Screening Modalities	Number of studies	I ²	Pooled ASMRs (95%CI)
gFOBT	8	90.5%	0.894 (0.835, 0.958)
6-10 years	6	61.4%	0.936 (0.884, 0.991)
FIT	18	82.5%	0.879 (0.847, 0.913)
1-5 years	6	37.0%	0.987 (0.934, 1.043)
6-10 years	6	0.0%	0.853 (0.806, 0.902)
11-20 years	4	19.2%	0.818 (0.793, 0.843)
gFOBT or FIT (6-10 years)	10	88.9%	0.882 (0.835, 0.932)
Faecal test or FS (11-20 years and >20 years)	4	94.3%	0.840 (0.786, 0.898)
Faecal tests or colonoscopy (11-20 years)	4	87.7%	0.619 (0.549, 0.698)

ASMR: age-standardised mortality ratio, gFOBT: guaiac faecal occult blood test, FIT: faecal immunochemical tests, FS: flexible sigmoidoscopy. *Each country had two studies (male and female), and this table only showed subgroups with at least two countries or areas (four studies).

Abstract IDDF2021-ABS-0179 Figure 1

Results CRC screening programmes have been conducted in 58 countries/regions. After matching with the IARC database, we recorded >2.5 million CRC-related deaths from 22 countries where rollout screening programmes were performed. The screening modality with a provision of choice between faecal tests and colonoscopy as the primary screening test was associated with a 38.1% reduction in CRC mortality (ASMR=0.619, 95%CI: 0.549-0.698), which was higher than programmes that offered guaiac faecal occult blood test (gFOBT) (0.894, 0.835-0.958), faecal immunochemical tests (FIT) (0.879, 0.847-0.913), gFOBT or FIT (0.882, 0.835-0.932), and faecal tests or flexible sigmoidoscopy (0.840, 0.786-0.898). The longer duration of screening was associated with a higher reduction in the pooled ASMR. In particular, the pooled ASMR became non-significant (0.987, 0.934-1.043) when the FIT screening was implemented for less than 5 years (IDDF2021-ABS-0179 Figure 1. The pooled age-standardised colorectal cancer-related mortality ratio by screening modalities and screening duration). The LMM result also showed a 0.172 decrease in ASMR ($P<0.001$) among the screening strategy with faecal test or colonoscopy as a primary screening tool when compared with gFOBT.

Conclusions A CRC screening programme running for >5 years was associated with a reduction of CRC-related mortality. Countries with a heavy burden of CRC should implement sustainable, organised CRC screening providing a choice between faecal tests and colonoscopy as a preferred primary screening test.

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CHALLENGES IN MOTORISED POWER SPIRUS ENTEROSCOPY- INITIAL EXPERIENCE

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Background The novel Motorised Power Spirus Enteroscopy is a valuable tool in our armamentarium for small bowel evaluation and therapy. But, there are some challenges in performing it. **Aim** Challenges faced during the performance of the power spirus enteroscopy were analysed and what are the measures to overcome them.

Methods We performed 22 cases of small bowel evaluation using the motorised power spirus enteroscope. Eighteen were

performed antegrade manner and four were from the retrograde route. Ten cases were done for GI Bleeding, Six for evaluation of pain abdomen and three for small bowel lesions like thickening on imaging. One was a case of intestinal obstruction due to a polyp in Ileum.

The procedure went on successfully in 20 cases. Two cases could not be done due to difficulty in intubation of Esophagus, which we could complete using a Balloon Enteroscope. Two cases had a Total Enteroscopy from the proximal route. In eight cases, there was difficulty in negotiating Pyloric channel but ultimately succeeded on repeated attempts. In five cases, there was some difficulty in negotiating the Duodenojejunal flexure, but it could be maneuvered across. There was difficulty in the evaluation of deeper Ileum, but it could be completed by an abdominal massage using lesser air, like switching of insufflation and using water for visualisation.

