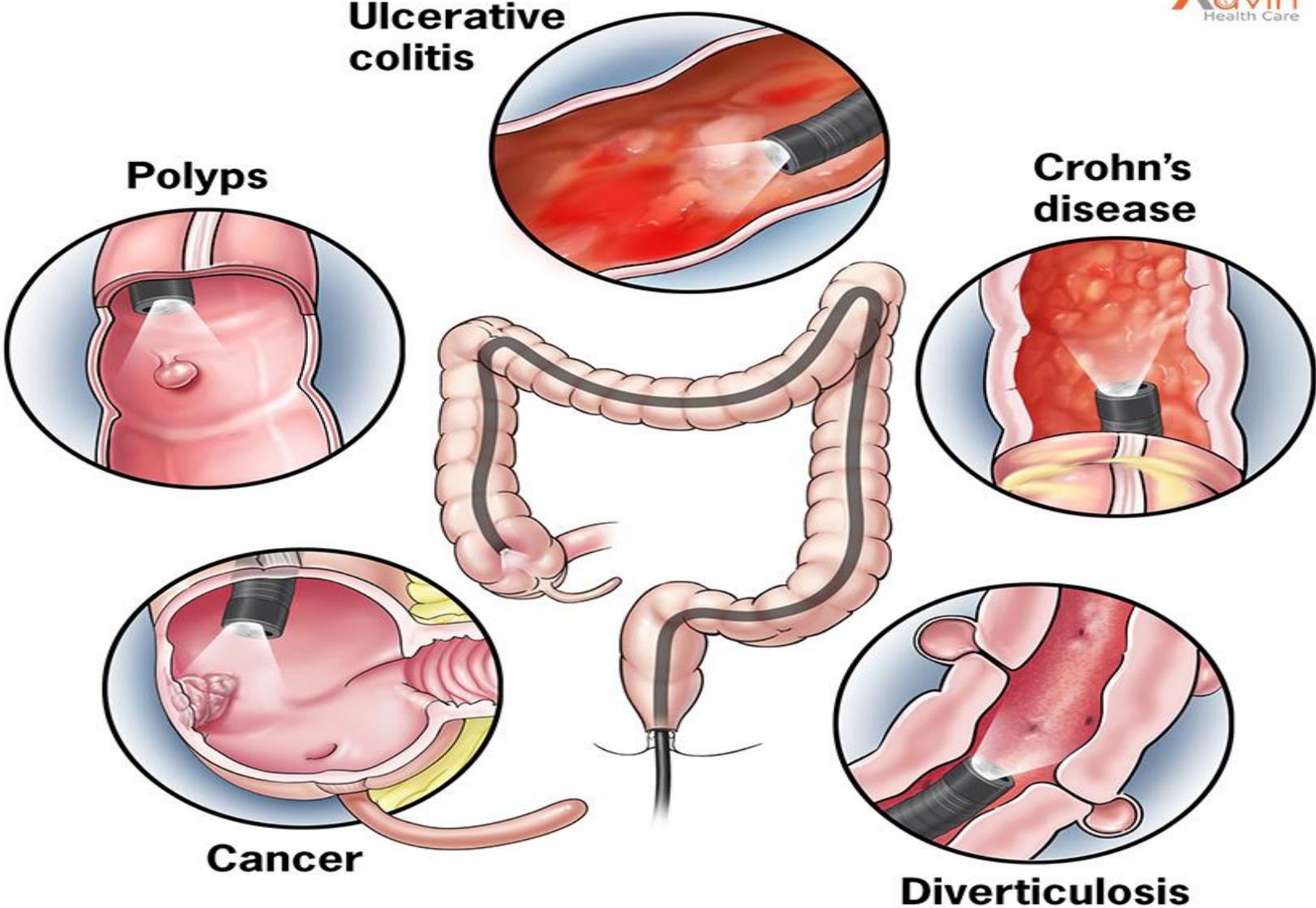
# Colonoscopy



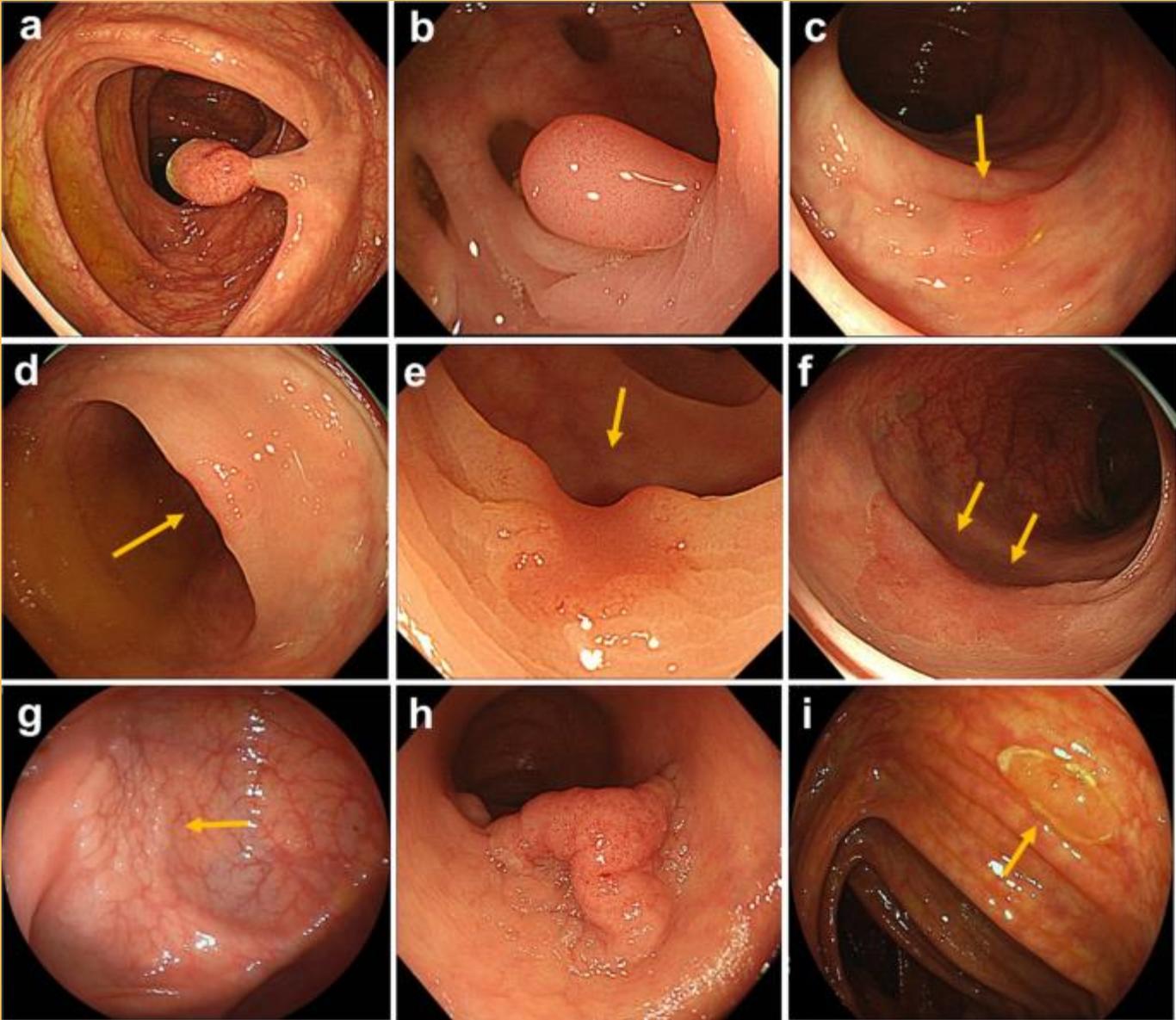
# What can we find in a colonoscopy?

