PICO/PECO and CAPS for individual questions:

#### I. Working group - Epidemiology (Lead - Chris Lamb)

1. What is the current incidence and prevalence of CRC in inflammatory bowel disease (IBD), population based

**Research question** - In individuals diagnosed with inflammatory bowel disease (IBD), what is the current incidence and prevalence of colorectal cancer (CRC) based on population-based studies?

Population (P): Adult patients (18 years or older)

**Exposure (E):** Diagnosis of IBD (ulcerative colitis or colonic Crohn's disease or IBD – unclassified) defined by conventional clinical, endoscopic, and histologic criteria.

Comparison (C): A control group of individuals without IBD

#### Outcome (O):

- 1. **Incidence of CRC:** Assess the rate of new CRC cases diagnosed during surveillance colonoscopy in patients with ulcerative colitis or colonic Crohn's disease. How does the incidence rate compare to the non-IBD population?
- 2. CRC related mortality

## Other considerations to put it in context for the guidelines:

- 1. **UK Situation:** Gather and present data specific to the current prevalence and incidence of CRC in patients with IBD undergoing surveillance colonoscopy in the UK.
- 2. **EDI Patient Characteristics:** Explore whether there are any disparities related to ethnicity, gender, or other social determinants of health (EDI) that may influence CRC prevalence and incidence in this population.
- 3. **International Data:** Provide a comparative analysis by incorporating international data to offer a broader perspective and identify potential regional variations in CRC rates among IBD patients undergoing surveillance colonoscopy.

2. Does colonoscopic surveillance in IBD prevent death from CRC, or CRC (PICO based on the Cochrane review)

**Research question** - In individuals diagnosed with inflammatory bowel disease (IBD), does colonoscopy surveillance, compared to no surveillance, prevent death from colorectal cancer (CRC) or reduce the incidence of CRC?

**Population (P):** Adult patients aged 18 years or older with a confirmed diagnosis of IBD (ulcerative colitis or colonic Crohn's disease or IBD – unclassified) defined by conventional clinical, endoscopic, and histologic criteria.

Intervention (I): Any form of endoscopic surveillance aimed at early detection of CRC in patients with IBD.

Comparison (C): A control group of patients with IBD who have not undergone surveillance for CRC.

**Outcome (O): Primary Outcomes:** 

1. **Comparative Rates of CRC Diagnosis:** Evaluate and compare the rates of CRC diagnosis between the surveillance group (patients with IBD who underwent surveillance) and the non-surveillance group (patients with IBD who did not undergo surveillance).

## **Secondary Outcomes:**

- 1. **Proportion of Patients Who Died from CRC:** Determine and compare the proportion of patients in both groups who died from CRC.
- 2. **Tumour Stage (Early or Late):** Assess and compare the tumour stage at the time of CRC diagnosis in both groups according to the TNM staging system.

3: PCCRC in IBD - measurement, reporting and reduction

Research question – What is the PCCRC rate in patients undergoing colonoscopy for inflammatory bowel disease?

Population (P): All adult patients with IBD

Exposure (E): Adult patients with follow up for 6-36 months who had a "clear" index colonoscopy

Comparison (C): Adult patients with IBD outcomes at index colonoscopy

Outcome (O):

- 1. PCCRC rate as per World Endoscopy Organization (WEO) methodology
- 2. Root- cause analysis of PCCRCs in patients with IBD

4: Organisation of an IBD surveillance programme

Research question: What should a good IBD surveillance programme look like?

**Current State of Knowledge:** What is the current state of knowledge regarding the organisation of IBD surveillance programs, including patient selection, surveillance modalities, timing, and coordination of care?

**Area of Interest:** What emerging trends, gaps, or novel approaches exist in the organisation of IBD surveillance programs, as identified by recent research and clinical practice?

**Potential Impact:** What potential impact do different organisational strategies for IBD surveillance programs have on patient outcomes, healthcare resource utilization, and the early detection of complications, such as dysplasia or colorectal cancer?

