

tests for joinpoint regression with applications to cancer rates' *Statistics in Medicine* 2000; 19:335–351: (correction: 2001;20:655).

**Results** Austria, Croatia, the Czech Republic, England, Scotland and Wales all met our inclusion criteria. Of these none experienced the hypothesised rise and subsequent fall in incidence after CRC screening introduction. England, Scotland, Wales and Croatia all experienced a rise and fall, but in each case the rise commenced before the programme was introduced. In all nations other than Croatia CRC mortality declined over the period, but in none of them did the decline become significantly steeper after the introduction of screening. Figure 1 illustrates as an example the changing mortality from CRC in England either side of the initiation of screening in 2006.

**Conclusions** Though CRC screening has been widely implemented in Europe, and CRC mortality is declining, the reductions in mortality began before screening started. We have not therefore been able to demonstrate a clear effect of screening at the population level.

#### P292 PROTON PUMP INHIBITORS AND FAECAL IMMUNOCHEMICAL TESTS FOR THE DETECTION OF COLORECTAL NEOPLASIA IN SYMPTOMATIC-PATIENTS

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**Introduction** The identification of the factors that are likely to influence the accuracy of the faecal immunochemical test (FIT) is of great importance for the colorectal cancer (CRC) screening programmes and for the screening of symptomatic patients. A study in Spanish cohort found that the proton pump inhibitors (PPI) therapy reduces the accuracy of FIT in detecting advanced neoplasia (AN) in symptomatic patients.<sup>1</sup> The aim of this study is to determine if these results can be

reproduced in an independent population and can therefore be generalised.

**Methods** This is a prospective single centre study at the University Hospital of Coventry Warwickshire over a period of 14 months. Individuals who were referred for a diagnostic colonoscopy, on symptomatic pathway, were approached and were given a FIT prior to their colonoscopy. Their medication details were reviewed in-depth.

**Results** A total of 612 individuals were included in the study. The positivity threshold of FIT used was 10 µg Hb/g faeces and the main outcome was AN. AN was detected in 9% (55) of the patients. The accuracy of FIT for detecting AN in PPI users and non-PPI users were sensitivity 54% vs 81%, P = 0.05; specificity 91% vs 90%, P = 0.74; positive predictive value 29% vs 47%, P = 0.13; and negative predictive value 96% vs 98%, P = 0.41, respectively. The ROC curves for FIT for the detection of AN in PPI users and non-PPI users were 0.74 (CI 95% 0.58±0.91) and 0.92 (CI 95% 0.89 ±0.95) respectively.

**Conclusions** PPI therapy impairs the performance of FIT for the detection of AN in symptomatic patients. Given the widespread use of these drugs in the general population, the negative impact on the CRC screening programs could be substantial.

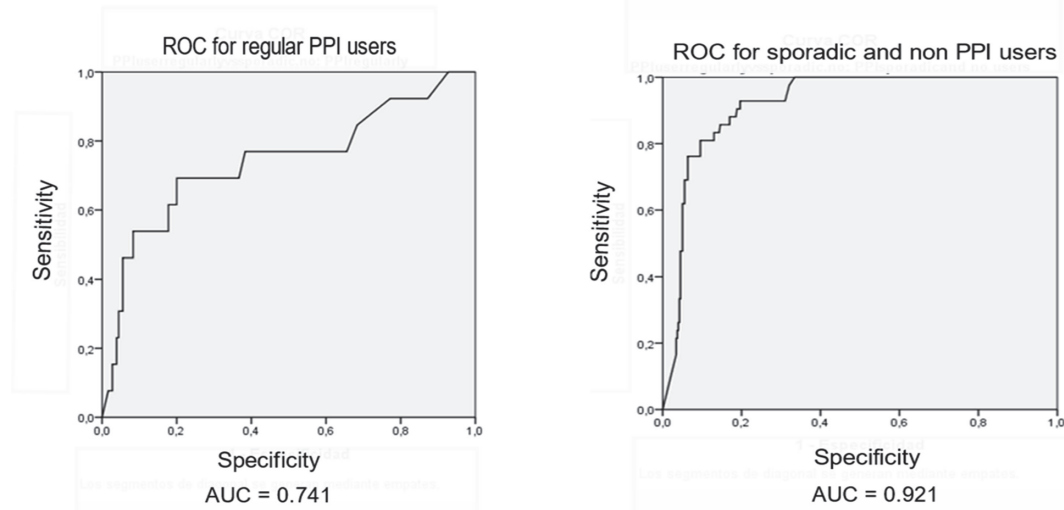
#### REFERENCE

- Rodriguez-Alonso L, Rodriguez-Moranta F, Arajol C, *et al*. Proton pump inhibitors reduce the accuracy of faecal immunochemical test for detecting advanced colorectal neoplasia in symptomatic patients. *PLoS One*. 2018;13(8):1–11. doi:10.1371/journal.pone.0203359

#### P293 EXTERNAL VALIDATION OF A FAECAL IMMUNOCHEMICAL TEST BASED-RISK SCORE FOR ADVANCED NEOPLASIA IN SYMPTOMATIC PATIENTS

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Abstract P292 Figure 1 ROC curves for PPI and non-PPI users