- ▶ Polyps
- ▶ Diverticulosis
- ▶ Inflammatory bowel disease - UC, Crohn's, Microscopic colitis
- ▶ Haemorrhoids
- ▶ Cancer

# Colonoscopy Findings

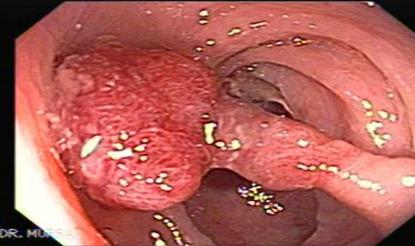


# Colonic polyps

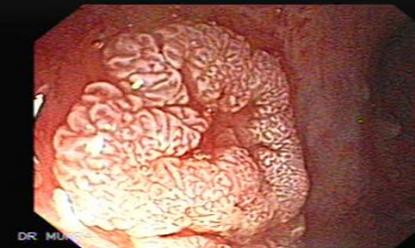




Colonoscopy Normal



Pedunculated polyp



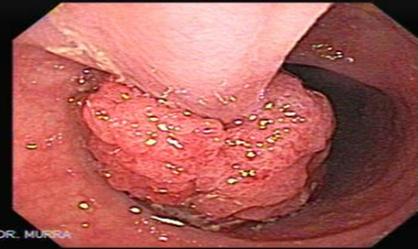
Flat Polyp



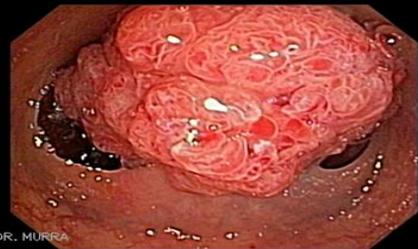
Familial adenomatous polyposis



Giant Polyp



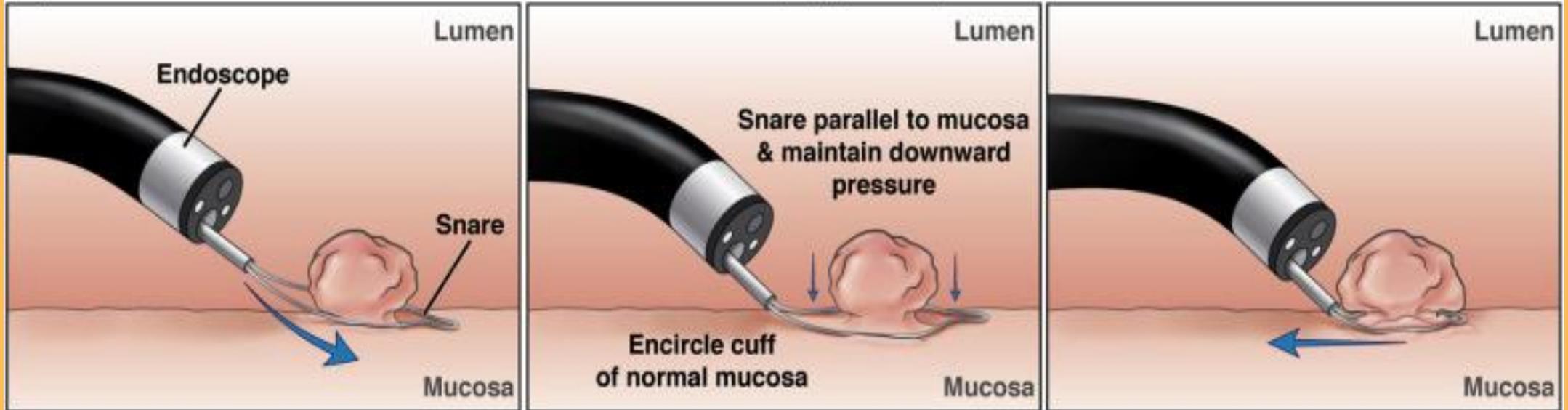
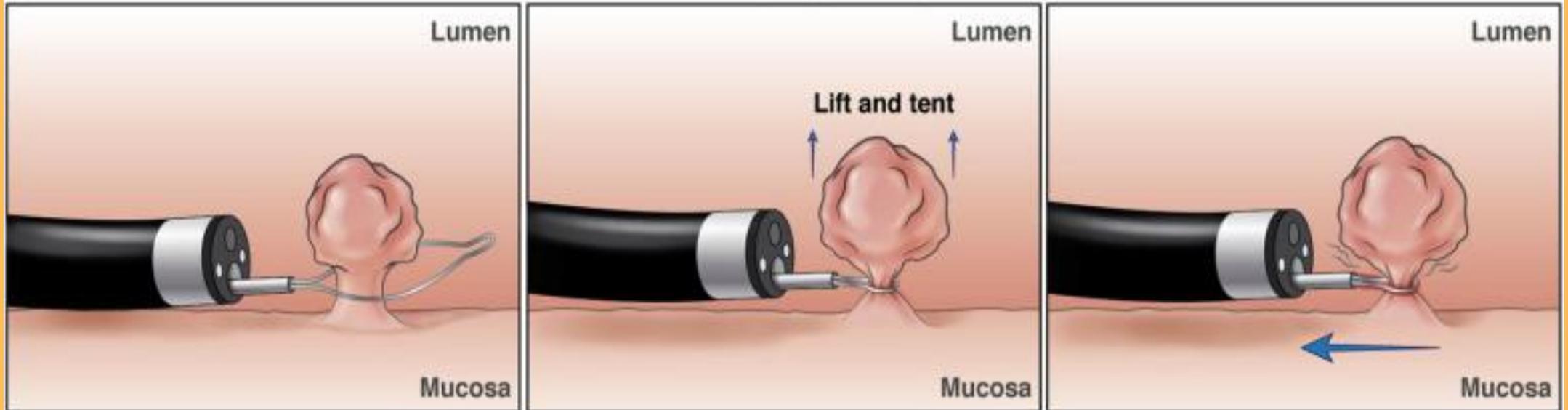
Giant Polyp



