

List of Publications on the HM-JACKarc Faecal Immunochemical Test for Haemoglobin (FIT) Analytical System: September 2020

HM-JACKarc in Asymptomatic Population Screening

Passamonti B, Malaspina M, Fraser CG, et al. A comparative effectiveness trial of two faecal immunochemical tests for haemoglobin (FIT). Assessment of test performance and adherence in a single round of a population-based screening programme for colorectal cancer. *Gut* 2018;67:485-96.

Rubeca T, Cellai F, Confortini M, Fraser CG, Rapi S. Impact of pre-analytical factors on faecal immunochemical tests: need for new strategies in comparison of methods. *Int J Biol Markers* 2015;30:e269-74.

Results from the Scottish Bowel Screening Programme. See the full details of the results of introduction of FIT as a first-line test at: <https://www.isdscotland.org/Health-Topics/Cancer/Bowel-Screening/> A summary of the impressive findings is available at: <https://www.isdscotland.org/Health-Topics/Cancer/Publications/2019-02-05/2019-02-05-Bowel-Screening-Publication-Summary.pdf>

Clark GRC, Strachan JA, McPherson A, et al. Faecal haemoglobin distributions by sex, age, deprivation and geographical region: consequences for colorectal cancer screening strategies [published online ahead of print, 2020 Apr 22]. *Clin Chem Lab Med*. 2020;/j/cclm.ahead-of-print/cclm-2020-0268/cclm-2020-0268.xml.

HM-JACKarc in Assessment of Symptomatic Patients

Auge JM, Fraser CG, Rodriguez C, et al. Clinical utility of one versus two faecal immunochemical test samples in the detection of advanced colorectal neoplasia in symptomatic patients. *Chem Lab Med* 2016;54:125-32.

Godber IM, Todd LM, Fraser CG, MacDonald LR, Ben Younes H. Use of a faecal immunochemical test for haemoglobin can aid in the investigation of patients with lower abdominal symptoms. *Clin Chem Lab Med* 2016;54:595-602.

Widlak MM, Thomas CL, Thomas MG, et al. Diagnostic accuracy of faecal biomarkers in detecting colorectal cancer and adenoma in symptomatic patients. *Aliment Pharmacol Ther* 2017;45:354-363.

Cubiella J, Digby J, Rodríguez-Alonso L, et al. The fecal hemoglobin concentration, age and sex test score: Development and external validation of a simple prediction tool for colorectal cancer detection in symptomatic patients. *Int J Cancer* 2017;140:2201-11.

Quyn AJ, Steele RJ, Digby J, et al Application of NICE guideline NG12 to the initial assessment of patients with lower gastrointestinal symptoms: not FIT for purpose? *Ann Clin Biochem* 2018;55:69-76.

Widlak MM, Neal M, Daulton E, et al. Risk stratification of symptomatic patients suspected of colorectal cancer using faecal and urinary markers. *Colorectal Dis* 2018;20:O335-42.

Turvill J, Mellen S, Jeffery L, et al. Diagnostic accuracy of one or two faecal haemoglobin and calprotectin measurements in patients with suspected colorectal cancer. *Scand J Gastroenterol* 2018;53:1526-34.

Digby J, Steele RJ, Strachan JA, et al. Do other variables add value to assessment of the risk of colorectal disease using faecal immunochemical tests for haemoglobin? *Ann Clin Biochem* 2019;56:472-9,

Mowat C, Digby J, Strachan JA, et al. Impact of introducing a faecal immunochemical test (FIT) for haemoglobin into primary care on the outcome of patients with new bowel symptoms: a prospective cohort study. *BMJ Open Gastroenterol* 2019;6:e000293.

Nicholson BD, James T, East JE, et al. Experience of adopting faecal immunochemical testing to meet the NICE colorectal cancer referral criteria for low-risk symptomatic primary care patients in Oxfordshire, UK. *Frontline Gastroenterology* 2019;10:347-55.

Farrugia A, Widlak M, Evans C, et al. Faecal immunochemical testing (FIT) in symptomatic patients: what are we missing? *Frontline Gastroenterology* 2020;11:28-33.

D'Souza N, Hicks G, Benton SC, Abulafi M. The diagnostic accuracy of the faecal immunochemical test for colorectal cancer in risk-stratified symptomatic patients. *Ann R Coll Surg Engl* 2020;102:174-9.

Nicholson BD, James T, Paddon M, et al. Faecal immunochemical testing for adults with symptoms of colorectal cancer attending English primary care: a retrospective cohort study of 14 487 consecutive test requests. *Aliment Pharmacol Ther* 2020;10.1111/apt.15969. doi:10.1111/apt.15969.

Digby J, Strachan JA, McCann R, Steele RJ, Fraser CG, Mowat C. Measurement of faecal haemoglobin with a faecal immunochemical test can assist in defining which patients attending primary care with rectal bleeding require urgent referral. *Ann Clin Biochem* 2020;57:325-7. doi:10.1177/0004563220935622

Khan AA, Klimovskij M, Harshen R. Accuracy of faecal immunochemical testing in patients with symptomatic colorectal cancer [published online ahead of print, 2020 Sep 18]. *BJS Open* 2020;10.1002/bjs5.50346. doi:10.1002/bjs5.50346

National Guidelines

National Institute for Health and Clinical Excellence (NICE) Diagnostic Guidance DG30 - <https://www.nice.org.uk/guidance/dg30> - Quantitative faecal immunochemical tests to guide referral for colorectal cancer in primary care.

Reviews

Westwood M, Corro Ramos I, Lang S, et al. Faecal immunochemical tests to triage patients with lower abdominal symptoms for suspected colorectal cancer referrals in primary care: a systematic review and cost-effectiveness analysis. *Health Technol Assess* 2017;21:1-234.