Suggestions from Experts in the Field: Based on the collective expertise and recommendations of experts in the field of IBD management and surveillance, what key strategies or considerations should be emphasised in the organisation of IBD surveillance programmes to optimise patient care and outcomes?

**Endoscopist:** Who should be undertaking IBD surveillance. Are there a minimum number of procedures they should undertake per year? What Key Performance Indices should their performance be benchmarked against?

#### II. Working group – Risk stratification (Lead – Shahida Din)

#### 1 & 2: When should surveillance be started and stopped

**Research question** - In adult patients diagnosed with IBD, what are the optimal strategies or criteria for initiating and discontinuing CRC surveillance, and how do these strategies impact CRC incidence, stage at diagnosis, survival rates, complications, quality-adjusted life years (QALYs), cost-effectiveness, and patient preferences and satisfaction?

**Population (P):** Adult patients diagnosed with IBD (diagnosis of ulcerative colitis or colonic Crohn's disease or IBD - unclassified) defined by conventional clinical, endoscopic, and histologic criteria

**Intervention (I):** Initiation and continuation of CRC surveillance in IBD patients. This includes determining the appropriate timing to start surveillance and when it should be discontinued.

**Comparison (C):** Comparing different strategies or criteria for initiating and discontinuing surveillance in IBD patients. This may involve comparing age-specific recommendations, disease duration, disease severity, family history, genetic factors, or other relevant criteria.

## Outcome (O):

- 1. CRC incidence: Evaluate the incidence of CRC in IBD patients based on different initiation and discontinuation strategies.
- 2. Stage of CRC at diagnosis: Assess whether the timing of surveillance initiation or discontinuation affects the stage at which CRC is diagnosed.
- 3. Survival rates: Compare the survival rates of IBD patients with CRC based on different surveillance timing strategies.
- 4. Defining age limits for commencement and discontinuation of surveillance: Determine if there are upper or lower age limits outside which health benefits do not favour the use of surveillance.
- 5. Comorbidity: What comorbidity/functional status should influence a decision to start or discontinue surveillance?

#### Additional outcomes:

- 1. Complications and adverse events: Evaluate any adverse events or complications related to surveillance procedures.
- 2. Quality-adjusted life years (QALYs): Assess the impact of different surveillance timing strategies on the quality-adjusted life years gained by IBD patients.
- 3. Cost-effectiveness: Examine the cost-effectiveness of various initiation and discontinuation strategies, considering healthcare resource utilization and patient outcomes.

- 4. Patient preferences and satisfaction: Consider the preferences and satisfaction of IBD patients regarding the timing of surveillance initiation and discontinuation.
- 3: What are the risk factors for colitis associated CRC (multiple)

Research question - In adult patients diagnosed with IBD, what are the risk factors associated with the development of colorectal cancer (CRC), and how do these risk factors, including the severity and progression of IBD, family history, duration and extent of inflammation, medication effects, lifestyle and environmental factors, genetic factors, and their interactions, influence the incidence of CACRC?

**Population (P):** Adult patients diagnosed with IBD (diagnosis of ulcerative colitis or colonic Crohn's disease or IBD - unclassified) defined by conventional clinical, endoscopic, and histologic criteria

Intervention (I): Identification and evaluation of potential risk factors associated with the development of CRC.

**Comparison (C):** Comparing individuals with identified risk factors to those without or assessing the impact of varying levels of exposure to these risk factors.

### Outcome (O):

1. **Incidence of CRC:** Assess the risk factors' association with the development of CRC and quantify the incidence of CRC in individuals with IBD exposed to these risk factors.

#### Risk factors to be considered:

- 1. **Severity and Progression of IBD:** Evaluate whether certain risk factors are associated with more severe or poorly controlled IBD and whether this correlates with an increased risk of CRC.
- 2. Family History: Investigate the impact of a family history of CRC as a risk factor for CACRC development in individuals with IBD.
- 3. **Duration and Extent of Inflammation:** Examine how the duration and extent of inflammation in the colon and rectum, as influenced by risk factors, affect the risk of CRC.
- 4. **Lifestyle and Environmental Factors:** Explore how diet, smoking, physical activity, and other lifestyle and environmental factors contribute to the risk of CRC in individuals with IBD.
- 5. Genetic Factors: Investigate the influence of genetic factors and mutations on CRC risk in individuals with IBD.
- 6. **Interaction of Risk Factors:** Assess whether the combination of multiple risk factors increases the risk of CACRC beyond that of individual factors.