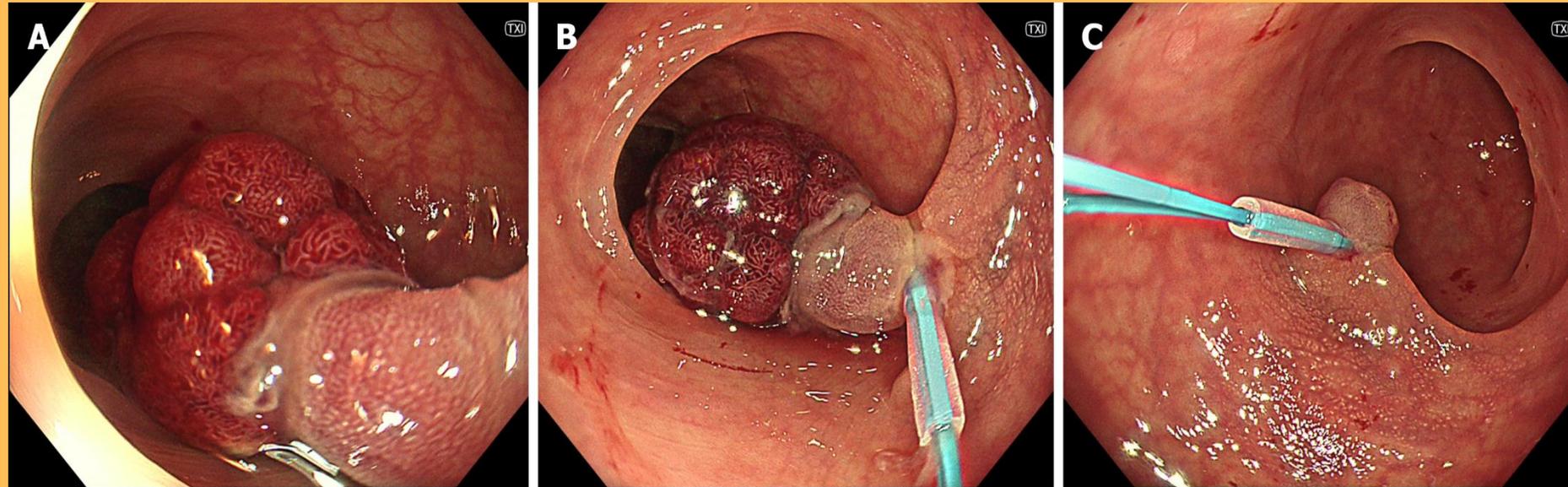
Giant Polyp



Multiple Polyps of the Colon

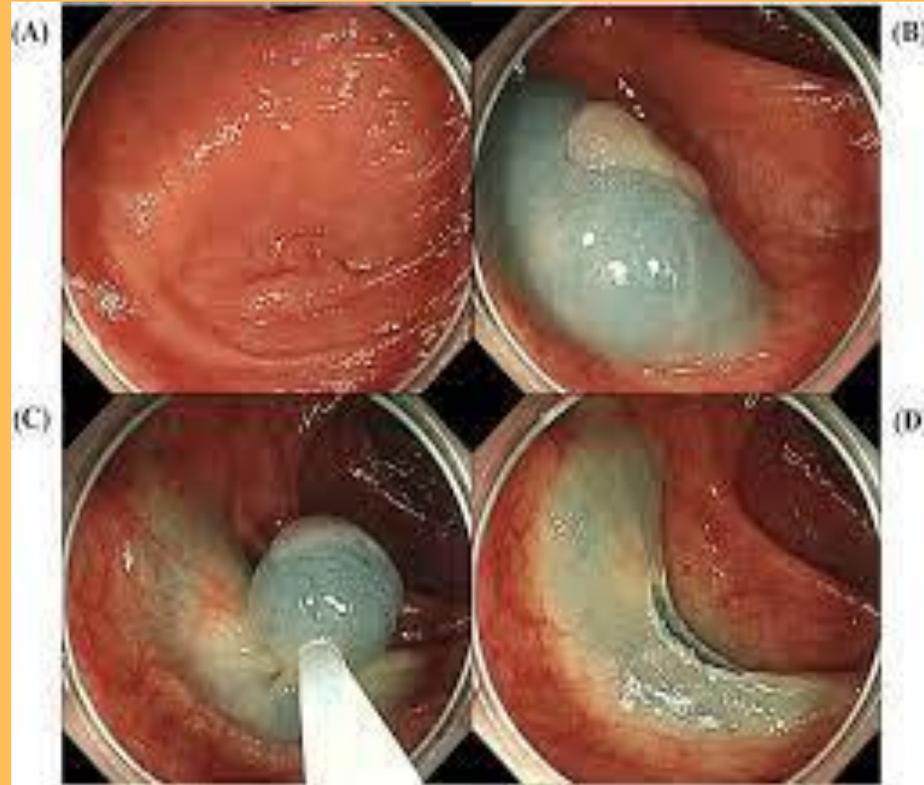
**A****Cold snare polypectomy****B****Hot snare polypectomy**

