

## **Screening for colorectal cancer by immunological fecal occult blood test: results of four rounds in two municipalities of Aosta Valley (Italy).**

Crotta, Sergio; °Senore, Carlo; °Segnan, Nereo; Paganin, Simona; Dagnes, Bruna.

**INSTITUTIONS(ALL):** Gastroenterology Unit, Ospedale Beauregard, Aosta, Italy.

°CPO, Centro prevenzione oncologica , Turin, Italy.

**BACKGROUND:** There is a limited experience of screening for colorectal cancer (CRC) by immunological fecal occult blood test (I-FOBT) over several rounds. We report the results of four biennial rounds using I-FOBT in two municipalities of Aosta Valley (Italy).

**POPULATION AND METHODS:** Between October 2001 and September 2008 all residents, aged 50 to 74, were invited every two years to perform a 1-day latex I-FOBT (OC Sensor), with a 100 ng/ml cut-off. Invitation letters provided an appointment at a local municipal office where volunteers were involved in the kits' distribution. Patients with positive test were referred for colonoscopy. Interval cancers were identified through a linkage with the hospital discharge records.

**RESULTS:** Out of 2840 people invited in 2001, 2111 (74.4%) performed at least 1 test, 1626 (57.3%) 2 consecutive tests, 1129 (39.8%) 3 consecutive tests and 867 (30.5%) 4 tests. The overall positivity rate among those attending at least once was 10.6% and among those attending four times was 20.1%. The CRC cumulative incidence over a 6.5 years-follow-up was 0.71% among the 2111 attenders (8 screen detected – 4 UICC stage I-II; 7 interval – 2 UICC stage I-II) and 1.51% among never attenders (11/729 – 2 UICC stage I-II CRCs). The detection rate of CRC was 0.19% at the prevalent round, 0.09%, 0.20% and 0.0% among people performing respectively 2, 3 and 4 consecutive tests. The detection rate for advanced adenomas was 0.7% and 1.5% among people who performed 3 and 4 consecutive tests respectively.

**CONCLUSIONS:** I-FOBT still detects a high proportion of advanced adenomas after 3 negative biennial rounds. The CRC cumulative incidence was the half among the attenders than in never attenders. Out of 7 interval cancer 4 were detected among people attending only one test.