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## Colorectal Neoplasia Yield Similar for FIT Every One, Two, or Three Years

### Clinical Question

What is the best interval for fecal immunochemical testing (FIT) as a screening test for colorectal cancer?

### Bottom Line

There appears to be no advantage to obtaining FIT more often than every three years. (Level of Evidence = 1b)

### Synopsis

FIT is a way to screen for colorectal cancer, and even in these days of widespread colonoscopy, many patients refuse colonoscopy, so alternatives remain important. Although FIT has a better yield than older guaiac-based tests, repeated rounds of screening are necessary because of limited sensitivity of the test. In this study, 10,698 Dutch residents were invited to participate in a trial comparing four strategies: a single round of screening using two FITs, or a single FIT at baseline and again one, two, or three years later. (There is currently no formal colorectal cancer screening program in the Netherlands.) Approximately 62% of patients responded to the invitation for screening. In the three

groups that received a single initial FIT, 8.4% of patients had a positive test result, and 3.3% had advanced neoplasia (colorectal cancer or an adenoma that was at least 10 mm, more than 25% villous histology, or had evidence of dysplasia). In the group that received a pair of FITs at the initial visit, 12.7% of patients had a positive test result and 4.1% had advanced neoplasia. The key finding is that at the second visit, there was no difference between the one-, two-, and three-year interval groups regarding percentage attendance for screening, percentage with a positive test result, or percentage with advanced neoplasia (1.7% to 2.1%). Of 32 colorectal cancers detected in the entire population (based on linkage to a cancer registry), 29 were screen-detected, 22 of which were during the initial round. Better participation in the second round of screening was noted for patients in the biennial and triennial screening intervals compared with those who underwent annual screening.

### Study Information

**Study design:** Randomized controlled trial (nonblinded)

**Funding source:** Government

**Allocation:** Concealed

**Setting:** Population-based

**Reference:** van Roon AH, Goede SL, van Ballegooijen M, et al. Random comparison of repeated faecal immunochemical testing at different intervals for population-based colorectal cancer screening. *Gut*. 2013;62(3):409-415.

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## Same Benefit with Equivalent Doses of Chlorthalidone and HCTZ

### Clinical Question

Is chlorthalidone safer or more effective than hydrochlorothiazide (HCTZ) in older adults with hypertension?

### Bottom Line

In this retrospective analysis, chlorthalidone and HCTZ produced the same clinical outcomes in older adults. In general, chlorthalidone was more likely to be associated with hospitalization for hypokalemia and hyponatremia. When comparing equivalent doses, though, the rates of these adverse effects were the same. If prescribing chlorthalidone, remember that it is 1.5 to 2 times as potent as HCTZ, with a longer duration of action. Use 12.5 mg as a starting dose. (Level of Evidence = 2b)

### Synopsis

Using an administrative database, these Canadian researchers enrolled all patients older than 65 years who were newly treated with chlorthalidone or HCTZ. Because this was a retrospective analysis, they could match each patient who was given chlorthalidone with up to two patients who were given HCTZ on the basis of age, sex, year

of treatment initiation, and a “propensity score” used to balance additional factors that could signal additional risk. They included a total of 29,873 patients who were followed for up to five years. The rates of the composite outcome of death or hospitalization for heart failure, stroke, or myocardial infarction were low and similar in both groups: 3.2 to 3.4 events per 100 persons per year of follow-up. However, patients treated with chlorthalidone were more likely to be hospitalized for hypokalemia (hazard ratio = 3.06) or hyponatremia (hazard ratio = 1.68). Neither hypokalemia nor hyponatremia was more common when comparing pharmacokinetically equivalent low doses (e.g., 12.5 mg chlorthalidone vs. 25 mg HCTZ), though the difference was present when the same doses were compared. The results are a little muddied because of the nature of this type of study; despite careful matching, there were differences between the two cohorts in terms of other treatments received for hypertension, which is much less likely to occur in large randomized studies.

### Study Information

**Study design:** Cohort (retrospective)

**Funding source:** Government

**Setting:** Population-based

**Reference:** Dhalla IA, Gomes T, Yao Z, et al. Chlorthalidone versus hydrochlorothiazide for the treatment of hypertension in older adults: a population-based cohort study. *Ann Intern Med.* 2013;158(6):447-455.

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