7. **Pathogenesis:** What molecular mechanisms drive neoplasia in IBD and how does this differ to non-IBD dysplasia-malignancy molecular pathways?

3a: Impact of chemoprevention for IBD assessment

**Research question** - In adult patients diagnosed with IBD, what is the impact of chemopreventive agents or strategies on the incidence of CRC, adverse events, quality of life, cost-effectiveness, duration of chemoprevention, and potential subgroup variations, compared to individuals with IBD who do not receive chemopreventive interventions?

**Population (P):** Adult patients diagnosed with IBD (diagnosis of ulcerative colitis or colonic Crohn's disease or IBD - unclassified) defined by conventional clinical, endoscopic, and histologic criteria.

Intervention (I): The use of chemopreventive agents aimed at reducing the risk of dysplasia or CRC in individuals with IBD.

**Comparison (C):** A control group of individuals with IBD who do not receive chemopreventive interventions **Outcome (O):** 

- 1. Definition of chemopreventative agents: Determine what medical therapies have chemopreventative properties and what the mechanism of this is (suppression of inflammation vs other)? Is there an adjunctive role of 5ASA if mucosal inflammation is controlled by an advanced therapy? Linked to this, can 5ASA be discontinued if mucosal healing induced with an advanced therapy?
- 2. Incidence of CRC: Determine and compare the incidence of CRC in individuals with IBD who receive chemopreventive interventions (intervention group) and those who do not (control group).
- 3. Adverse Events: Assess and compare the occurrence of adverse events or side effects associated with the use of chemopreventive agents or strategies in individuals with IBD.
- 4. Quality of Life: Evaluate the impact of chemoprevention on the quality of life and well-being of individuals with IBD, including physical, psychological, and social aspects.
- 5. Duration of Chemoprevention: Examine the duration of chemoprevention required to achieve and maintain a reduction in the risk of dysplasia or CRC in individuals with IBD.
- 6. Subgroup Analysis: If applicable, conduct subgroup analyses based on factors such as the type of IBD (ulcerative colitis vs. colonic Crohn's disease), age, and disease severity.

4: Who should / should not receive surveillance

**Research question** - In adult patients diagnosed with IBD, what are the criteria or guidelines used to determine which individuals should undergo surveillance for colorectal cancer (CRC), and how do these criteria impact CRC incidence, surveillance adherence, cost-effectiveness, patient outcomes, quality of life, and complications?

**Population (P):** Adult patients diagnosed with IBD (diagnosis of ulcerative colitis or colonic Crohn's disease or IBD - unclassified) defined by conventional clinical, endoscopic, and histologic criteria

**Intervention (I):** Identification and evaluation of criteria or guidelines used to determine which individuals with IBD should undergo surveillance for CRC.

**Comparison (C):** Comparing individuals who meet the criteria for surveillance to those who do not or assessing different sets of criteria for surveillance eligibility.

#### Outcome (O):

- 1. **Colorectal Cancer Incidence:** Evaluate the effectiveness of the criteria in identifying individuals at higher risk of developing CRC and quantify the incidence of CRC in individuals who meet the criteria for surveillance.
- 2. Surveillance Adherence: Assess the adherence of healthcare providers and individuals with IBD to the recommended surveillance criteria.
- 3. **Cost-Effectiveness:** Analyse the cost-effectiveness of surveillance based on the selected criteria, considering healthcare resource utilization and patient outcomes.
- 4. **Patient Outcomes:** Evaluate the impact of adherence to surveillance criteria on patient outcomes, including early detection of CRC, stage at diagnosis, and survival rates.
- 5. Quality of Life: Consider the effect of surveillance on the quality of life and psychological well-being of individuals with IBD.
- 6. **Complications and Adverse Events:** Investigate any adverse events or complications associated with surveillance procedures and whether these risks are justified by the benefits.
- 7. **Defining age limits for commencement and discontinuation of surveillance:** Determine if there are upper or lower age limits outside which health benefits do not favour the use of surveillance.
- 8. Comorbidity: What comorbidity/functional status should influence a decision to start or discontinue surveillance?

