Colorectal cancer screening with faecal occult blood test within a multiple disease screening programme: an experience from Keelung, Taiwan.

楊國卿

Yang KC;Liao CS;Chiu YH;Yen Amy MF;Chen Tony HH

摘要

Abstract

Background Given increasing rates of colorectal cancer (CRC) in countries with intermediate incidence rates, the decision to implement population-based screening must consider the trade-off between high costs and a relatively low yield. In Taiwan, we proposed community-based CRC screening using faecal occult blood tests (FOBT) within a multiple disease screening programme. Aims Based on early results from the screening programme, we aimed to compare the projected efficacies, in terms of reductions in CRC mortality, achieved with multiple disease screening, single disease screening and no screening programmes. Methods Annual FOBT has been included in the Keelung multiple disease screening programme. A total of 26,008 subjects were offered screening. Early indicators have been estimated to assess the potential effectiveness of this programme, including the Dukes' stage distribution of screen-detected cases, the proportionate incidence and the prevalence/ incidence ratio. Transition rates according to adenoma size and Dukes' stage have been estimated from an eight-state Markov model. The projected mortality reductions based on this disease natural history have been estimated using Markov Chain Monte Carlo simulation for both multiple screening and single screening. Results The overall attendance rate was 82% at the first screen and 87% at the second screen. At the first screen, 70% of screen-detected cases were localized (i.e. Dukes' stage A or B). The corresponding figure for the second screen was 80%. Approximately three-quarters of detected adenomas were smaller than I cm. The estimated mean transition times from diminutive adenoma to small adenoma, from small adenoma to large adenoma and from large adenoma to pre-clinical Dukes' A or B invasive carcinoma were 14.4, 5.4 and 5.6 years, respectively. Estimated reductions in CRC mortality, based on annual screening, are 23 and 33% for the single and multiple disease screening programmes, respectively. Multiple screening with an annual screening regime may lead to a

further 13% reduction in mortality when compared to conventional single screening. Conclusion Early indications suggest that population-based screening for CRC with FOBT, implemented through a multi-disease screening programme, is both feasible and efficacious. Further evaluation of the programme, through longer follow-up and cost-effectiveness analysis, is now required

..

.

.