Supplement 2

The Tromsø Study

For comparison of both conventional risk factors for coronary heart disease, prevalence of carotid plaque and the level of CIMT in the population, data from Tromsø 6 study were used.

The Tromsø Study is an ongoing population-based cohort study in the municipality of Tromsø, Northern Norway, with a population of 72 000 inhabitants. The study design includes 7 surveys (Tromsø 1: 1974, Tromsø 2: 1979–1980, Tromsø 3: 1986–1987, Tromsø 4:1994–1995, Tromsø 5: 2001-2002, Tromsø 6: 2007–2008, and Tromsø 7: 2015-2016) to which total birth cohorts and representative samples of the population were invited. From Tromsø 4 and onwards, the study design has included two screening visits, with more extensive examinations at the second visit, including ultrasound examination of the carotid arteries.(Jacobsen BK et al, Int J Epidemiol 2012;41:961-7) Invited to Tromsø 6 1st visit were all residents aged 40-42 and 60-87 (n=12,578), a 10% random sample of individuals aged 30-39 (n=1056), a 40% random sample of individuals aged 43-59 (n= 5787), and subjects who had attended the second visit of Tromsø 4, if not already included in the three groups above (n=341). The attendance rate was 66%. Those eligible for the 2nd visit were all 1st visit eligible aged 50-62 and 75-84 years (n=7657), a 20% random sample of 1st visit eligible aged 63-74 (n=942), and subjects who had attended the second visit for Tromsø 4, if not already included in the two groups above (n=2885). Subjects had to attend the 1st visit in order to be invited to the 2nd visit. The attendance rate to the 2nd visit was 92%. The Population Registry of Norway (by September 12th 2007) was the source for the invitations. The invitation file was created from census data from Statistics Norway, where all citizens in Norway have a unique national identity number given after birth or immigration. The file was periodically updated for mortality and emigration throughout the study period. The Regional Committee of Medical and Health Research Ethics and the Norwegian Data Protection Authority has approved the Tromsø Study (1).

Information on angina pectoris, myocardial infarction, stroke, smoking habits, diabetes, use of antihypertensive and lipid-lowering drugs was obtained from self-administered questionnaires. Blood pressure was recorded three times at one-minute intervals after two minutes of seated resting with the use of an automatic device (Dinamap ProCare 300 monitor, GE Healthcare) by specially trained technicians. The mean of the last two recordings was

used for analyses. Height and weight were measured to the first decimal in participants wearing light clothing and no footwear on an automatic electronic scale (Jenix DS 102 stadiometer). BMI was calculated as weight divided by the square of height (kg/m2).

Analyses of non-fasting serum total cholesterol and triglycerides were done within 10 hours by an enzymatic colorimetric method. HDL and LDL cholesterol were analyzed by homogeneous enzymatic colorimetric methods. All analyses were performed at the Department of Laboratory Medicine, University Hospital of North Norway.

1. Eggen A, Mathiesen E, Wilsgaard T, Jacobsen B, Njølstad I. The sixth survey of the Tromso Study (Tromso 6) in 2007-08: collaborative research in the interface between clinical medicine and epidemiology: study objectives, design, data collection procedures, and attendance in a multipurpose population-based health survey. Scand J Public Health. 2013;41(1):65*80.