Results Twenty cases of attempted 22 cases(91%) could be done successfully using Motorised power spirus Enteroscopy. Eighteen of them were done from the antegrade route. Two cases had Total Enteroscopy done(10%). Difficulties were noted during Esophageal intubation which could be overcome by prior dilatation with 18mm dilator, then crossing of Pylorus by straightening the scope. Negotiating Duodenal Jejunal Flexure could be possible by switching off CO₂ and gentle maneuvering. The challenge of deeper intubation of the Ileum could be possible by abdominal massaging and reducing CO₂ usage and infusing more water.

Conclusions Motorised Power Spiral Enteroscopy is a very good modality in the evaluation of the small bowel with its own challenges. The challenges while performing it can be overcome with certain maneuvers.

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INCIDENCE AND RISK FACTORS FOR EARLY-ONSET COLORECTAL CANCER: A GLOBAL DATA ANALYSIS

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Abstract IDDF2021-ABS-0181 Figure 1 Global age-standardised incidence of early-onset colorectal cancer in 2020. ASR: age-standardised rate; Data-source: GLOBOCAN 2020 Graph production: IARC (<http://gco.iarc.fr/today>) World Health Organization

Background This study aimed to investigate the incidence of and the risk factors associated with early-onset colorectal cancer (CRC) using data from 185 countries.

Methods The *Global Cancer Observatory (GLOBOCAN)* was retrieved for the age-standardised rates (ASR) per 100 000 for incidence of CRC in 2020 among individuals aged 15 to 49 years old. The prevalence of different risk factors in 2020 among the young population for each country was estimated using joinpoint regression. The associations between risk factors and incidence were measured using beta coefficients (β) with 95% confidence intervals (CI) by multivariable linear regression adjusting for Gross Domestic Product (GDP) and Human Development Index (HDI).

Results In 2020, the total number of new early-onset CRC was 187 454 (9.7% of CRC for all ages), with an ASR of 4.6 (IDDF2021-ABS-0181 Figure 1. Global standardised incidence of early-onset colorectal cancer in 2020). The highest ASR incidence of early-onset CRC was in males (4.8 vs. 4.4 in females); Australia and New Zealand (11.0), Northern America (9.9), Western Europe (7.2); and regions of Very High HDI (7.3) and high HDI (5.1). Countries with a higher incidence of early-onset CRC had a higher prevalence of smoking ($\beta=0.06$, CI 0.02-0.10), alcohol drinking ($\beta=0.10$, CI 0.03-0.16), unhealthy dietary ($\beta=0.04$, CI 0.02-0.07), and lipid disorders ($\beta=0.08$, CI 0.05-0.11) among the younger population.

Conclusions There was a substantial burden of early-onset CRC in 2020, with higher incidence observed in males and developed regions. The associated risk factors for early-onset CRC included smoking, alcohol drinking, unhealthy dietary habits, and lipid disorders. More intensive lifestyle modifications, chronic disease management, and population-based screening for selected younger individuals are recommended to prevent early-onset CRC.

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EFFECTIVENESS OF COMPLEX INTERVENTIONS FOR REDUCING 30-DAY HOSPITAL READMISSIONS AMONG COLORECTAL SURGERY PATIENTS: OVERVIEW OF SYSTEMATIC REVIEWS AND NETWORK META-ANALYSIS

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Background To evaluate the comparative effectiveness of different complex interventions for reducing 30-day hospital readmissions and length of stay among colorectal surgery patients via an overview of systematic reviews (SRs) and network meta-analysis (NMA).

Methods We searched five databases for eligible SRs of randomized controlled trials (RCTs) and conducted an additional search for updated RCTs published from databases' inception to August 2020. We conducted random-effect pairwise meta-analyses using pooled risk ratios (RRs) with 95% confidence intervals (CIs), and mean differences (MDs) with 95% CIs to quantify the effect of complex interventions for

Abstract IDDF2021-ABS-0182 Figure 1 Flowchart of literature search and selection for systematic reviews and randomized controlled trials

Abstract IDDF2021-ABS-0182 Figure 2 Network plot of comparisons among 10 different complex interventions and usual care in the network meta-analysis for reducing 30-day hospital readmissions among colorectal surgery patients