5: Role of biomarkers pre-dysplasia detection to guide surveillance and colectomy risk

**Research question** - In patients with IBD, what is the current state of knowledge and emerging trends in the use of biomarkers for pre-dysplasia detection, surveillance, and assessing colectomy risk, and what potential impact do these biomarkers have on early detection, risk stratification, and clinical decision-making, as well as expert recommendations for prioritising biomarkers and methodologies in these contexts?

**Current State of Knowledge:** What is the current state of knowledge regarding the use of biomarkers in pre-dysplasia detection to guide surveillance and assess colectomy risk in patients with IBD?

**Area of Interest:** What emerging biomarkers, trends, or research findings exist in the context of pre-dysplasia detection, surveillance, and the assessment of colectomy risk in IBD, as highlighted by recent studies and clinical experiences?

**Potential Impact:** What potential impact do biomarkers play in early detection, risk stratification, and clinical decision-making for patients with IBD, particularly in terms of guiding surveillance strategies and determining the necessity of colectomy?

Suggestions from Experts in the Field: Drawing from the expertise and insights of experts in the field of IBD and biomarker research, what key biomarkers, methodologies, or approaches should be prioritised to enhance pre-dysplasia detection, surveillance, and the assessment of colectomy risk in IBD patients, ultimately improving patient outcomes?

Not tackled this in any detail as presume may have been done so already by Ibrahim and Simon but gastroenterologists will be keen to know the evidence/lack of evidence around use of FIT here.

## III. Working group - Colonoscopy (Lead - Ana Wilson)

1. Bowel prep for IBD colonoscopy

**Research question:** In adult patients diagnosed with IBD, does the choice of bowel preparation method or strategy impact preparation quality, repeatability of endoscopy, tolerability, patient experience, and safety, compared to standard bowel preparation practices, when undergoing colonoscopy?

**Population (P):** Adult patients diagnosed with IBD (diagnosis of ulcerative colitis or colonic Crohn's disease or IBD - unclassified) defined by conventional clinical, endoscopic, and histologic criteria, who are undergoing colonoscopy.

Intervention (I): Evaluation of different types or strategies of bowel preparation used before colonoscopy in individuals with IBD.

**Comparison (C):** Comparing various bowel preparation types or strategies, if there are sufficient studies with distinct methods to support a comparison or assessing the effectiveness of a particular type/strategy against standard bowel preparation practices.

#### Outcome (O):

- 1. **Preparation Quality:** Assess the effectiveness of bowel preparation in achieving optimal visualisation of the colon to identify dysplasia or cancer during surveillance colonoscopy.
- 2. **Repeatability of Endoscopy:** Evaluate whether the choice of bowel preparation impacts the ability to perform repeated or follow-up colonoscopies, especially for long-term surveillance in IBD.
- 3. Tolerability: Examine the tolerability of different bowel preparation regimens, including patient comfort and compliance.
- 4. **Patient Experience:** Investigate the patient experience, satisfaction, and acceptability of various bowel preparation methods or strategies.
- 5. **Safety:** Assess the safety profile of different bowel preparation approaches, including the occurrence of adverse events or complications.

2 &3 . Use of standard vs high definition colonoscopes & Use of chromoendoscopy (dye or virtual) versus white light or other techniques e.g. Endocuff, FUSE, AFI (network meta-analysis)

**Research question** - In adult patients diagnosed with IBD, what is the relative effectiveness of different colonoscopy modalities (standard vs. high-definition colonoscopes and chromoendoscopy vs. white light or other techniques) for dysplasia detection, serrated lesion detection,

sensitivity and specificity, procedure-related complications, patient experience and tolerability, and cost-effectiveness during surveillance colonoscopy?

