326 Letters

European Journal of Cancer, Vol. 35, No. 2, pp. 326, 1999 © 1999 Elsevier Science Ltd. All rights reserved Printed in Great Britain 0959-8049/99/\$ - see front matter

PII: S0959-8049(98)00350-5

## Comments on: Should there be Mass Screening using Faecal Occult Blood Tests for Colorectal Cancer? Pro: Faivre, et al. Eur J Cancer 1998, 34(6), 773-780

## M. Zappa, G. Castiglione and G. Grazzini

Centre for Study Prevention of Cancer (CSPO), A.O. Careggi, Via di San Salvi 12, 50135 Florence, Italy

WE READ the interesting controversy about the feasibility of mass screening using faecal occult blood testing (FOBT) [1] and we would like to contribute to the debate. Faivre and colleagues stated that immunochemical tests are more sensitive but also more expensive than guaiac tests and, therefore, not suitable for a mass screening procedure. Our experience (in the province of Florence a population-based screening using different FOBT has been ongoing since 1982) is different. In fact immunochemical FOBT based on reverse passive haemagglutination (RPHA) has proved to be more sensitive than guaiac tests in 5415 subjects undergoing both tests [2]. We are now evaluating the occurrence of interval colorectal cancers (CRC) within 2 years of testing.

Table 1. Expected and observed colorectal carcinomas (CRC) within 2 years of testing in two cohorts aged 50–70 years undergoing different faecal occult blood testing: Province of Florence 1991–1994

	Person years	Expected CRC*	Observed CRC
Rehydrated haemoccult			
Men	26467	35.1	14
Women	30 331	27.2	10
Total	56 798	62.3	24
Reversed passive			
haemagglutination			
Men	4974	6.6	0
Women	5612	4.5	0
Total	10 586	11.1	0

<sup>\*</sup>Estimated according to age-specific CRC incidence rates provided from Florence Cancer Registry.

Preliminary results have shown a significant decrease in the occurrence of interval CRCs in the population undergoing RPHA tests as compared with those screened by guaiac tests (Table 1). However, RPHA was less expensive as far as the cost per detected lesion (i.e. cancers and/or adenoma) was concerned [3].

Dr Autier, in his contra response to Dr Faivre's article, mentioned that better staging observed in interval cancers is due to better medical attention for those subjects who were randomised in the screening group [4]. It seems to us more likely that good staging of interval cancers means that people who comply with screening are also more aware of early clinical symptoms. If the randomisation is carried out correctly, we would expect the same percentage of such people in the control group. If this was the case, then this fact would not have biased the final results.

Finally, Dr Autier and Dr Bleiberg, the arbiter for this controversy [5], state that the expected benefit by FOBT was modest and other preventive programmes would appear to have a better cost-effectiveness ratio. A reduction of at least 15-18% in the cumulative mortality of the whole population of one of the most frequent cancers seems to us a not negligible result. Concerning the cost-effective ratio, the problem is more complex. Firstly, on what basis is the cost-effectiveness of FOBT judged too high? The first available economic evaluations do not confirm such an opinion [6]. Nevertheless, it could be argued that good studies on this aspect are still lacking, so it would be better to postpone judgement. Furthermore, if we take the example of cervical cancer screening as Dr Autier did, many studies report a less favourable costeffectiveness ratio (as far as the cost per life saved is concerned) in comparison with mammographic screening [7] but nobody would deny the utility of cervical screening. Economical appraisal is a complement rather than a substitute for decision making.

- 1. Faivre Y, Tazi MA, Autier P, Bleiberg H. Should there be mass screening using faecal occult blood tests for colorectal cancer?: Pro. *Eur J Cancer* 1998, **34**(6), 773–780.
- Castiglione G, Zappa M, Grazzini G, et al. Immunochemical vs guaiac faecal occult blood test in a population based screened programme for colorectal cancer. Br J Cancer 1996, 74, 141– 144.
- 3. Castiglione G, Zappa M, Grazzini G, et al. Cost analysis in a population based screening programme for colorectal cancer: comparison of immunochemical and guaiac faecal occult blood testing. § Med Screening 1997, 4, 142–146.
- Autier P. Should there be mass screening using faecal occult blood tests for colorectal cancer?: Contra. Eur J Cancer 1998, 34, 776-778.
- Bleiberg H. Should there be mass screening using faecal occult blood tests for colorectal cancer?: Arbiter. Eur J Cancer 1988, 34, 778–780.
- Wagner JL, Tunis S, Browsn M, Ching A, Almeida R. Costeffectiveness of colorectal cancer screening in average-risk adults.
  In Young GP, Rozen P, Leven B, eds. Cost Effectiveness of Colorectal Cancer Screening in Average Risk Adults. London, Saunders,
  1996, 321–356.
- van Ballegooijen M, Habbema JDF, van Oortamrseen GJ, et al. Preventive Pap smears: balancing costs risk and benefit. Br J Cancer 1992, 65, 930–933.