Westwood M, Lang S, Armstrong N, et al. Faecal immunochemical tests (FIT) can help to rule out colorectal cancer in patients presenting in primary care with lower abdominal symptoms: a systematic review conducted to inform new NICE DG30 diagnostic guidance. *BMC Med* 2017;15:189.

Senore C, Haug U. Faecal immunochemical tests have the potential for correctly ruling out colorectal cancer in symptomatic patients. *BMJ Evid Based Med* 2018;23:113-4.

Godber IM, Benton SC, Fraser CG. Setting up a service for a faecal immunochemical test for haemoglobin (FIT): a review of considerations, challenges and constraints. *J Clin Pathol* 2018;71:1041-5.

Fraser CG. Faecal immunochemical tests for haemoglobin (FIT) in the assessment of patients with lower abdominal symptoms: current controversies. *Gastroenterol Hepatol* 2019;42:263-70.

D'Souza N, Abulafi M. The faecal immunochemical test in low risk patients with suspected bowel cancer. *Br J Hosp Med (Lond)* 2019;80:22-6.

Pin Vieito N, Zarraquiños S, Cubiella J. High-risk symptoms and quantitative faecal immunochemical test accuracy: Systematic review and meta-analysis. *World J Gastroenterol* 2019;25:2383-2401.

Conference report

Mole G, Withington J, Logan R. From FOBt to FIT: making it work for patients and populations. *Clin Med (London)* 2109;19:196–9. Erratum in: *Clin Med (Lond)* 2019;19:360.

Book Chapter

Steele RJC and Fraser CG. Haemoglobin for Timely Assessment of Patients with Symptoms of Colorectal Disease in Olsen Timely Diagnosis of Colorectal Disease, Olson L, ed. Springer, 2018.

Evaluations of the HM-JACKarc

Itoh M, Fukada M, Nagai G. Evaluation of the Extel “Hemo Auto” HS and the Hemo Auto MC Feces Collection Container Using the HM-JACKarc Fully Automated Fecal Occult Human Hemoglobin Analyzer. *J Clin Lab Inst Reagents* 2011;34:387-92.

Carroll MRR, Piggott C, Pearson S, Seaman HE, Halloran SP. Evaluation of quantitative faecal immunochemical tests for haemoglobin. Guildford Medical Device Evaluation Centre (GMEC), Guildford, UK, 2013.

Rapi S, Rubeca T, Fraser CG. How to improve the performances of Fecal Immunological Tests (FIT): Need for standardization of the sampling and pre-analytical phases and revision of the procedures for comparison of methods. *Int J Biol Markers* 2015;30:e127-31.

Rapi S, Berardi M, Cellai F, et al. Effects of fecal sampling on preanalytical and analytical phases in quantitative fecal immunochemical tests for hemoglobin. *Int J Biol Markers* 2017;32:e261-6.

Fraser CG. Comparison of quantitative faecal immunochemical tests for haemoglobin (FIT) for asymptomatic population screening. *Transl Cancer Res* 2016;5 (Suppl 4):S916-9.

Stability of faecal haemoglobin

Mellen S, de Ferrars M, Chapman CL, et al. Evaluation of sample stability for a quantitative faecal immunochemical test and comparison of two sample collection approaches. *Ann Clin Biochem* 2018;55: 657-64.

Haemoglobin variants

Carroll MR, John C, Mantis D, Djedovic NK, Benton SC. An assessment of the effect of haemoglobin variants on detection by faecal immunochemical tests. *Ann Clin Biochem* 2018;55:706-9.

Sampling of faeces

Piggott C, John C, Bruce H, Benton SC. Does the mass of sample loaded affect faecal haemoglobin concentration using the faecal immunochemical test? *Ann Clin Biochem* 2018;55:702-5.

Faecal haemoglobin in adenoma

Mowat C, Digby J, Strachan JA, Steele RJC, Fraser CG. Low sensitivity of fecal immunochemical tests (FIT) for detection of sessile serrated adenomas/polyps confirmed over clinical setting, geography, and FIT system. *Dig Dis Sci* 2019;64:3024-6.

Faecal haemoglobin in ulcerative colitis – application of HM-JACKarc

Ryu DG, Kim HW, Park SB, Kang DH, Choi CW, Kim SJ, Nam HS. Clinical implications of fecal calprotectin and fecal immunochemical test on mucosal status in patients with ulcerative colitis. *Medicine (Baltimore)* 2019;98:e17080.

Other publications

Allison JE, Fraser CG. The importance of comparing quantitative faecal immunochemical tests (FIT) before selecting one for a population-based colorectal cancer screening programme. *J Lab Precis Med* 2018;3:7.

Piggott C, Shugaa Z, Benton SC. Independent internal quality control (IQC) for faecal immunochemical tests (FIT) for haemoglobin: use of FIT manufacturers' IQC for other FIT systems. *Clin Chem Lab Med*. 2020 May 29;[/j/cclm.ahead-of-print/cclm-2020-0286/cclm-2020-0286.xml](#). doi: 10.1515/cclm-2020-0286. Online ahead of print.

O'Driscoll S, Piggott C, Bruce H, Benton SC. An evaluation of ten external quality assurance scheme (EQAS) materials for the faecal immunochemical test (FIT) for haemoglobin [published online ahead of print, 2020 Aug 7]. *Clin Chem Lab Med*. 2020;[/j/cclm.ahead-of-print/cclm-2020-0210/cclm-2020-0210.xml](#). doi:10.1515/cclm-2020-0210