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DOI: 10.3399/bjgp16X687289

Alerts in electronic medical records in primary care to promote colorectal cancer screening

We agree with Gommans *et al* that the main evaluation of effectiveness should rely on intention-to-treat analysis.¹ Accordingly, the results in the discussion section of the article are those derived from this analysis. In our opinion, the lack of statistical significance may have been influenced by the fact that a non-negligible percentage of individuals did not visit their primary care centre during the study period, as well as the low response rate from professionals. In contrast with Gommans *et al*'s statement, the present study was intentionally designed following a pragmatic approach. Indeed, if a centre agreed to participate in the study, all their primary care professionals were involved regardless of their particular intention, thus avoiding the inclusion of highly-motivated professionals only, and evaluating the intervention in daily practice conditions.

We do believe that electronic reminders can play a great role in promoting colorectal cancer screening, but we need to advance into qualitative and technological issues favouring its use by health professionals. For that reason, we were interested in emphasising the statistically significant results observed in the per-protocol analysis, that is, individuals attending in primary care, although we are aware of the weak effect found.

We are convinced that primary care is an ideal setting to develop preventive care measures and to enhance the uptake rates of population-based screening programmes. In such a scenario, synergies among all professionals involved — although complex — are critical to achieve these final goals.

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DOI: 10.3399/bjgp16X687301

Prediction rules and POC D-dimer testing as a way to prevent diagnostic delay of fatal pulmonary embolism

Pulmonary embolus (PE) is one of the most common cardiovascular diseases. In the UK, 47 594 cases were reported in the 1-year period between 2013 and 2014.^{1,2} The symptoms of PE may be relatively mild, and therefore can be easily missed.³

The GP is exposed to a wide spectrum of symptoms and signs, and most patients with suggestive symptoms of a PE do not have the disease.⁴ Chest pain has a low regression coefficient (0.64) compared with sudden onset of dyspnoea (1.29) in the structured clinical model derived by the PISA-PED Group.⁵ This means, that the symptom of chest pain is not as significant as dyspnoea or fever of ≥ 38 degrees, which is negatively correlated (−1.17). A patient with chest pain might have a higher diagnosis of a PE because chest pain might lead to an urgent admission under the impression of an underlying myocardial infarction rather than an underlying PE.

Clinical assessment alone is insufficient to diagnose or rule out PE. In order to diagnose an underlying PE one can use clinical prediction rules, which establish the pretest probability and predicted risk for a PE. One can use the Wells rules, which have been validated in the primary care setting and give the best performance in terms of lower

failure rates.⁶ The Wells rules can be used together with a point of care (POC) D-dimer test to exclude safely a PE on the basis of a Wells score of ≤ 4 and a negative D-dimer test result.⁷

Clinical prediction rules are easy to use and maintain their accuracy when used by less experienced clinicians, comparing well with the clinical gestalt of an experienced physician. One should be aware that using exclusively Wells criteria without D-dimer testing might miss PE, as we might not be aware of undiagnosed underlying risk factors (for example, cancer), which makes a PE much more likely. In some hospital trusts, clinical prediction rules and clinical gestalt are used to authorise D-dimer tests during a case discussion with the GP involved in the patient care. This can lead to a PE slipping through the net. There is still family grief over sudden death caused by undiagnosed PEs, and one would hope that this will be less common with implementing Wells criteria with a POC D-dimer test.⁸

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