# Ligation of a pedunculated polyp



DOI: 10.3748/wjg.v29.i17.2600 Copyright ©The Author(s) 2023.

# Lifting a polyp



# Diverticulae



**DIVERTICULOSIS** VS **DIVERTICULITIS**

Diverticulosis occurs when pockets, referred to as diverticula, form in the wall of the colon.

Diverticulitis occurs when these pockets become inflamed or swollen.

Presence of Diverticula

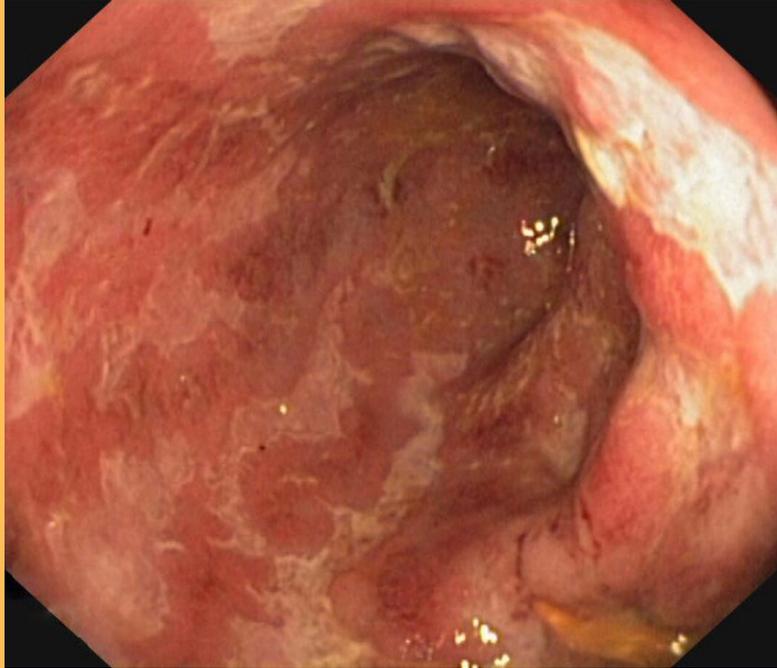
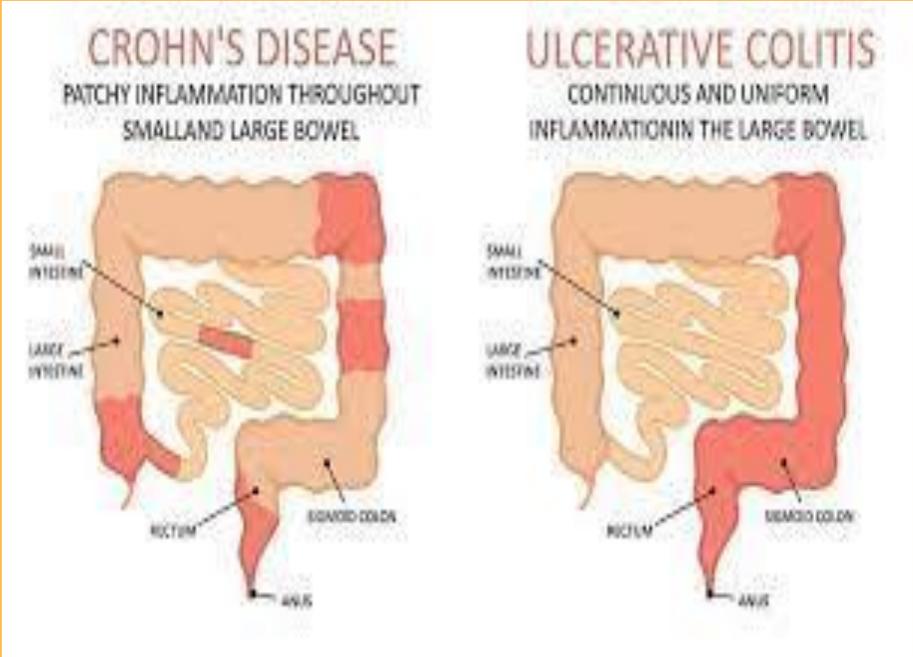
INFLAMMATION & COMPLICATIONS (Hemorrhoids)

