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F-CALPROTECTIN HELPS REDUCING COSTS AND RISKS FOR PATIENTS IN THE DIAGNOSIS OF COLONIC PATHOLOGY: A PROSPECTIVE REAL-LIFE STUDY FROM THE CLINICAL HOSPITAL OF ZARAGOZA

Barbara Mascialino^a, Alberto Lue^a, Juan Jose Puente^{a,b}, Erika Alfambra^a, María Teresa Arroyo^a, Carmen Andalucia^a and Fernando Gomollon^a^aHospital Clínico Universitario Lozano Blesa, Spain.^bThermo Fisher Scientific, Sweden

Colonoscopy represents the gold standard in case of suspected colonic pathology. However, availability is limited and it brings about avoidable risks for the patients and important costs. F-Calprotectin is a fecal marker of intestine inflammation capable to differentiate between organic and functional intestinal disorder and could therefore potentially, be used as a pre-endoscopic tool to identify patients that could potentially avoid a colonoscopy. The purpose of this observational prospective study was to quantify in a Secondary Care (SC) setting in Zaragoza (Spain) the burden of colonoscopy in 87 consecutive unselected patients referred to colonoscopy either by Primary Care (PC) or SC doctors (gastroenterologists, or other specialists), and to evaluate the economic impact associated with the pre-endoscopic usage of F-Calprotectin.

Methodology: Diagnosis was established by colonoscopic investigation, and F-Calprotectin levels were evaluated by means of EliA Calprotectin 2 at both the recommended 50 mcg/g, and at the optimal 234.5 mcg/g cut-offs (sensitivity=69%, specificity=87%). Real-life data (including diagnosis, costs, colonoscopy-related complications, and resource utilization) were prospectively collected. Three scenarios (S) were compared: the actual situation (S1) and two simulations (S2=considering patients sent to colonoscopy by PC doctors only, S3=all patients) in which F-Calprotectin is used to select which patients require further investigations.

Findings: In S1, 71 patients (81.6%) were declared healthy after colonoscopy. Using the optimal cut-off, the actual total cost for visits and procedures was 75875€ (average cost/patient 872€); 4.6% of the patients experienced colonoscopy-related complications, which accounted for 7.9% of the total costs. F-Calprotectin reduces the average cost/patient by 250€ (29%) in S2, and by 427€ (49.0%) in S3. The table summarizes the main economic and health effect results at both cut-offs.

Conclusion: Results show that the usage of F-Calprotectin as pre-endoscopic diagnostic tool is associated with less colonoscopies, less complications, and important cost savings ascribable to reduced resource utilization.

Biography

Barbara Mascialino works as Health Economics and Outcome Research Manager at Thermo Fisher Scientific Immuno Diagnostics in Sweden. Barbara is a nuclear physicist with more than 15 years of experience in epidemiology, modelling and data analysis.

alberto.lue@hotmail.com

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