incidence and risk factors of oesophageal cancer by histological subtypes using data from 178 countries.

Methods The data on the incidence of oesophageal cancer by histological types in 2018 were estimated from GLOBALCAN and Cancer Incidence in Five Continents (CIS). Age-standardized rates (ASRs) for oesophageal cancer incidence by histological subtypes were evaluated by Segi–Doll population. The prevalence of tobacco use, alcohol drinking, physical inactivity, obesity, diabetes, and lipid disorders for each country were retrieved from the Global Health Observatory. The association between the ratio of histological subtypes and risk factors was examined by multivariable linear regression.

Results We estimated a total of 63,470 (12.6%) and 502,669 new cases of oesophageal adenocarcinoma (AC) and squamous cell carcinoma (SCC) in 2018, respectively. The incidence among males was 3.6-fold and 2.2-fold of that among females for AC and SCC, respectively. The highest AC:SCC ratio was found in Moldova (1.000, 0.2), the Netherlands (0.800, 1.2), Iceland (0.750, 0.5), the UK (0.700, 1.4), and Cyprus (0.667; 0.3). A higher AC:SCC ratio was associated with a higher prevalence of obesity (male: β 0.039, 95% CI 0.023 to 0.055; female: 0.009, 0.004 to 0.146) and high cholesterol (male: 0.028, 0.010 to 0.047; female: 0.011, 0.004 to 0.019); but a lower prevalence of tobacco use (male: -0.007, -0.014 to -0.001) and diabetes (male: 0.009, 0.004 to 0.146; female: -0.021, -0.038 to -0.003).

Conclusions While SCC is the predominant subtype of oesophageal cancer, the incidence of AC has surpassed SCC in a substantial proportion of countries, probably due to the increasing prevalence of obesity and metabolic disorders. Future research should investigate the reasons behind these epidemiological changes.

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THE GUT MICROBIOME AND SERUM PERFORMANCE INDICATORS OF AGING AND LONGEVITY WITH NOVEL IMPLICATIONS FOR REPRODUCTIVE FUNCTION

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Methods Here, we present a comprehensive metagenome association study and serum metabolomics profiling in a registry Guangxi-Longevity cohort aged from 20–111 years (n = 151) and Kunming cohort ages ranging from 20–80 years (n = 80).

Results We identified uremic toxins as key factors in serum metabolomics highly associated with aging, and this finding has been validated in an independent Kunming-Aging cohort aged from 20–80 years (n = 80). We also observed that aging-associated systemic inflammation levels were positively associated with uremic toxins. Moreover, the increased Escherichia coli, Odoribacter splanchnicus, Bilophila wadsworthia and Parabacteroides spp. abundances were related to serum levels of uremic toxins, and the accumulating rate of uremic toxins and specific microbial species was robustly much slower in centenarians than in nonagenarians. We further investigated the frailty and health status in long-living individuals aged above 90 years, and found that the frailty status might be a putative extreme aging phenomenon characterized by novel uremic toxin accumulation patterns.

Conclusions Our findings reveal novel potential links between gut microbiota alterations, uremic toxins and aging, and highlight the preponderance of gut microbiota and serum metabolism in aging.

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PERFORMANCE INDICATORS OF ORGANISED COLORECTAL CANCER SCREENING PROGRAMMES USING FAecal IMMUNOCHEMICAL TESTS AND COLONOSCOPY: A SYSTEMATIC REVIEW AND META-ANALYSIS

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Methods We searched PubMed, Ovid MEDLINE, Embase, and Cochrane from inception to 1 Jan 2020. We included original articles published in the English language describing population-based CRC screening programmes that used faecal immunochemical tests (FIT) as a primary screening modality and colonoscopy as a subsequent confirmatory test in various countries.

Background The success of population-based colorectal cancer (CRC) screening is dependent on the optimal achievement of various targets. We estimated the pooled performance indicators of CRC screening programmes that used faecal immunochemical tests (FIT) as a primary screening modality and colonoscopy as a subsequent confirmatory test in various countries.

Background Aging is closely associated with the occurrence and development of many complex diseases such as cardiovascular conditions, type 2 diabetes, gastrointestinal (GI) and renal diseases. Detecting changes as early as possible in the human body due to aging is thus crucial significant to potentially mitigate its impacts on physical health.
Background Acute severe ulcerative colitis (UC) is a potentially life-threatening presentation and requires coordinated multidisciplinary management. The aim of our prospective audit was to evaluate the inpatient management and outcome of patients with UC.

Methods All consecutive patients admitted to Aberdeen Royal Infirmary for treatment of acute UC were prospectively recruited in the study over a 6 months period. All patients were followed up for a minimum of 3 months from the discharge date. Patient’s demographics, clinical data, endoscopic assessment, medical and surgical treatment details were collected. The clinically significant outcome was defined as steroid treatment failure requiring surgery or rescue therapies (ciclosporin or infliximab) despite intravenous steroid therapy. Statistical comparisons were made using Non-parametric Mann-Whitney test and Fishers Exact test.

Results 27 patients (15 females; median age 41 years (IQR 31–63)) were admitted for treatment of UC during the 6 months period. 23 patients had severe UC as per Truelove and Witts Score. 19 patients had pre-existing diagnosis of UC. Patient’s demographics, clinical data, endoscopic assessment, medical and surgical treatment details were collected. The clinically significant outcome was defined as steroid treatment failure requiring surgery or rescue therapies (ciclosporin or infliximab) despite intravenous steroid therapy. Statistical comparisons were made using Non-parametric Mann-Whitney test and Fishers Exact test.

Conclusions Our findings reported the pooled performance indicators of different CRC screening programmes. The summary measures could inform the benchmarking of performance indicator targets across different CRC screening programmes.

A SINGLE-CENTRE PROSPECTIVE AUDIT OF INPATIENT CARE FOR ADULTS WITH ULCERATIVE COLITIS

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10.1136/gutjnl-2020-IDDF.89

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Combination of Antibiotics as Adjuvant Therapy in Acute Severe Ulcerative Colitis: A Randomized Trial

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10.1136/gutjnl-2020-IDDF.91

Background Some studies have suggested that targeted combination therapy with antibiotics could improve response in active ulcerative colitis, but similar data is not available in acute severe UC (ASUC).

COMBINATION OF ANTIBIOTICS AS ADJUVANT THERAPY IN ACUTE SEVERE ULCERATIVE COLITIS: A RANDOMIZED TRIAL

Shubhra Mishra*, Harshal Mandalavane, Harjeet Singh, Arup Choudhury, Jimil Shah, Sant Ram, Dimple Kalsi, Jayanta Samanta, Kaushal Prasad, Anur Sharma, Usha Dutta, Vishal Sharma. Postgraduate Institute of Medical Education and Research, India

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