**Population (P):** Adult patients diagnosed with IBD (diagnosis of ulcerative colitis or colonic Crohn's disease or IBD - unclassified) defined by conventional clinical, endoscopic, and histologic criteria, who are undergoing colonoscopy.

- Interventions (I) and (C):
  - 1. Comparison Group 1 (I1): Use of standard definition colonoscopes for surveillance.
    - o Comparison Group 2 (I2): Use of high definition colonoscopes for surveillance.
  - 2. Comparison Group 3 (I3): Use of chromoendoscopy (dye-based or virtual) for surveillance.
    - o Comparison Group 4 (14): Use of white light endoscopy or other techniques (e.g., Endocuff, FUSE, AFI) for surveillance.

**{NOTE:** SD left in to help make case that HD is now standard of care in IBD; however, we might do a separate analysis looking at HD white light versus other modalities. Working group to decide whether to include devices no longer available e.g. AFI / FUSE – if not to be explicit about leaving out]

#### Outcome (O):

- 1. **Dysplasia Detection:** Evaluate the effectiveness of each surveillance modality in detecting dysplasia.
- 2. Serrated lesions detection
- 3. Sensitivity and Specificity: Examine the sensitivity and specificity of each modality for detecting dysplaisa.
- 4. **Procedure-related Complications:** Investigate the occurrence of procedure-related complications or adverse events associated with each surveillance modality.
- 5. **Patient Experience and Tolerability:** Assess patient experience, satisfaction, and tolerability of the different surveillance techniques, including factors such as discomfort or pain during the procedure.
- 6. **Cost-effectiveness:** Analyse the cost-effectiveness of each modality, considering the resources required for surveillance and potential savings from early neoplasia detection.

## IV. Working group - Pathology (Lead - Adrian Bateman)

- 1. Use of non-targeted biopsies to detect invisible or non-conventional dysplasia
  - What is the role of biopsies around suspicious lesions?

Research question - In the context of IBD surveillance, what is use of non-targeted biopsies for identifying invisible or unconventional dysplasia, and what is the potential impact of incorporating non-targeted biopsies on improving the sensitivity and specificity of dysplasia detection, clinical decision-making, and patient outcomes? NOTE: this should include taking biopsies around detected suspected neoplastic lesions

**Current State of Knowledge:** What is the current state of knowledge regarding the utilisation of non-targeted biopsies for the detection of invisible or non-conventional dysplasia in the context of inflammatory bowel disease (IBD) surveillance?

**Area of Interest:** What recent developments, emerging techniques, or novel approaches exist in the use of non-targeted biopsies for identifying invisible or unconventional dysplasia in IBD patients, as highlighted by recent research and clinical experiences?

**Potential Impact:** What potential impact does the incorporation of non-targeted biopsies have on improving the sensitivity and specificity of dysplasia detection in IBD surveillance, and how does it influence clinical decision-making and patient outcomes?

Suggestions from Experts in the Field: Based on the collective expertise and recommendations of experts in the field of IBD surveillance and pathology, what key considerations, methodologies, or advancements should be emphasised when implementing non-targeted biopsies to enhance the detection of invisible or unconventional dysplasia in IBD patients?

2. What is the role of serrated lesions and serrated epithelial change?

**Research question** - In the context of IBD and colorectal cancer risk assessment, what is the role of serrated lesions and serrated epithelial changes, their potential impact on risk assessment, prevention, early detection, clinical management, and patient outcomes?

**Current State of Knowledge:** What is the current state of knowledge regarding the role of serrated lesions and serrated epithelial changes in the context of IBD and colorectal cancer risk?

**Area of Interest:** What emerging findings, recent developments, or evolving perspectives exist in our understanding of serrated lesions and serrated epithelial changes, as highlighted by contemporary research, clinical observations, and advancements in diagnostic techniques?