bleeding

INFLAMMATION

APPROXIMATELY **50%** OF ALL PEOPLE OVER AGE 50 HAVE DIVERTICULOSIS

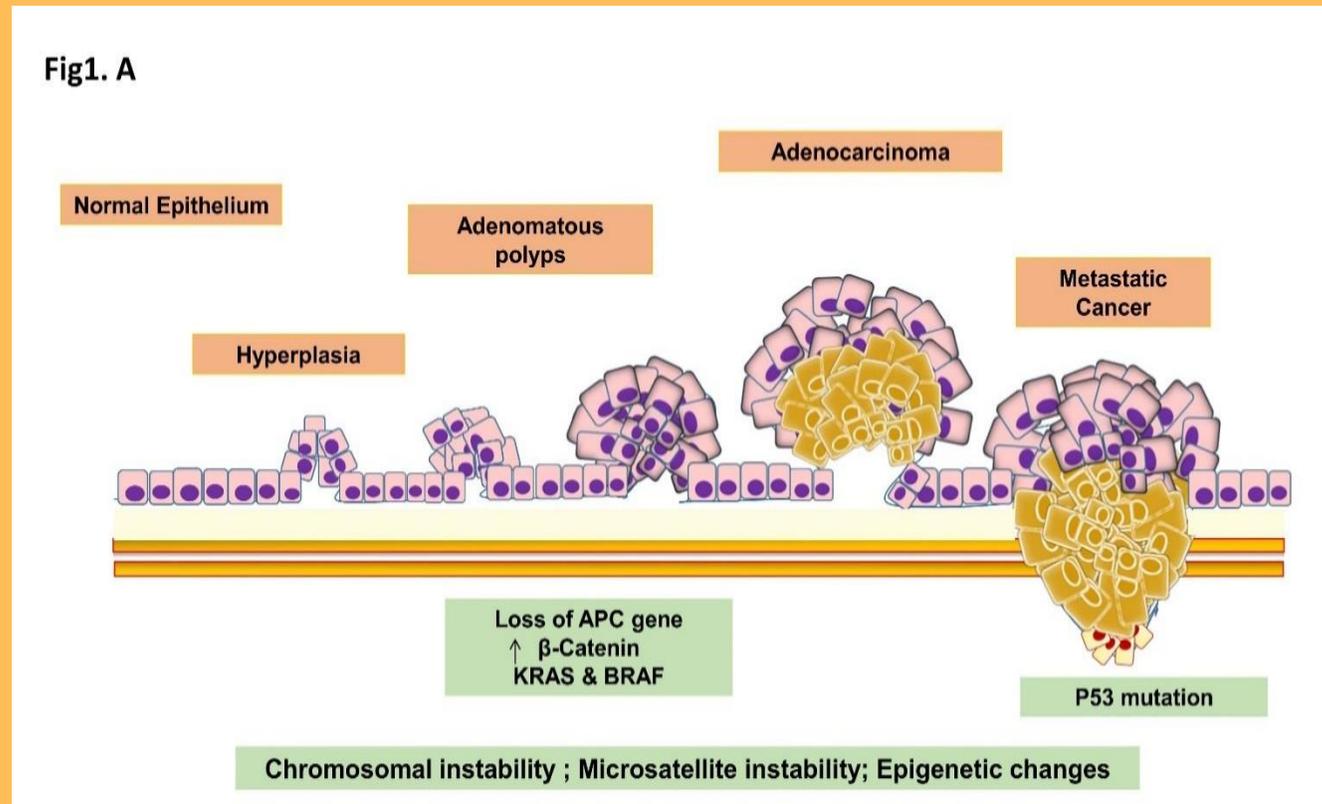
# Inflammatory bowel disease



# Colonic Cancer

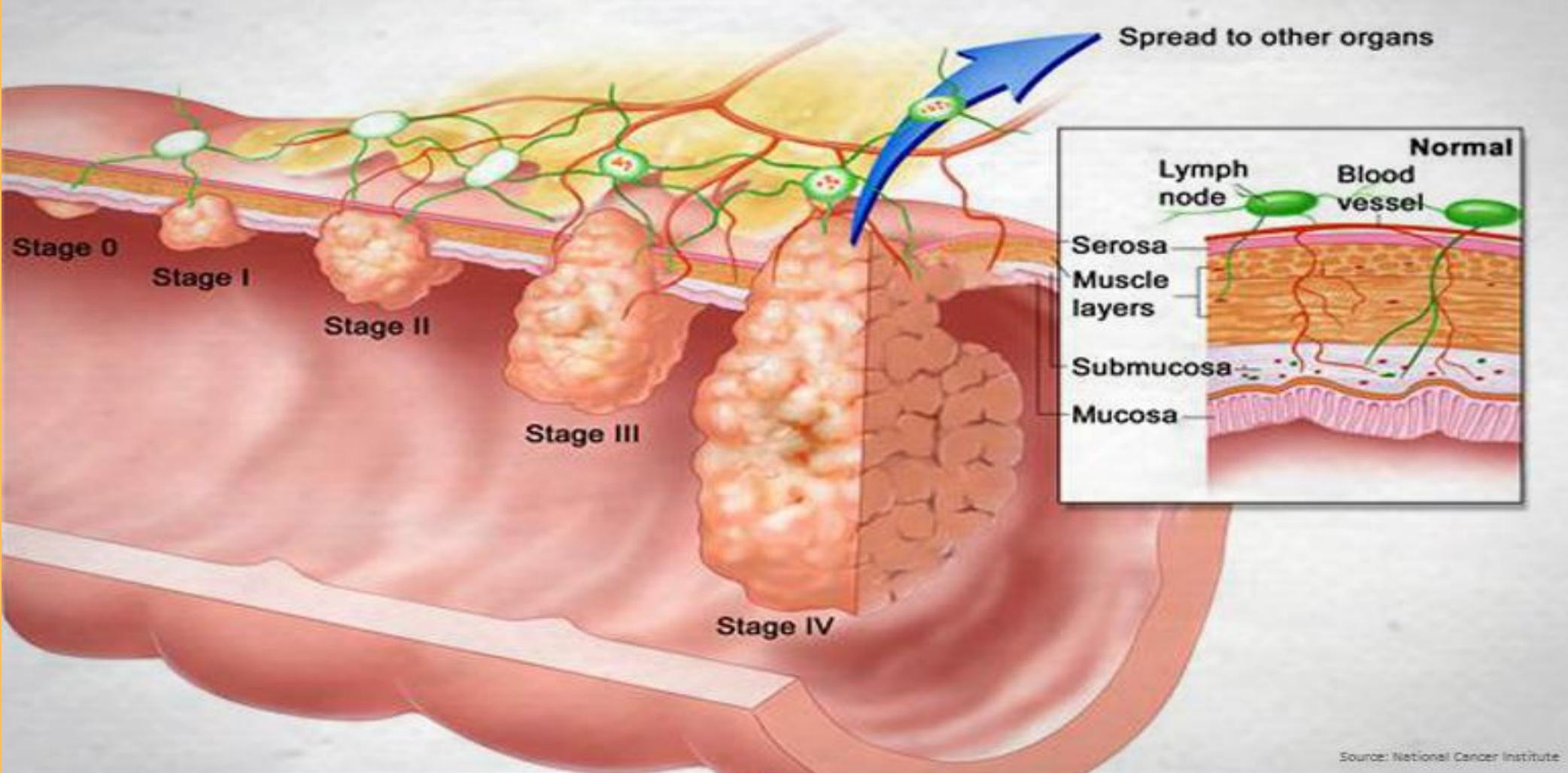


# Colon cancer develops over a long time

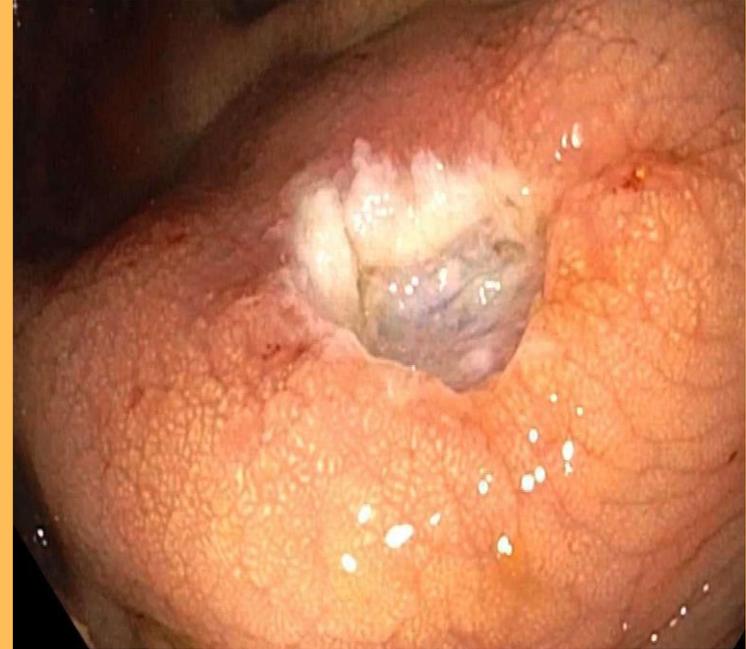


