

Thyroid-Stimulating Hormone, Thyroid Hormones, and Risk of Papillary Thyroid Cancer

Huang *et al.* _____ Page 1209

Causal relationships between thyroid-stimulating hormone (TSH), thyroid hormones, and papillary thyroid cancer (PTC) development remain poorly understood. This nested case-control study measuring concentrations of TSH within prediagnostic serum samples revealed a significantly increased risk of PTC associated with TSH levels below the normal range among women and with TSH levels above the normal range among men. Huang and colleagues observed an inverse association between PTC and TSH levels within the normal range among both men and women. These results could have significant clinical implications for physicians who are managing patients with abnormal thyroid functions and those with thyroidectomy.

Protecting Privacy in Large Datasets

Ursin *et al.* _____ Page 1219

It is important to protect the privacy of individuals who participate in research. Even if all personal identifying data are removed, individuals can sometimes be reidentified in a dataset. The main purpose of this study was to assess how easy it would be to reidentify specific individuals in a large dataset consisting of 900,000 individuals using dates of exams and diagnosis. Ursin and colleagues used a readily available online tool to assess the number of unique records. At the outset, 94% were unique and therefore reidentifiable. Removing the day in the date reduced this risk to 6%. The authors then added a "fuzzy factor"—a random number—to each month. The number of unique records remained the same, but this made it more difficult to identify one specific individual. In conclusion, data custodians need to start assessing reidentification risks and take measures to reduce risk before sharing large data.

Statin Use and Pancreatic Cancer Mortality

E *et al.* _____ Page 1225

To date, findings from epidemiological studies on the therapeutic benefits of metformin and statins in pancreatic cancer have been inconsistent. Such discrepancies are likely a result of methodologic limitations, which include relatively small sample sizes, immortal time bias, and no consideration of interactive effects of metformin and statins. In this large U.S. population-based cohort study, E and colleagues observed that use of statins, but not metformin, was associated with reduced mortality among elderly patients with pancreatic adenocarcinoma, with a 31% reduction for postdiagnostic exposure to statins. These new insights provide crucial data for the planning of randomized clinical trials using statins.

Trial on Vitamin D and Breast Density in Premenopausal Women

Brisson *et al.* _____ Page 1233

In a majority of observational studies, higher vitamin D intakes were associated with lower mammographic breast density among premenopausal women. Breast density is a well-established breast cancer incidence indicator. The purpose of this double-blind, placebo-controlled randomized trial by Brisson and colleagues was to determine whether vitamin D₃ supplementation at doses of 1,000, 2,000, and 3,000 IU/day over one year reduces breast density among premenopausal women. Intention-to-treat analysis showed that, after one-year, reduction of breast density with vitamin D₃ supplementation was no greater than that seen with placebo. Thus, at doses studied, vitamin D supplementation could not reduce breast cancer incidence through breast density reductions.