OBJECTIVE: To evaluate reduction whether endoscopic screening reduces mortality in gastric cancer, a population-based cohort study was performed in Japan, where both radiographic screening and endoscopic screening for gastric cancer have been conducted. METHODS: The subjects were selected from among participants in gastric cancer screening in 2 cities (Tottori and Yonago) from 2007 to 2008. The subjects were defined aged 40-79 years, 22.3% underwent radiographic screening and 27.6% underwent endoscopic screening in the previous year. Follow-up related to mortality was continued from the date of the first screening to the date of death or up to December 31, 2013. A Cox proportional hazards model was used to estimate the relative risks (RRs) of incident gastric cancer, gastric cancer death, all cancer deaths except gastric cancer death, and all-cause death except gastric cancer death. RESULTS: The subjects were 9,950 participants in endoscopic screening and 4,324 participants in radiographic screening. The incidence rate in Tottori was 7.5/100,000 (n = 315 cases), with the last annual percentage change (APC) of 5.3% in 1995-2008 (95%CI: -3.5-7.1, p < 0.0001), estimated incidence for 2015 is 13.49/100,000 (95%CI: 0.036). Mortality in 2008 represented 2.3/100,000 (n = 85) with the last APC 2.2% (95%CI: 1.6-2.8, p < 0.0001), estimation 2015 is 3.15/100,000 (95%CI: 0.159). In females (p = 0.08), MM incidence was 7.5/100,000 (n = 330, mean age:60.27 years), with the APC 3.5% (1968-2008, 95%CI: 3.1-3.8, p = 0.0001), estimation 2015 is 10.55/100,000 (95%CI: 0.164). Mortality in 2008 represented 1.5/100,000 (n = 74), APC 0.53% in 1988-2008 (95%CI: -0.6-1.6, p = 0.15), estimation 2015 represents 1.73/100,000 (95%CI: 0.378). National prevalence in 2015 for both sexes represents 8.626 cases. We estimate 65.6% patients diagnosed in the 1st stage, 9% 2nd, 22.4% 3rd, 1.8% 4th, 2.4% in the 3rd, 6.3% in the 4th and 0.18% in the undefined clinical stage. The number of cases in the 1st stage is increasing during the time, however, the 4th stage remains stable. CONCLUSIONS: Actual data on prevalence and clinical stages of MM in the SR can be used as the source for set-ting the size of population in cost-of-illness studies and budget impact analysis.

PCN11 THE IMPACT OF GLUCOSE LOWERING DRUG USE ON OVERALL MORTALITY AMONG BREAST CANCER PATIENTS Vissers PA1, Zanders MB2, Voogd AC3, van Herk-Sukel MP4, Ruiter R5, Holleman LM5, Herings RM6, Stricker BH6, van de Poll-Franse LV7

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OBJECTIVES: This study assesses the effect of glucose lowering drug (GLD) use, i.e. metformin, sulfonylurea derivatives (SUs), insulin and other GLDs, started after breast cancer diagnosis, on overall mortality. METHODS: All female breast cancer patients diagnosed between January 1, 2011 and December 31st, 2011 who started using GLDs after breast cancer diagnosis, were included. Clinical characteristics were derived from the Netherlands Cancer Registry, drug dispensing data from the PHARMO Database Network and data on overall mortality from the Dutch municipal personal records database. Time-dependent Cox regression analysis, with cumulative exposure to GLDs were conducted to assess effects on overall mortality. RESULTS: In total, 407 breast cancer patients were included. Most women (n = 315, 62%) used metformin at some point during follow-up, followed by SUs (n = 202, 50%), insulin (n=58, 14%) and other GLDs (n=41, 10%). The average follow-up was 7.7 ± 3.6 years and 107 (26%) patients died during follow-up. Adjusted analyses showed that metformin users had a lower overall mortality (HR = 0.47, 95%CI: 0.29-0.74), while insulin users had a higher overall mortality (HR=1.85, 95%CI: 1.09-3.15) compared to non-users. However, when assessing dose-response effects no association was found between cumulative use of metformin, SU, insulin or other GLDs and mortality. CONCLUSIONS: GLDs were not associated with mortality among breast cancer patients who started using GLDs after breast cancer diagnosis. We did observe a lower mortality among breast cancer patients using metformin and higher mortality among SU users. However, no dose-response effects were observed, the found effects on mortality are likely to result from differences in patient characteristics that we could not adjust for and not from the drugs itself. Larger studies with longer follow-up among patients who start using GLDs after cancer diagnosis are needed to confirm our findings.