**Potential Impact:** What potential impact do serrated lesions and serrated epithelial changes have on colorectal cancer risk assessment, prevention, early detection, and clinical management, and how can this knowledge enhance patient outcomes?

Suggestions from Experts in the Field: Drawing upon the expertise and insights of experts in gastrointestinal pathology, oncology, and related fields, what key considerations, diagnostic criteria, and research directions should be emphasised to further elucidate the role of serrated lesions and serrated epithelial changes in clinical practice and research?

3. Role of non-conventional dysplasia / Harpaz classification

Research question - In the context of IBD, what is the role of identification, clinical significance, and management of non-conventional dysplasia, and how does this recognition impact clinical decision-making, patient outcomes, and the development of more effective management strategies for IBD?

**Current State of Knowledge:** What is the current state of knowledge regarding the role of non-conventional dysplasia in IBD, including its identification, clinical significance, and management strategies?

**Area of Interest:** What recent research findings, emerging diagnostic methods, or novel insights exist related to non-conventional dysplasia, as highlighted by contemporary studies, clinical experiences, and evolving perspectives?

**Potential Impact:** What potential impact does the recognition and understanding of non-conventional dysplasia have on clinical decision-making, patient outcomes, and the development of more effective management strategies for IBD?

Suggestions from Experts in the Field: Based on the collective expertise and recommendations of experts, what key considerations, diagnostic criteria, and research avenues should be prioritised to enhance our understanding and management of non-conventional dysplasia in clinical practice?

- V. Working group Surveillance (Lead Misha Kabir)
- 1. Management of dysplasia:
  - 1a) Endoscopic
  - 1b) Recommendation for consideration of colectomy

**Research question** - In individuals with IBD, what is management of dysplasia, including endoscopic approaches (1a) and recommendations for consideration of colectomy (1b), their potential impact on patient outcomes?

**Current State of Knowledge:** What is the current state of knowledge regarding the management of dysplasia in individuals with IBD, including the available treatment modalities, surveillance strategies, and outcomes?

**Area of Interest:** What recent advances, evolving treatment approaches, or novel insights exist in the management of dysplasia in IBD, as highlighted by contemporary research, clinical experiences, and advancements in therapeutic options?

**Potential Impact:** What potential impact does the optimisation of dysplasia management in IBD have on patient outcomes, including the prevention of colorectal cancer, improved quality of life, and reduction of complications?

Suggestions from Experts in the Field: Drawing from the expertise and recommendations of experts in the field of IBD, gastroenterology, and colorectal surgery, what key considerations, treatment algorithms, and research directions should be emphasised to enhance the management of dysplasia in individuals with IBD?

# 2. Role of biomarkers post-dysplasia detection to guide surveillance and colectomy risk

**Research question -** In individuals with IBD who have had dysplasia detected, what is the use of biomarkers to guide post-dysplasia surveillance, assess colectomy risk, and inform clinical decision-making?

**Current State of Knowledge:** What is the current state of knowledge regarding the utilisation of biomarkers post-dysplasia detection to guide surveillance and assess colectomy risk in individuals with IBD?

**Area of Interest:** What emerging trends, recent advancements, or evolving strategies exist in the use of biomarkers after dysplasia detection in IBD patients, as highlighted by contemporary research, clinical experiences, and developments in biomarker technology?

**Potential Impact:** What potential impact do biomarkers play in post-dysplasia surveillance, risk stratification for colectomy, and clinical decision-making, and how can their implementation influence patient outcomes and the prevention of colorectal cancer in IBD?

Suggestions from Experts in the Field: Based on the expertise and insights of experts in IBD, biomarker research, and gastroenterology, what key biomarkers, methodologies, or approaches should be emphasised in post-dysplasia surveillance and colectomy risk assessment for individuals with IBD?

### 3. Follow up after dysplasia: Low grade or High grade

**Research Question -** In individuals with IBD who have been diagnosed with dysplasia, whether low grade or high grade, what is potential impact of various follow-up strategies on patient outcomes, including colorectal cancer prevention, timely intervention, and quality of life improvement?

