The effectiveness of endoscopic screening for gastric cancer has been continually evaluated; however, only a few studies have reported its effectiveness. Notably, annual coverage from cancer screening has not yet been rigorously evaluated in survival analyses, but an important requirement for cancer screening is improving survival. We performed survival analysis for gastric cancer detected by endoscopic screening and compared the results with those of survival analysis for gastric cancer detected by radiographic screening and outpatients. METHODS: The subjects of our study were selected from gastric cancer cases registered in 4 cities in the Tottori Cancer Registry from 2001 to 2006. The target age group was defined as the age in which gastric cancer was diagnosed from 40 to 79 years. Follow-up was continued from the date of diagnosis to the time death from gastric cancer or up to December 31, 2011. The survival of 3 groups at 5 and 10 years were compared using the Kaplan-Meier method with the log-rank test. RESULTS: There were 347 subjects selected for endoscopic screening, 166 for radiographic screening, and 980 as outpatients. The 5-year survival rates were follows: 91.2 ± 1.5% (95% CI 87.6-93.8) for endoscopic screening, 84.3 ± 2.9% (77.7-89.1) for radiographic screening, and 66.0 ± 1.6% (62.8-68.9) for outpatients. The 10-year survival rates were follows: 88.5 ± 2.0% (82.8-92.4) for endoscopic screening, 80.1 ± 3.6% (71.9-86.2) for radiographic screening, and 64.6 ± 1.6% (61.3-67.6) for outpatients. The survival rates were significantly different in the 3 groups (P < 0.001). CONCLUSIONS: The survival rate was higher for gastric cancer patients who were screened by endoscopic screening and outpatients. Since a high survival rate is mainly affected by lead-time bias, the effectiveness of endoscopic screening should be further evaluated in terms of mortality reduction by conducting large-scale and reliable studies.

PHS5
SCREENING FOR TYPE 2 DIABETES: A METHODOLOGICAL REVIEW AND COST ANALYSIS

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OBJECTIVES: Screening for type 2 diabetes (DM) has peaked as a controversial issue given the publication of the recent Canadian guidelines and since the clinical trial evidence for the effectiveness of DM screening is lacking. METHODS: A two-step evidence-based analysis was performed: 1) narrative review of international guidelines and studies: systematic review of primary studies. MEDLINE, EMBASE, CINAHL, Wiley Cochrane, and Centre for Reviews and Dissemination (2008-2012) were used to identify randomized controlled trials and observational studies meeting inclusion criteria were meta-analyzed and the quality of evidence was evaluated using GRADE. A cost analysis was conducted using Ontario claims data and estimating the downstream health care costs in Canadian dollars of screening in Ontario. RESULTS: Eight guidelines and six studies from 2,780 citations were identified. The recommendations for universal screening or screening for low to moderate risk individuals were heterogeneous, not shown for high or very high risk individuals. The guidelines consistently recommended screening for the latter. Screening was associated with a lower likelihood of retinopathy (RR: 0.54, 95% CI 0.32-0.92) and lower absolute % HbA1c (MD: -0.32, 95% CI -0.53, -0.11). Screening was not linked to increased anxiety or false reassurance. One large RCT showed no beneficial effect of screening on long-term mortality outcomes. Two observational studies meta-analyzed showed no beneficial effect of screening for neuropathy and nephropathy. The quality of evidence was moderate to very low. CONCLUSIONS: PMAS is superior to routine DM screening for detecting and staging of diabetes. Further clinical and cost analysis in Canada is needed for short-term outcomes to help clarify the issue.