

CT Colonography

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CT Colonography is an exciting, evolving technology. There are several other important issues regarding the use of CT for colon cancer screening: which have an impact on effectiveness, safety and cost:

1. Sensitivity: the most recent studies demonstrate considerable variability in sensitivity for detection of polyps > 1cm. Factors contributing to variability could include technical factors, and training.
2. Polyp Size: what is the appropriate threshold for referral for colonoscopy? The cost of a CT colonography screening program is directly related to the threshold for sending patients to colonoscopy. If all patients with any polyp are referred for colonoscopy, approximately 50% of patients would end up receiving colonoscopy.
3. Extracolonic findings: some studies have found a high rate of extracolonic findings which lead to evaluation, further cost, and morbidity. Any future cost analysis must factor the additional cost of extracolonic findings.
4. Radiation exposure. As the technology evolves, less radiation is required per examination. The long-term risk of frequently repeated CT scans is uncertain.
5. Bowel Prep: Currently bowel prep is required for the exam. Unless there is close coordination with colonoscopy, many patients with positive studies would need to undergo a second bowel prep, which is not attractive to patients. Evolution of prep-less CT would enhance public acceptance of this test.
6. The cost-effectiveness of CT is influenced by several key variables:
 - a. Cost of CT
 - b. Threshold for referral to colonoscopy
 - c. Evaluation of extracolonic findings