**Current State of Knowledge:** What is the current state of knowledge regarding the optimal follow-up strategies after the detection of dysplasia, whether low grade or high grade, in individuals with IBD?

Area of Interest: What recent research findings, evolving clinical guidelines, or emerging approaches exist in the follow-up care for individuals with IBD who have been diagnosed with low-grade or high-grade dysplasia, as highlighted by contemporary studies, clinical experiences, and advancements in surveillance techniques?

**Potential Impact:** What potential impact do different follow-up strategies have on patient outcomes, including the prevention of colorectal cancer, timely intervention, and improvement in quality of life for individuals with IBD who have dysplasia?

Suggestions from Experts in the Field: Based on the expertise and insights of experts in IBD, gastroenterology, and colorectal surgery, what key considerations, follow-up algorithms, and research directions should be emphasised to optimise the follow-up care for individuals with IBD who have been diagnosed with dysplasia, whether low grade or high grade?

# 4. Follow up after dysplasia polypoid vs non-polypoid vs invisible

Research Question – In individuals with IBD who have been diagnosed with dysplasia in various forms (polypoid, non-polypoid, invisible), what is the potential impact of different follow-up strategies on patient outcomes, including colorectal cancer prevention, timely intervention, and quality of life improvement?

**Current State of Knowledge:** What is the current state of knowledge regarding the optimal follow-up strategies after the detection of dysplasia in different forms (polypoid, non-polypoid, invisible) in individuals with IBD?

Area of Interest: What recent research findings, evolving clinical guidelines, or emerging approaches exist in the follow-up care for individuals with IBD who have been diagnosed with dysplasia in various forms, including polypoid, non-polypoid, and invisible dysplasia, as highlighted by contemporary studies, clinical experiences, and advancements in surveillance techniques?

**Potential Impact:** What potential impact do different follow-up strategies have on patient outcomes, including the prevention of colorectal cancer, timely intervention, and the improvement in the quality of life for individuals with IBD who have dysplasia in diverse forms?

Suggestions from Experts in the Field: Drawing upon the expertise and insights of experts in IBD, gastroenterology, pathology, and colorectal surgery, what key considerations, follow-up algorithms, and research directions should be emphasised to optimise the follow-up care for individuals with IBD who have been diagnosed with dysplasia, whether it's polypoid, non-polypoid, or invisible?

## 5. Surveillance pouch\* / surveillance retained rectum / retained colon

**Research question** – In individuals who have undergone pouch surgery or retained rectum surgery as part of their treatment for IBD, what is potential impact of different surveillance strategies on patient outcomes, including early detection of complications, prevention of pouchitis or proctitis, and overall improvement in the quality of life?

**Current State of Knowledge:** What is the current state of knowledge regarding the optimal surveillance strategies for individuals who have undergone pouch surgery or retained rectum surgery as part of their treatment for IBD?

Area of Interest: What recent research findings, evolving clinical guidelines, or emerging surveillance approaches exist for monitoring individuals with pouches or retained rectums following surgical interventions for IBD, as highlighted by contemporary studies, clinical experiences, and advancements in surveillance techniques?

**Potential Impact:** What potential impact do different surveillance strategies have on patient outcomes, including the early detection of complications, prevention of pouchitis or proctitis, and the overall improvement in the quality of life for individuals with pouches or retained rectums?

Suggestions from Experts in the Field: Based on the expertise and insights of experts in IBD, colorectal surgery, and gastroenterology, what key considerations, surveillance protocols, and research directions should be emphasised to optimise the monitoring and care of individuals with pouches or retained rectums following surgical interventions for IBD?

### VI. Working group – Training, EDI, Sustainability (Lead – Marietta Iacucci)

#### 1. Quality in IBD colonoscopy and KPIs

**Current State of Knowledge:** What is the current state of knowledge regarding the assessment and enhancement of the quality of colonoscopy procedures specifically designed for individuals with IBD?