- Less than 10% of adenomas eventually turn into cancer
- Virtually all cancers start as an adenoma
- Cancer takes many years to develop

# Colon cancer staging



# Male 73



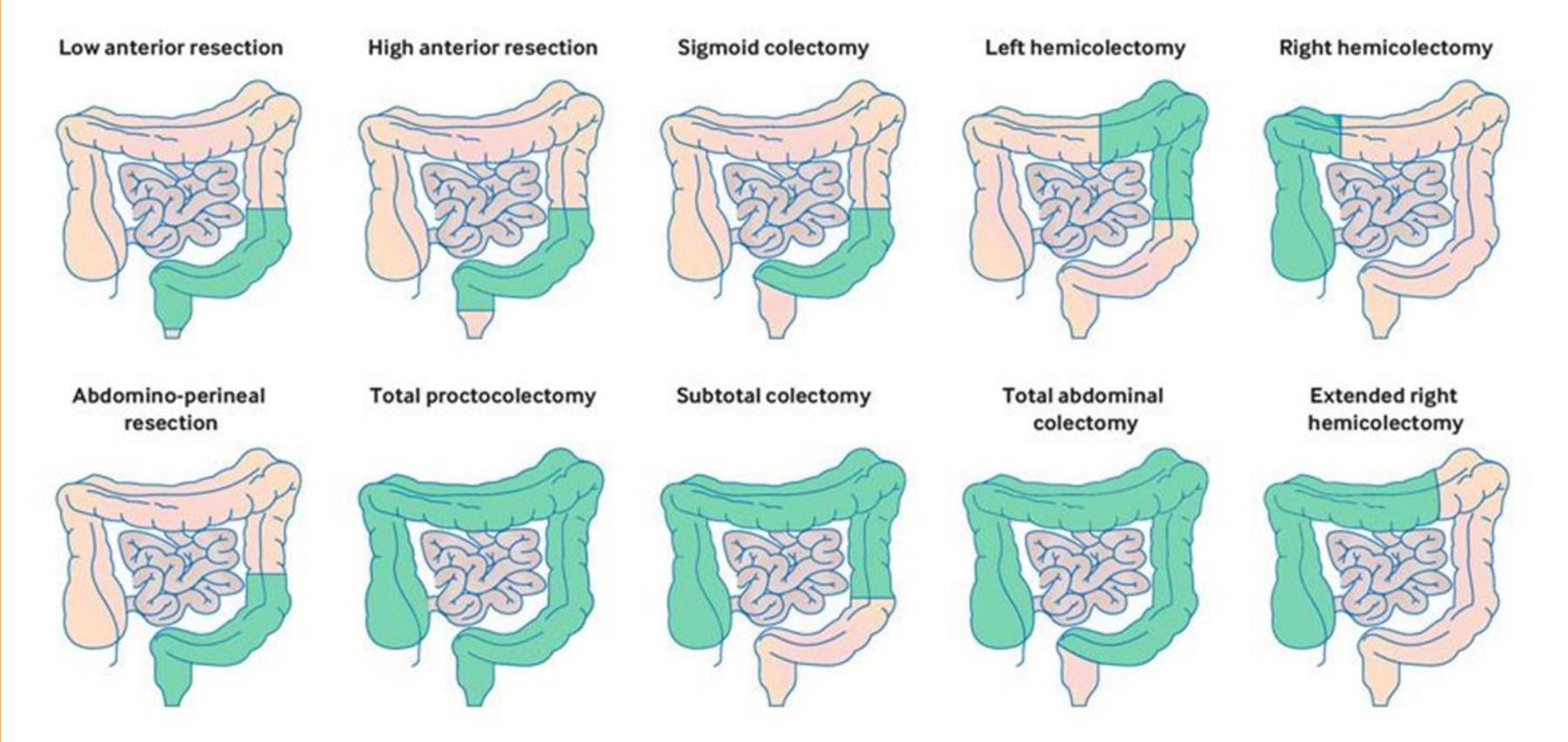
December 2017

Cont..



March 2018

# Surgical Treatment



## Case Study A

69 year old woman tested positive FIT on 22/06/2023

GP spoken to her and sent referral to us on 28/06/2023

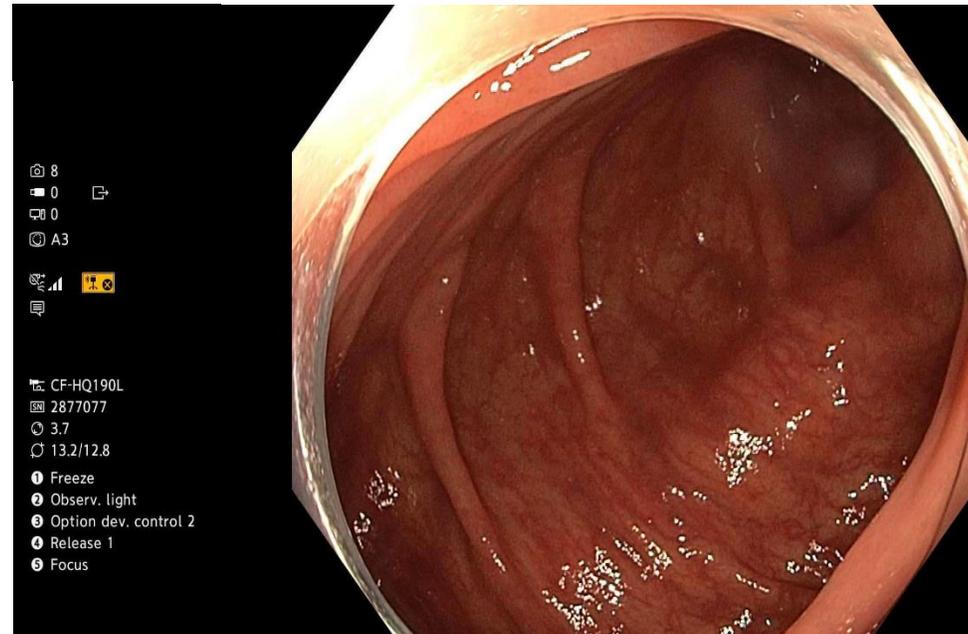
We then pre-assessed her for a colonoscopy on 03/07/2023

Family History - None

Medical History - Anxiety /Depression,  
Haemorrhoidectomy , Lap bil sphingo-oophorectomy

Bowels - No PR bleed /No change in bowel pattern

Perform colonoscopy on 03/08/2023 and no pathology was found and discharged back to bowel screening for another FIT test to be sent in 5 years



## Case Study B

A 63 year old male had a positive FIT test on 03/07/2023

GP spoken to him and sent referral to us on 03/07/2023

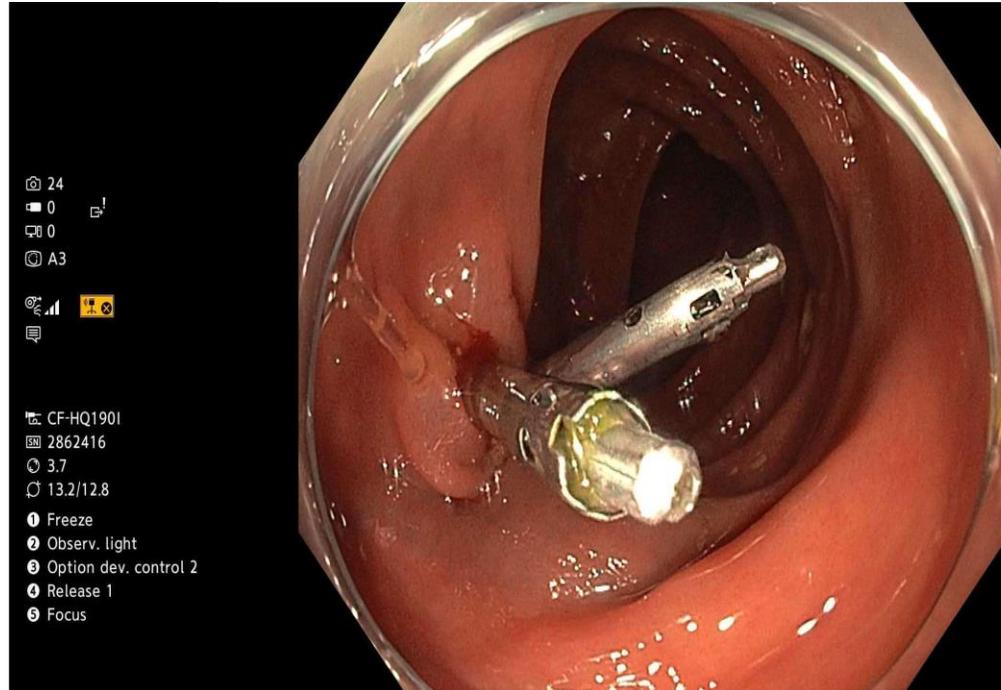
We pre-assessed him on 10/07/2023

Family History - None

Medical History - HTN, AF on Rivaroxaban, Hyperlipidemia, COPD, Diabetes on Metformin/Jardimet, Stroke, Gout, Rheumatoid arthritis -THJR(5 yrs ago)

Had colonoscopy on 10/08/2023 and had 5 polyps removed and 3 hemostatic clips placed