Area of Interest: What recent research findings, clinical guidelines, or innovative approaches exist for measuring and improving the quality of IBD colonoscopy, particularly through the development and utilisation of key performance indicators (KPIs), as highlighted by contemporary studies, clinical experiences, and advancements in endoscopic techniques?

**Potential Impact:** What potential impact do well-defined KPIs and enhanced quality measures have on the accuracy of diagnosis, surveillance effectiveness, and overall patient outcomes for individuals with IBD undergoing colonoscopy?

Suggestions from Experts in the Field: Drawing upon the expertise and insights of experts in gastroenterology, endoscopy, and quality improvement, what key considerations, KPIs, and research directions should be emphasised to ensure high-quality IBD colonoscopy practices and maximise the benefits for patients?

### 2. Training in IBD colonoscopy surveillance

**Current State of Knowledge:** What is the current state of knowledge regarding the training methods, strategies, and standards for healthcare professionals, particularly gastroenterologists and endoscopists, in IBD colonoscopy surveillance?

Area of Interest: What recent developments, innovative approaches, or evolving educational techniques exist for training healthcare professionals in the specialised field of IBD colonoscopy surveillance, as highlighted by contemporary education programs, clinical experiences, and advancements in endoscopic training?

**Potential Impact:** What potential impact does effective training in IBD colonoscopy surveillance have on the quality of care, the accuracy of surveillance, and the prevention of complications, such as dysplasia or colorectal cancer, for individuals with IBD?

Suggestions from Experts in the Field: Drawing upon the expertise and insights of experts in gastroenterology, endoscopy, medical education, and IBD management, what key considerations, training methodologies, and research directions should be emphasized to ensure healthcare professionals are adequately trained in IBD colonoscopy surveillance to benefit patient care?

# 3. Sustainability in IBD surveillance endoscopy (green endoscopy)

**Current State of Knowledge:** What is the current state of knowledge regarding sustainable and environmentally friendly practices, often referred to as "green endoscopy," in the context of IBD surveillance endoscopy?

Area of Interest: What recent innovations, emerging technologies, or novel approaches exist for making IBD surveillance endoscopy more sustainable and eco-friendly, as highlighted by contemporary studies, clinical experiences, and environmental impact assessments?

Potential Impact: What potential impact do sustainable practices in IBD surveillance endoscopy have on reducing carbon footprints, minimising resource consumption, and contributing to environmentally responsible healthcare delivery, while maintaining the quality of patient care?

Suggestions from Experts in the Field: Drawing upon the expertise and insights of experts in gastroenterology, endoscopy, and environmental sustainability, what key considerations, sustainable strategies, and research directions should be emphasised to promote green endoscopy practices in the context of IBD surveillance?

## 4. Extra: Tolerability and quality of endoscopy based on EDI factors, clinical – scope technique, unit factors etc.

**Current State of Knowledge:** What is the current state of knowledge regarding the impact of various factors, such as health disparities (EDI factors), clinical factors, scope technique, and unit-related factors, on the tolerability and quality of endoscopy procedures?

Area of Interest: What recent research findings, clinical insights, or innovative techniques exist for optimising the tolerability and quality of endoscopy, particularly considering the influence of health disparities, clinical variables, scope technique, and unit-specific factors, as highlighted by contemporary studies, patient experiences, and healthcare unit practices?

**Potential Impact:** What potential impact do these factors have on patient experiences, procedural outcomes, and the overall quality of endoscopy procedures, and how can this knowledge be used to enhance patient care and satisfaction while maintaining procedural effectiveness?

Suggestions from Experts in the Field: Drawing upon the expertise and insights of experts in gastroenterology, endoscopy, healthcare disparities, and patient experience, what key considerations, strategies, and research directions should be emphasised to optimise the tolerability and quality of endoscopy procedures across diverse patient populations and clinical settings?

# 2. Cost effectiveness (not a formal Health Economic review)

**Research Questions:** What evidence is there that colonoscopic surveillance for inflammatory bowel disease is cost-effective compared to no surveillance?