Histology -Hyperplastic polyp x2, Tubular adenoma x1, Tubulovillous adenoma x2. He had a letter sent telling him that he has a 3 year surveillance on the waiting list



## Case Study C

A 66 year old male had a positive FIT test on 08/06/2023 with PR bleeding and seen GP on waiting list

GP spoken to him and sent referral to us on 08/06/2023

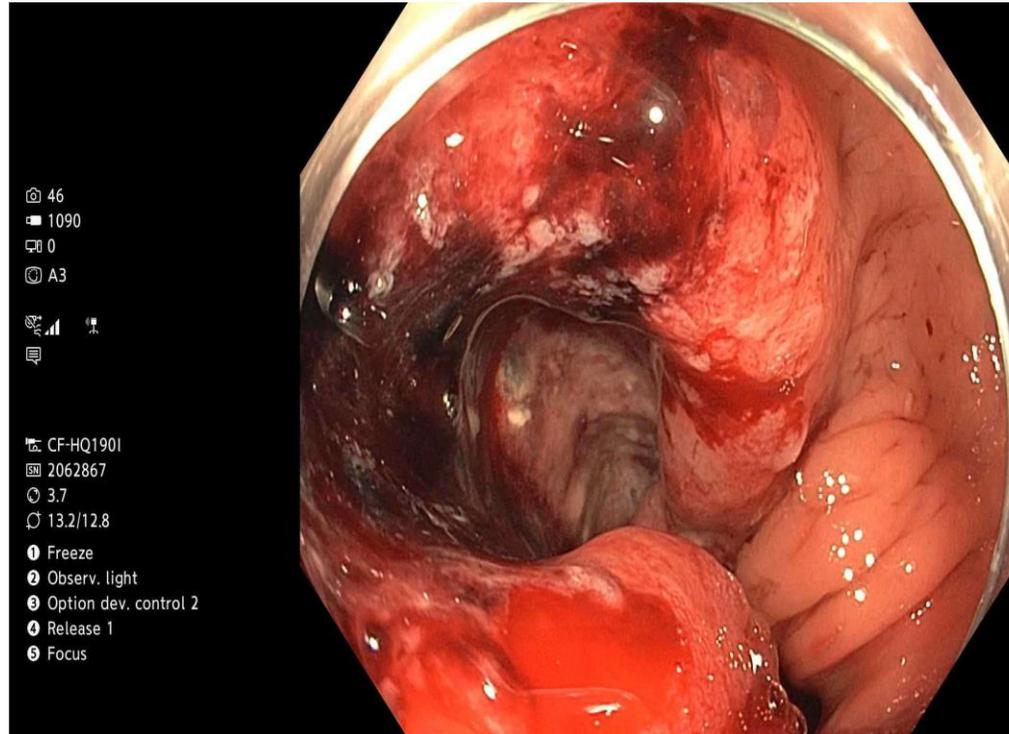
We pre-assessed him on 13/06/2023

Family History - None

Medical History - Dislocation of shoulder

Bowels -No more PR bleeding / No Change in bowel habit

Had Colonoscopy on 29/06/2023 and found 7 polyps and cancer at rectum. Arranged for blood test, CT scan/MRI, MDM review, Referral to surgeon / Cancer nurse for further treatment



## .... Into the future

- ▶ Having AI (Artificial intelligence) as part of detecting polyps and equipment visually is better.
- ▶ Doing extensive procedures like EMR (Endoscopic mucosal resection) or ESD (Endoscopic submucosal dissection) to take an intact piece rather piecemeal for histology
- ▶ Reducing the age for Maori and Pacific people from 50 -74 years starting mid 2024. NBSP target -60% but Maori /Pacific Islanders are at 49% /39%
- ▶ 2 yearly external auditing for whole Endoscopy unit

**5 YEARS OF  
BOWEL SCREENING  
IN THE HUTT VALLEY**

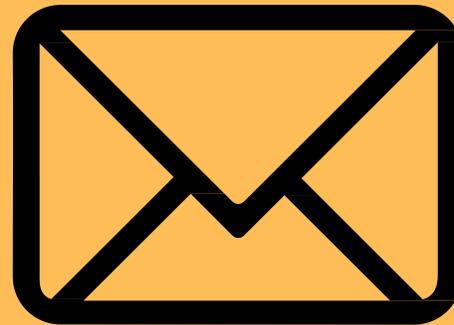
**55798**

**INVITATIONS SENT OUT**



**5 YEARS OF  
BOWEL SCREENING  
IN THE HUTT VALLEY**

**32209**  
**RETURNED KITS**



**5 YEARS OF  
BOWEL SCREENING  
IN THE HUTT VALLEY**

**1408**

**POSITIVE RESULTS**



**5 YEARS OF  
BOWEL SCREENING  
IN THE HUTT VALLEY**

**1257**

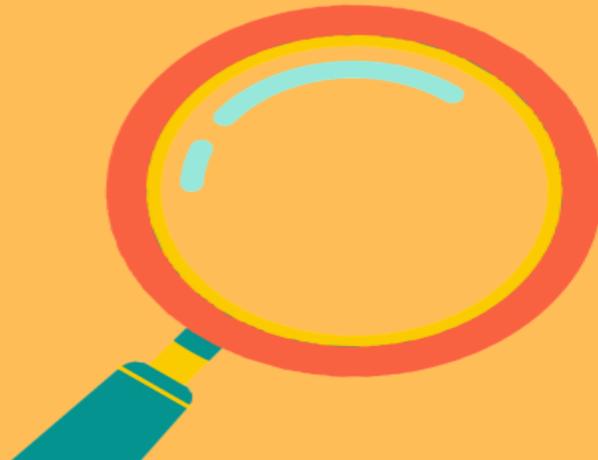
**COLONOSCOPIES**



**5 YEARS OF  
BOWEL SCREENING  
IN THE HUTT VALLEY**

**91**

**CANCERS FOUND**



Any Questions?